

ABBREVIATIONS		
@	–	AT
&	–	AND
C	–	CENTRE LINE
A.C.	–	ACOUSTIC
ALUM.	–	ALUMINUM
APPROX.	–	APPROXIMATE(LY)
AT	–	ACOUSTIC TILE
BARR.	–	BARRIER
BD.	–	BOARD
C.J.	–	CONTROL JOINT
C/W	–	COMPLETE WITH
CAR.	–	CARPET
CEIL.	–	CEILING
☉	–	CENTRE LINE
CER.	–	CERAMIC
CONC.	–	CONCRETE
DB	–	DISPOSAL BAG UNITS
DN	–	DOWN
ELEC.	–	ELECTRICAL
FIN.	–	FINISH(ED)
FL.	–	FLOOR
GL	–	GLAZING
GR.	–	GRADE
GY.	–	GYPSIUM
HD.	–	ELECTRIC HAND DRYER
Hdg.	–	HOT DIPPED GALVANIZED
H.M.	–	HOLLOW METAL
HR.	–	HOUR
H.S.S.	–	HOLLOW STRUCTURAL SECTION
H.W.	–	HOT WATER
MAX.	–	MAXIMUM
MECH.	–	MECHANICAL
MIN.	–	MINIMUM
N.B.C.	–	NATIONAL BUILDING CODE
(N.I.C.)	–	NOT IN CONTRACT
O.B.C.	–	ONTARIO BUILDING CODE
O.C.	–	ON CENTRE
O.W.S.J.	–	OPEN WEB STEEL JOISTS
P.G.W.G.	–	POLISHED GEORGIAN WIRE GLASS
PT.	–	PAPER TOWEL DISPENSER
P.V.C.	–	POLY VINYL CHLORIDE
PLY.	–	PLYWOOD
P.LAM.	–	PLASTIC LAMINATE
POLY.	–	POLYETHYLENE
Q.T.	–	QUARRY TILE
R.D.	–	ROOF DRAIN
R.W.L.	–	RAIN WATER LEADER
RCB	–	RUBBER COVE BASE
REV.	–	REVERSED
SD.	–	SOAP DISPENSER
S.P.F.	–	SPRUCE PINE FIR
SIM.	–	SIMILAR
TYP.	–	TYPICAL
U/S	–	UNDERSIDE
V.A.T.	–	VINYL ASBESTOS TILE
V.C.T.	–	VINYL COMPOSITE TILE
V.R.T.	–	VINYL REINFORCED TILE
VAP.	–	VAPOUR
E.J.	–	EXPANSION JOINT

RICHARD G BUTTERWORTH ARCHITECT INC.

CERTIFICATE OF PRACTICE NUMBER: 1409
127 JUDITH CRESCENT, ANCASTER, ON L9G 1L3
905-304-0241

THE CERTIFICATE OF PRACTICE NUMBER
OF THE HOLDER IS THE HOLDER'S BCIN.

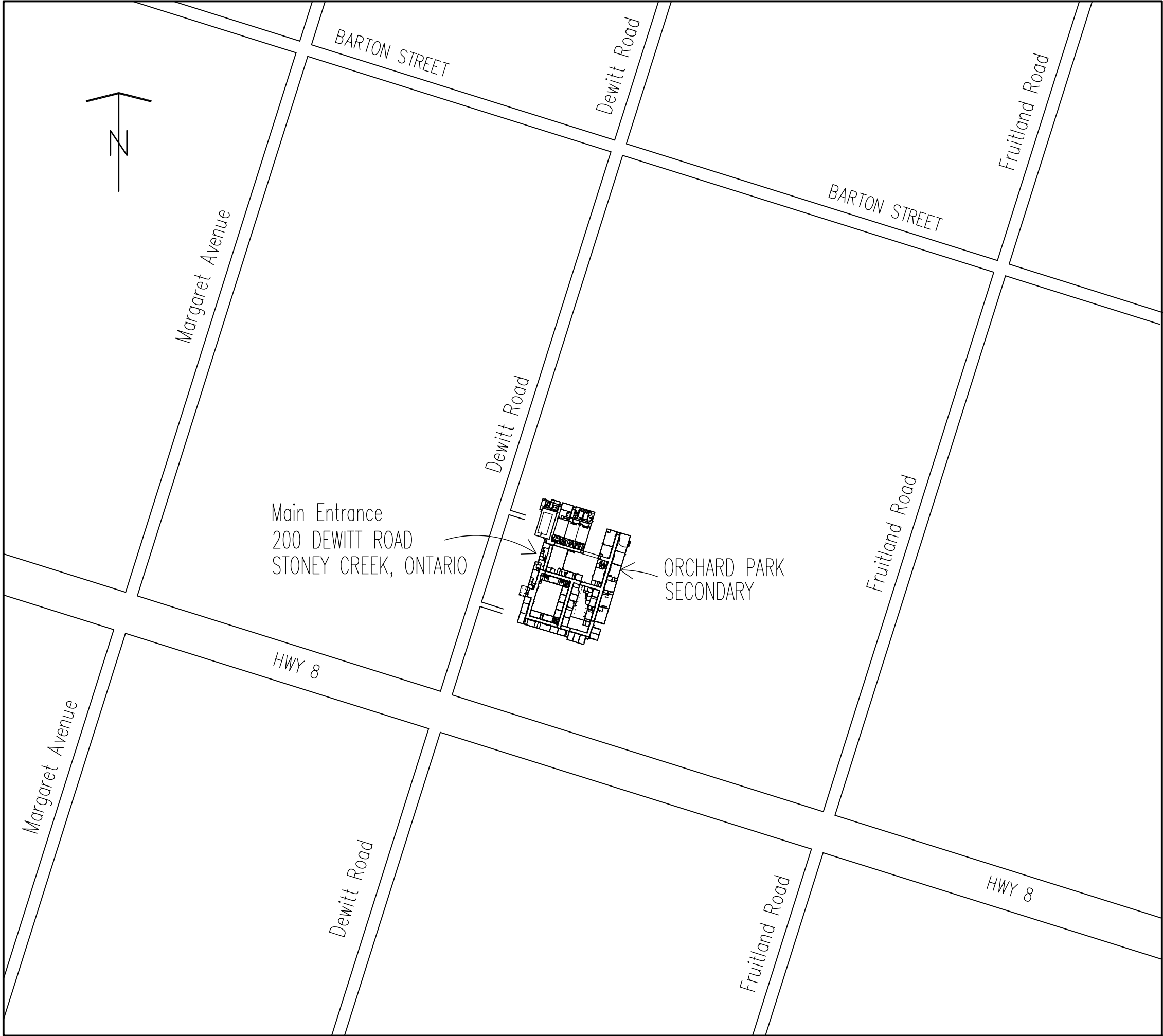
NAME OF PROJECT:
ORCHARD PARK SECONDARY

LOCATION:
200 DEWITT ROAD
STONEY CREEK, ONTARIO

ONTARIO BUILDING CODE PART 11 REVIEW MATRIX

PROJECT DESCRIPTION:	BASIC RENOVATION TO ORCHARD PARK SECONDARY		
AGE OF BUILDING (YEARS):	62	ANY ADDITION:	☐ YES ☒ NO
AGE OF ADDITION (YEARS):	N/A	WILL ADDITION BE AFFECTED:	☐ YES ☒ NO
CONSTRUCTION INDEX: TABLE 11.2.1.1. A.	N/A	HAZARD INDEX (OLD): TABLE 11.2.1.1.J.	2
NUMBER OF STOREYS:	2	HAZARD INDEX (NEW): TABLE 11.2.1.1.	3
HEIGHT OF BUILDING (m):	7.6	HAZARD INDEX CREDIT APPLICABLE: TABLE 11.2.1.1. (2)	☐ YES ☒ NO
NUMBER OF STREETS:	1	FARM BUILDING: TABLE 11.4.2.3. (1)(c)	☐ YES ☒ NO
STRUCTURAL UPGRADING REQUIRED: TABLE 11.4.2.1.1.	☐ YES ☒ NO	COMPLIANCE ALTERNATIVE NUMBER: TABLE 11.5.1.1.	N/A
TYPE OF CONSTRUCTION:	☐ COMBUSTABLE ☒ NON-COMBUSTABLE ☐ HEAVY TIMBER		
EARLY WARMING AND EVACUATION SYSTEM UPGRADE REQUIRED: TABLE 11.3.3.	☐ YES ☒ NO		

BUILDING DETAILS	EXISTING	PROPOSED
MAJOR OCCUPANCY CLASSIFICATIONS: TABLE 3.1.2.1.	GROUP A DIVISION 2	GROUP A DIVISION 2
OCCUPANCY LOAD DETERMINATION: TABLE 3.1.16.1 (3.1.17.1 CORRECTED)	1332	1332
FRR FLOORS OVER BASEMENT (HOURS):	N/A	N/A
FRR OTHER FLOORS (HOURS):	N/A	N/A
FRR ROOF (HOURS):	N/A	N/A
NUMBER OF SUITES OF GROUP C: OCCUPANCY 11.4.2.3. (1)(b)	N/A	N/A
AREA OF BUILDING (RENOVATION) (SQ.M.):	782	782
BUILDING SPRINKLERED:	☒ YES ☐ NO	☒ YES ☐ NO
FIRE ALARM SYSTEM REQUIRED:	☒ YES ☐ NO	☒ YES ☐ NO

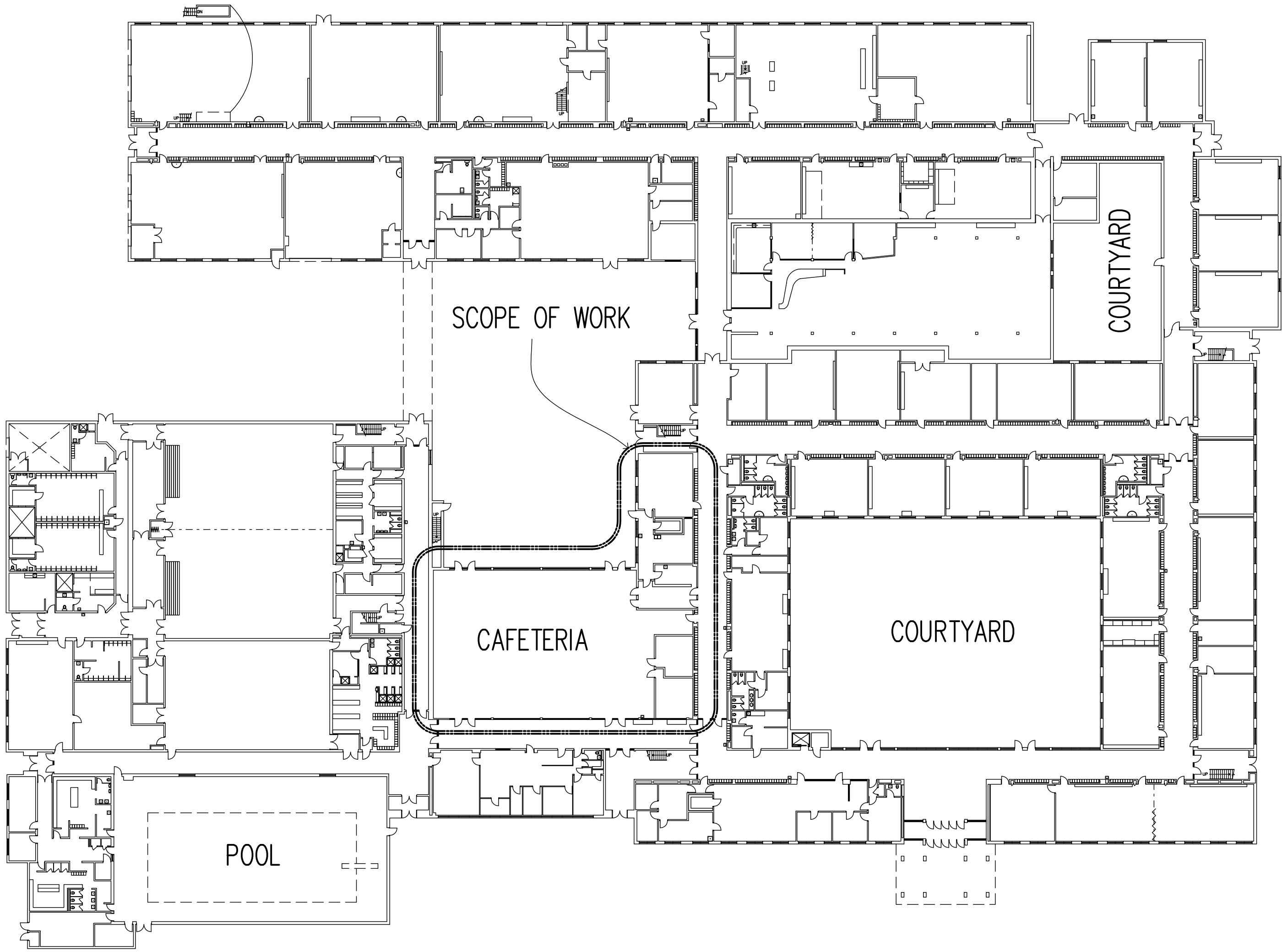


1 SITE KEY PLAN AND O.B.C. MATRIX
A0.01 N.T.S.

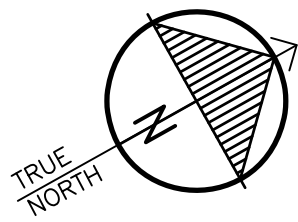
GENERAL NOTES

- BEFORE COMMENCING THE WORK THE CONTRACTOR SHALL ASCERTAIN ALL CONDITIONS AFFECTING THE SITE AND WORK TO BE DONE THEREON. THE DOCUMENTS ARE FURNISHED IN GOOD FAITH FOR THE GUIDANCE OF THE CONTRACTOR, BUT SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ASCERTAINING, TO THEIR SATISFACTION, THE NATURE OF ALL CONDITIONS ON THE SITE.
- REPORT TO THE OWNER ALL DISCREPANCIES, OMISSIONS, ERRORS, DEPARTURES FROM ALL APPLICABLE CODES, BY-LAWS AND REGULATIONS, GOOD PRACTICE AND ANY POINTS CONSIDERED TO BE OF DUBIOUS INTENT PRIOR TO THE QUESTION PERIOD DEADLINE, SO THAT THE OWNER MAY IF CONSIDERED DESIRABLE, ISSUE INSTRUCTIONS BY ADDENDA. THE OWNER AND ARCHITECT WILL NOT BE RESPONSIBLE FOR ORAL INSTRUCTIONS.
- ALL DIMENSIONS AND INFORMATION SHOWN ON THE CONTRACT DRAWINGS MUST BE CHECKED AND VERIFIED ON SITE PRIOR TO CONSTRUCTION AND FABRICATION OF ITS COMPONENTS, SHOULD EXISTING CONDITIONS OR SERVICES BE FOUND TO VARY FOR THAT INDICATED ON THE CONTRACT DRAWINGS, THE ARCHITECT MUST BE NOTIFIED IMMEDIATELY.
- ALL CUTTING AND PATCHING BY GENERAL CONTRACTOR. PERFORM FULL ELECTROMAGNETIC SCANNING OF ALL FLOORS TO DETECT ANY PIPING, CONDUIT OR LIVE WIRES BEFORE CUTTING OR CORE DRILLING. MAKE GOOD ALL SURFACES TO MATCH EXISTING FLUSH.
- REMOVE ALL EXISTING ITEMS SHOWN DOTTED AS INDICATED ON DRAWINGS. MAKE GOOD ALL SURFACES TO MATCH EXISTING. PATCH ALL HOLES FLUSH WITH EXISTING SURFACES AND PAINT TO MATCH.
- PAIN'T ALL NEW AND EXISTING SURFACES AND ITEMS WITH SPECIAL COLOUR BLOCK PRIMER FOR ALL BASED PAINT AND 2 FINISHED COATS (TYP.)
- DO NOT SCALE THE DRAWINGS.

2 GENERAL NOTES
A0.01 N.T.S.



3 GROUND FLOOR KEY PLAN
A0.01 N.T.S.



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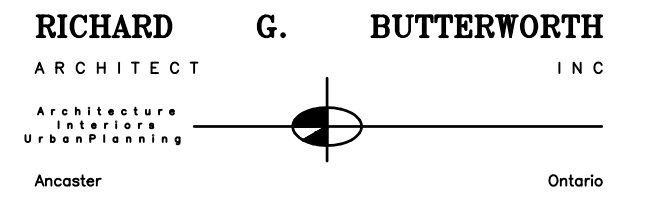
Richard G. Butterworth, Architect

HWDSB

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6.	APR. 29, 2026	ISSUED FOR PERMIT – CAFETERIA	RGB
5.	MAR. 09, 2026	ISSUED FOR BUILDING PERMIT	RGB
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3.	NOV. 16, 2025	REVISED PRELIMINARY DESIGN	RGB
2.	OCT. 24, 2025	REVISED PRELIMINARY DESIGN	RGB
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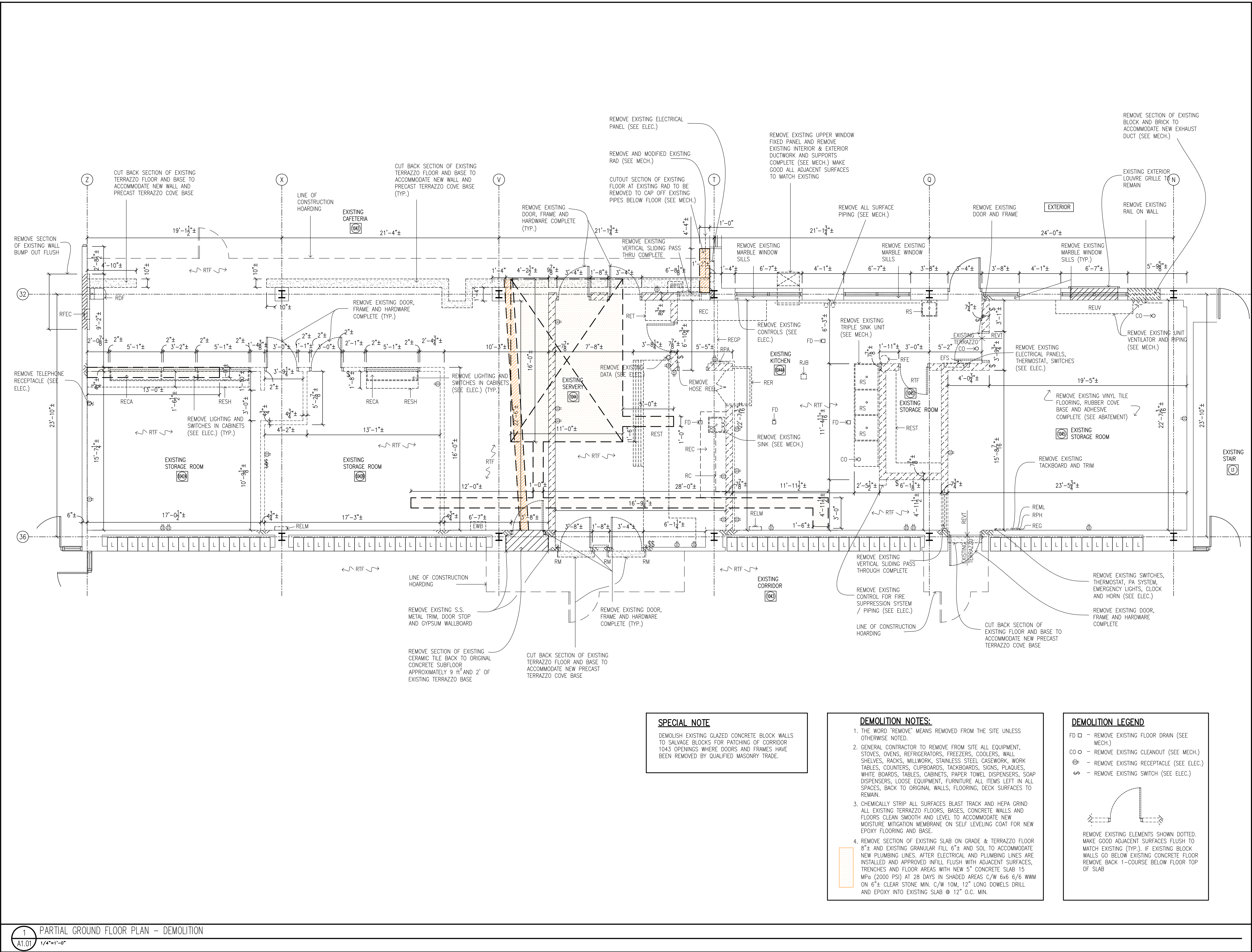


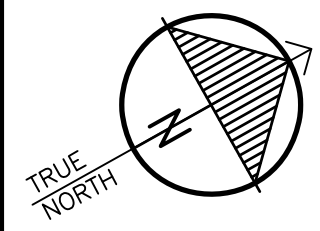
PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO

OBC MATRIX, LEGEND & GENERAL
NOTES AND KEY PLANS

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25–103
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N.T.S.	A0.01

PLOT SCALE: 1"=1'





TRUE NORTH



ONTARIO ASSOCIATION
OF
ARCHITECTS
RICHARD G. BUTTERWORTH
LICENCE
3859
May 19, 2026

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- DEMOLITION LEGEND**
- RS - REMOVE EXISTING SINK (SEE MECH.)
 - RDF - EXISTING DRINKING FOUNTAIN TO BE REMOVED (SEE MECH.)
 - RFEC - EXISTING FIRE EXTINGUISHER CABINET TO BE REMOVED
 - RFE - REMOVE EXISTING FIRE EXTINGUISHER
 - RET - REMOVE EXISTING TABLE
 - REST - REMOVE EXISTING STEAM TABLE
 - REC - REMOVE EXISTING COUNTER
 - RC - REMOVE EXISTING CUPBOARD
 - RER - REMOVE EXISTING REFRIGERATOR
 - RESH - REMOVE EXISTING SHELVING
 - RECA - REMOVE EXISTING CABINET
 - EWB - EXISTING WASTE BIN REMOVE (TURN OVER TO OWNER)
 - REUV - REMOVE EXISTING UNIT VENTILATOR (SEE MECH.)
 - RPTD - REMOVE PAPER TOWEL DISPENSER TURN OVER TO OWNER
 - RTF - EXISTING TERRAZZO FLOOR TO REMAIN
 - RJB - REMOVE EXISTING JUNCTION BOX AND CONDUITS (SEE ELEC.)
 - RPA - REMOVE EXISTING PA SYSTEM AND SWITCH (SEE ELEC.)
 - REGP - REMOVE EXISTING GAS PIPE (SEE MECH.)
 - REML - REMOVE EXISTING EMERGENCY LIGHT (SEE ELEC.)
 - REVT - REMOVE EXISTING VINYL TILE AND ADHESIVE (SEE ABATEMENT)
 - REG - REMOVE EXISTING GRILLE (SEE MECH.)
 - RM - REMOVE EXISTING MIRRORS
 - EXISTING FLOOR CRACK CUT OUT AND FILL WITH EPOXY APPROXIMATELY 2" WIDE x 25' LONG

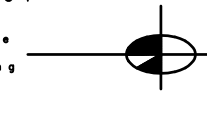
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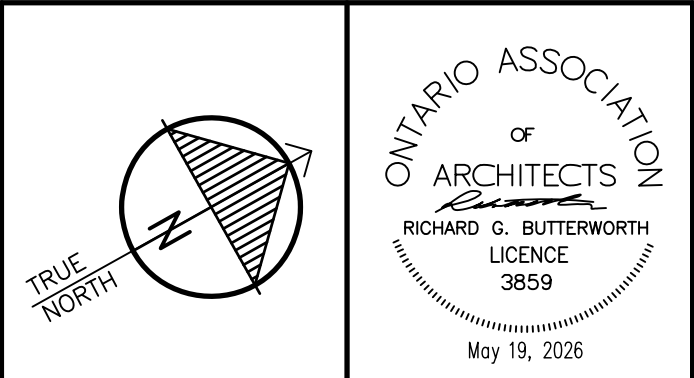


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PROPOSED RENOVATION TO ORCHARD PARK SECONDARY
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO

PARTIAL GROUND FLOOR PLAN
DEMOLITION

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/4" = 1'-0"	A1.01



Richard G. Butterworth, Architect

DEMOLITION LEGEND

- RELJ - REMOVE EXISTING LIGHT FIXTURE TO BE REMOVED (SEE ELEC.)
- RESG - REMOVE EXISTING SUPPLY GRILLE (SEE MECH.)
- RESD - REMOVE EXISTING SMOKE HEAT DETECTOR (SEE ELEC.)
- RESPK - REMOVE EXISTING SPEAKER (SEE ELEC.)
- RELG - REMOVE EXISTING LINEAR SUPPLY GRILLE (SEE MECH.)
- REF - REMOVE EXISTING PROPELLER FAN (SEE ELEC.)
- REJB - REMOVE EXISTING JUNCTION BOX (SEE ELEC.)
- C - REMOVE EXISTING SECURITY CAMERA (SEE ELEC.)
- X - REMOVE EXISTING EXIT SIGN (SEE ELEC.)

DEMOLITION NOTES:

- ① - THE WORD 'REMOVE' MEANS REMOVED FROM SITE UNLESS OTHERWISE NOTED.
- ② - REMOVE ALL WALL AND DOOR SIGNS IN AREA OF WORK.

HWDSB

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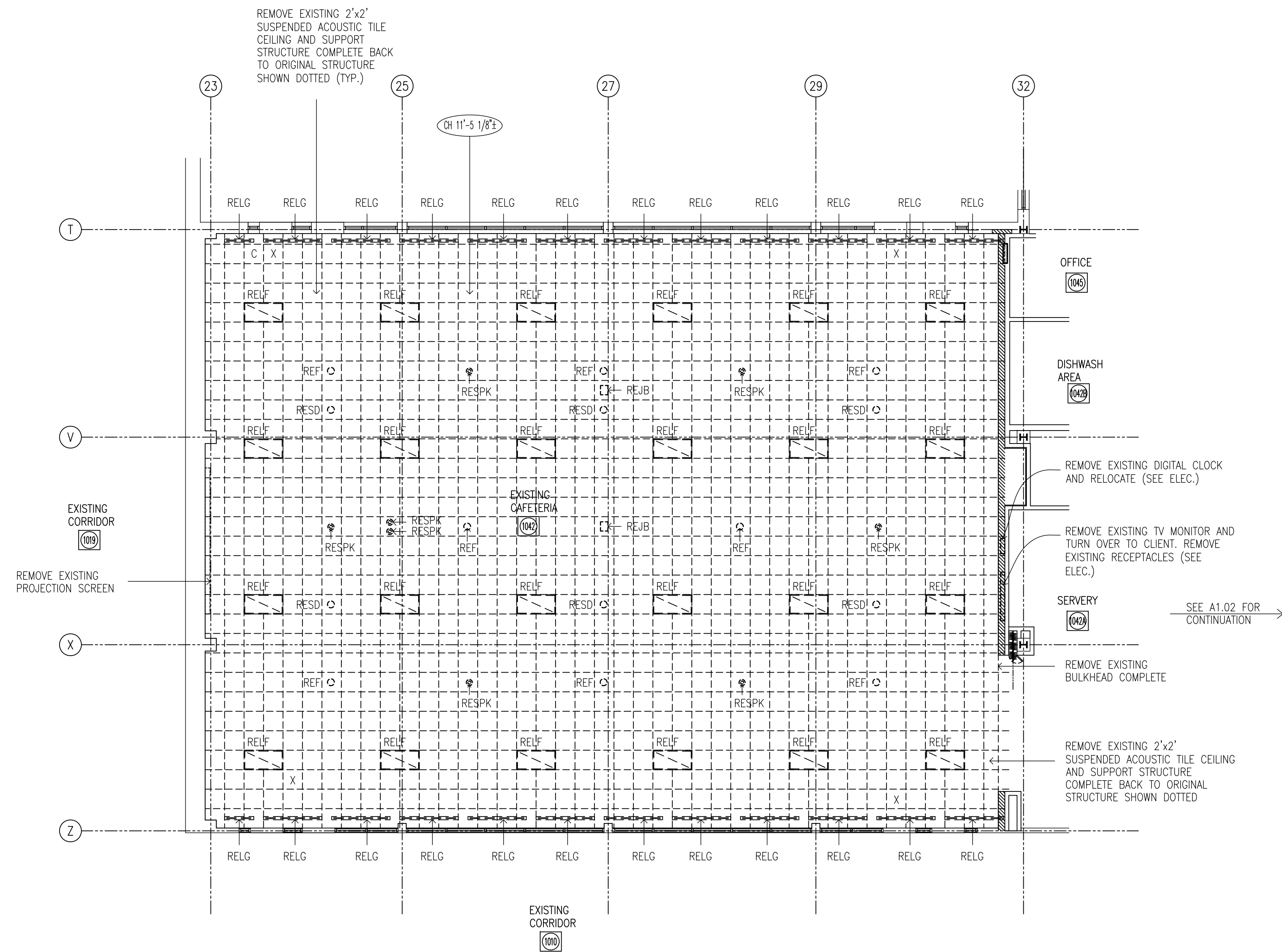
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**PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO**

PARTIAL GROUND FLOOR
REFLECTED CEILING PLAN
DEMOLITION

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DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/4"=1'-0"	A1.02

LOT SCALE 1=1



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DEMOLITION LEGEND

- ELF – EXISTING LIGHT FIXTURE TO BE REMOVED (SEE ELEC.)
- ESG – REMOVE EXISTING SUPPLY GRILLE (SEE MECH.)
- ESD – REMOVE EXISTING SMOKE HEAT DETECTOR (SEE ELEC.)
- ESPK – REMOVE EXISTING SPEAKER (SEE ELEC.)
- ELG – REMOVE EXISTING LINEAR SUPPLY GRILLE (SEE MECH.)
- EF – REMOVE EXISTING PROPELLER FAN (SEE ELEC.)
- EJB – REMOVE EXISTING JUNCTION BOX (SEE ELEC.)
- REMOVE EXISTING SECURITY CAMERA (SEE ELEC.)
- REMOVE EXISTING EXIT SIGN (SEE ELEC.)

DEMOLITION NOTES:

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- ② - REMOVE ALL WALL AND DOOR SIGNS IN AREA OF WORK.

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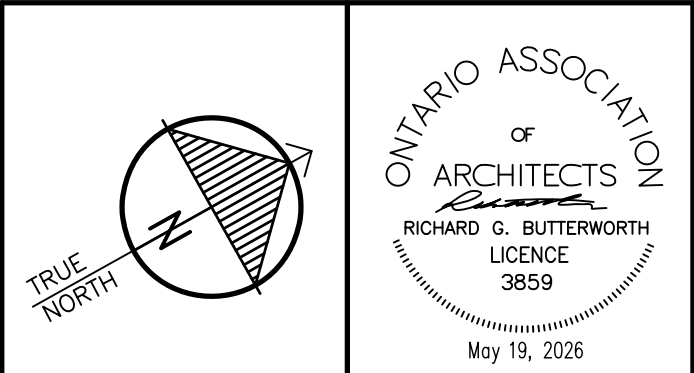
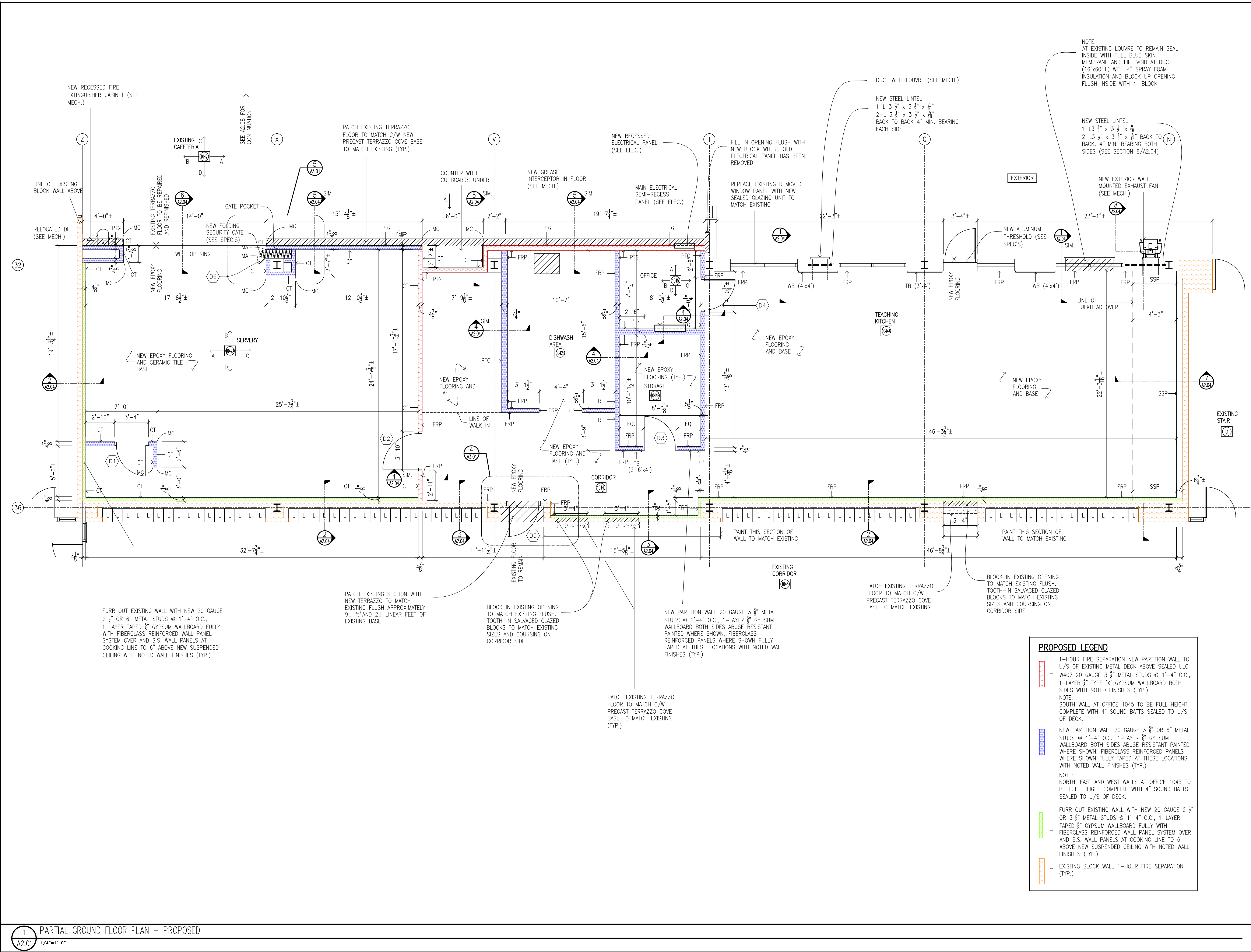
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**PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO**

PARTIAL GROUND FLOOR
REFLECTED CEILING PLAN
DEMOLITION - CAFETERIA

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1/8"=1'-0"	A1.03

1-1 37456 107



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- PROPOSED LEGEND**
- NWB - NEW WALL MOUNTED WASTE BIN (SEE SPEC'S)
 - PTD - PAPER TOWER DISPENSER (SUPPLIED BY OWNER INSTALLED BY CONTRACTOR)
 - SD - SOAP DISPENSER (SUPPLIED BY OWNER INSTALLED BY CONTRACTOR)
 - TV - NEW TV MONITOR MOUNTED OVER (SEE ELEC. AND CASH ALLOWANCE)
 - TB - TACK BOARD MOUNT TOP AT 7'-0" (SEE SPEC'S)
 - RP - RETRACTABLE RECEPTACLES COORDINATE WITH CEILING PLAN (SEE ELEC.)
 - WB - WHITE BOARD MOUNT TOP AT 7'-0" (SEE SPEC'S)
 - PTG - 8" ABUSE ABUSE RESISTANT GYPSUM WALLBOARD PAINTED
 - CT - NEW CERAMIC WALL TILE
 - FRP - NEW FIBERGLASS REINFORCED WALL PANELS TO 6" ABOVE NEW SUSPENDED CEILING
 - SSP - STAINLESS STEEL WALL PANEL SYSTEM FROM FINISHED FLOOR TO U/S OF EXHAUST HOOD BY EQUIPMENT SUPPLIER
 - MC - METAL CORNER TRIM (SEE SPEC'S)
 - MA - METAL CAP TRIM (SEE SPEC'S)
 - ERAD - EXISTING RAD TO REMAIN WITH NEW COVERS (SEE MECH.)
 - WS - EXISTING MARBLE WINDOW SILL

NOTE:

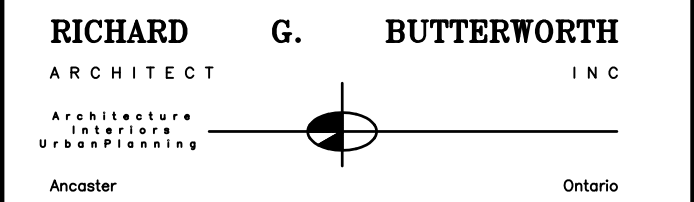
NEW EPOXY FLOORING ON FULL SELF LEVELING COAT ON MOISTURE MITIGATION MEMBRANE (SEE SPEC'S)

HWDSB

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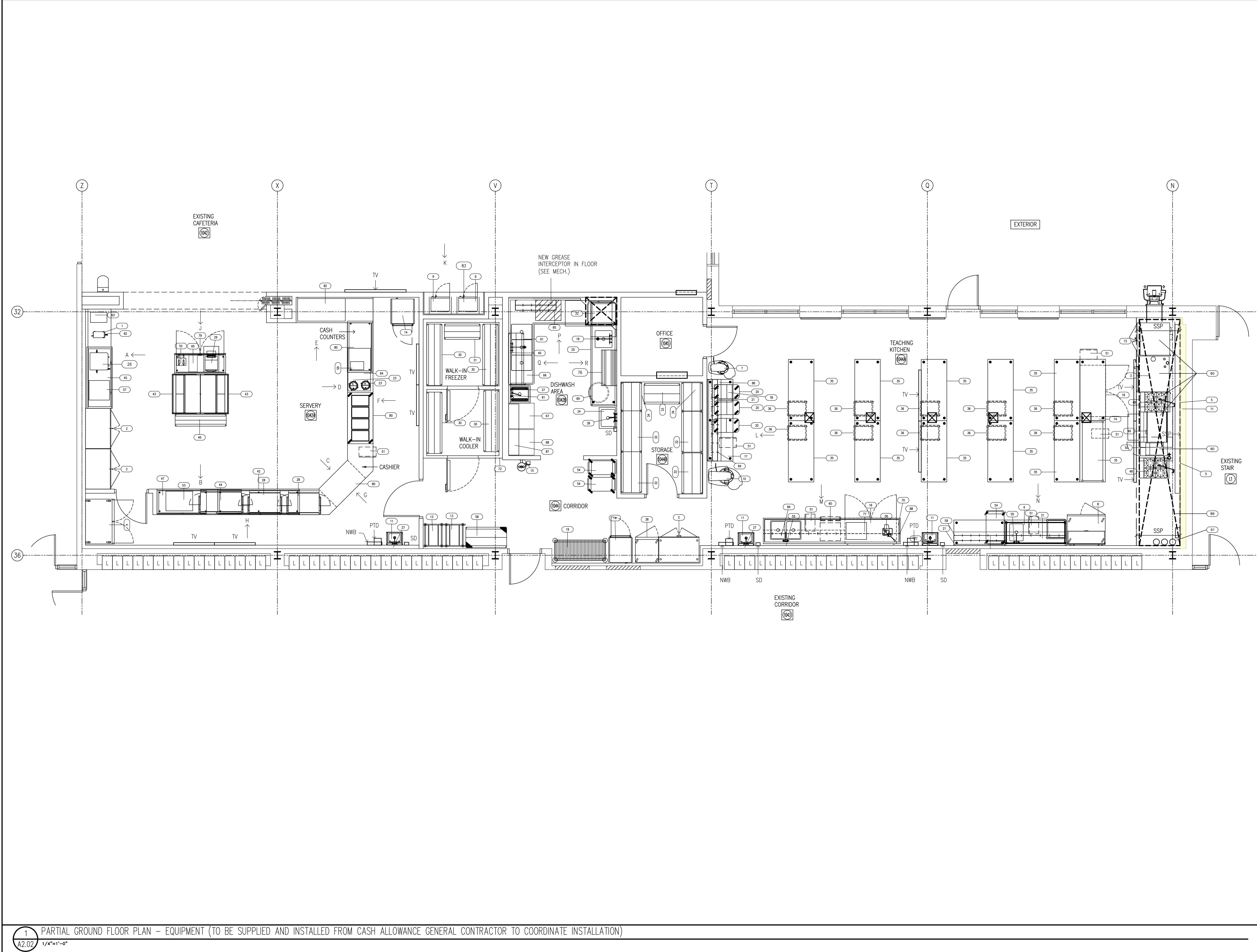


PROPOSED RENOVATION TO ORCHARD PARK SECONDARY HAMILTON - WENTWORTH DISTRICT SCHOOL BOARD

200 DEWITT ROAD
STONE CREEK, ONTARIO

**PARTIAL GROUND FLOOR PLAN
PROPOSED KITCHEN**

DRAWN BY:	CHECKED BY:
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DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/4"=1'-0"	A2.01



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OF
ARCHITECTS
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LICENCE
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May 19, 2026

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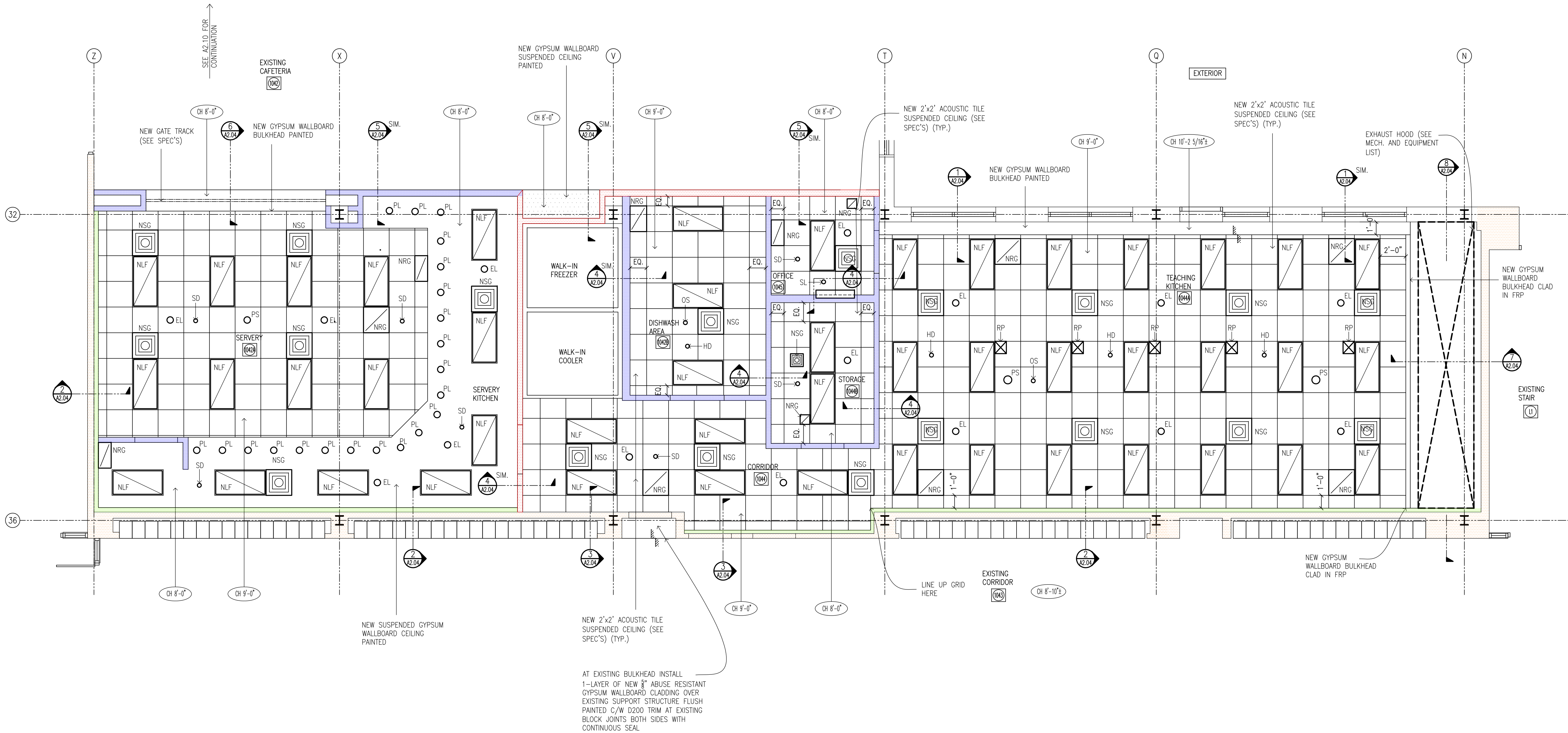
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Architect Ontario

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HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO

PARTIAL GROUND FLOOR PLAN PROPOSED KITCHEN EQUIPMENT

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MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/4"=1'-0"	A2.02



1 PARTIAL GROUND FLOOR REFLECTED CEILING PLAN - PROPOSED
A2.03 1/4"=1'-0"

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May 19, 2026

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- PROPOSED LEGEND**
- SD - NEW SMOKE DETECTOR (SEE ELEC.)
 - NLF - NEW 2'x4' LED LIGHT FIXTURE (SEE ELEC.)
 - NSG - NEW SUPPLY AIR GRILLE (SEE MECH.)
 - NRG - NEW RETURN GRILLE (SEE MECH.)
 - PL - NEW LED POT LIGHT (SEE ELEC.)
 - NSD - NEW SMOKE DETECTOR (SEE ELEC.)
 - RP - RETRACTABLE RECEPTACLES (SEE ELEC.)
 - EL - NEW EMERGENCY LIGHT (SEE ELEC.)
 - OS - NEW OCCUPANCY SENSOR (SEE ELEC. AND MECH.)
 - PS - PUBLIC ADDRESS SPEAKER (SEE ELEC.)
 - HD - NEW HEAT DETECTOR (SEE ELEC.)
 - SL - NEW HORN / STROBE (SEE ELEC.)
 - NCF - NEW CEILING FAN (SEE MECH.)
 - NX - NEW EXIT SIGN (SEE ELEC.)
 - RC - RELOCATED EXISTING SECURITY CAMERA (SEE ELEC.)
 - ELG - NEW LINEAR SUPPLY GRILLE (SEE MECH.)
 - NPM - NEW MOTORIZED PROJECTOR MOUNT (SEE ELEC. AND ALLOWANCE)

HWDSB

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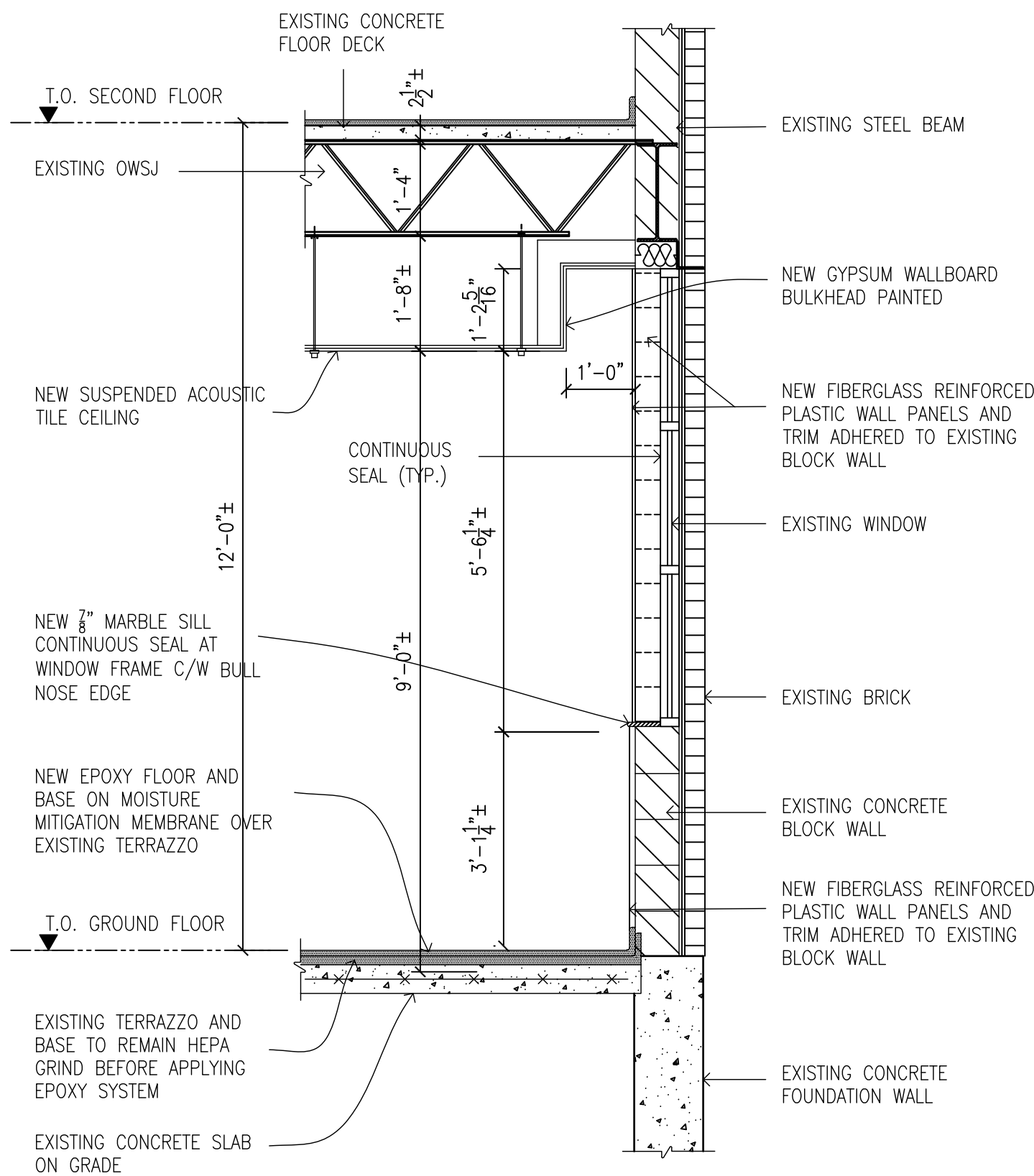
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PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO

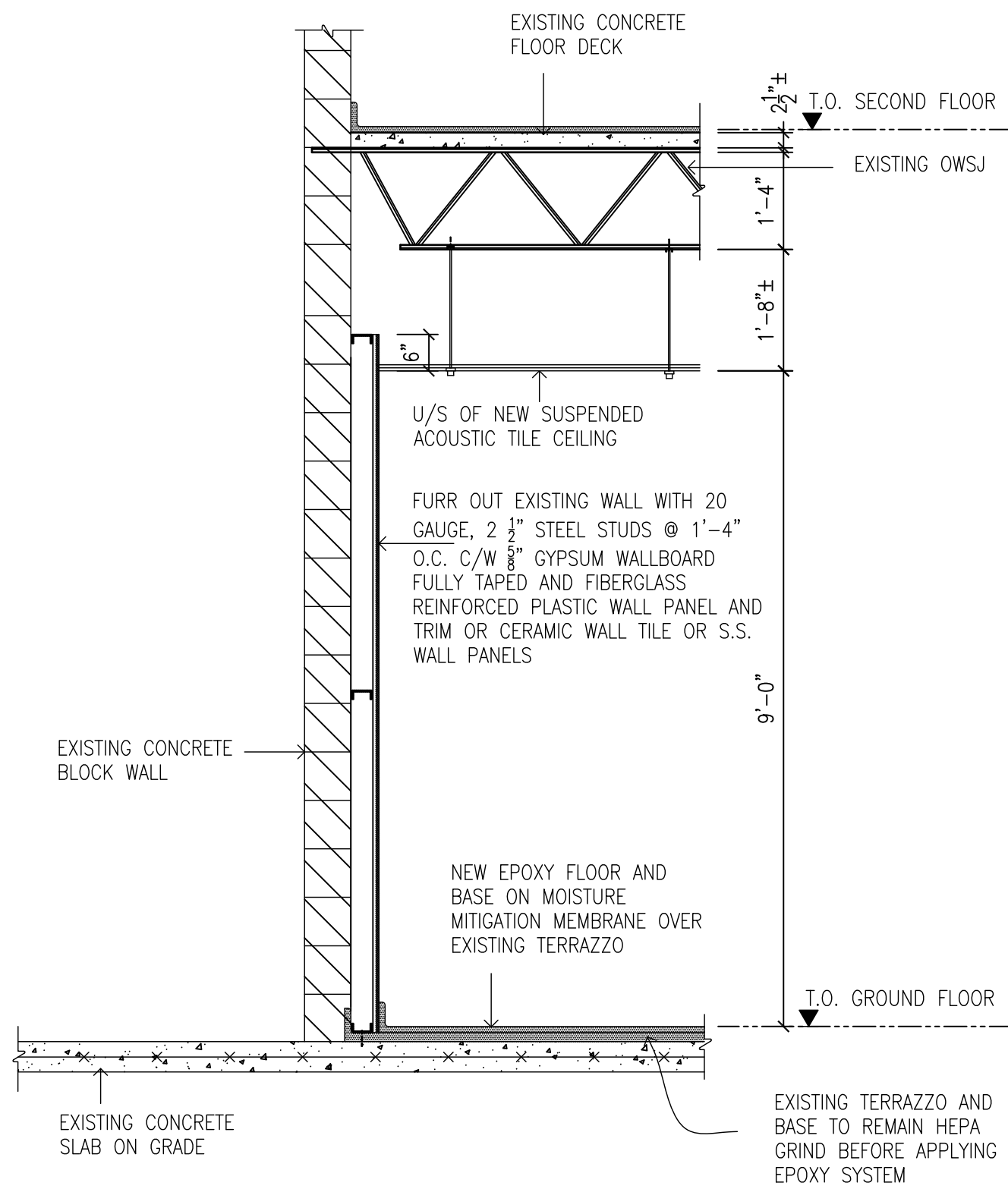
PARTIAL GROUND FLOOR
REFLECTED CEILING PLAN
PROPOSED

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/4"=1'-0"	A2.03

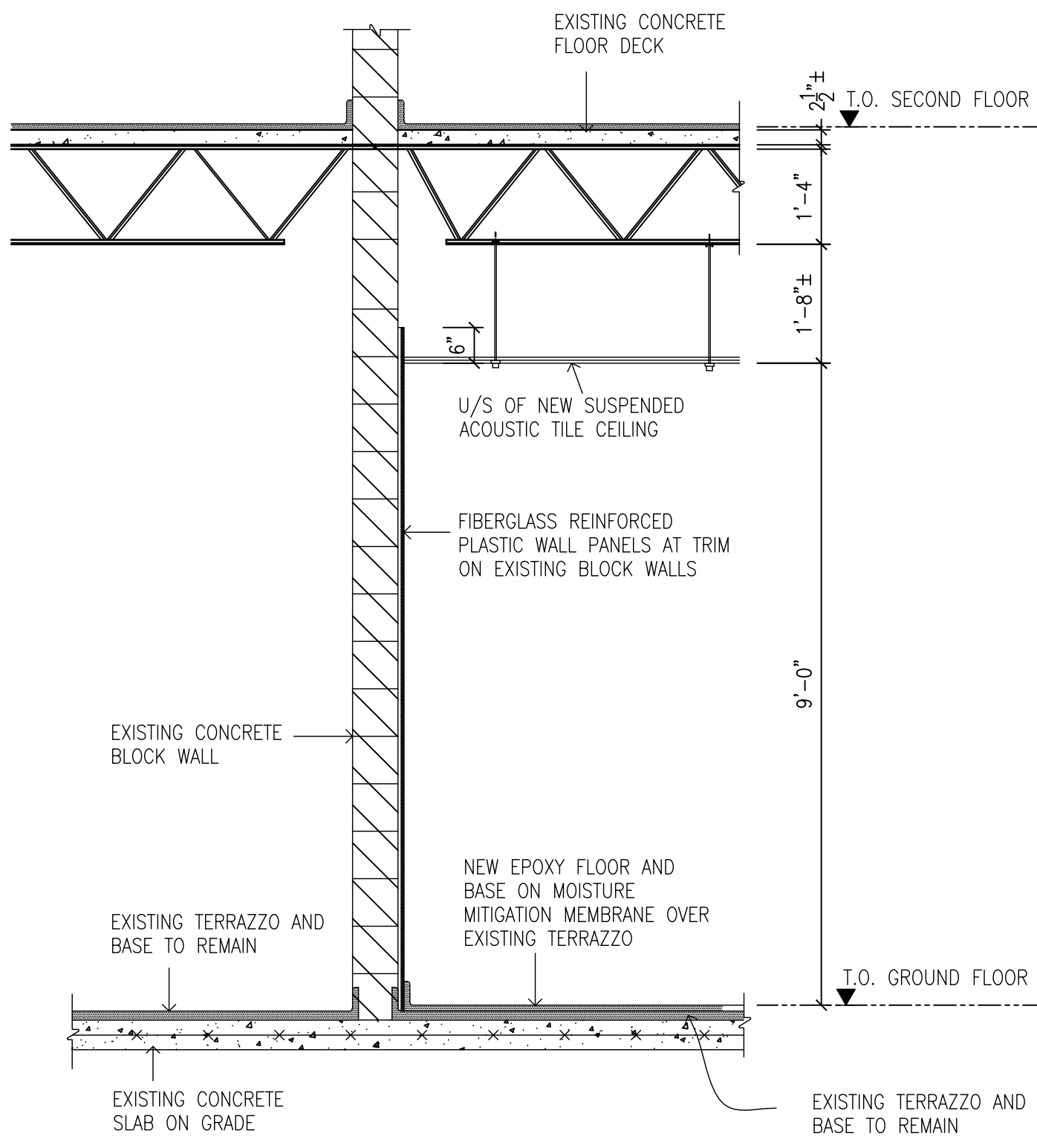
PLAT SCALE 1/4"=1'-0"



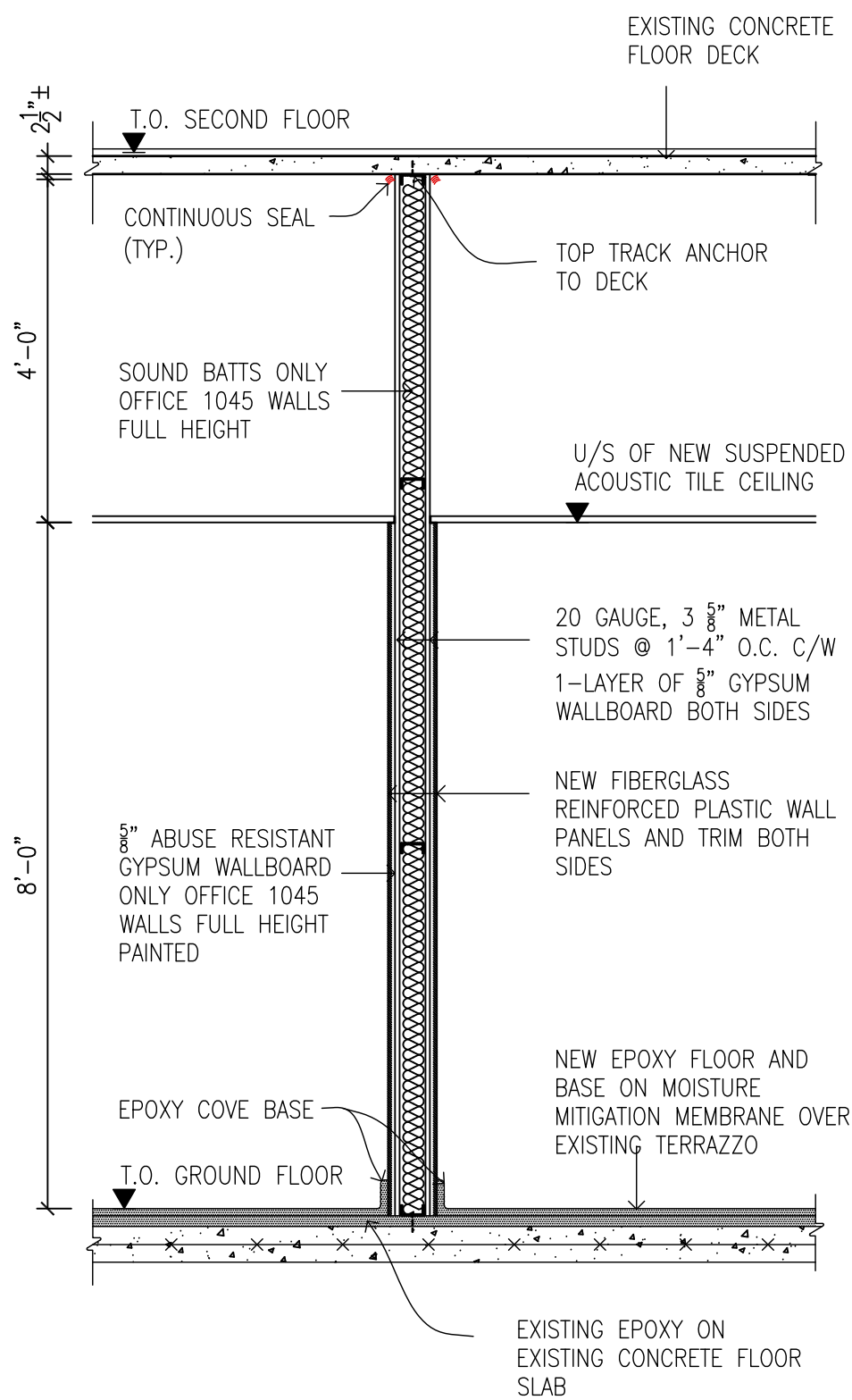
1 WALL SECTION
A2.04 1/2"=1'-0"



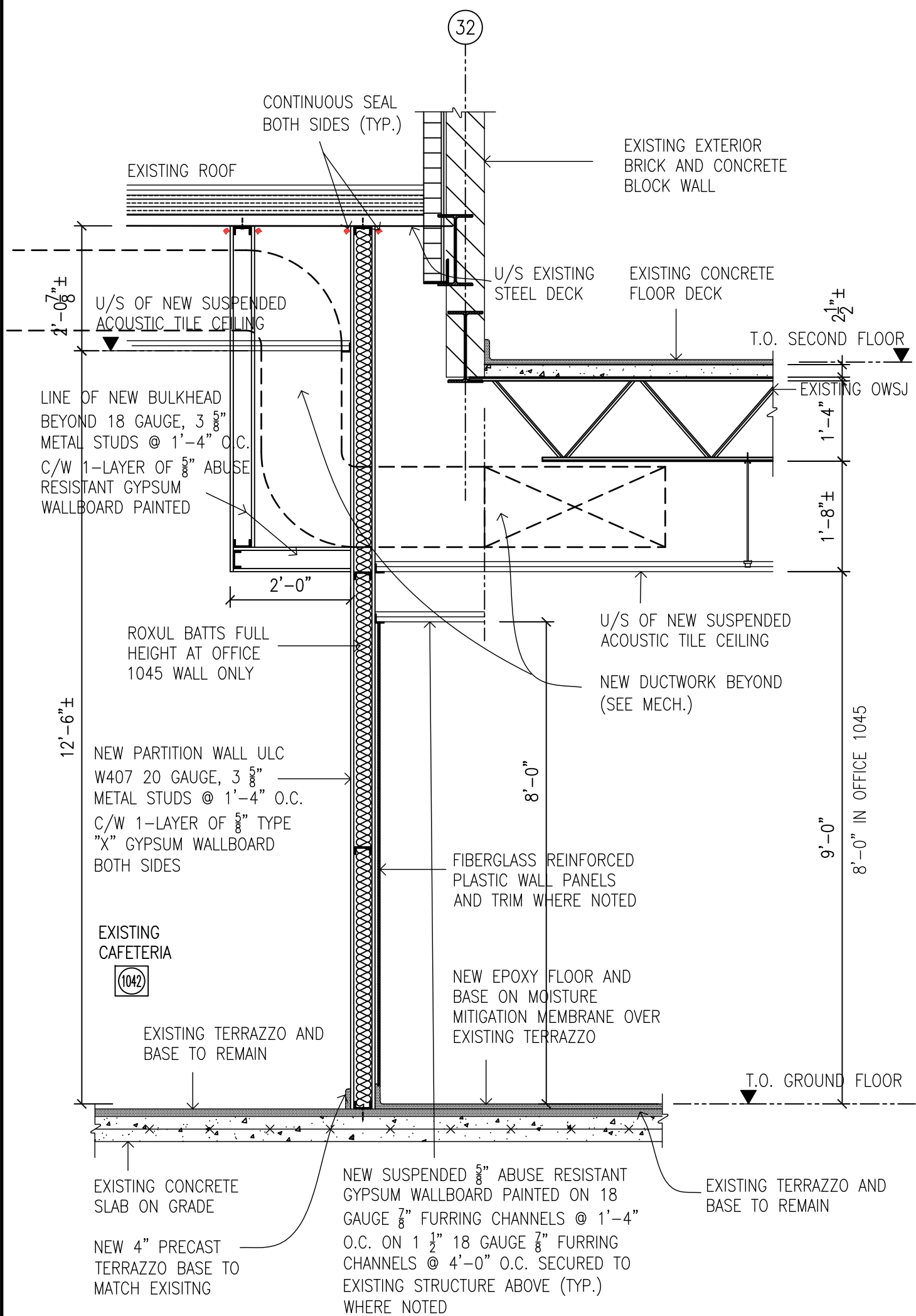
2 WALL SECTION
A2.04 1/2"=1'-0"



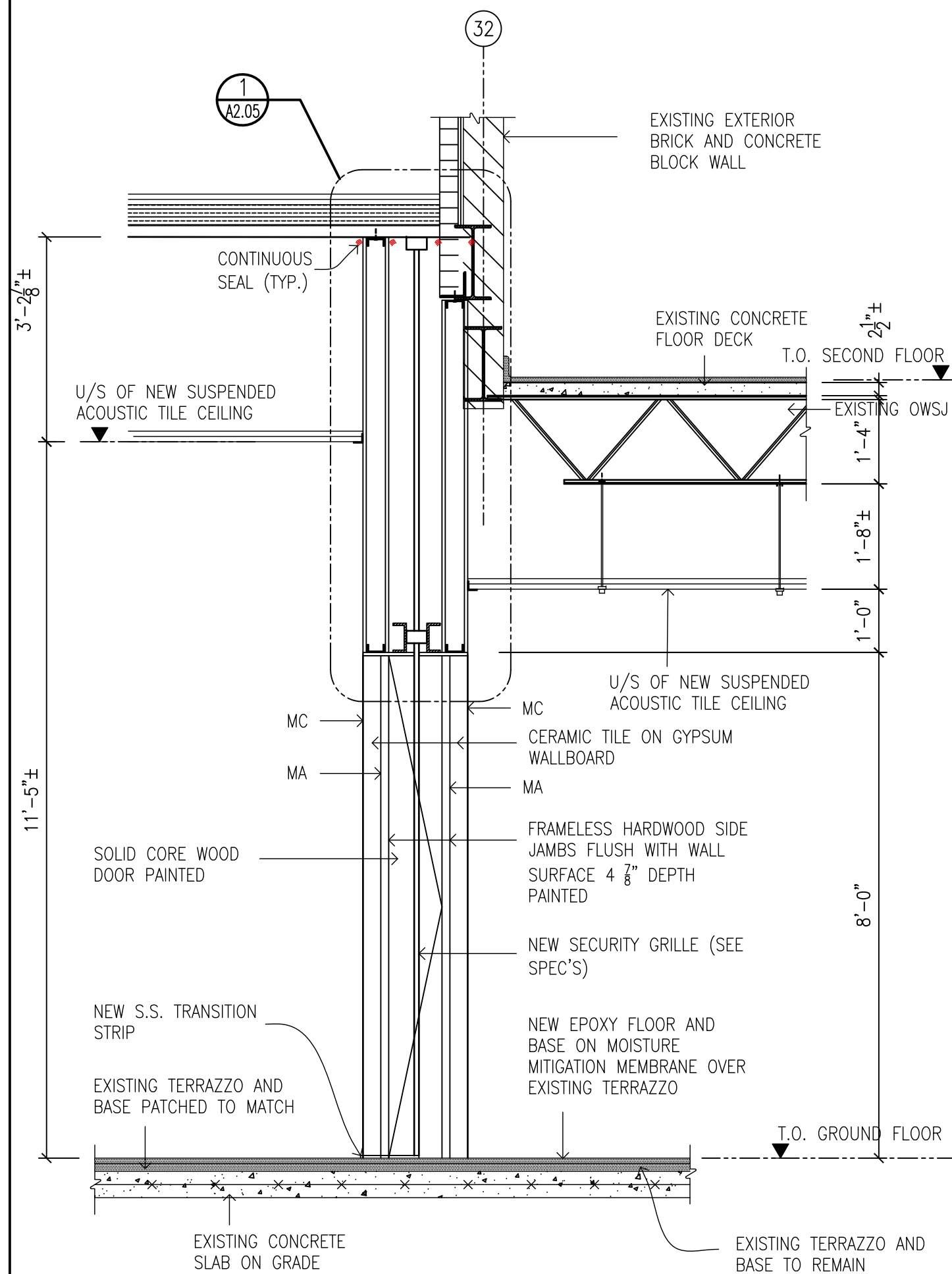
3 WALL SECTION
A2.04 1/2"=1'-0"



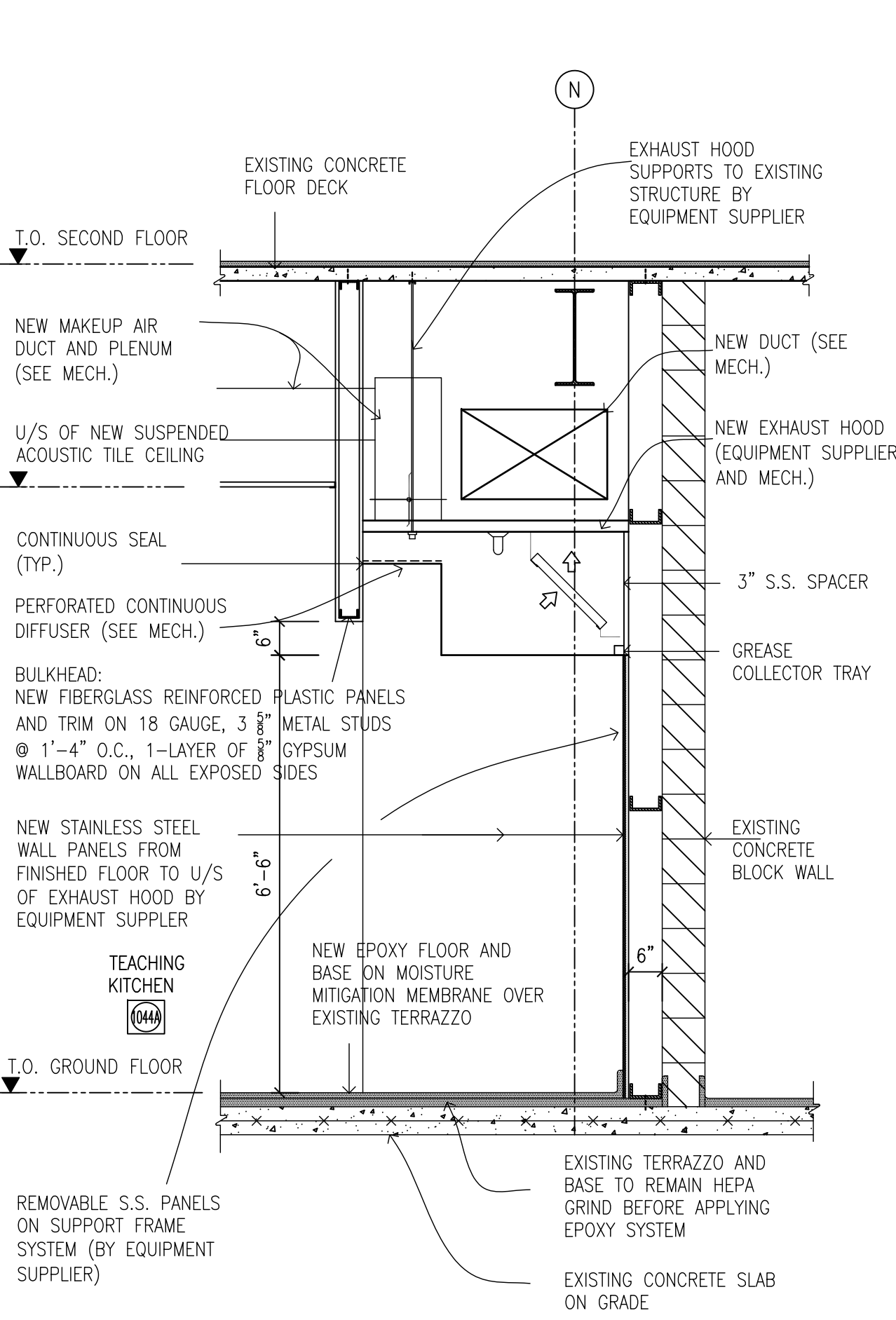
4 WALL SECTION
A2.04 1/2"=1'-0"



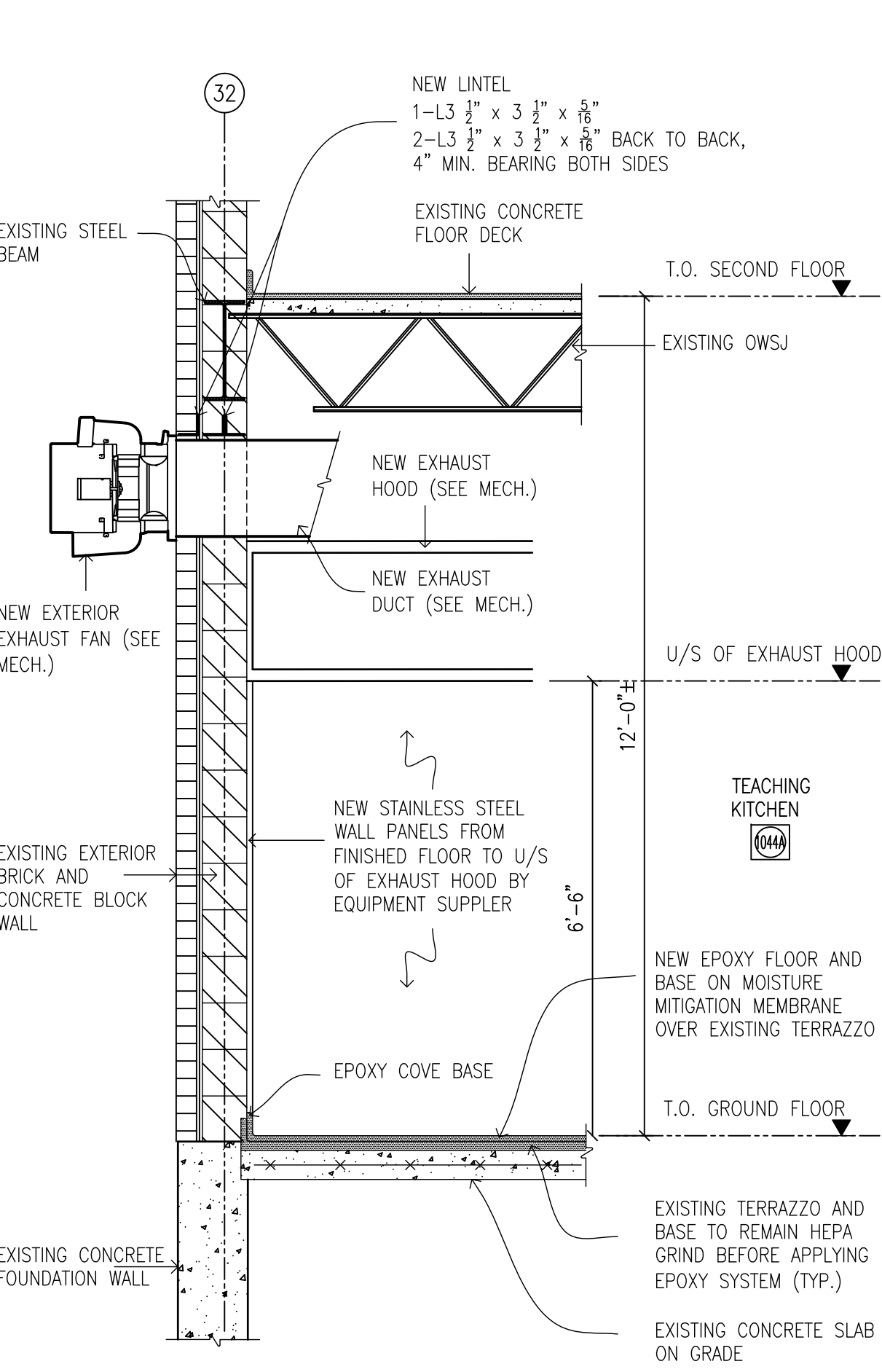
5 WALL SECTION
A2.04 1/2"=1'-0"



6 WALL SECTION
A2.04 1/2"=1'-0"



7 WALL SECTION
A2.04 1/2"=1'-0"



8 WALL SECTION
A2.04 1/2"=1'-0"



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HWDSB

7.	MAY 19, 2026	ISSUED FOR TENDER	RGB
6.	APR. 29, 2026	ISSUED FOR PERMIT - CAFETERIA	RGB
5.	MAR. 09, 2026	ISSUED FOR BUILDING PERMIT	RGB
4.	JAN. 30, 2026	ISSUED FOR REVIEW	RGB
3.	NOV. 16, 2025	REVISED PRELIMINARY DESIGN	RGB
2.	OCT. 24, 2025	REVISED PRELIMINARY DESIGN	RGB
1.	SEP. 26, 2025	PRELIMINARY REVIEW DESIGN	RGB
REF.	DATE	DESCRIPTION	CH'D.

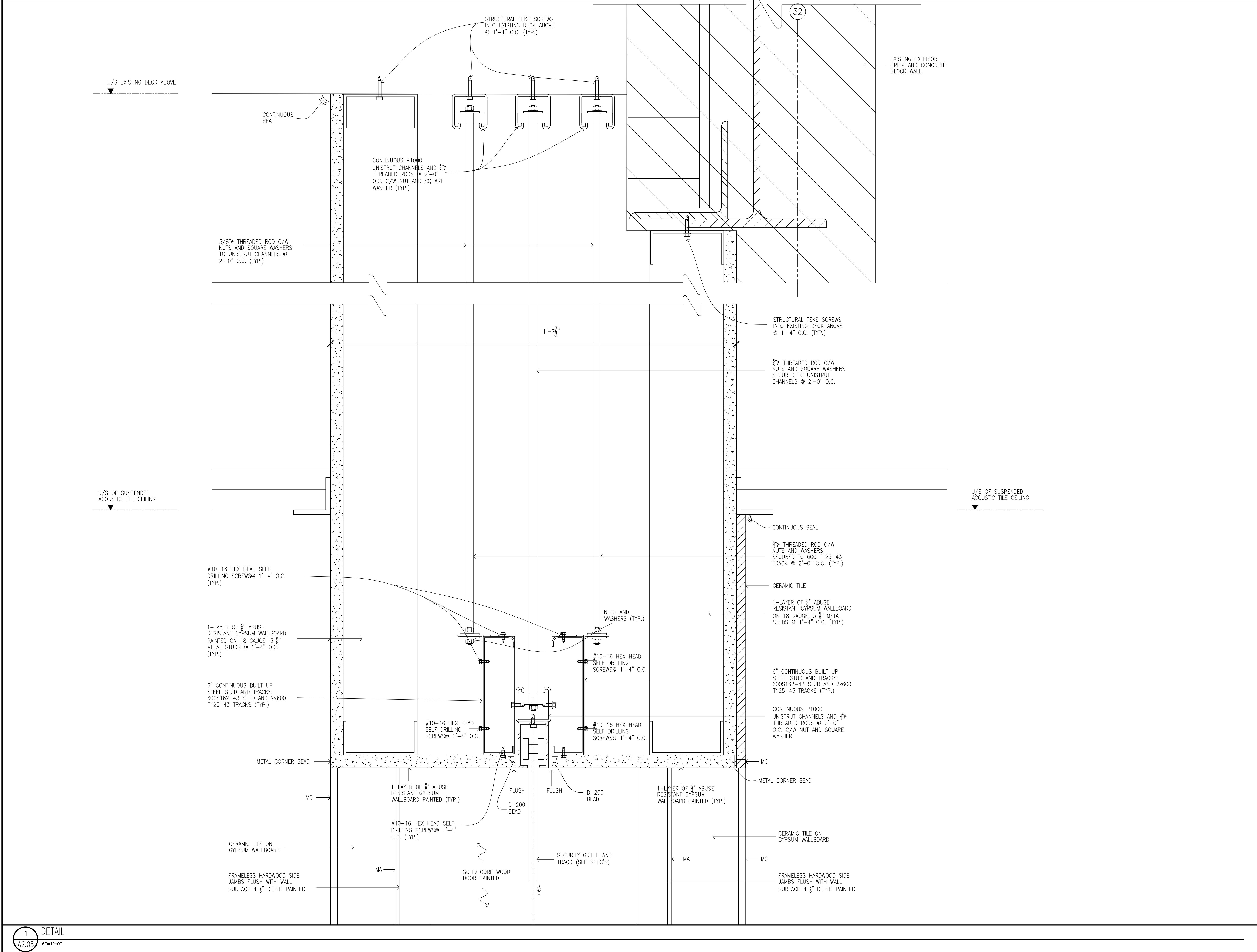
REVISIONS:
ISSUED:

RICHARD G. BUTTERWORTH
ARCHITECT
INC.
ARCHITECTS
OF
ONTARIO
Ancaster Ontario

**PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD**
200 DEWITT ROAD
STONEY CREEK, ONTARIO

WALL SECTIONS AND DETAILS

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
AS SHOWN	A2.04



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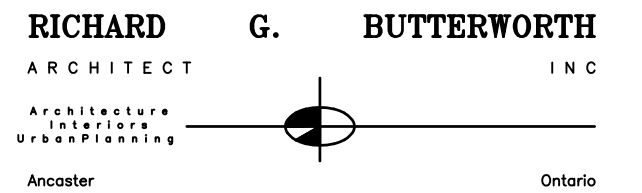
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1.	SEP. 26, 2025	PRELIMINARY REVIEW DESIGN	RGB
REF.	DATE	DESCRIPTION	CH'D.

ISSUED:

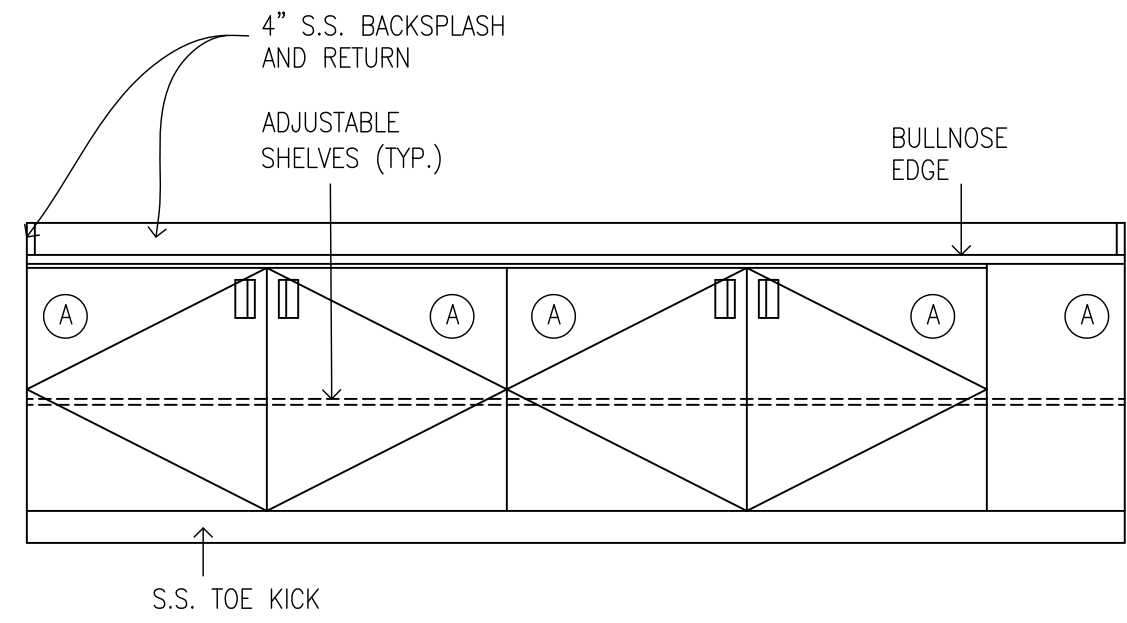


**PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD**
200 DEWITT ROAD
STONEY CREEK, ONTARIO

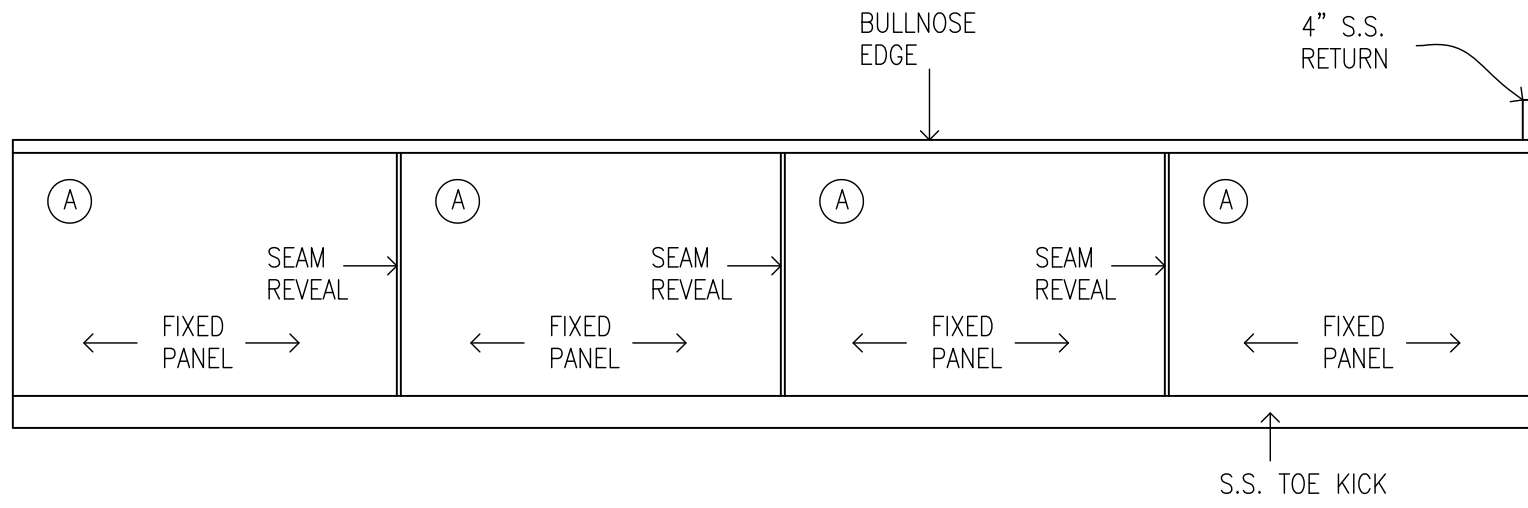
DETAILS

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
AS SHOWN	A2.05

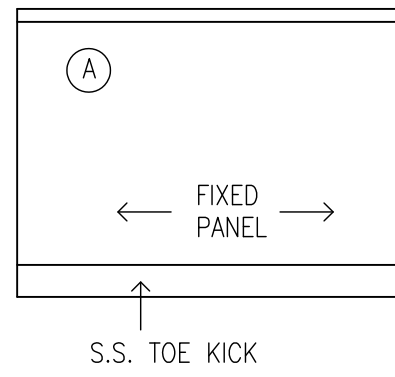
1-1
PLOT SCALE



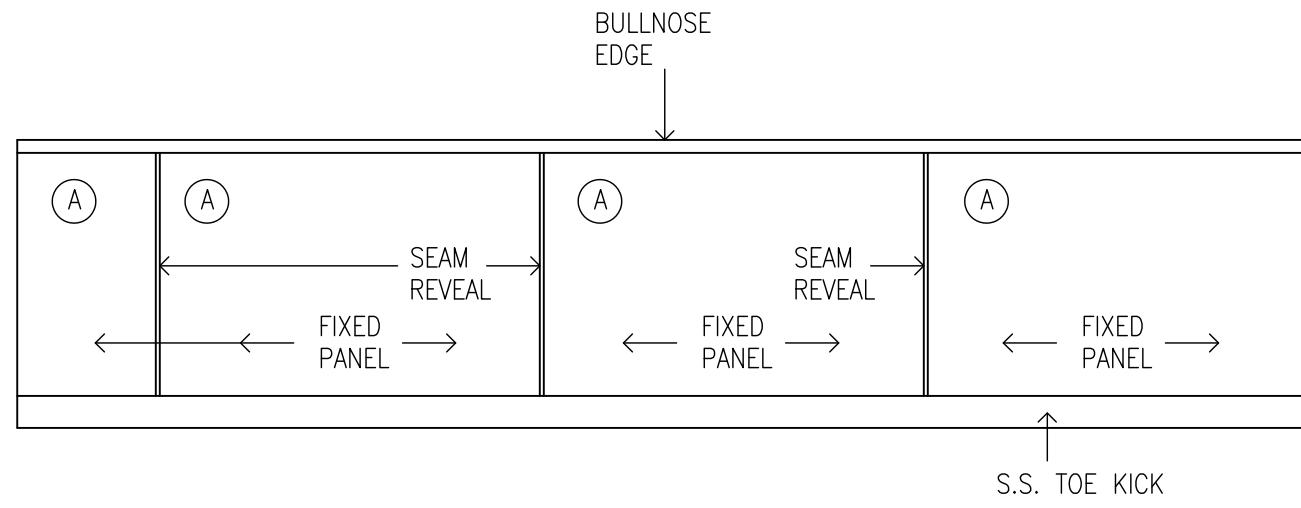
ELEVATION "A"



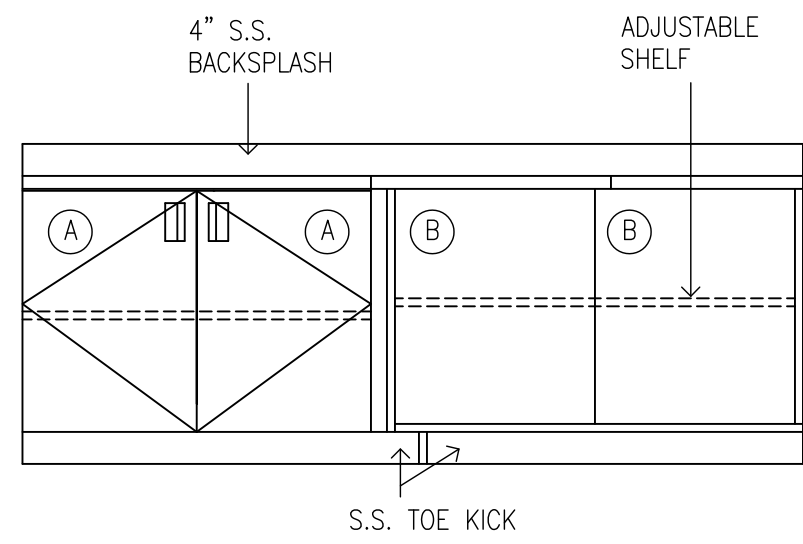
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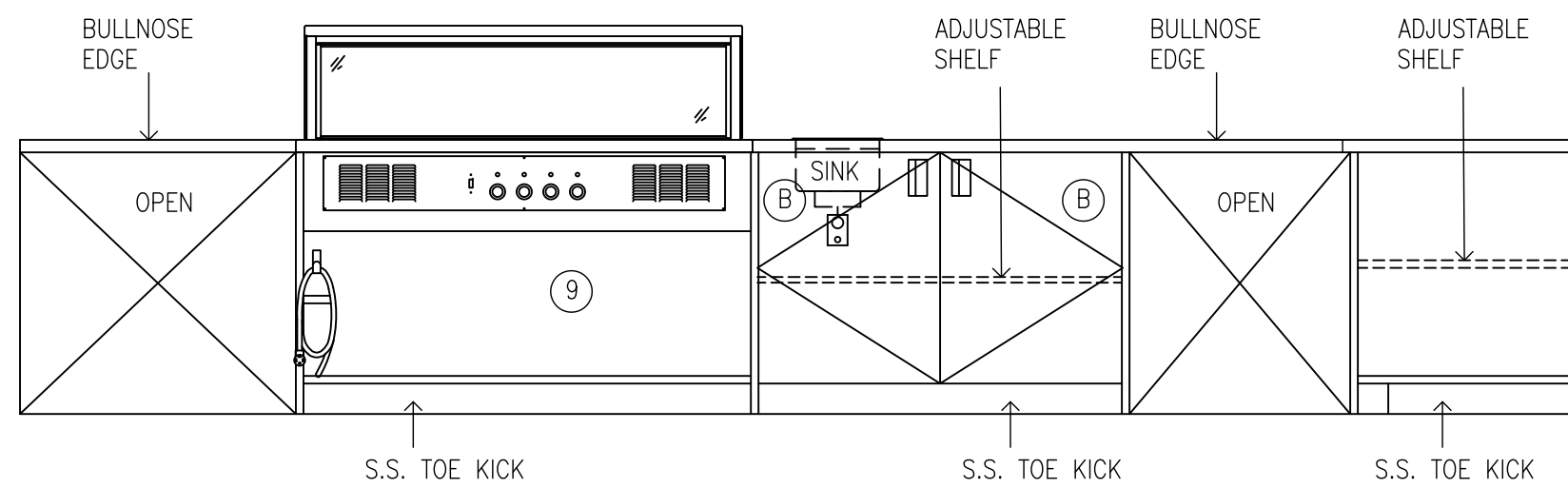
ELEVATION "C"



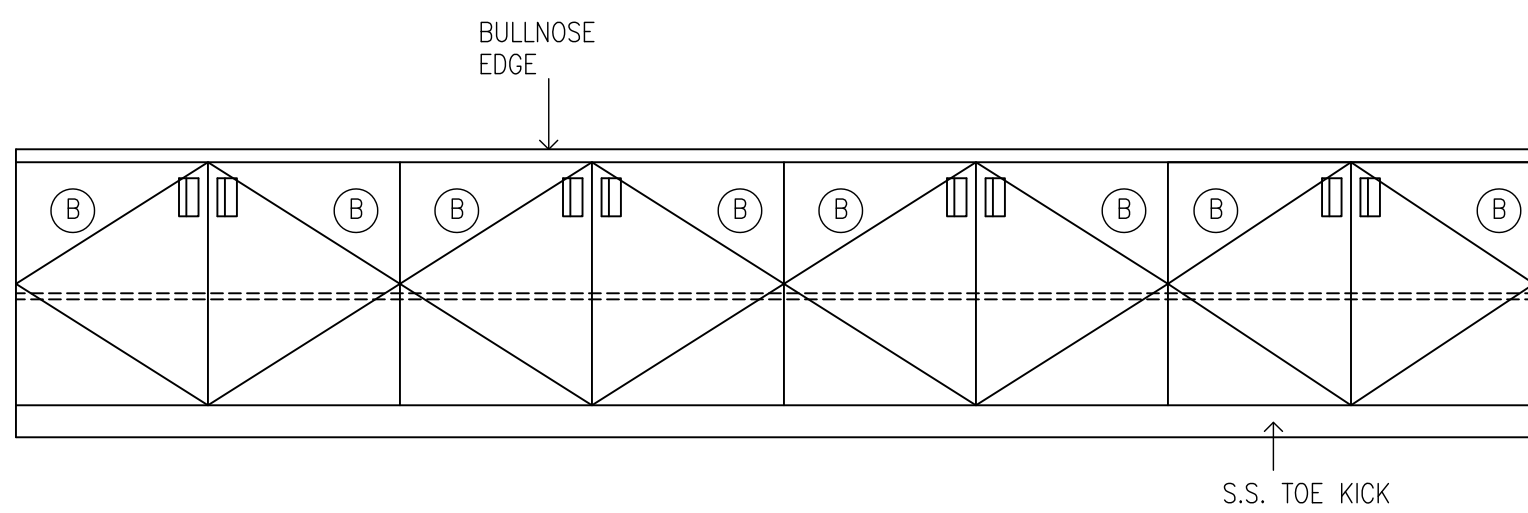
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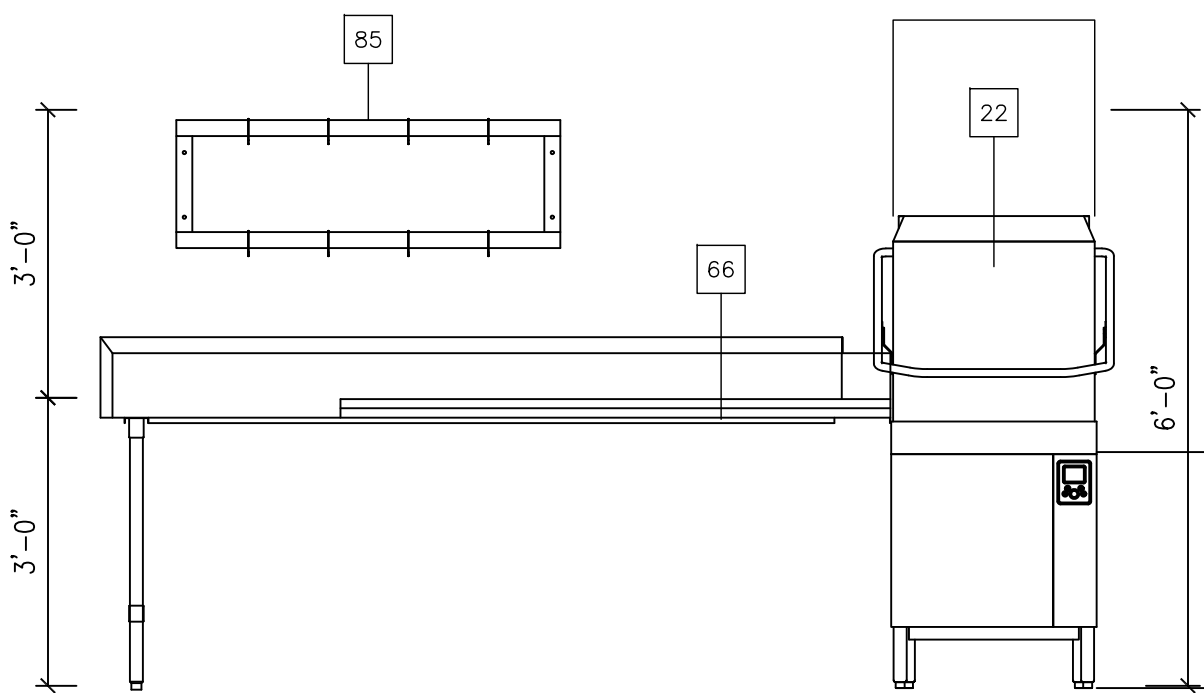
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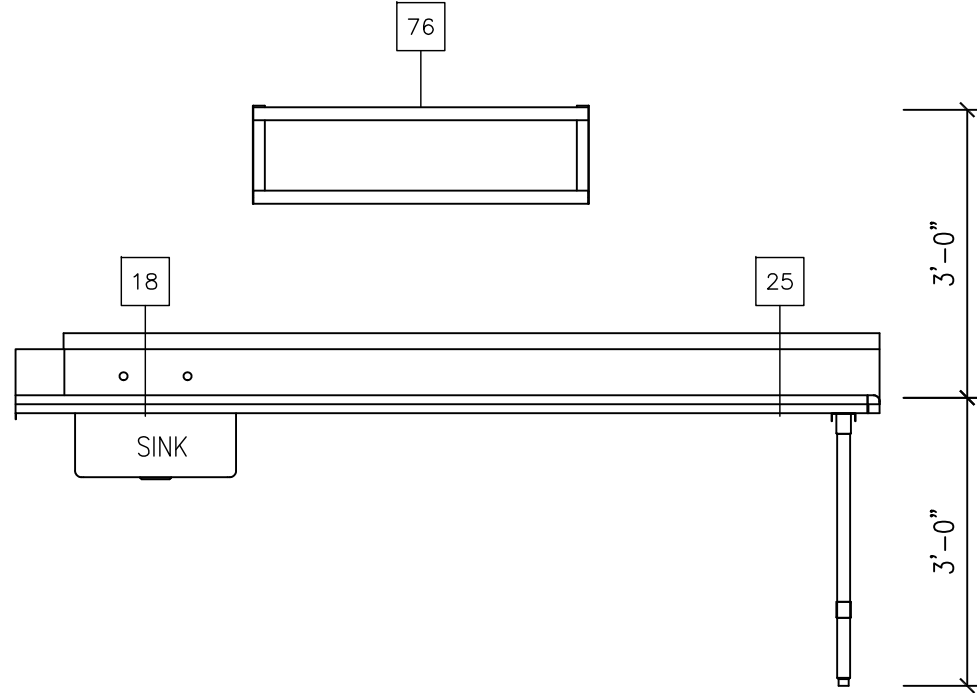
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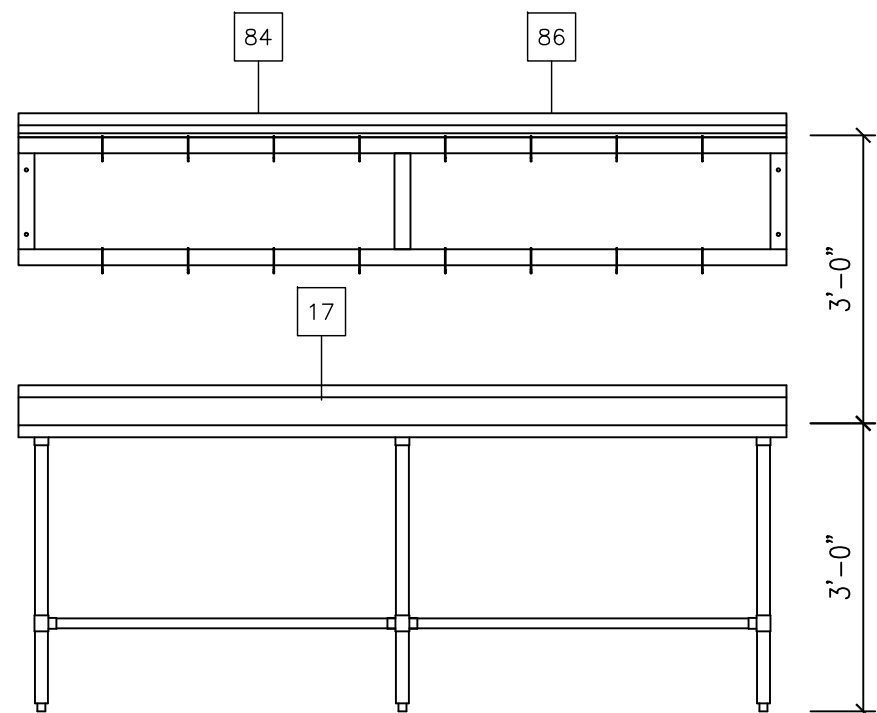
ELEVATION "G"



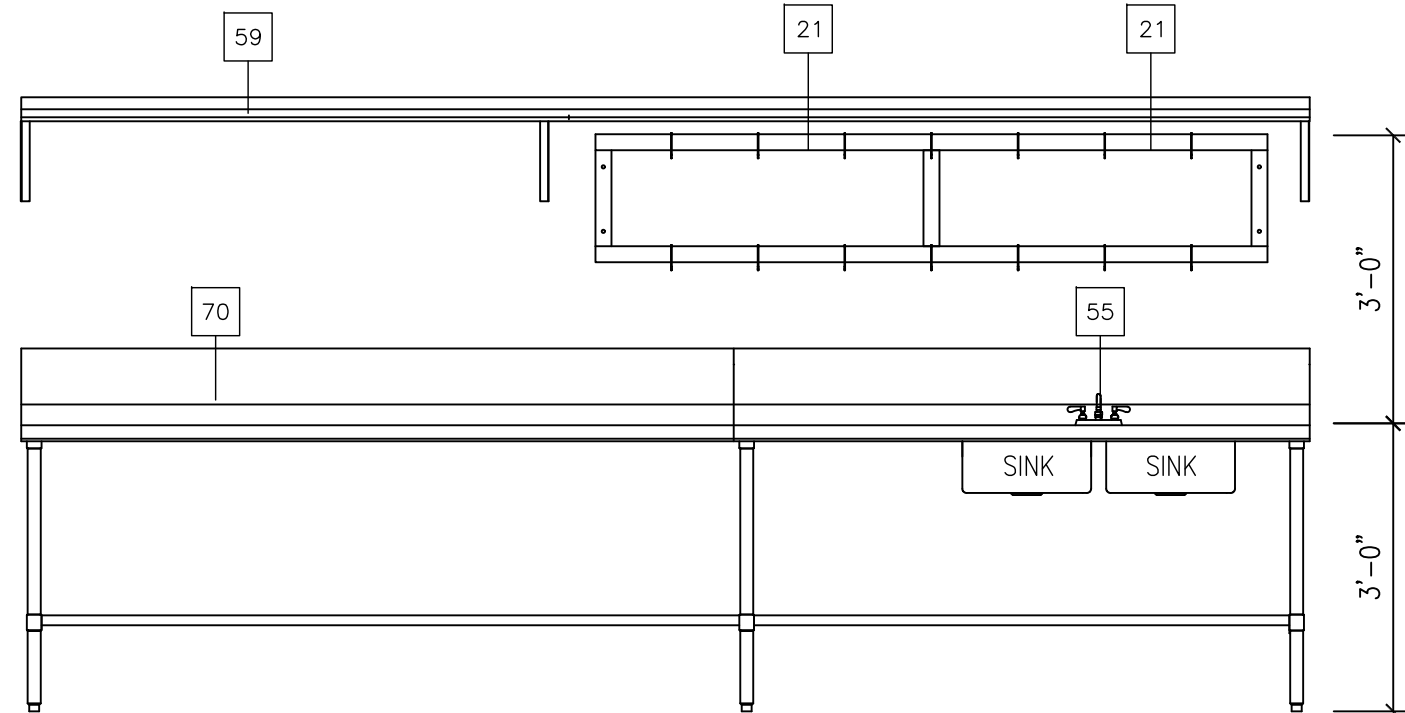
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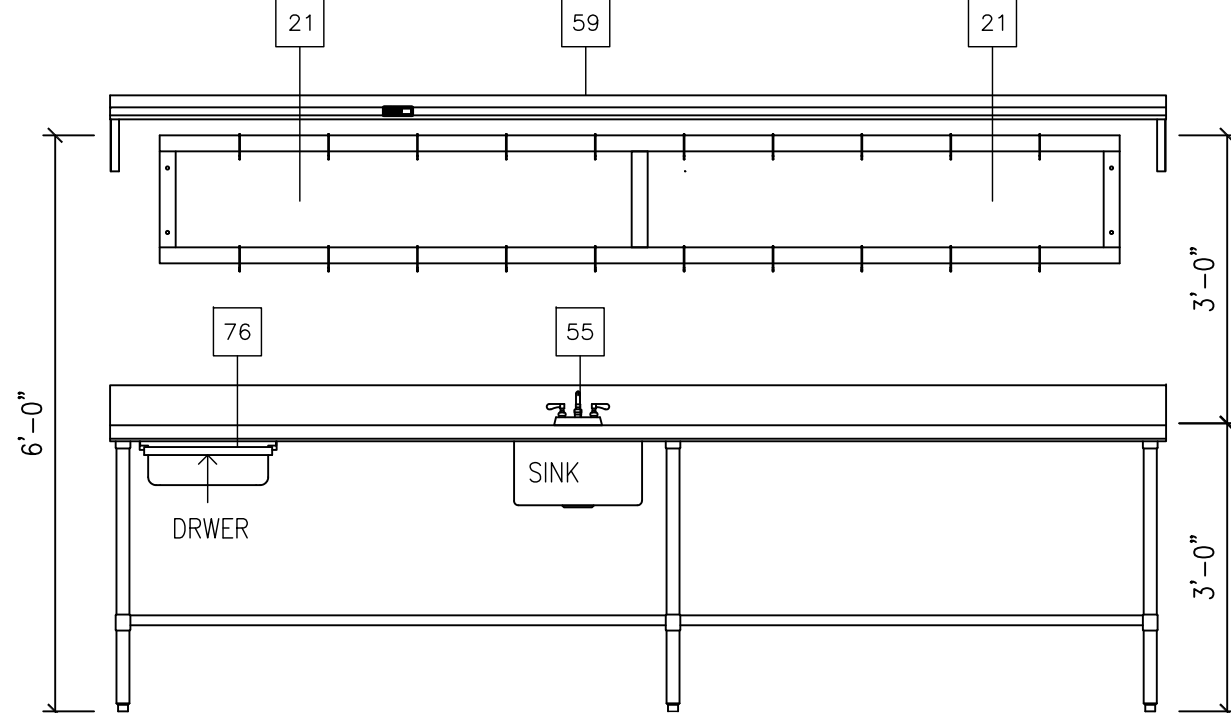
ELEVATION "I"



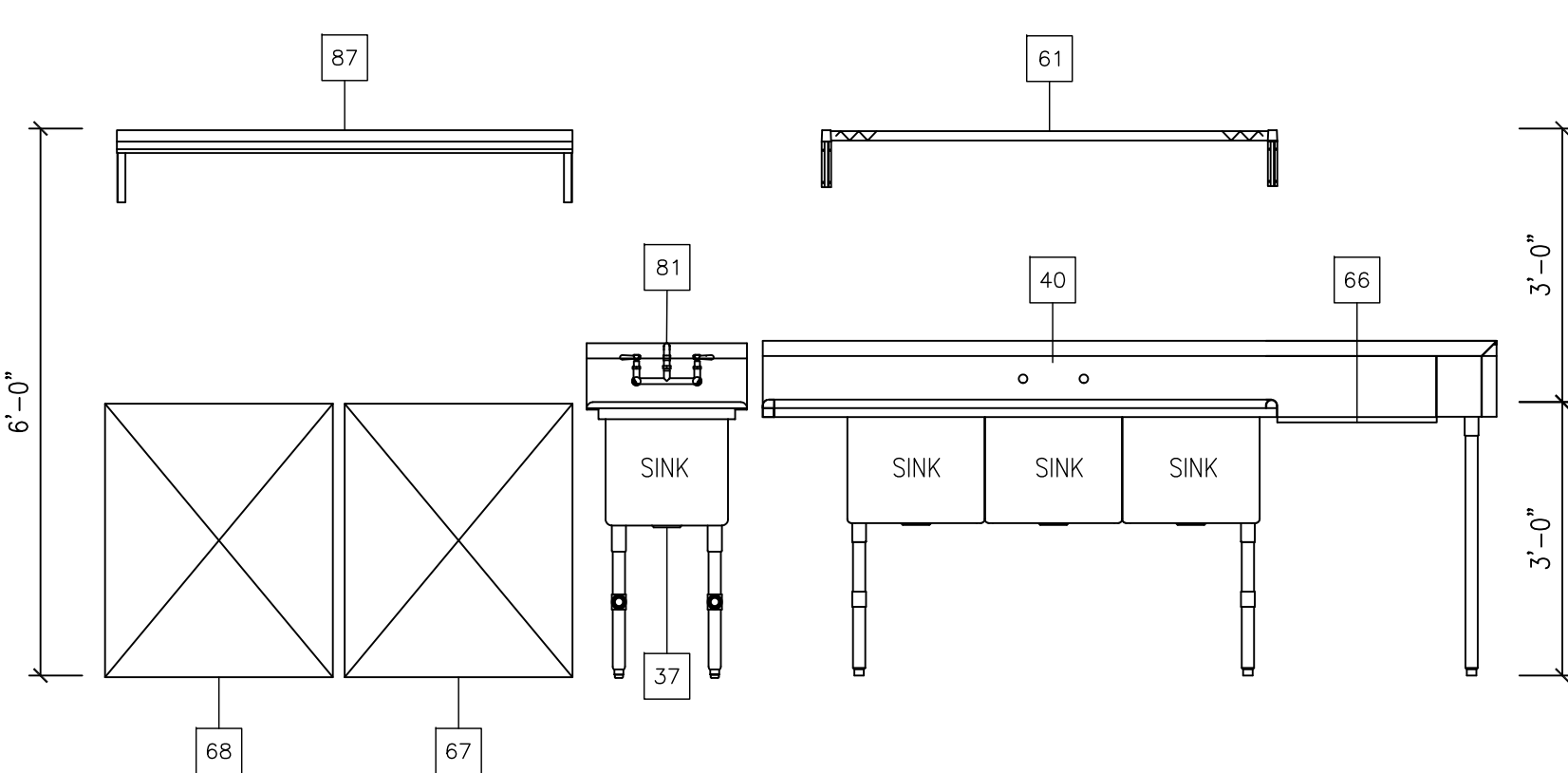
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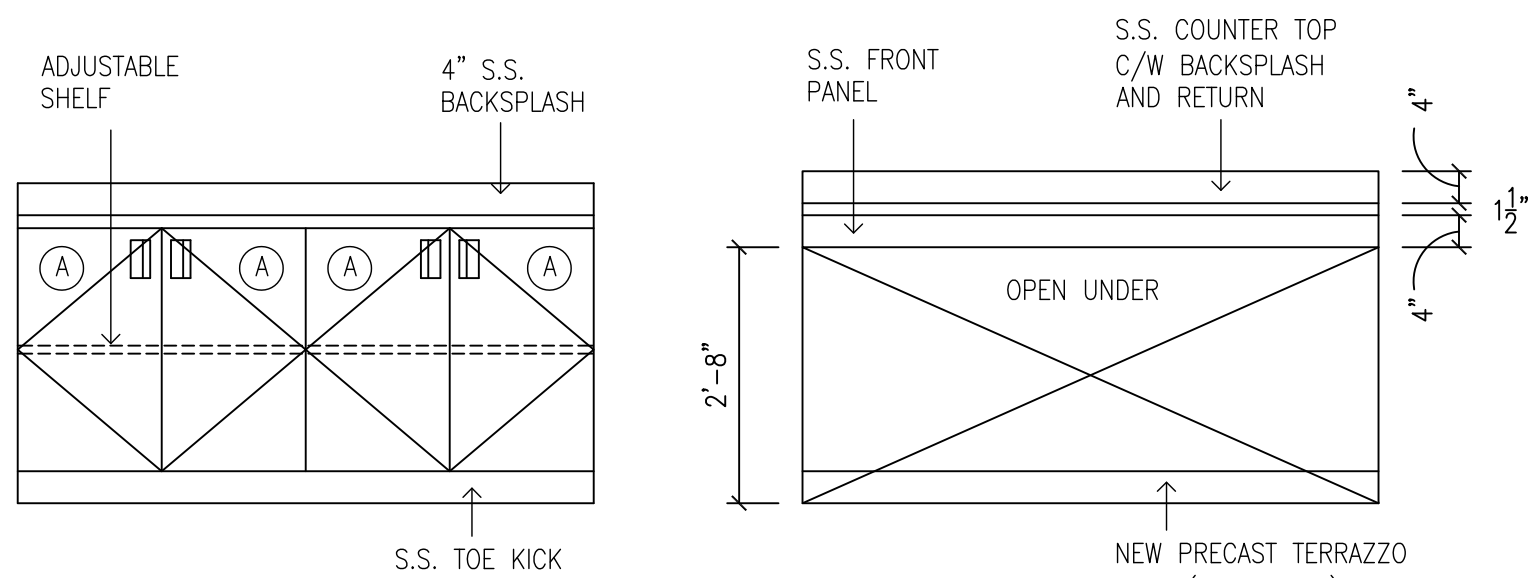
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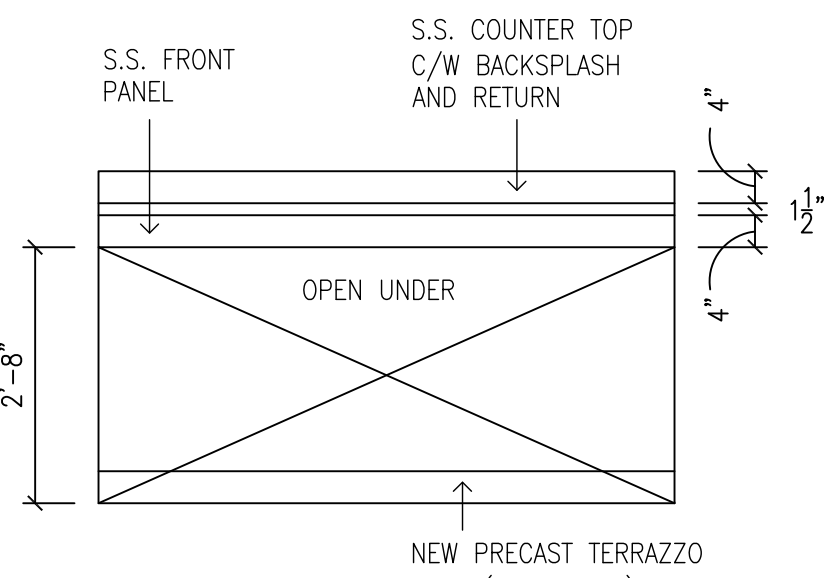
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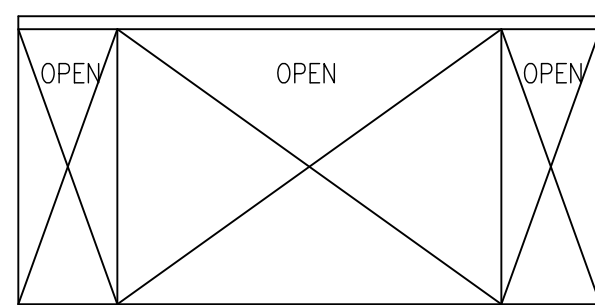
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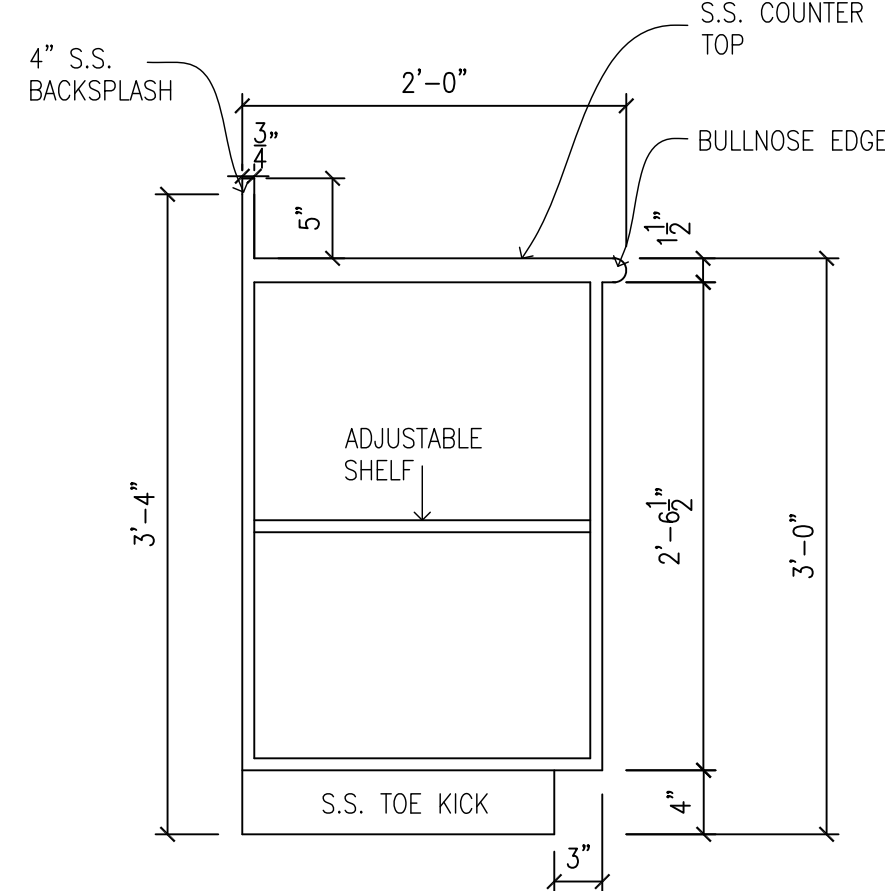
ELEVATION "N"



ELEVATION "O"



ELEVATION "P"



SECTION A-A

PROPOSED LEGEND

- (A) - SPECIAL QUILTED STAINLESS STEEL FINISH
(B) - BRUSHED STAINLESS STEEL FINISH

HWDSB

7.	MAY 19, 2026	ISSUED FOR TENDER	RGB
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1.	SEP. 28, 2025	PRELIMINARY REVIEW DESIGN	RGB
REF.	DATE	DESCRIPTION	CHD.

REVISIONS:

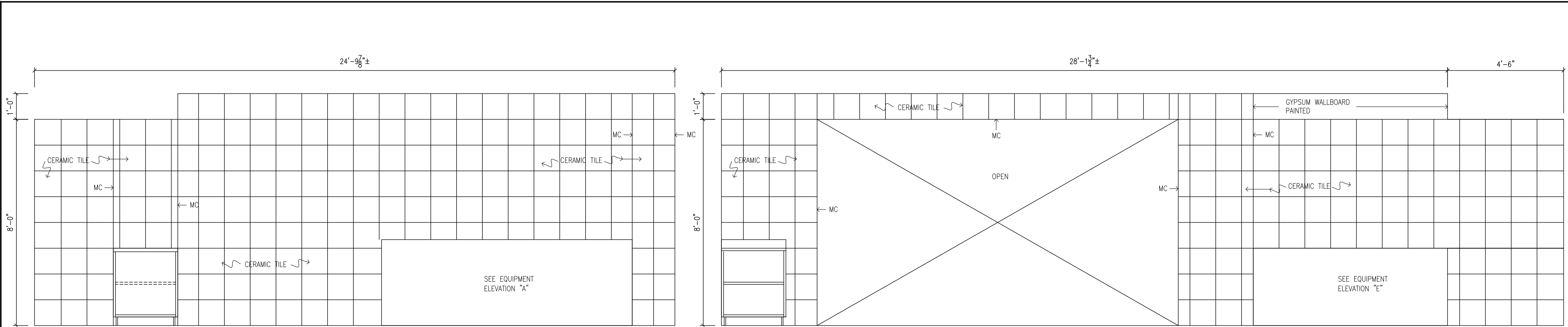
ISSUED:

RICHARD G. BUTTERWORTH	ARCHITECT	INC
ARCHITECTURE	INTERIORS	LANDSCAPE
Ancaster		Ontario

PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO

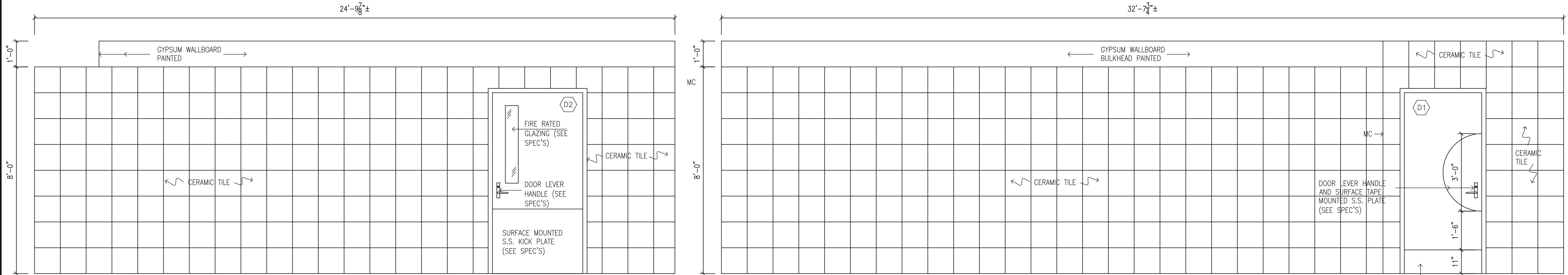
EQUIPMENTS ELEVATIONS

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
AS SHOWN	A2.06



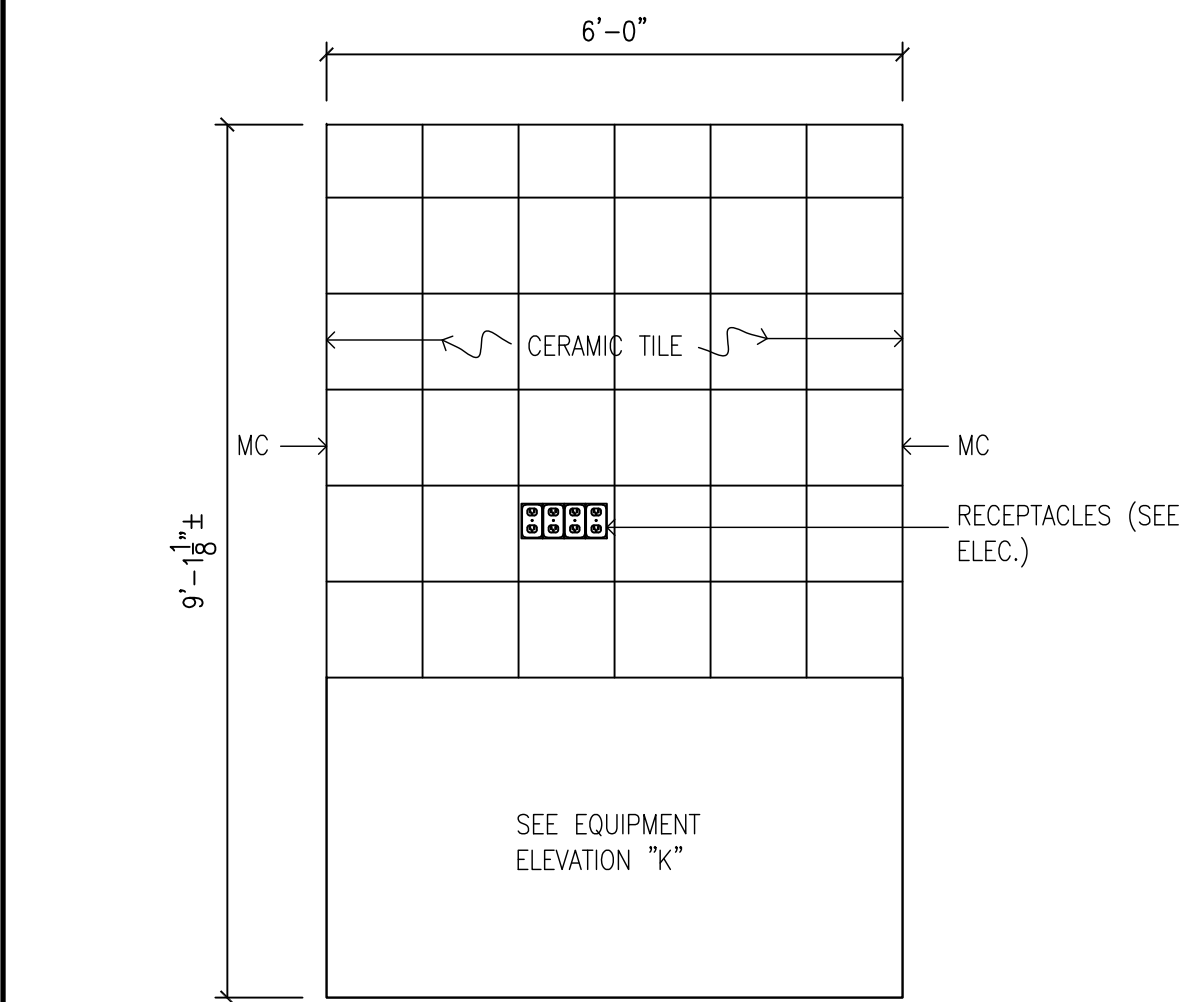
1042A SERVERY ELEVATION "A"

1042A SERVERY ELEVATION "B"

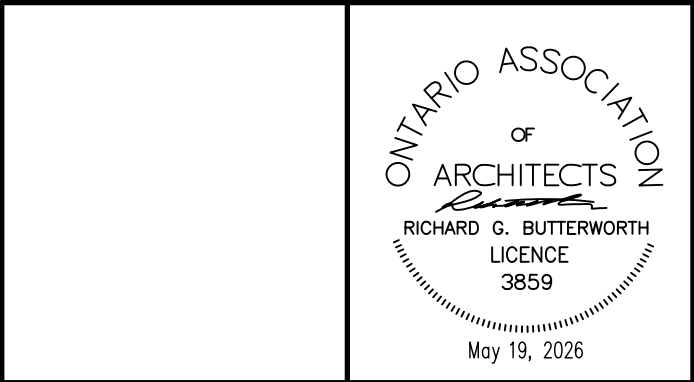


1042A SERVERY ELEVATION "C"

1042A SERVERY ELEVATION "D"



1042 EXISTING CAFETERIA ELEVATION "A"



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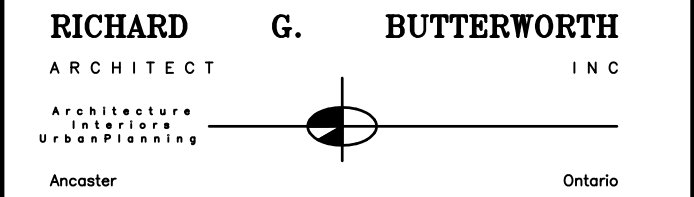
Richard G. Butterworth, Architect

HWDSB

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REF:	DATE	DESCRIPTION	CH'D.

REVISIONS:

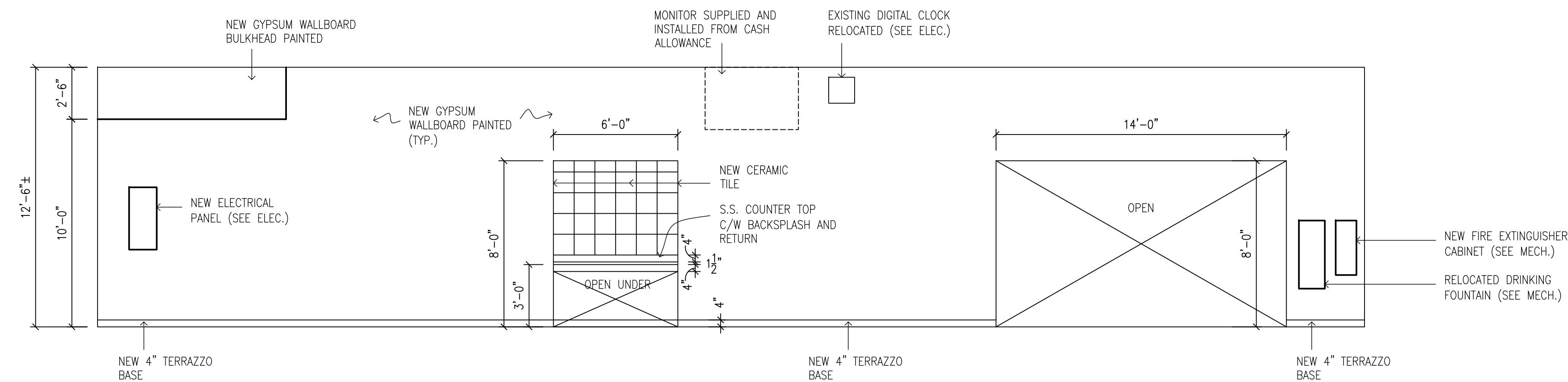
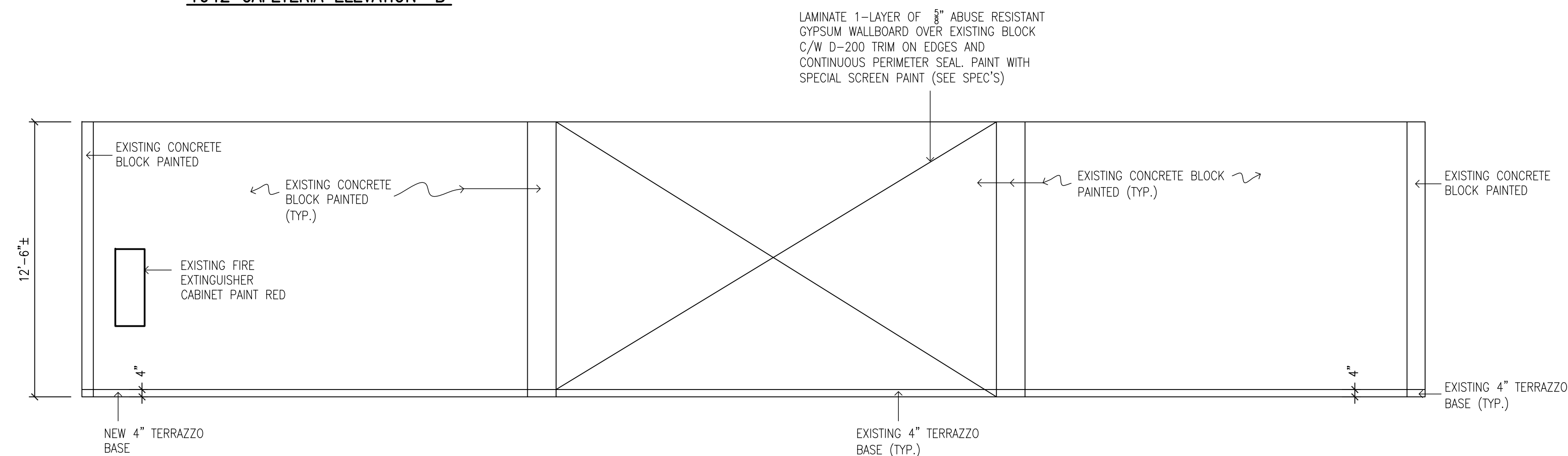
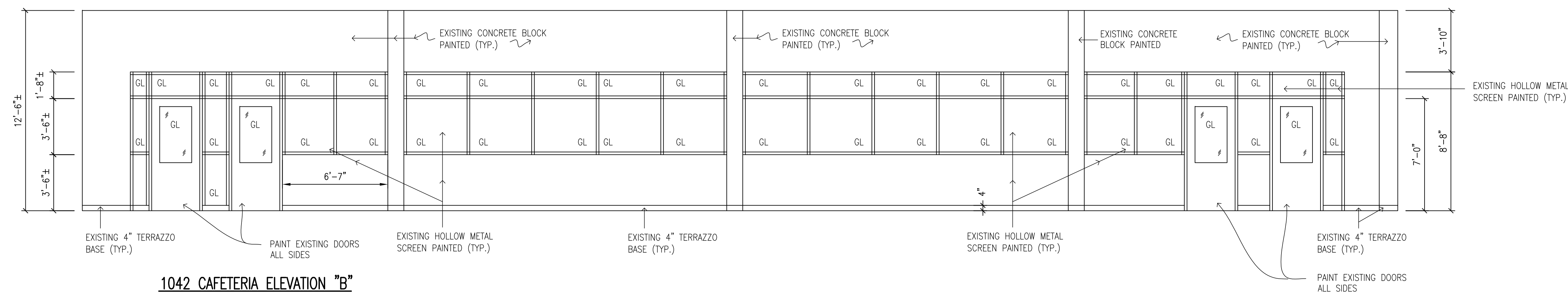
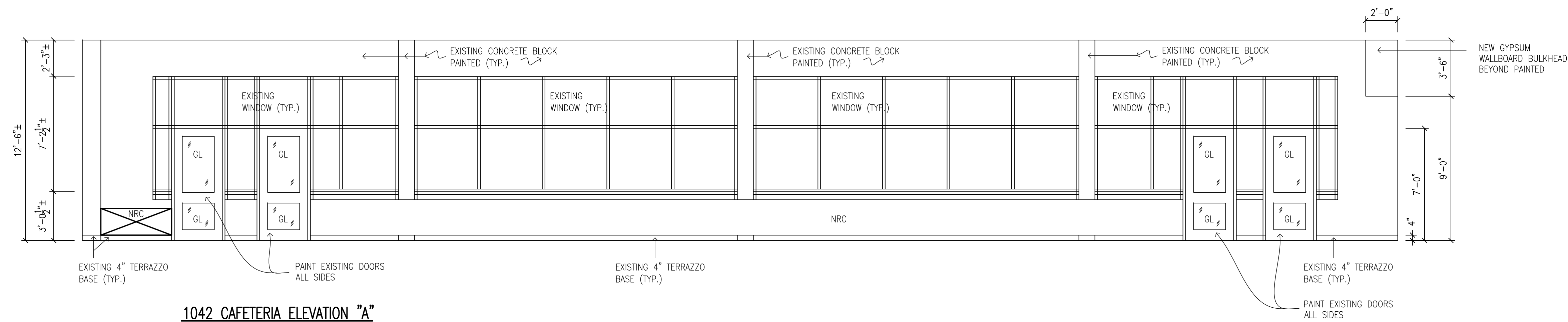
ISSUED:

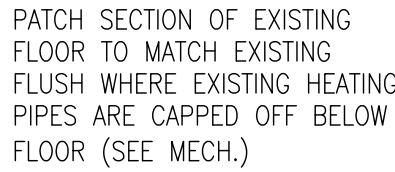


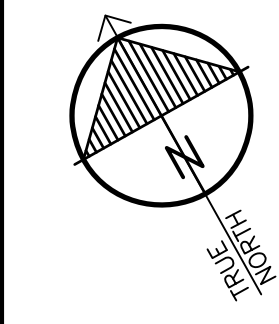
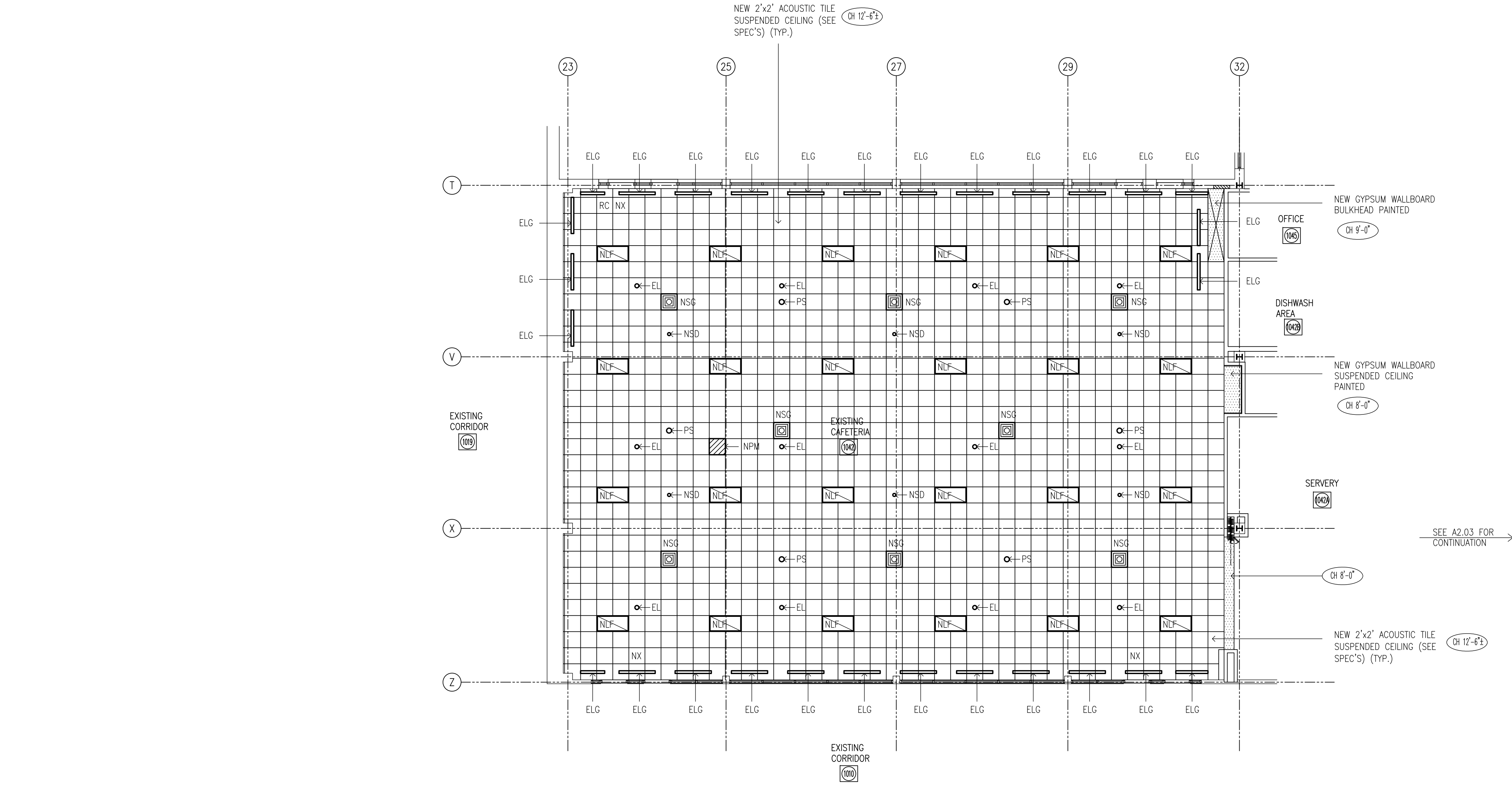
PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO

ROOM ELEVATIONS

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MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
AS SHOWN	A2.07







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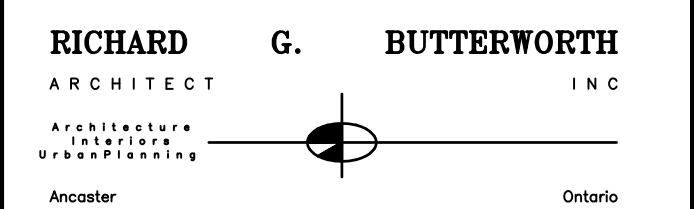
- PROPOSED LEGEND**
- SD - NEW SMOKE DETECTOR (SEE ELEC.)
 - NLF - NEW 2'x4' LED LIGHT FIXTURE (SEE ELEC.)
 - NRG - NEW RETURN GRILLE (SEE MECH.)
 - PL - NEW LED POT LIGHT (SEE ELEC.)
 - NSD - NEW SMOKE DETECTOR (SEE ELEC.)
 - RP - RETRACTABLE RECEPTACLES (SEE ELEC.)
 - EL - NEW EMERGENCY LIGHT (SEE ELEC.)
 - OS - NEW OCCUPANCY SENSOR (SEE ELEC. AND MECH.)
 - PS - PUBLIC ADDRESS SPEAKER (SEE ELEC.)
 - HD - NEW HEAT DETECTOR (SEE ELEC.)
 - SL - NEW HORN / STROBE (SEE ELEC.)
 - NCF - NEW CEILING FAN (SEE MECH.)
 - NX - NEW EXIT SIGN (SEE ELEC.)
 - RC - RELOCATED EXISTING SECURITY CAMERA (SEE ELEC.)
 - ELG - NEW LINEAR SUPPLY GRILLE (SEE MECH.)
 - NPM - NEW MOTORIZED PROJECTOR MOUNT (SEE ELEC. AND ALLOWANCE)



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1.	SEP. 26, 2025	PRELIMINARY REVIEW DESIGN	RGB
REF.	DATE	DESCRIPTION	CH'D.

REVISIONS:

ISSUED:



PROPOSED RENOVATION TO ORCHARD PARK SECONDARY HAMILTON - WENTWORTH DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO

**PARTIAL GROUND FLOOR REFLECTED CEILING PLAN
PROPOSED CAFETERIA**

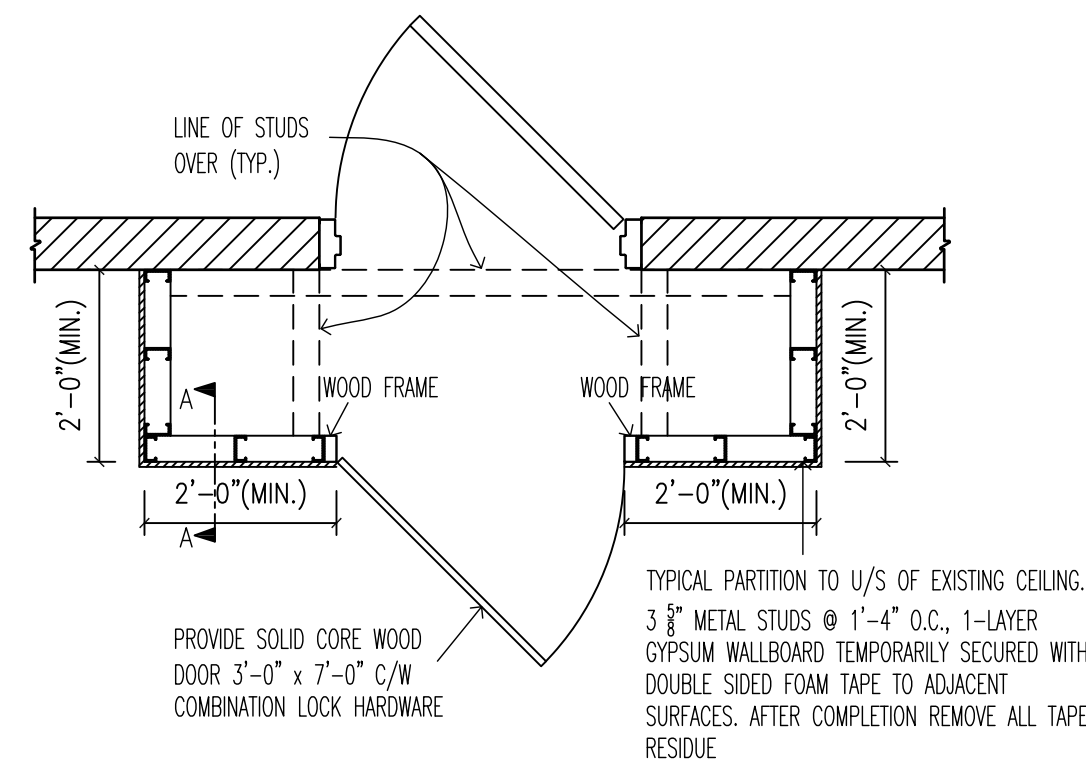
DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
1/8"=1'-0"	A2.10

ROOM FINISH SCHEDULE										
No.	ROOM NAME	FLOOR FINISH	BASE	WALLS				CEILING		REMARKS
				NORTH	EAST	SOUTH	WEST	FINISH	HEIGHT	
1042	EXISTING CAFETERA	PATCH EXISTING TERRAZZO TO MATCH	PATCH EXISTING BASE TO MATCH / 4" PRECAST TERRAZZO BASE TO MATCH / EXISTING BLOCK PATCH AND PAINTED	PATCH EXISTING BASE TO MATCH / 4" PRECAST TERRAZZO BASE TO MATCH / EXISTING BLOCK PATCH AND PAINTED	EXISTING BLOCK PATCH AND PAINTED	CERAMIC TILE / GYPSUM WALLBOARD PAINTED	EXISTING BLOCK PATCH AND PAINTED	ACOUSTIC TILE / GYPSUM WALLBOARD PAINTED	12'-6" ±	EXISTING TERRAZZO AND BASE TO BE REFINISHED COMPLETE. (SEE PLAN NOTES)
1042A	SERVERY	EPOXY	4" EPOXY	CERAMIC TILE / GYPSUM WALLBOARD PAINTED	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE / GYPSUM WALLBOARD PAINTED	ACOUSTIC TILE / GYPSUM WALLBOARD PAINTED	8'-0" - 9'-0"	
1042B	DISHWASHER AREA	EPOXY	4" EPOXY	FIBERGLASS REINFORCED PANELS				ACOUSTIC TILE	9'-0"	
1043	EXISTING CORRIDOR	PATCH EXISTING TERRAZZO TO MATCH	PATCH EXISTING BASE TO MATCH / 4" PRECAST TERRAZZO BASE TO MATCH / EXISTING BLOCK PATCH AND PAINTED	EXISTING BLOCK PATCH AND PAINTED	-	-	-	-	-	
1044	CORRIDOR	EPOXY	4" EPOXY	FIBERGLASS REINFORCED PANELS				ACOUSTIC TILE	9'-0"	
1044A	TEACHING KITCHEN			FIBERGLASS REINFORCED PANELS			S.S. PANELS / FIBERGLASS REINFORCED PANELS	ACOUSTIC TILE	9'-0"	
1044B	STORAGE			FIBERGLASS REINFORCED PANELS			FIBERGLASS REINFORCED PANELS		8'-0"	
1045	OFFICE			GYPSUM WALLBOARD PAINTED					8'-0"	
-	WALK-IN COOLER / FREEZER	-	-	GYPSUM WALLBOARD PAINTED	GYPSUM WALLBOARD PAINTED	-	GYPSUM WALLBOARD PAINTED	-	-	

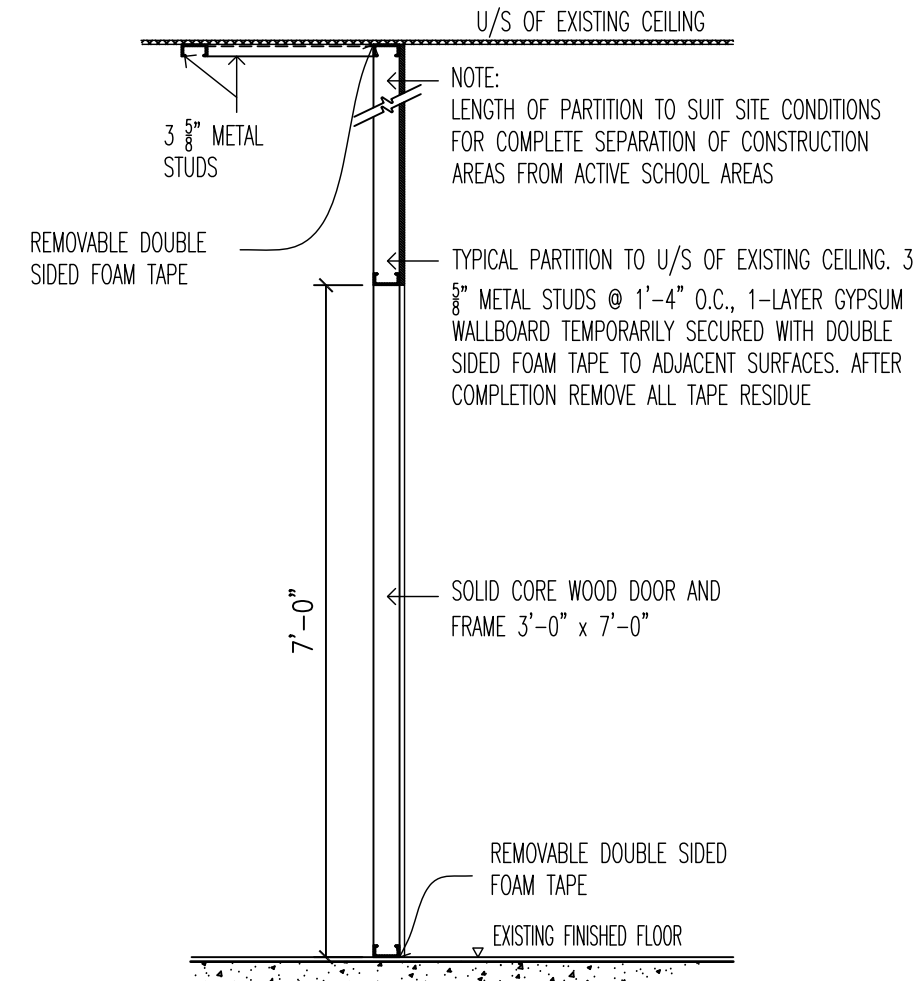
NOTES:

1. WHERE ALL EXISTING ELEMENTS TO BE REMOVED. PATCH ALL ADJACENT SURFACES FLUSH TO MATCH EXISTING.
2. EXISTING FLOORING AND BASE TO BE REMOVED. PATCH AND LEVEL CONCRETE SUB-FLOORING WHERE REQUIRED AND CLEAN BEFORE APPLYING NEW FLOORING AND BASE.
3. WHERE NEW FLOORING & BASE TO BE INSTALLED, REMOVE ALL EXISTING FINISHED FLOOR & BASE MATERIALS PATCH & LEVEL EXISTING SUB FLOOR, PROVIDE NEW TRANSITION THRESHOLDS TO EXISTING FLOORING.
4. PAINT ALL EXISTING OR NEW MECHANICAL AND ELECTRICAL ITEMS ON WALLS AND CEILINGS, BOXES, CONDUITS ETC. INCLUDING ALL PREVIOUSLY PAINTED ITEMS.
5. PATCH ALL HOLES IN WALLS FLUSH TO MATCH EXISTING.
6. SCAN ALL FLOORS FOR UNDERGROUND SERVICES BEFORE CUTTING FOR NEW SERVICES.
7. REMOVE ALL EXISTING FLOORING AND BASE WHERE NEW FLOORING AND BASE IS TO BE INSTALLED (ALSO REFER TO ABATEMENT SPEC'S).
8. GENERAL CONTRACTOR TO SITE VERIFY ALL DIMENSIONS.
9. ALL WALLS TO HAVE 2--FINISHED COATS AND 1--COAT COLOUR BLOCK PRIMER.
10. ON EXISTING SURFACES USE SPECIAL PRIMER FOR EXISTING OIL BASED PAINT TO NEW PAINTED SURFACES.
11. ALL EXISTING WALL GRAPHICS, LETTERING OR LOGOS TO BE PAINTED OVER USE COLOUR BLOCKING PRIMER.
12. IN ALL AREAS OF WORK PATCH AND REFINISH EXISTING TERRAZZO FLOORS AND BASE (TYP.) UNLESS NOTED AS NEW TERRAZZO.
13. PATCH EXISTING BLOCK WALLS FLUSH TO MATCH EXISTING WHERE EXISTING PLUMBING FIXTURES ARE REMOVED AND NEW FIXTURES ARE INSTALLED (TYP.).
14. DO NOT PAINT ANY RED FIRE EXTINGUISHER CABINETS OR GRILLES.
15. REMOVAL OF ALL EXISTING LOOSE PLASTER, ANY EXISTING ELECTRICAL AND MECHANICAL ITEMS, DRILLING OF EXISTING PLASTER FOR ALL NEW ANCHOR POINTS FOR ALL NEW ELECTRICAL, MECHANICAL ABATEMENT CONTRACTOR.
16. WHERE EXISTING ITEMS, FIXTURES, GRILLES, ETC. ARE REMOVED PATCH ALL SURFACES FLUSH TO MATCH EXISTING.
17. PROVIDE AND INSTALL Solid WOOD BLOCKING AT ALL NEW EQUIPMENT LOCATIONS AND TV MONITORS.

DOOR										FRAME					THRES.	REMARKS
No.	QUANTITY	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	GLASS	LABEL	TYPE	MATERIAL	FINISH	GLASS	LABEL		
D1	1	3'-0"	7'-0"	1 3/4"	A	HM	PAINTED	—	—	1	HM	PAINTED	—	—		
D2	1	3'-6"			B			—	FIRE RATED	1			—	1 HR		
D3	1	3'-0"			A			—	—	1			—	—		
D4	1	3'-0"			A			—	—	1			—	—		
D5	1	3'-0"	↓		B	↓		—	FIRE RATED	1	↓		—	1 HR		
D6	1	10"	8'-0"	↓	C	SOLID CORE WOOD	↓	—	—	2	WOOD	↓	—	—		

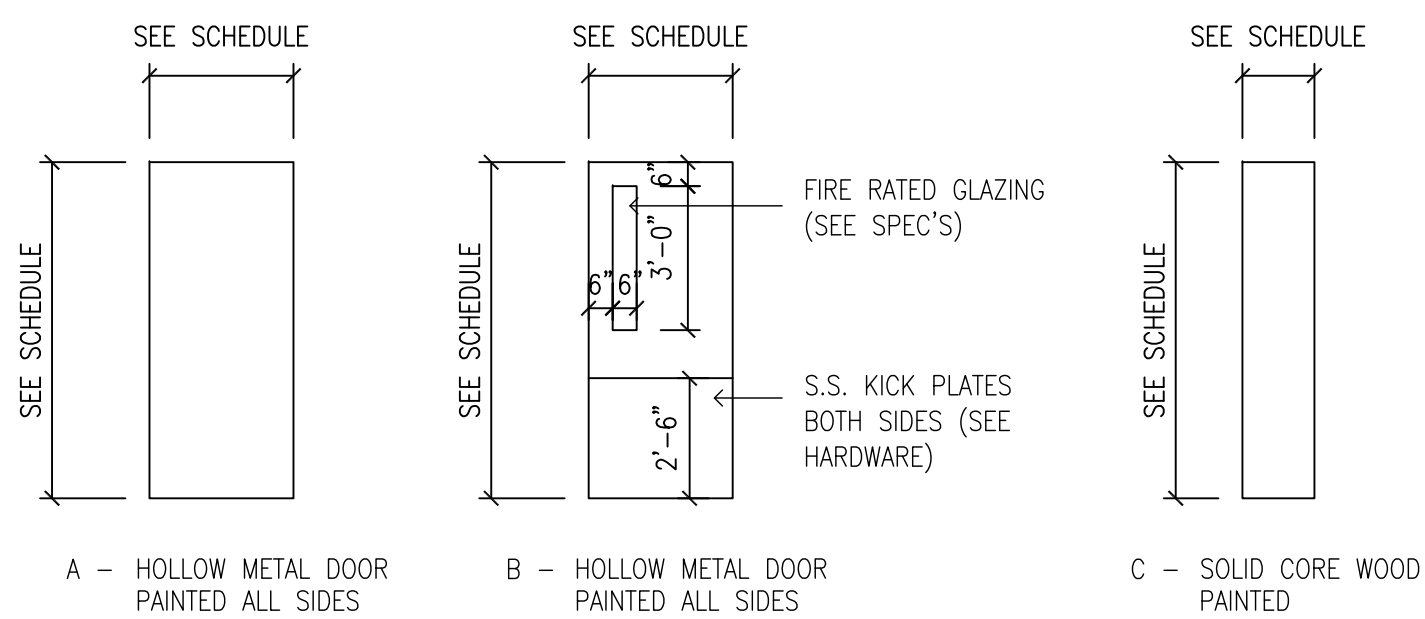


PLAN

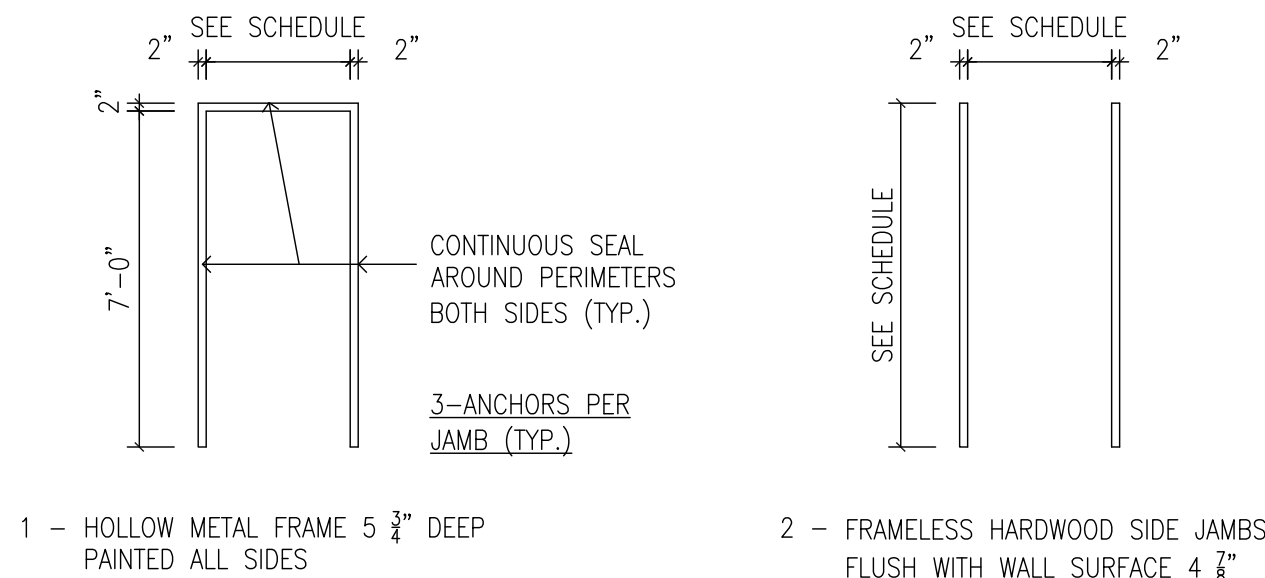


SECTION A-A

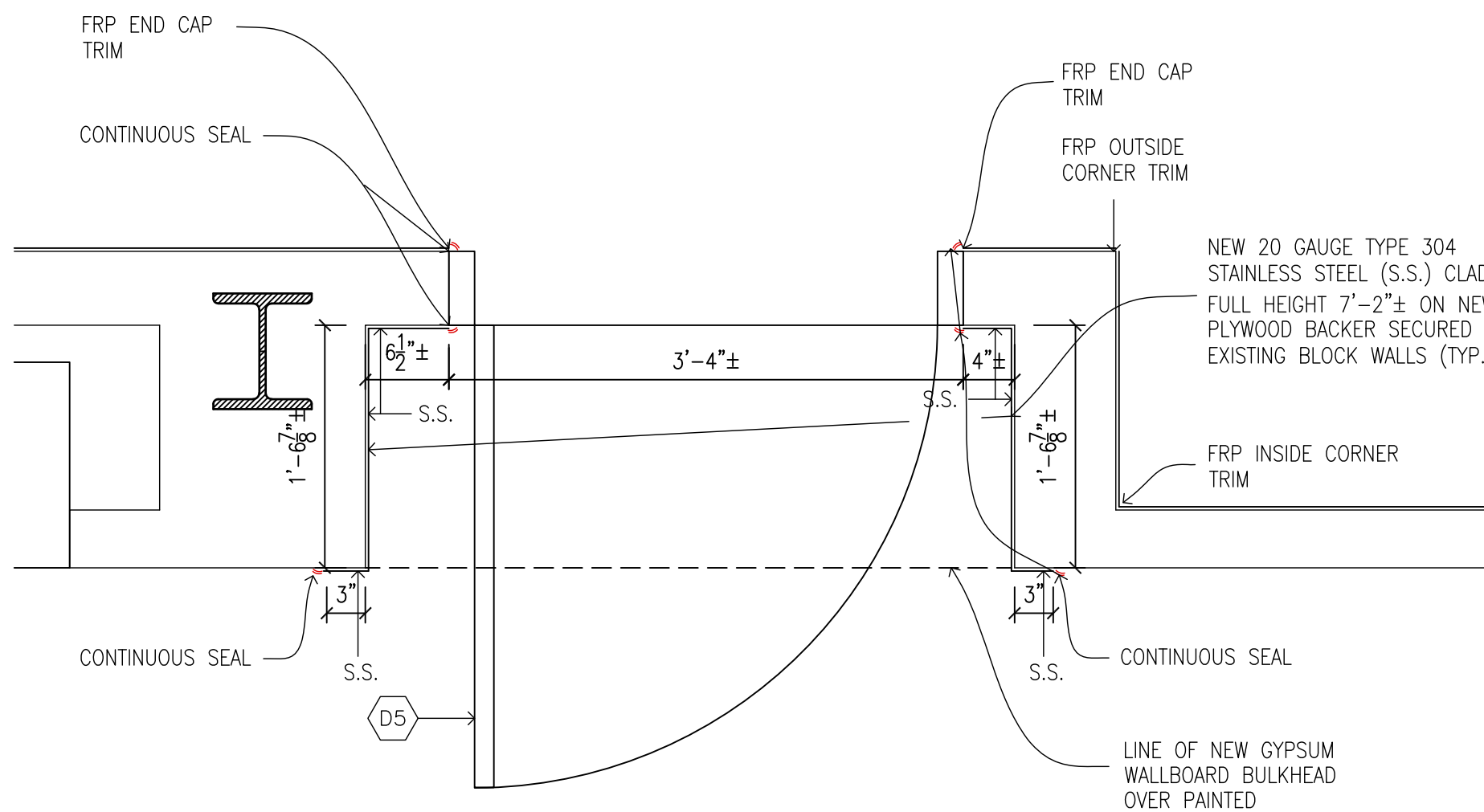
2 ROOM AND DOOR FINISH SCHEDULE



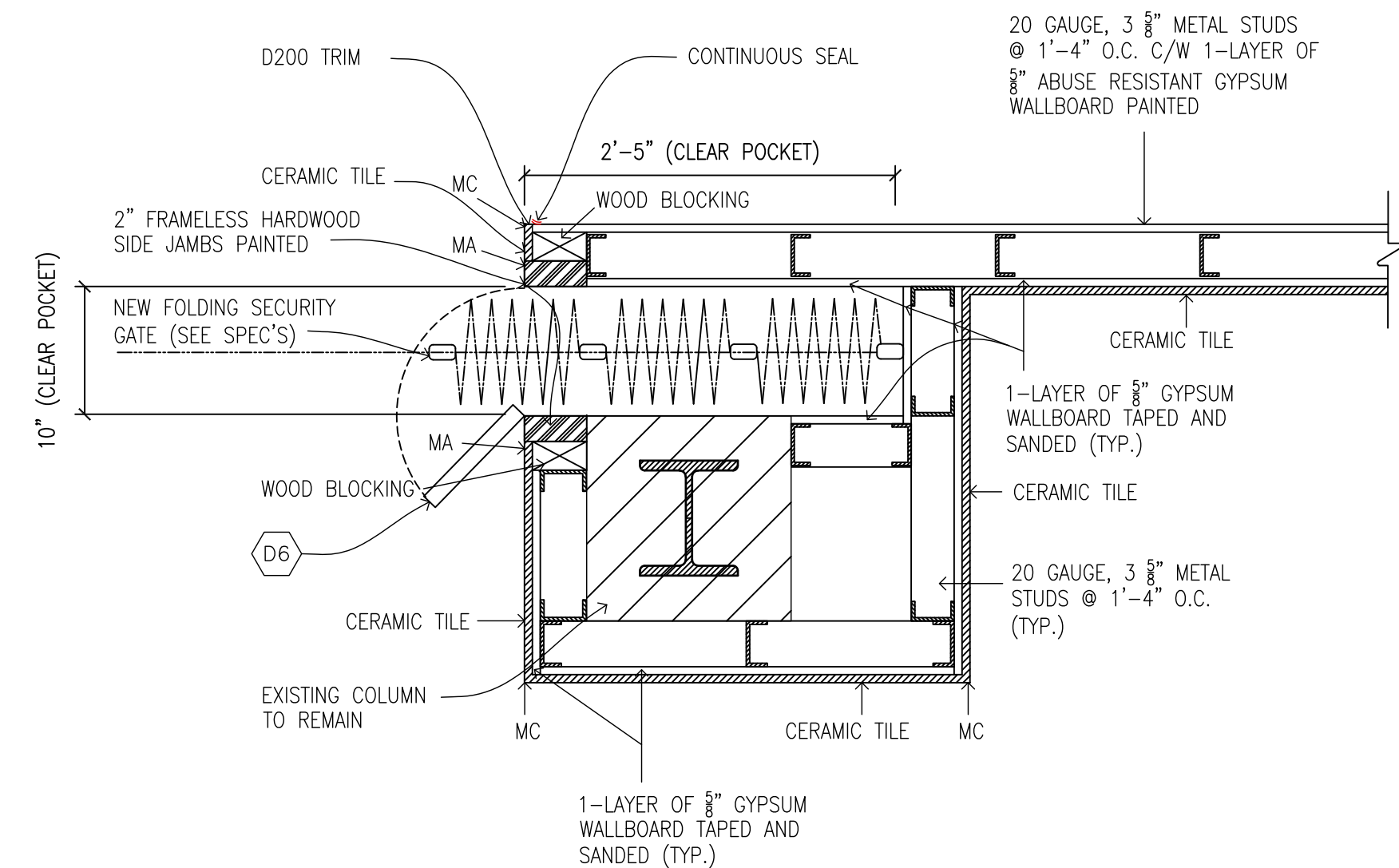
DOOR TYPES

FRAME TYPE

1 ROOM AND DOOR FRAME DETAILS
A3.01 N.T.S.



4 DETAIL
A4.02 1"=1'-0"



5
A4.02

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This drawing shall not be used for construction purposes unless countersigned by:

Richard G. Butterworth, Architect

7.	MAY 19, 2026	ISSUED FOR TENDER	RGB
6.	APR. 29, 2026	ISSUED FOR PERMIT – CAFETERIA	RGB
5.	MAR. 09, 2026	ISSUED FOR BUILDING PERMIT	RGB
4.	JAN. 30, 2026	ISSUED FOR REVIEW	RGB
3.	NOV. 16, 2025	REVISED PRELIMINARY DESIGN	
2.	OCT. 24, 2025	REVISED PRELIMINARY DESIGN	
1.	SEP. 28, 2025	PRELIMINARY REVIEW DESIGN	RGB
REF.	DATE	DESCRIPTION	CH'D.

REVISIONS:

ISSUED:

RICHARD G. BUTTERWORTH
ARCHITECT INC

Architecture
Interiors
UrbanPlanning



PROPOSED RENOVATION TO
ORCHARD PARK SECONDARY
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO

ROOM FINISH SCHEDULE AND
DOOR / FRAME DETAILS

DRAWN BY:	CHECKED BY:
MS	RGB
DATE:	JOB No.:
MAY 2026	25-103
SCALE:	SHEET No.:
AS SHOWN	A3.01

DIATOME 1-1

PROPOSED EQUIPMENT SCHEDULE																											
						ELECTRICAL									PLUMBING												
ItemNo	Quantity	Unit	Category	Manufacturers	Model	StockModel	Voltage	Phase	Amps	Cycle	Hp	Kw	ConnectionType	NEMA	ConnectionHeight	Cold Water (in)	Height(in)	Hot Water (in)	Connection Height(in)	Indirect Waste Size	Direct Waste Size	Height(in)	Gas Size(in)	GasConn.Height(in)	Gas MBTU	Special	Equipment Remarks
1	1	ea	Hot Water Dispenser	BUNN	43600.0002		208	1	19.5	60		4.05				1/4"											
2	3	ea	Refrigerated Merchandiser	True Refrigeration Canada ULC (CAD)	TW-48-HC-VMD1		115	1	10.5	60	1/2		Cord & Plug	5-15P													
3	1	ea	Combi Oven, Gas	RATIONAL Canada	ICP 6-FULL NG 208/240V 1 PH (LM100CC)		208/240	1		60		.9	Cord only			3/4"				2"					106.5		
4	1	ea	Reach-In Refrigerator	True Refrigeration Canada ULC (CAD)	STR2R-2S-HC		115	1	5.9	60	1/2		Cord & Plug	5-15P		1/4"											
5	2	ea	Pot Filler	T&S Brass	B-1146-04																						
6	1	ea	Work Table, with Integrated Prep Sink(s)	John Boos	EP16R5-3072SSK-R-X											1/2"		1/2"									
7	1	ea	Planetary Mixer	Hobart Canada	HL200C-1STD		100-120	1			1/2		Cord & Plug														
8	1	ea	Pizza Preparation Refrigerator	True Refrigeration Canada ULC (CAD)	TPP-AT-44-HC		115	1	3.9	60	1/4		Cord & Plug	5-15P													
9	4	ea	Microwave	AMANA	RMS10TSA		120	1	13	60		1.5	Cord & Plug	5-15P													
10	1	ea	Planetary Mixer	Hobart Canada	HL400		230	1	15	60	1 1/2		Cord & Plug	6-15P									1-1/4"				
11	3	ea	Hand Sink	Custom												1/2"		1/2"									
12			Not in Use																								
13	2	ea	Bun / Sheet Pan Rack	Winholt	AL-2620B																						
14	2	ea	Proofer/Holding Cabinet	Metro	C539-HDC-4				16.7000				Cord & Plug	5 -20P									3/4"		81.0		
15	1	ea	Eye Wash Station	T&S Brass	EW-7656WC											1/2"				2"	2"						
16	2	ea	Undercounter Refrigerator	True Refrigeration Canada ULC (CAD)	TUC-60-HC		115	1	4	60	1/4		Cord & Plug	5-15P													
17	1	ea	Work Table, 96", Stainless Steel Top	Custom																							
18	1	ea	Pre-Rinse Faucet Assembly	T&S Brass	B-0133-CR,B-0109-01											1/2"		1/2"									
19	1	ea	Security Unit	Metro	SEC560C																						
20	3	ea	Ingredient Bin	Cambro	IBS27148																						
21	1	ea	Double Bar Pot Rack 120" x 12"	Custom																							
22	1	ea	Dishwasher, Door Type	Hobart Canada	AM16VL-BAS-2		208-240	3	53.5000	60																	
23	2	ea	Soup Kettle	Hatco Canada	SWB-70T-QS		120	1	3.5	60			cord & plug	NEMA 5-15P													
24	1	ea	Mop Sink	Custom																							
25	1	ea	Soiled Dishtable	Custom																							
26	1	ea	Coffee Brewer	BUNN	53400.0101		120/240	1	25	60		6	Cord Only			3/8"											
27	3	ea	Wall / Splash Mount Faucet	T&S	B-1146-04											1/2"		1/2"							1.7		
28	2	ea	Display Merchandiser, Heated, For Multi-Product	Hatco Canada	HXMS-36D		120/208-240	1	9.2	60		2.2	Cord & Plug	L14-20P													
29	1	ea	Conveyor Toaster	Hatco Canada	TQ3900240B620																						
30	4	ea	Wire Shelving	Metro	1872NK3																						
31	1	ea	Wire Shelving	Metro	1842NK3																						
32	4	ea	Wire Shelving	Metro	2448NK3																						
33	1	ea	Wire Shelving	Metro	2442NK3																						
34	2	ea	Wire Shelving	Metro	2436NK3																						
35	11	ea	Work Table, 72", Stainless Steel Top	Custom																							
36	10	ea	Work Table Drawer	Custom																							
37	1	ea	Laundry Sink	Custom																							
38	1	ea	Reach-In Freezer	True Refrigeration Canada ULC (CAD)	T-23F-HC		115	1	3.7	60	1/2		Cord & Plug	5-15P													
39	1	ea	Service Faucet	T&S	B-1146-04											1/2"		1/2"									
40	2	ea	Splash Mount Faucet, 8" Center, 12" Spout	T&S	B-0231-CC											1/2"		1/2"									
41	1	ea	Microwave Oven	ACP, Inc. Canada	RCS100SE		120	1	13	60		1.55	Cord & Plug	5-15P													
42	1	ea	Work Table, Cabinet Base Hinged Doors	Custom																							
43	2	ea	Open Display Merchandiser	Turbo Air Canada	TOM-60L-UPD-W(B)-3S-N		115	1	15	60	3/4x2		Cord & Plug	5-20P													
44	1	ea	Display Merchandiser, Heated, For Multi-Product	Hatco Canada	HXMS-48D		120/208-240	1	12.1	60		2.9	Cord & Plug	L14-20P													
45	1	ea	Work Table, Cabinet Base Hinged Doors	Custom																							
46	1	ea	Wire Shelving	Metro	1460BR																						
47	1	ea	Work Table, Cabinet Base Hinged Doors	Custom																							
48	2	ea	Range, 24", 4 Open Burners	Garland Canada	GFE24-4L																		3/4"		164.0		
49	1	ea	Griddle, Gas, Countertop	Garland Canada	GTGG36-GT36M																		3/4"		81.0		
50	1	ea	Gas Floor Fryer	Garland Canada	MJ140																		3/4"		110.0		
51	5	ea	Recycling Receptacle / Container, Plastic	Winco	PTC-23GRC																						
52	1	ea	Condiment Dispenser	Server Products	07140																						
53	1	ea	Display Case, Non-Refrigerated Countertop	Structural Concepts	CSC3223		110-120	1	.7	60				5-15P													
54	3	ea	Cart, Utility/Bussing	Cambro	BC331KD110																						
55	2	ea	Deck Mount Faucet	T&S	5F-80WX10											1/2"		1/2"									
56	1	ea	Food Processor, Benchtop / Countertop	Robot Coupe Canada	R301U		120	1	9	60	1-1/2		Cord & Plug	5-15P													
57	1	ea	Counter Freezer	Beverage Air	CF3HC-1-W		115	1	4	60	1/4		Cord & Plug	5-15P													

CODES AND STANDARDS

- CONTRACT DOCUMENTS

- ## MATERIALS AND EQUIPMENT

- ## LOCATION OF OUTLETS

- ## WORK IN RENOVATED AREAS

- ## WIRING FOR OTHER TRADES

- FIRE SEAL

- ### EMERGENCY LIGHTING AND TESTING NOTE

- ## ALTERATIONS AND RELOCATIONS

- AS-BUILT DRAWINGS

- ## GENERAL ELECTRICAL SPECIFICATIONS

- PUBLIC ADDRESS SYSTEM

- ## COMPLETION OF CONTRACT

- ## OCCUPANCY SENSORS

- ## WORKING HOURS AND SYSTEMS OPERATING NOTES

- ELECTRICAL COORDINATION STUDY

- ## GENERAL ELECTRICAL DEMOLITION NOTES

- ## FIRE ALARM SPECIFICATIONS AND NOTES

- ## ELECTRICAL MATERIAL – GENERAL REQUIREMENTS

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PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED "ISSUED FOR CONSTRUCTION" AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES
AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

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HWDSB

8.		
7.		
6.		
5.		
4.	TENDER	25 MAY 2026
3.	REVISION – CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

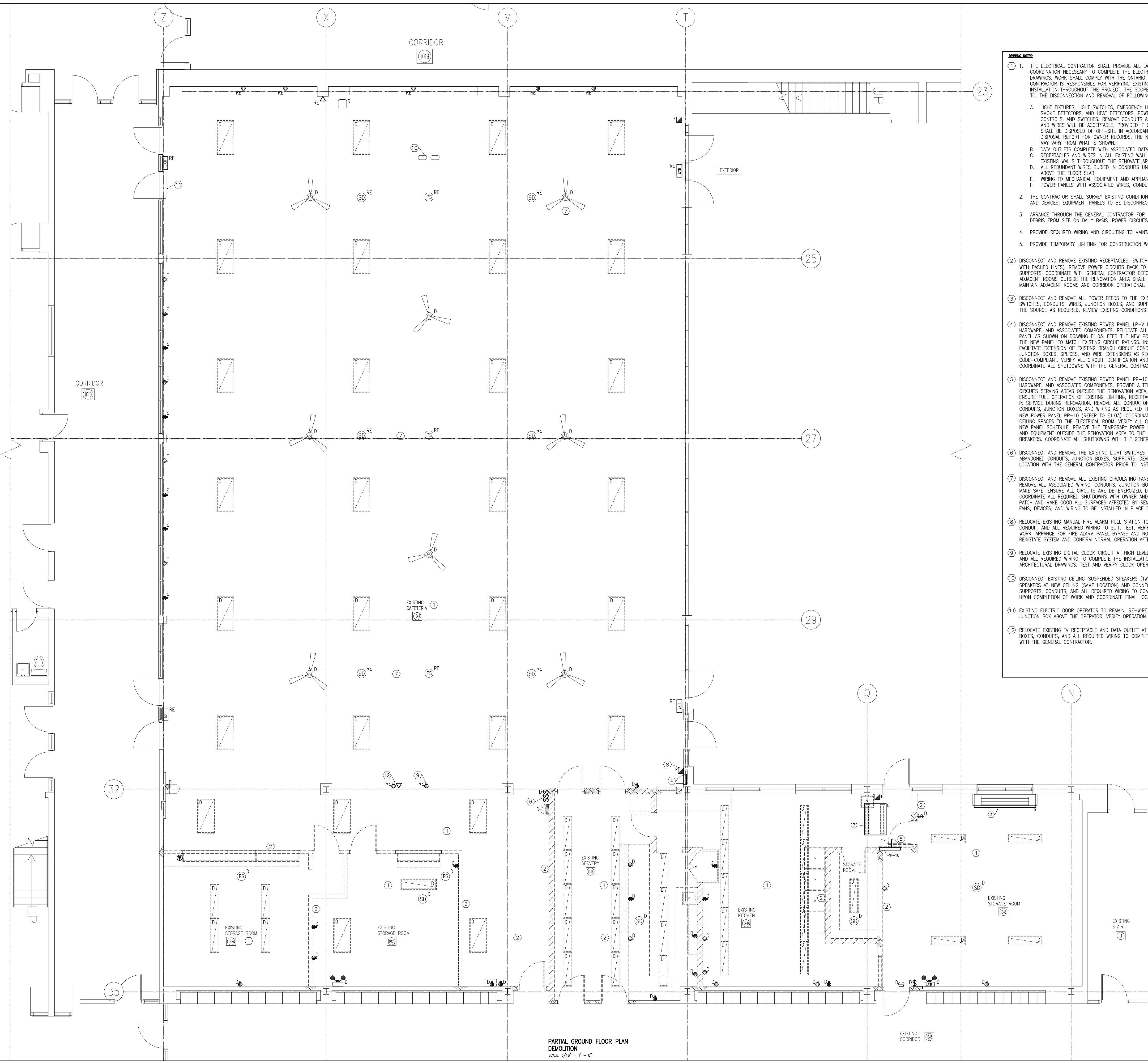
SHELLARD  **BUILDING
SYSTEMS LTD.**

1684 SHELLARD SIDE ROAD
CAMBRIDGE, ONTARIO
N1R 5S7

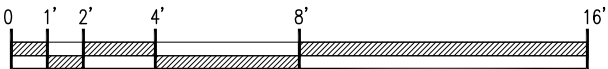
shellard@consultant.com
226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO L8E 4M5

DRAWN NAME:	
NOTES AND SPECIFICATIONS	
ELECTRICAL	
DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
NOT TO SCALE	E0.01

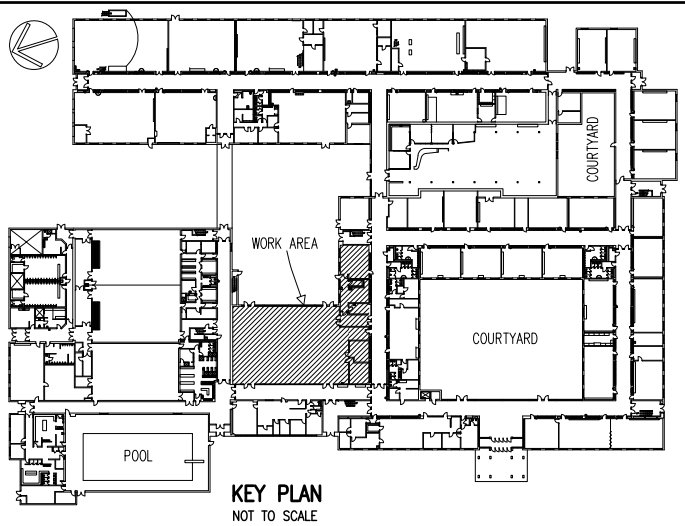


PARTIAL GROUND FLOOR PLAN
DEMOLITION
SCALE: 3/16" = 1' - 0"



DEMOLITION NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIALS, EQUIPMENT, PERMITS, INSPECTIONS, AND COORDINATION NECESSARY TO COMPLETE THE ELECTRICAL DEMOLITION WORK INDICATED AND DESCRIBED ON THE DRAWINGS. WORK SHALL COMPLY WITH THE ONTARIO ELECTRICAL SAFETY CODE AND ELECTRICAL SAFETY AUTHORITY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS, REPORTING DISCREPANCIES, AND ENSURING SAFE INSTALLATION THROUGHOUT THE PROJECT. THE SCOPE OF ELECTRICAL DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO, THE DISCONNECTION AND REMOVAL OF FOLLOWING:
 - A. LIGHT FIXTURES, LIGHT SWITCHES, EMERGENCY LIGHTING, EXIT LIGHTS, HAND DRYERS, CIRCUIT BREAKERS, SPEAKERS, SMOKE DETECTORS, AND HEAT DETECTORS, POWER PANELS, COMPLETE WITH ASSOCIATED WIRING, CONDUITS, CONTROLS, AND SWITCHES. REMOVE CONDUITS AND WIRES BACK TO THE SOURCE. RE-USE OF EXISTING CIRCUITS AND WIRES WILL BE ACCEPTABLE, PROVIDED IT COMPLES WITH ESA STANDARDS. REMOVED LIGHTS AND BALLASTS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL STANDARDS. PROVIDE A DISPOSAL REPORT FOR OWNER RECORDS. THE NUMBER OF EXISTING LIGHT FIXTURES, RECEPTACLES AND SWITCHES MAY VARY FROM WHAT IS SHOWN.
 - B. DATA OUTLETS COMPLETE WITH ASSOCIATED DATA WIRES (DISCONNECTION IN IT ROOM BY SCHOOL BOARD).
 - C. RECEPTACLES AND WIRES IN ALL EXISTING WALL PARTITIONS MARKED FOR DEMOLITION AND RECEPTACLES IN EXISTING WALLS THROUGHOUT THE RENOVATE AREA.
 - D. ALL REDUNDANT WIRES BURIED IN CONDUITS UNDER THE FLOOR SLAB. REMOVE JUNCTION BOXES AND RECEPTACLE ABOVE THE FLOOR SLAB.
 - E. WIRING TO MECHANICAL EQUIPMENT AND APPLANCES NOTED TO BE DEMOLISHED.
 - F. POWER PANELS WITH ASSOCIATED WIRES, CONDUITS AND JUNCTION BOXES AS SHOWN AND NOTED.
2. THE CONTRACTOR SHALL SURVEY EXISTING CONDITIONS TO ACCOUNT FOR ALL EXISTING LIGHT FIXTURES, RECEPTACLES AND DEVICES. EQUIPMENT PANELS TO BE DISCONNECTED AND REMOVED BEFORE PRICING AND COMMENCING WORK.
3. ARRANGE THROUGH THE GENERAL CONTRACTOR FOR FIRE ALARM BY-PASS AND FIRE WATCH. REMOVE CONSTRUCTION DEBRIS FROM SITE ON DAILY BASIS. POWER CIRCUITS THAT ARE FEEDING ADJACENT ROOMS SHALL REMAIN ACTIVE.
4. PROVIDE REQUIRED WIRING AND CIRCUITING TO MAINTAIN ADJACENT ROOMS AND CORRIDOR OPERATIONAL.
5. PROVIDE TEMPORARY LIGHTING FOR CONSTRUCTION WORK. COORDINATE WITH THE GENERAL CONTRACTOR.
6. DISCONNECT AND REMOVE EXISTING RECEPTACLES, SWITCHES, AND DEVICES FROM WALLS NOTED TO BE DEMOLISHED (SHOWN WITH DASHED LINES). REMOVE POWER CIRCUITS BACK TO THE SOURCE, INCLUDING WIRES, CONDUITS, JUNCTION BOXES, AND SUPPORTS. COORDINATE WITH GENERAL CONTRACTOR BEFORE COMMENCING WORK. EXISTING POWER CIRCUITS THAT ARE FEEDING ADJACENT ROOMS OUTSIDE THE RENOVATION AREA SHALL REMAIN ACTIVE. PROVIDE REQUIRED WIRING AND CIRCUITING TO MAINTAIN ADJACENT ROOMS AND CORRIDOR OPERATIONAL.
7. DISCONNECT AND REMOVE ALL POWER FEEDS TO THE EXISTING MECHANICAL UNIT, INCLUDING ASSOCIATED DISCONNECT SWITCHES, CONDUITS, WIRES, JUNCTION BOXES, AND SUPPORTS. REMOVE ALL POWER CIRCUITS SERVING THE UNIT BACK TO THE SOURCE AS REQUIRED. REVIEW EXISTING CONDITIONS BEFORE COMMENCING WORK.
8. DISCONNECT AND REMOVE EXISTING POWER PANEL LP-V IN ITS ENTIRETY, INCLUDING ALL FEEDERS, BRANCH CONDUCTORS, HARDWARE, AND ASSOCIATED COMPONENTS. RELOCATE ALL EXISTING CIRCUITS FED FROM PANEL LP-V TO THE NEW POWER PANEL AS SHOWN ON DRAWING E1.03. FEED THE NEW POWER PANEL FROM NEW PANEL PP-10. PROVIDE NEW BREAKERS IN THE NEW PANEL TO MATCH EXISTING CIRCUIT RATINGS. INSTALL JUNCTION BOXES IN THE CEILING SPACE AS REQUIRED TO FACILITATE EXTENSION OF EXISTING BRANCH CIRCUIT CONDUCTORS TO THE NEW PANEL LOCATION. PROVIDE NEW CONDUITS, JUNCTION BOXES, SPLICES, AND WIRE EXTENSIONS AS REQUIRED TO ENSURE ALL CIRCUITS ARE CONTINUOUS AND CODE-COMPLIANT. VERIFY ALL CIRCUIT IDENTIFICATION AND LABEL ALL RELOCATED CIRCUITS IN THE NEW PANEL SCHEDULE. COORDINATE ALL SHUTDOWNS WITH THE GENERAL CONTRACTOR.
9. DISCONNECT AND REMOVE EXISTING POWER PANEL PP-10 IN ITS ENTIRETY, INCLUDING ALL FEEDERS, BRANCH CONDUCTORS, HARDWARE, AND ASSOCIATED COMPONENTS. PROVIDE A TEMPORARY PANEL AS REQUIRED TO MAINTAIN CONTINUITY OF ALL LIVE CIRCUITS SERVING AREAS OUTSIDE THE RENOVATION AREA, AND RECONNECT OR EXTEND SUCH CIRCUITS AS REQUIRED TO ENSURE FULL OPERATION OF EXISTING LIGHTING, RECEPTACLES, MECHANICAL EQUIPMENT, AND LIFE SAFETY SYSTEMS REMAINING IN SERVICE DURING RENOVATION. REMOVE ALL CONDUCTORS AND CONDUITS BACK TO THE ELECTRICAL ROOM. PROVIDE NEW CONDUITS, JUNCTION BOXES, AND WIRING AS REQUIRED FROM THE EXISTING SWITCHBOARD IN THE ELECTRICAL ROOM TO THE NEW POWER PANEL PP-10 (REFER TO E1.03). COORDINATE ON SITE ROUTING OF CONDUITS THROUGH EXISTING CORRIDOR/CEILING SPACES TO THE ELECTRICAL ROOM. VERIFY ALL CIRCUIT IDENTIFICATION AND LABEL ALL RELOCATED CIRCUITS IN THE NEW PANEL SCHEDULE. REMOVE THE TEMPORARY POWER PANEL AND EXTEND ALL EXISTING POWER CIRCUITS FEEDING LIGHTING AND EQUIPMENT OUTSIDE THE RENOVATION AREA TO THE NEW POWER PANEL PP-10. PROVIDE ALL REQUIRED CIRCUIT BREAKERS. COORDINATE ALL SHUTDOWNS WITH THE GENERAL CONTRACTOR.
10. DISCONNECT AND REMOVE THE EXISTING LIGHT SWITCHES COMPLETE WITH ASSOCIATED WIRES AND CONDUITS. REMOVE ALL ABANDONED CONDUITS, JUNCTION BOXES, SUPPORTS, DEVICES, AND WIRING. COORDINATE EXACT SWITCH MOUNTING HEIGHT AND LOCATION WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION.
11. DISCONNECT AND REMOVE ALL EXISTING CIRCULATING FANS, SMOKE DETECTORS, SPEAKERS, AND EXIT SIGNS LABELED "RE". REMOVE ALL ASSOCIATED WIRING, CONDUITS, JUNCTION BOXES, MOUNTING HARDWARE, AND ACCESSORIES BACK TO SOURCE AND MAKE SAFE. ENSURE ALL CIRCUITS ARE DE-ENERGIZED, LOCKED OUT, AND TAGGED OUT PRIOR TO COMMENCING WORK. COORDINATE ALL REQUIRED SHUTDOWNS WITH OWNER AND VERIFY ALL EXISTING CONDITIONS ON SITE BEFORE PROCEEDING. PATCH AND MAKE GOOD ALL SURFACES AFFECTED BY REMOVALS. REFER TO ELECTRICAL DRAWINGS E1.02 AND E1.03 FOR NEW FANS, DEVICES, AND WIRING TO BE INSTALLED IN PLACE OF REMOVED EQUIPMENT.
12. RELOCATE EXISTING MANUAL FIRE ALARM PULL STATION TO CLEAR SPACE FOR NEW WALL PARTITION. PROVIDE NEW BACK BOX, CONDUIT, AND ALL REQUIRED WIRING TO SUIT. TEST, VERIFY, AND RESTORE THE FIRE ALARM SYSTEM UPON COMPLETION OF WORK. ARRANGE FOR FIRE ALARM PANEL BYPASS AND NOTIFY THE MONITORING COMPANY PRIOR TO COMMENCING ANY WORK. REINSTATE SYSTEM AND CONFIRM NORMAL OPERATION AFTER.
13. RELOCATE EXISTING DIGITAL CLOCK CIRCUIT AT HIGH LEVEL TO THE NEW WALL PARTITION. PROVIDE NEW BACK BOX, CONDUIT, AND ALL REQUIRED WIRING TO COMPLETE THE INSTALLATION. COORDINATE CLOCK MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS. TEST AND VERIFY CLOCK OPERATION UPON COMPLETION OF WORK.
14. DISCONNECT EXISTING CEILING-SUSPENDED SPEAKERS (TWO UNITS) AND STORE IN A SAFE LOCATION FOR REUSE. REINSTALL SPEAKERS AT NEW CEILING (SAME LOCATION) AND CONNECT TO EXISTING SPEAKER CIRCUITS. PROVIDE NEW BACK BOXES, SUPPORTS, CONDUITS, AND ALL REQUIRED WIRING TO COMPLETE THE INSTALLATION. TEST AND VERIFY SPEAKER OPERATION UPON COMPLETION OF WORK AND COORDINATE FINAL LOCATIONS WITH THE GENERAL CONTRACTOR.
15. EXISTING ELECTRIC DOOR OPERATOR TO REMAIN. RE-WIRE TO NEW POWER PANEL AND PROVIDE NEW CIRCUIT BREAKER TAG AT JUNCTION BOX ABOVE THE OPERATOR. VERIFY OPERATION UPON COMPLETION OF WORK.
16. RELOCATE EXISTING TV RECEPTACLE AND DATA OUTLET AT HIGH LEVEL TO THE NEW WALL PARTITION. PROVIDE NEW BACK BOXES, CONDUITS, AND ALL REQUIRED WIRING TO COMPLETE THE RELOCATION. COORDINATE MOUNTING HEIGHT AND LOCATION WITH THE GENERAL CONTRACTOR.



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HWDSB

8.		
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4.	TENDER	25 MAY 2026
3.	REVISION - CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.

1684 SHELLARD SIDE ROAD
CAMBRIDGE, ONTARIO
N1R 5S7

shellard@consultant.com
226 606 6542

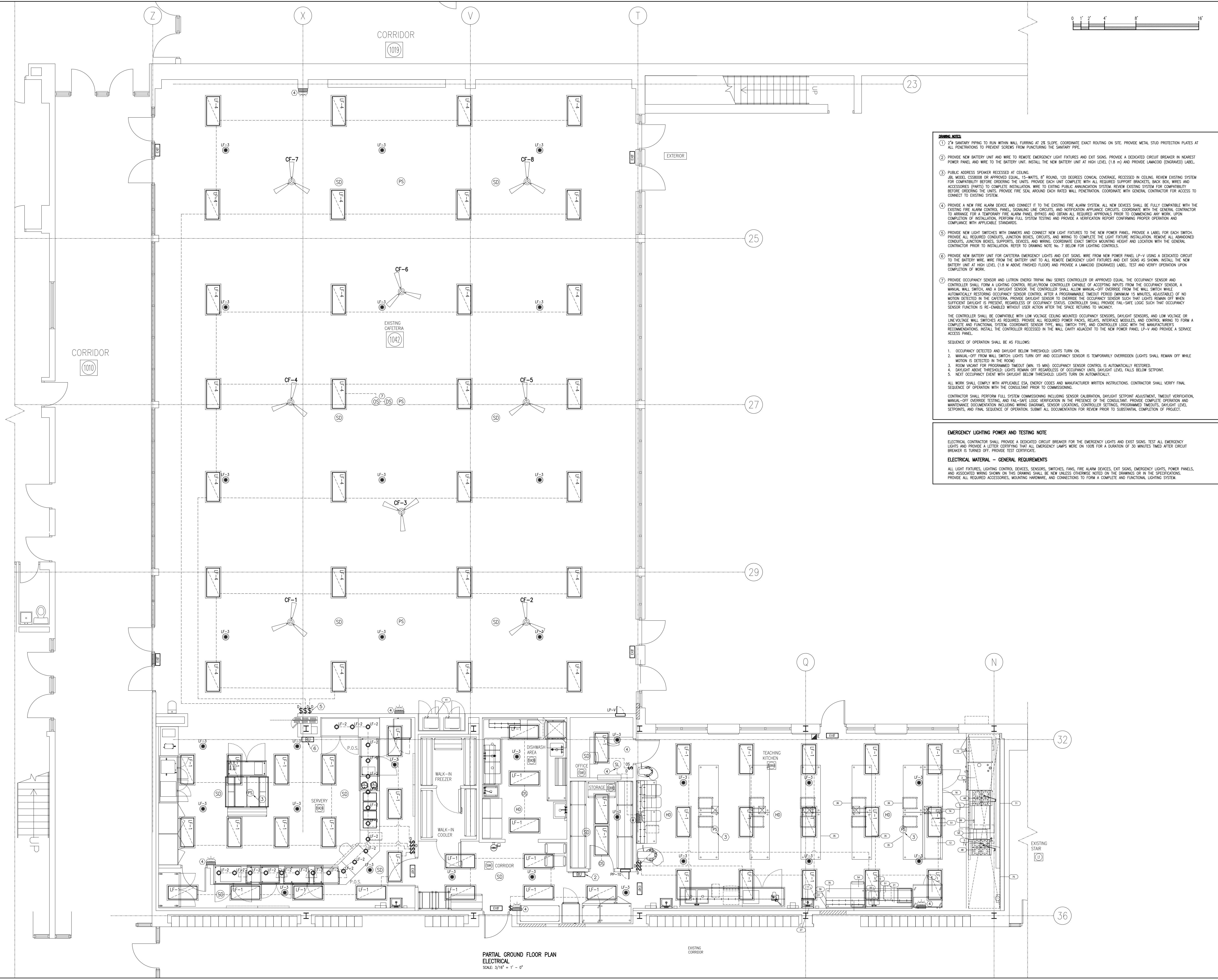
ORCHARD PARK
SECONDARY SCHOOL
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME:
**PARTIAL GROUND FLOOR PLAN
ELECTRICAL - DEMOLITION**

DRAWN BY:	CHECKED BY:
N.P.	N.S.

DATE:	JOB No.:
SEPTEMBER 2025	25-103

SCALE:	SHEET No.:
3 / 16" = 1' - 0"	E1.01



DRAWING NOTES

- 2" sanitary piping to run within wall furring at 2% slope. coordinate exact routing on site. provide metal stud protection plates at all penetrations to prevent screws from puncturing the sanitary pipe.
- provide new battery unit and wire to remote emergency light fixtures and exit signs. provide a dedicated circuit breaker in nearest power panel and wire to the battery unit. install the new battery unit at high level (1.8 m) and provide lamaco (engraved) label.
- public address speaker recessed at ceiling.
air model cessor or approved equal, 15-watts, 8" round, 120 degrees conical coverage. recessed in ceiling. review existing system for compatibility before ordering the units. provide each unit complete with all required support brackets, back box, wires and accessories (parts) to complete installation. wire to existing public announcement system. review existing system for compatibility before ordering the units. provide fire seal around each rated wall penetration. coordinate with general contractor for access to connect to existing system.
- provide a new fire alarm device and connect it to the existing fire alarm system. all new devices shall be fully compatible with the existing fire alarm control panel, signaling line circuits, and notification appliance circuits. coordinate with the general contractor to arrange for a temporary fire alarm panel bypass and obtain all required approvals prior to commencing any work. upon completion of installation, perform full system testing and provide a verification report confirming proper operation and compliance with applicable standards.
- provide new light switches with dimmers and connect new light fixtures to the new power panel. provide a label for each switch. provide all required conduits, junction boxes, circuits, and wiring to complete the light fixture installation. remove all abandoned conduits, junction boxes, supports, devices, and wiring. coordinate exact switch mounting height and location with the general contractor prior to installation. refer to drawing note no. 7 below for lighting controls.
- provide new battery unit for cafeteria emergency lights and exit signs. wire from new power panel LP-V using a dedicated circuit to the battery wire. wire from the battery unit to all remote emergency light fixtures and exit signs as shown. install the new battery unit at high level (1.8 m above finished floor) and provide a lamaco (engraved) label. test and verify operation upon completion of work.
- provide occupancy sensor and lutron energi trimx rai series controller (or approved equal). the occupancy sensor and controller shall form a lighting control relay/room controller capable of accepting inputs from the occupancy sensor, a manual wall switch, and a daylight sensor. the controller shall allow manual-off override from the wall switch while automatically restoring occupancy sensor control after a programmable timeout period (minimum 15 minutes, adjustable) if no motion detected in the cafeteria. provide daylight sensor to override the occupancy sensor such that lights remain off when sufficient daylight is present. regardless of occupancy status, controller shall provide fail-safe logic such that occupancy sensor function is re-enabled without user action after the space returns to vacancy.

the controller shall be compatible with low voltage ceiling mounted occupancy sensors, daylight sensors, and low voltage or line voltage wall switches as required. provide all required power packs, relays, interface modules, and control wiring to form a complete and functional system. coordinate sensor type, wall switch type, and controller logic with the manufacturer's recommendations. install the controller recessed in the wall cavity adjacent to the new power panel LP-V and provide a service access panel.

SEQUENCE OF OPERATION SHALL BE AS FOLLOWS:

- occupancy detected and daylight below threshold: lights turn on.
- manual-off from wall switch: lights turn off and occupancy sensor is temporarily overridden (lights shall remain off while motion is detected in the room).
- room vacant for programmed timeout (min. 15 min): occupancy sensor control is automatically restored.
- daylight above threshold: lights remain off regardless of occupancy until daylight level falls below setpoint.
- next occupancy event with daylight below threshold: lights turn on automatically.

all work shall comply with applicable esa, energy codes and manufacturer written instructions. contractor shall verify final sequence of operation with the consultant prior to commissioning.

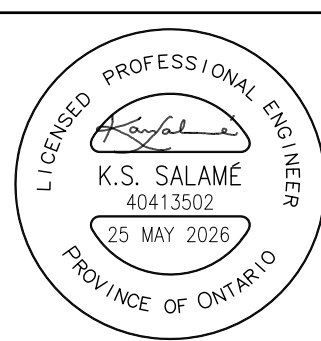
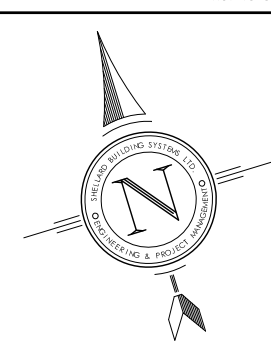
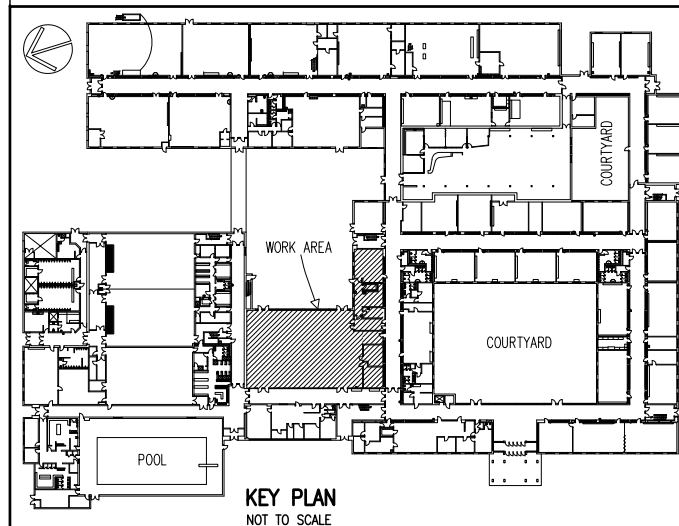
contractor shall perform full system commissioning including sensor calibration, daylight setpoint adjustment, timeout verification, manual-off override testing, and fail-safe logic verification in the presence of the consultant. provide complete operation and maintenance documentation including wiring diagrams, sensor locations, controller settings, programmed timeouts, daylight level setpoints, and final sequence of operation. submit all documentation for review prior to substantial completion of project.

EMERGENCY LIGHTING POWER AND TESTING NOTE

electrical contractor shall provide a dedicated circuit breaker for the emergency lights and exist signs. test all emergency lights and provide a letter certifying that all emergency lamps were on 100% for a duration of 30 minutes timed after circuit breaker is turned off. provide test certificate.

ELECTRICAL MATERIAL - GENERAL REQUIREMENTS

all light fixtures, lighting control devices, sensors, switches, fans, fire alarm devices, exit signs, emergency lights, power panels, and associated wiring shown on this drawing shall be new unless otherwise noted on the drawings or in the specifications. provide all required accessories, mounting hardware, and connections to form a complete and functional lighting system.



NOTES:

all drawings and specifications is an instrument of service and remain the exclusive property of designer and are protected under the copyright act. they may not be reproduced, distributed, altered for any other project without written permission of the designer.

do not scale drawings. dimensions to take precedent over scale.

contractor to check and verify all levels and dimensions on drawings and on site and report any discrepancies to the designer and obtain clarification prior to commencing with the work.

the contractor accepts all responsibility for working with drawings, not marked 'issued for construction' and for any changes to the drawings without the express approval of shellard building systems ltd.

all work to conform to all governing codes and by-laws.

NOTE BEFORE COMMENCING WORK:

the contractor shall check and verify location of all pipes, ducts, diffusers, conduits, light fixtures, structural and equipment and coordinate with other trades on site to prevent interference. the contractor is responsible for any changes to the drawings without the written approval of the designer.

the drawings shall not be used for construction unless noted on the title blocks as 'issued for construction'.

the information contained within the drawings is intended to provide design and basic construction details. it is the contractor's responsibility to apply details and practices which will result in a quality assurance and fully functioning system.

HWDSB

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4.	TENDER	25 MAY 2026
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1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.

1684 SHELLARD SIDE ROAD
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N1R 5S7

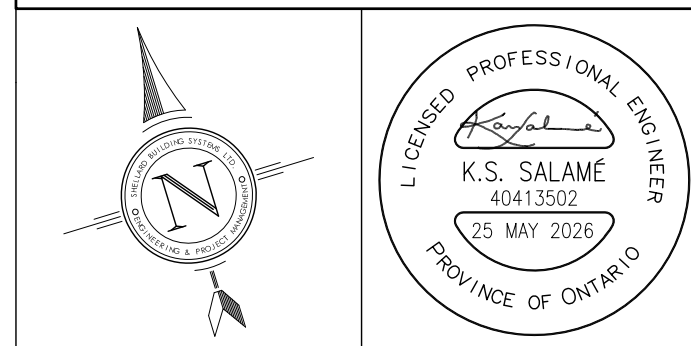
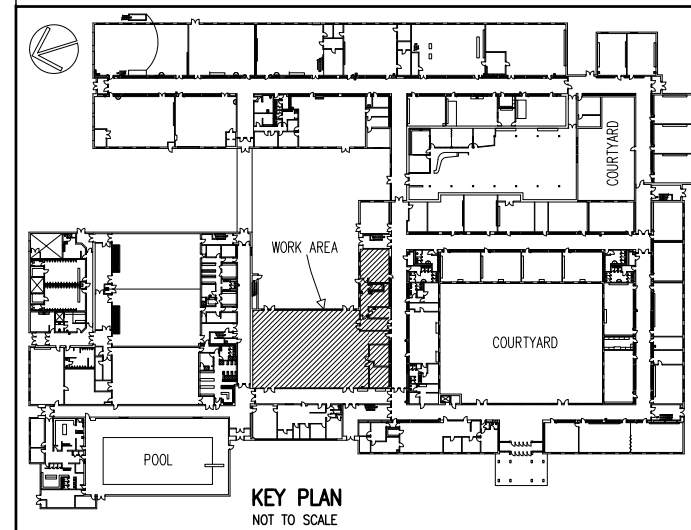
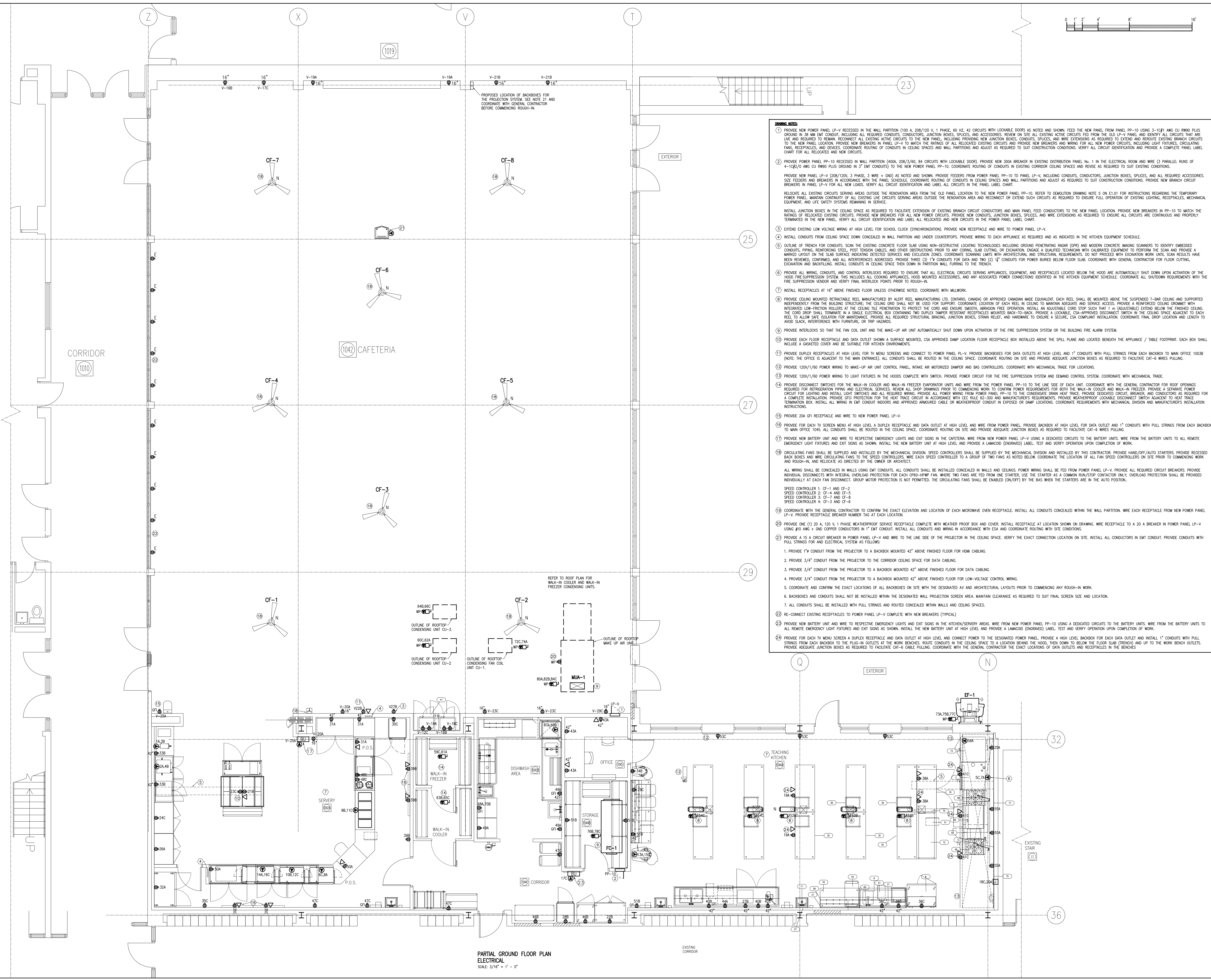
shellard@consultant.com
226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO L8E 4M5

DRAWN NAME:

PARTIAL GROUND FLOOR PLAN
ELECTRICAL

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
3 / 16" = 1' - 0"	E1.02



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NOTE BEFORE COMMENCING WORK:

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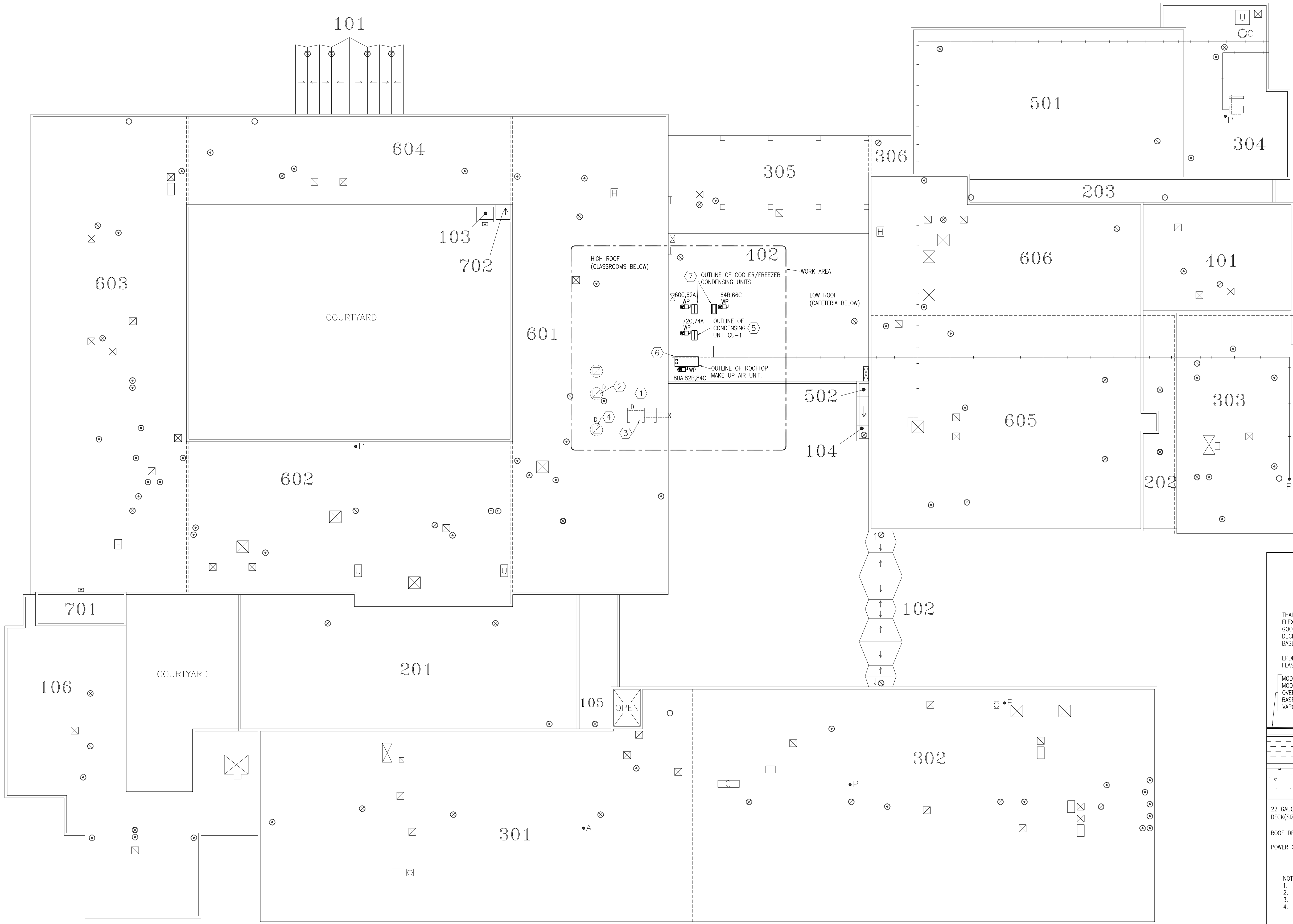
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ORCHARD PARK
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DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME: PARTIAL GROUND FLOOR PLAN ELECTRICAL	
DRAWN BY: N.P.	CHECKED BY: N.S.
DATE: SEPTEMBER 2025	JOB No.: 25-103
SCALE: 3 / 16" = 1' - 0"	SHEET No.: E1.03



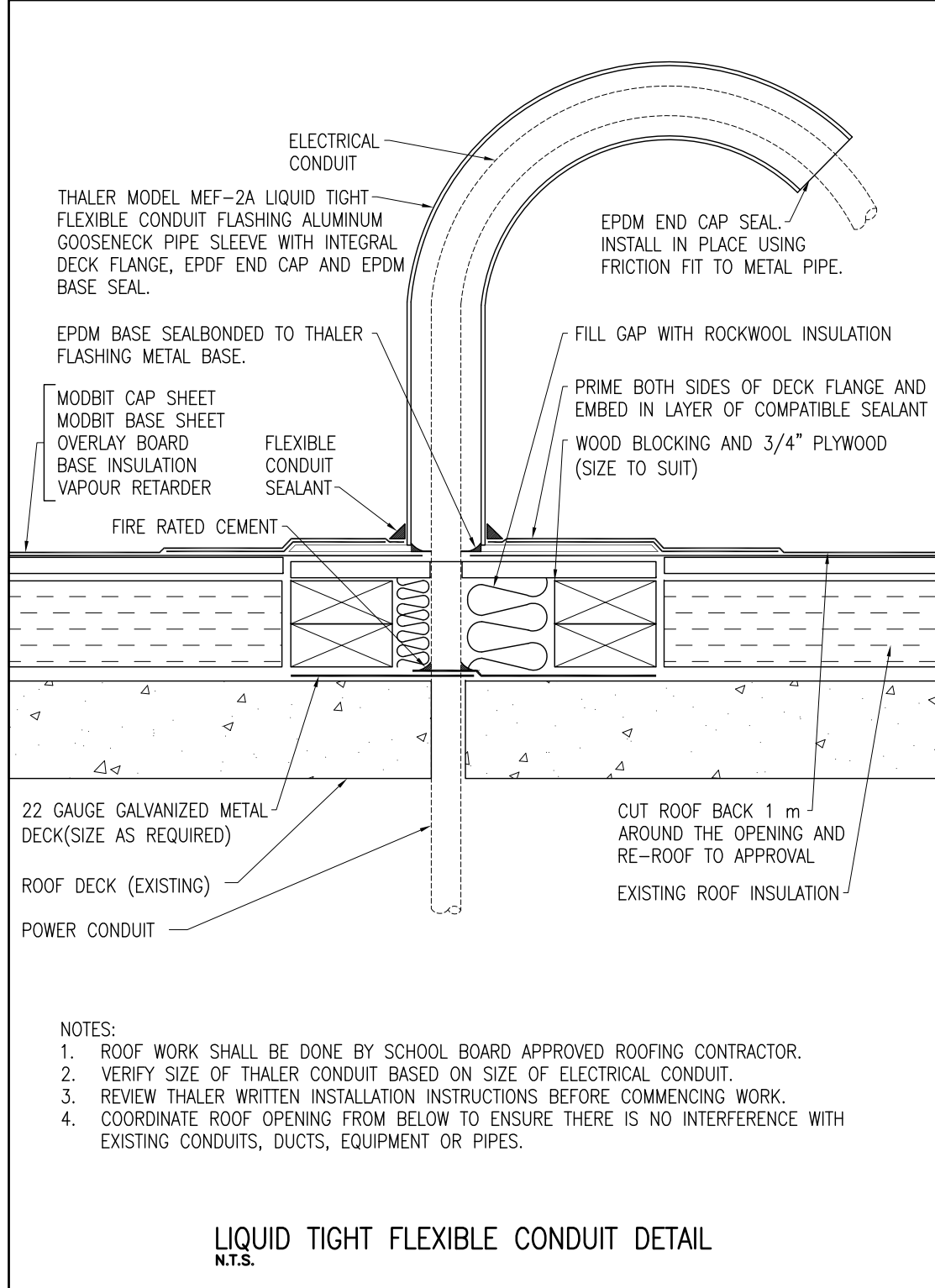
LEGEND	
	ROOF DRAIN
	PLUMBING STACK
	SLEEVE & COLLAR
	VENT
	EQUIPMENT CURB
	PITCH PAN

ROOF PLAN
SCALE: 3/64" = 1' - 0"

- DRAWING NOTES:**
- GENERAL NOTES FOR CONTRACTOR REQUIREMENTS FOR WORKING ON THE ROOF:

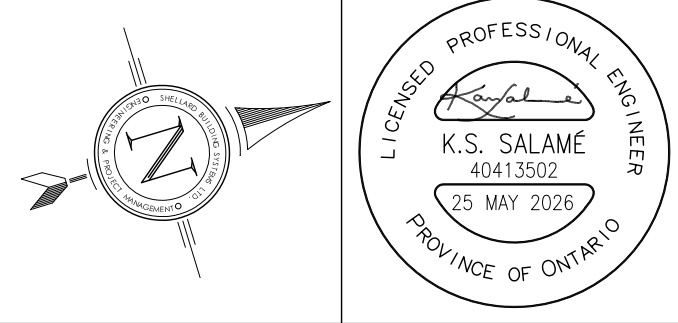
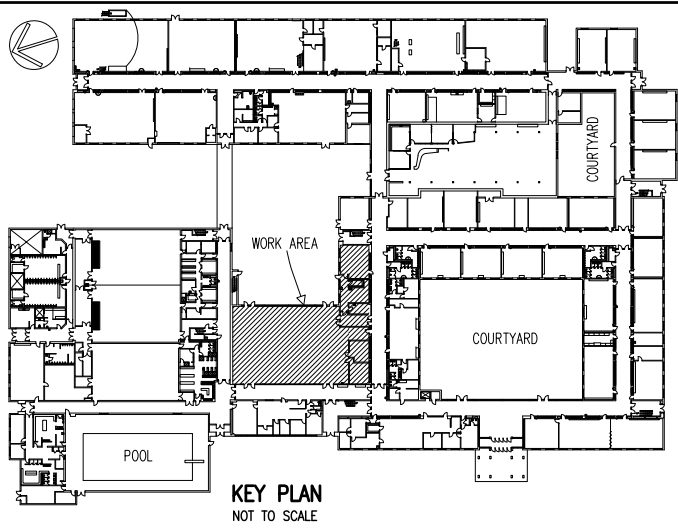
CONTRACTOR SHALL IMPLEMENT FULL ROOF MEMBRANE PROTECTION MEASURES DURING ALL DEMOLITION AND REMOVAL ACTIVITIES. PROTECTION SHALL INCLUDE, AT MINIMUM: RIGID WALK PADS, PLYWOOD SHEETS WITH NON-SLIP UNDERLAYMENT, AND ANY ADDITIONAL SHIELDING REQUIRED TO PREVENT PUNCTURES, TEARS, ABRASION, OR DISPLACEMENT OF THE EXISTING ROOFING SYSTEM. NO EQUIPMENT, TOOLS, OR DEBRIS SHALL BE PLACED DIRECTLY ON THE MEMBRANE AT ANY TIME.

ALL WORK SHALL BE COMPLETED WITHOUT CAUSING DAMAGE TO THE EXISTING ROOF ASSEMBLY. ANY DAMAGE TO THE ROOF MEMBRANE, INSULATION, FLASHING, OR DRAINAGE COMPONENTS CAUSED BY THE CONTRACTOR'S WORK SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE, USING MATERIALS AND METHODS APPROVED BY THE OWNER'S ROOFING WARRANTY PROVIDER.
 - DISCONNECT POWER TO EXISTING KITCHEN HOOD EXHAUST FAN AND REMOVE WIRES/CONDUITS BACK TO SOURCE. COORDINATE WITH GENERAL CONTRACTOR TO PATCH AND SEAL ROOF OPENING AND OTHER OPENINGS INSIDE THE BUILDING.
 - DISCONNECT POWER TO EXISTING MAKE UP AIR UNIT AND REMOVE WIRES/CONDUITS BACK TO SOURCE. COORDINATE WITH GENERAL CONTRACTOR TO PATCH AND SEAL WALL OPENING.
 - DISCONNECT POWER TO EXISTING GENERAL EXHAUST FAN AND REMOVE WIRES/CONDUITS BACK TO SOURCE. COORDINATE WITH GENERAL CONTRACTOR TO PATCH AND SEAL ROOF OPENING AND OTHER OPENINGS INSIDE THE BUILDING.
 - PROVIDE WEATHER PROOF DISCONNECT AND WIRE FROM POWER PANEL TO LINE SIDE OF CONDENSING UNIT. COORDINATE WITH THE GENERAL CONTRACTOR FOR ROOF OPENING.
 - PROVIDE WEATHER PROOF DISCONNECT AND WIRE FROM POWER PANEL TO LINE SIDE OF MAKE UP AIR UNIT. COORDINATE WITH THE GENERAL CONTRACTOR FOR ROOF OPENING.
 - PROVIDE FOR EACH CONDENSING UNIT A WEATHER PROOF DISCONNECT AND WIRE FROM POWER PANEL PP-10 TO LINE OF SIDE OF EACH UNIT. COORDINATE WITH THE GENERAL CONTRACTOR FOR ROOF OPENING. REVIEW SHOP DRAWINGS BEFORE COMMENCING WORK TO VERIFY POWER REQUIREMENTS FOR THE WALK-IN COOLER AND WALK-IN FREEZER.



LIQUID TIGHT FLEXIBLE CONDUIT DETAIL
N.T.S.

- WORKING ON THE ROOF NOTES:
- ACCESS TO THE ROOF SHALL BE ARRANGED WITH THE SCHOOL BOARD.
 - ANY PERSON ON THE ROOF SHALL ADHERE TO THE HEALTH AND SAFETY INSTRUCTIONS AND REQUIREMENTS FOR WORKING ON THE ROOF INCLUDING FALL PROTECTION, WARNING LINES, PERSONAL PROTECTION EQUIPMENT, AND PERSONAL FALL ARREST SYSTEM.
 - REVIEW SAFETY TRAINING AND COMPLY WITH ANY REQUIRED SAFE WORK PRACTICE TRAINING.
 - THE WORK ON THE ROOF SHALL BE RESTRICTED TO THE NOTED AREA. THE EXISTING ROOF DRAINS, PLUMBING STACKS, ROOF OPENINGS...ETC. ARE NOTED FOR INFORMATION.
 - THE ROOF DRAWING WAS OBTAINED FROM THE SCHOOL BOARD ARCHIVE (PREPARED BY FISHBURN BUILDING SCIENCES GROUP, DATED JAN 2007.) AND THE ROOF PLAN IS PROVIDED FOR REFERENCE ONLY. THE DIMENSIONS HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL EXAMINE AND CONFIRM ALL EXISTING CONDITIONS AND MEASUREMENTS PRIOR TO COMMENCING WORK.



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HWDSB

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No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.
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226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON -- WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME: ROOF PLAN ELECTRICAL	
DRAWN BY: N.P.	CHECKED BY: N.S.
DATE: SEPTEMBER 2025	JOB No.: 25-103
SCALE: 3/ 64" = 1' - 0"	SHEET No.: E1.04

						ELECTRICAL								
Item No.	Quantity	Unit	Category	Mfr	Model	Voltage	Phase	Amps	Cycle	Hp	Kw	Connection Type	NEMA	Remarks
1	1	ea	Hot Water Dispenser		BUNN	43600.0002		208	1	19.5	60		4.05	
2	3	ea	Refrigerated Merchandiser	True Refrigeration Canada ULC (CAU)	TW-48-HC-WM01	115	1	10.5	60	1/2		Cord & Plug	5-15P	
3	1	ea	Comb Oven, Gas	BATIONAL Canada	KCP 6-FULL NG 208/240V 1 PH (LM1000G)	208/240	1		60		.9	Cord only		
4	1	ea	Reach-In Refrigerator	True Refrigeration Canada ULC (CAU)	STR2R-2S-HC	115	1	5.9	60	1/2		Cord & Plug	5-15P	
5	2	ea	Pot Filler	T&S Brass	B-1146-04									
6	1	ea	Work Table, with Prep Sink(s)	John Boss	EPT6R5-3072SSK-R-X									
7	1	ea	Planetary Mixer	Hobart Canada	HL200C-1STD	100-120	1			1/2		Cord & Plug		
8	1	ea	Pizza Preparation Refrigerator	True Refrigeration Canada ULC (CAU)	TPP-AT-44-HC	115	1	3.9	60	1/4		Cord & Plug	5-15P	
9	1	ea	Hot Food Serving Counter / Table	Garland Canada	KH-4-4-JC	120/208-230	1	22	60			Cord & Plug	14-30P	
10	1	ea	Planetary Mixer	Hobart Canada	HL400	230	1	15	60	1 1/2		Cord & Plug	6-15P	
11	3	ea	Hand Sink	CUSTOM										
12	0	ea	Work Table, 72", Stainless Steel Top / w/ Sink	John Boss	EPT6R5-3072SSK-L-X									
13	2	ea	Bin / Sheet Pan Rack	John Boss	APR-1620-RND-X									
14	2	ea	Proofer/Holding Cabinet	Metro	CS39-HDC-4			16.7				Cord & Plug	5-20P	
15	1	ea	Eye Wash Station	T&S Brass	EW-7656MC									
16	2	ea	Undercounter Refrigerator	True Refrigeration Canada ULC (CAU)	TUC-60-HC	115	1	4	60	1/4		Cord & Plug	5-15P	
17	1	ea	Work Table, 96", Stainless Steel Top	John Boss	ST6R5-3066GBM-X									
18	1	ea	Pre-Rinse Faucet Assembly	John Boss	B-0133-GRB-010R-01									
19	1	ea	Security Unit	Metro	SEC560C									
20	3	ea	Ingredient Bin	Cambaro	IBS27148									
21	5	ea	Pot Rack	CUSTOM										
22	1	ea	Dishwasher, Door Type	Hobart Canada	AM16A-BAS2	120/240	1	53.5						
23	2	ea	Soup Kettle	Hatco Canada	SMB-70T-QS	120	1	3.5	60			cord & plug	NEMA 5-15P	
24	1	ea	Mop Sink	CUSTOM										
25	1	ea	Soiled Dishable	CUSTOM										
26	1	ea	Coffee Brewer	BUNN	53400.0101	120/240	1	25	60		6	Cord Only		
27	3	ea	Wall / Splash Mount Faucet	T&S	B-1146-04									
28	2	ea	Display Merchandiser, Heated, For Multi-Product	Hatco Canada	HMS-360	120/208-240	1	9.2	60		2.2	Cord & Plug	L14-20P	
29	1	ea	Conveyor Toaster	Hatco Canada	TQ3900240B20									
30	4	ea	Wire Shelving	Metro	1872WK3									
31	1	ea	Wire Shelving	Metro	1842WK3									
32	4	ea	Wire Shelving	Metro	2448WK3									
33	1	ea	Wire Shelving	Metro	2442WK3									
34	2	ea	Wire Shelving	Metro	2436WK3									
35	11	ea	Work Table, 72", Stainless Steel Top	CUSTOM										
36	11	ea	Work Table Drawer	CUSTOM										
37	1	ea	Laundry Sink	CUSTOM										
38	1	ea	Reach-In Freezer	True Refrigeration Canada ULC (CAU)	T-23F-HC	115	1	3.7	60	1/2		Cord & Plug	5-15P	
39	1	ea	Service Faucet	T&S	B-1146-04									
40	2	ea	Splash Mount Faucet, 8" Center, 12" Spout	T&S	B-0231-0C									
41	4	ea	Microwave Oven	ACP, Inc. Canada	RCS100SE	120	1	13	60		1.55	Cord & Plug	5-20P	PROVIDE 20A DEDICATED RECEPTACLE FOR EACH MICROWAVE OVEN.
42	1	ea	Work Table, Cabinet Base Hinged Doors	CUSTOM										
43	2	ea	Open Display Merchandiser	Turbo Air Canada	TOM-60L-LFD-WH-B-3S-N	115	1	15	60	3/4x2		Cord & Plug	5-20P	
44	1	ea	Display Merchandiser, Heated, For Multi-Product	Hatco Canada	HMS-480	120/208-240	1	12.1	60		2.9	Cord & Plug	L14-20P	
45	1	ea	Work Table, Cabinet Base Hinged Doors	CUSTOM										
46	1	ea	Wire Shelving	Metro	1460BR									
47	1	ea	Work Table, Cabinet Base Hinged Doors	CUSTOM										
48	2	ea	Range, 24", 4 Open Burners	Garland Canada	GRE24-4L									
49	1	ea	Griddle, Gas, Countertop	Garland Canada	GIG36-G136M									
50	1	ea	Gas Floor Fryer	Garland Canada	MJ140									
51	5	ea	Recycling Receptacle / Container, Plastic	Winco	PTC-23GR									
52	1	ea	Condiment Dispenser	Serveur Products	07140									
53	1	ea	Display Case, Non-Refrigerated Countertop	Structural Concepts	CSC3223	110-120	1	.7	60				5-15P	
54	3	ea	Cart, Utility/Bussing	Cambaro	BC331W0110									
55	1	ea	Splash Mount Faucet 4" Center, 10" Spout	T&S	5F-4WX10									
56	1	ea	Food Processor, Benchtop / Countertop	Robot Coupe Canada	R301U	120	1	9	60	1-1/2		Cord & Plug	5-15P	
57	1	ea	Counter Freezer	Beverage Air	CF3HC-1-W	115	1	4	60	1/4		Cord & Plug	5-15P	
58	1	ea	Wire Shelving	Metro	2448BR									
59	4	ea	Shelving, Wall Mounted	CUSTOM										
60	1	ea	Ice Maker with Bin, Cube-Style	Scotsman	UC2024SA-1	115	1		60			Cord & Plug	5-15P	
61	1	ea	Wire Shelving	Metro	1860WK3									
62	1	ea	Work Table, Cabinet Base Hinged Doors	John Boss										
63	1	ea	Cup & Lid Organizer	Caj-Maj	23449-13									
64	1	ea	Work Table, Cabinet Base Open Front	CUSTOM										
65	2	ea	Paper Napkin Dispenser	Valroth	CTNO-06									
66	1	ea	Dishable, Clean "L" Shaped	Custom	DISH TABLE TRIPLE SINK									
67	1	ea	Laundry Washer Top load	Maytag	MWF6430MW	115	1		60			Cord & Plug	5-15P	
68	1	ea	Laundry Dryer Front Load	Maytag	DV5406000HWAC	240	1		60				14-30P	
69	1	ea	Commercial Waste Container	CFS Brands	84103283									
70	1	ea	Work Table, with Prep Sink(s)	Custom	CUSTOM									
71	1	ea	Stainless Chef Special Service Wall	Custom	WALL CLADDING KITCHEN									
72	1	ea	Walk in Combination Cooler Freezer, Remote	Curtis	WALK-IN COOLER/FREEZER									SEE NOTE B BELOW.
73	1	ea	Double Stack Convection Oven, Gas	Garland	SUNG-200	120	1	9.8	60	2-3/4		Cord & Plug	5-15P	
74	1	ea	Work Table Open Base	Custom										
75	1	ea	FUTURE APPLIANCE			208	1	48	60					PROVIDE JUNCTION BOX IN WALL FOR FUTURE APPLIANCE
76	1	ea	Work Table Open Base	John Boss	ST6R5-3066GBM									
77	1	ea	Food Packaging Machine	Berkel	350-STD	115	1	14.2	60	1 1/4		Cord & Plug	5-15P	
78	1	ea	Dough Sheeter	ArcoBenedo Pasta Equipment	APS160	120	1	8	60			Cord & Plug	5-15P	
79	1	ea	Work Table, Cabinet Base	CUSTOM										
80	2	ea	Cash Counter	Custom										
81	1	ea	Splash Mount Faucet	T&S Brass	B-0230-EE-061X									
82	1	ea	Work Table Cabinet Base	Custom										
83	1	ea	Stainless Steel Counter/Cupboard	Custom										
84	2	eo	Double Bar Pot Rack 96" x 12"	Custom										
85	2	eo	Double Bar Pot Rack 48" x 12"	Custom										
86	2	eo	Shelving, Wall Mounted 96" x 16"	Custom										
87	1	eo	Shelving, Wall Mounted 48" x 16"	Custom										
88	1	eo	Shelving 161-1/16"x16"	Custom										
89	2	eo	Exhaust Hoods 11"	Captive Air		ND-2-PSP-F								REFER TO DRAWINGS E1.02 AND E1.03
90	1	eo	Fire Suppression Stem	Captive Air		TANK-SP-3								REFER TO DRAWINGS E1.02 AND E1.03
91	1	eo	Tank Manual Activation Device	Captive Air										

EQUIPMENT AND APPLIANCE INSTALLATION REQUIREMENTS

1. PROVIDE WIRING TO EACH APPLIANCE AND EQUIPMENT LISTED IN THE SCHEDULE AND SHOWN ON THE FLOOR PLANS. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL REVIEW ALL RELEVANT SHOP DRAWINGS AND MANUFACTURER INSTALLATION INSTRUCTIONS TO ENSURE FULL COMPLIANCE WITH MANUFACTURER REQUIREMENTS.
2. REVIEW ALL EQUIPMENT SHOP DRAWINGS AND ELECTRICAL SCHEMATICS PRIOR TO COMMENCING WORK. VERIFY POWER CONNECTION REQUIREMENTS FOR EACH PIECE OF EQUIPMENT, INCLUDING WHETHER RECEPTACLES OR HARD WIRING ARE REQUIRED. ALL EQUIPMENT, APPLIANCES, AND FIXTURES WILL BE SUPPLIED BY THE KITCHEN EQUIPMENT VENDOR. PROVIDE ALL REQUIRED POWER WIRING, RECEPTACLES, DISCONNECTS, JUNCTION BOXES, AND CONDUITS FOR A COMPLETE ELECTRICAL INSTALLATION. THE ABOVE SCHEDULE IDENTIFIES EQUIPMENT EXPECTED TO REQUIRE RECEPTACLES OR HARD WIRING; HOWEVER, SHOP DRAWINGS SHALL GOVERN.
3. REFER TO THE LATEST ARCHITECTURAL FLOOR PLAN FOR EQUIPMENT LAYOUT. NOT ALL ELECTRICAL CONNECTIONS ARE SHOWN ON THE ELECTRICAL FLOOR PLAN. THE CONTRACTOR SHALL FOLLOW THE KITCHEN EQUIPMENT SCHEDULE FOR ALL REQUIRED POWER WIRING.
4. COORDINATE ELECTRICAL CONNECTION LOCATIONS WITH THE KITCHEN VENDOR'S SHOP DRAWINGS. VERIFY ALL FINAL CONNECTION POINTS, VOLTAGES, PHASES, LOADS, AND ANY SPECIAL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN.
5. FOR EQUIPMENT REQUIRING DRAIN PUMPS, CONDENSATE PUMPS, OR ELECTRICALLY POWERED ACCESSORIES, PROVIDE ALL REQUIRED ELECTRICAL CONNECTIONS AS INDICATED IN THE EQUIPMENT SCHEDULE AND MANUFACTURER DOCUMENTATION.
6. PROVIDE POWER CONNECTIONS FOR ALL HAND WASH SINKS AND COUNTER SINKS WHERE ELECTRICALLY POWERED TEMPERING VALVES, HEATERS, OR ACCESSORIES ARE SPECIFIED. ALL ELECTRICAL COMPONENTS SHALL BE CSA AND UL/C APPROVED.
7. PROVIDE ALL WIRING, CONDUITS, AND CONTROL INTERLOCKS REQUIRED TO ENSURE THAT ALL ELECTRICAL CIRCUITS SERVING APPLIANCES, EQUIPMENT, AND RECEPTACLES LOCATED BELOW THE KITCHEN HOOD ARE AUTOMATICALLY SHUT DOWN UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM. THIS INCLUDES ALL COOKING APPLIANCES, HOOD MOUNTED ACCESSORIES, AND ANY ASSOCIATED POWER CONNECTIONS IDENTIFIED IN THE KITCHEN EQUIPMENT SCHEDULE. COORDINATE ALL SHUTDOWN REQUIREMENTS WITH THE FIRE SUPPRESSION VENDOR AND VERIFY FINAL INTERLOCK POINTS PRIOR TO ROUGH-IN.
8. WALK-IN COOLER AND WALK-IN FREEZER ELECTRICAL WIRING:
 - A. ELECTRICAL CONTRACTOR SHALL REVIEW ALL WALK-IN COOLER, WALK-IN FREEZER, CONDENSING UNIT AND EVAPORATOR UNIT SHOP DRAWINGS PRIOR TO COMMENCING WORK AND SHALL COORDINATE ALL POWER REQUIREMENTS, VOLTAGES, FLA VALUES, DISCONNECT LOCATIONS AND CONTROL INTERFACES.
 - B. PROVIDE ALL REQUIRED CONDUITS, WIRING, DEVICES AND ACCESSORIES TO COMPLETE POWER CONNECTIONS FROM PANELBOARD PP-10 TO EACH ROOF-MOUNTED CONDENSING UNIT AND EACH INDOOR EVAPORATOR UNIT AS PER APPROVED SHOP DRAWINGS.
 - C. PROVIDE A 120V/1/60 POWER CIRCUIT TO THE LIGHTING IN EACH WALK-IN COOLER AND WALK-IN FREEZER, COMPLETE WITH SEPARATE WALL-MOUNTED DAMP APPROVED SWITCHES LOCATED AS DIRECTED.
 - D. PROVIDE WEATHERPROOF DISCONNECT SWITCHES FOR EACH ROOF-MOUNTED CONDENSING UNIT AND FOR EACH INDOOR EVAPORATOR UNIT. DISCONNECTS SHALL BE SIZED AND RATED IN ACCORDANCE WITH MANUFACTURER WRITTEN REQUIREMENTS AND RECOMMENDED MOC. PROVIDE CIRCUIT BREAKERS IN POWER PANEL PP-10.
 - E. ALL WIRING SHALL BE IN EMT CONDUITS.

POWER PANEL – NEW										Panel No. PP-10	
Type: SIEMENS – RECESSED						Location: 1044					
Power: 400A, 120/208V, 3 PH, 4 WIRE						Mounting: RECESSED WITH LOCKABLE DOOR					
Description	BROKER AMPS	kW	Cct	A	B	Cct	kW	BROKER AMPS	Description		
HOT WATER DISPENSER [1]	25 2P	2.02 2.02	1 2	+	+	2 4	2.60 2.60	25 2P	COFFEE BREWER [26]		
COMBI OVEN [3] *	15 2P	1.50 1.50	5 7	+	+	6 8	0.96 0.96	15 2P	DISPLAY MARCHANDISER [28]		
SERVING COUNTER [9]	30 2P	2.30 2.30	9 11	+	+	10 12	0.96 0.96	15 2P	DISPLAY MARCHANDISER [28]		
PLANETARY MIXER [10]	20 2P	1.56 1.56	13 15	+	+	14 16	1.26 1.26	20 2P	DISPLAY MARCHANDISER [44]		
EMERGENCY BATTERY UNIT	15	0.20	17	+	+	18	5.00	60	FUTURE CONVEYOR OVEN [75] *		
TV SCREENS	15	0.40	19	+	+	20	5.00	2P			
DISPLAY MERCHANTISER [43]	20	1.80	21	+	+	22	1.20	15	MERCHANTISER [2]		
DISPLAY MERCHANTISER [43]	20	1.80	23	+	+	24	1.20	15	MERCHANTISER [2]		
CONVECTION OVEN [73] *	15	1.18	25	+	+	26	1.20	15	MERCHANTISER [2]		
PACKAGING MACHINE [77]	20	1.70	27	+	+	28	2.0	20	PROOFER [14]		
DOUGH SHEETER [78]	15	0.96	29	+	+	30	2.0	20	PROOFER [14]		
RECEPTACLES	15	0.80	31	+	+	32	0.37	15	REFRIGERATOR [4]		
COUNTER FREEZER [57]	15	0.40	33	+	+	34	0.37	15	PLANETARY MIXER [7]		
RECEPTACLES	15	0.80	35	+	+	36	0.93	15	PIZZA REFRIGERATOR [8]		
HEAT TRACE	15	0.25	37	+	+	38	0.48	15	REFRIGERATOR [16]		
RECEPTACLES	15	0.80	39	+	+	40	0.96	15	REFRIGERATOR [16]		
RECEPTACLES *	15	0.80	41	+	+	42	1.08	15	FOOD PROCESSOR [56]		
OFFICE	15	0.60	43	+	+	44	0.90	15	ICE MACHINE [60]		
RECEPTACLES	15	0.80	45	+	+	46	0.84	15	FREEZER [38]		
RECEPTACLES	15	0.75	47	+	+	48	0.84	15	SOUP KETTLE [23]		
RECEPTACLES	15	0.75	49	+	+	50	0.80	15	RECEPTACLES		
RECEPTACLES	15	0.75	51	+	+	52	0.80	20	RETRACTABLE POWER REELS		
RECEPTACLES	15	0.75	53	+	+	54	0.80	20	RETRACTABLE POWER REELS		
RECEPTACLES *	15	0.50	55	+	+	56	0.25	15	KITCHEN HOOD *		
OFFICE	15	0.50	57	+	+	58	0.25	15	COOLER/FREEZER LIGHTING		
WALK-IN FREEZER EVAPORATOR	15 2P	0.94 0.94	59 61	+	+	60 62	2.60 2.60	30 2P	WALK-IN FREEZER CONDENSING UNIT (CU-2)		
WALK-IN COOLER EVAPORATOR	15 2P	0.83 0.83	63 65	+	+	64 66	2.10 2.10	30 2P	WALK-IN COOLER CONDENSING UNIT (CU-3)		
DISHWASHER [22]	70 2P	5.51 5.51	67 69	+	+	68 70	3.60 3.60	30 2P	CLOTHS VENTLESS DRYER		
SPARE	15	–	71	+	+	72	–	40	CONDENSING UNIT CU-1 (FAN COIL SYSTEM)		
EXHAUST FAN EF-1 *	20 3P	1.90 1.90	73 77	+	+	74 78	0.38 0.38	15 2P	FAN COIL UNIT		
POWER PANEL LP-V	80 2P	– –	79 81	+	+	80 82	1.57 1.57	20 2P	MAKE-UP AIR UNIT *		
SPARE	20	–	83	+	+	84	1.57	3P			

* PROVIDE INTERLOCK CIRCUITS SUCH THAT ACTIVATION OF THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM AUTOMATICALLY DISCONNECTS ALL ELECTRICAL CIRCUITS SERVING EQUIPMENT UNDER THE HOOD, INCLUDING EXHAUST FAN, SUPPLY FAN, LIGHTS, AND ALL COOKING APPLIANCES. CIRCUITS SHALL REMAIN DE-ENERGIZED UNTIL THE FIRE SUPPRESSION SYSTEM IS MANUALLY RESET BY AUTHORIZED PERSONNEL.

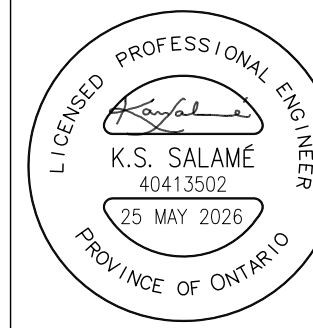
PANELBOARD INTERIOR, SIEMENS P2, MAIN LUGS, 400A, AL BUS, 3 PHASE, 4 WIRE, 240VAC, 48VDC	MAX VOLTS: 240V Feeder Size:
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POWER PANELS NOTES:

1. PROVIDE ALL REQUIRED CIRCUIT BREAKERS FOR EQUIPMENT, LIGHTS AND POWER CIRCUITS. WIRE TO EQUIPMENT AND RECEPTACLES AS SHOWN AND NOTED ON FLOOR PLANS. ALL WIRING SHALL BE IN EMT CONDUITS.
2. PROVIDE LOCKABLE CIRCUIT BREAKER IN THE ON POSITION FOR THE EMERGENCY BATTERY UNIT SUPPLY CIRCUIT.
3. COORDINATE LOCATION OF RECEPTACLE AND POWER CONNECTION USING LATEST ARCHITECTURAL FLOOR PLANS AND ELEVATION PLANS.
4. CONNECTION TO EACH EQUIPMENT SHALL BE IN ACCORDANCE TO MANUFACTURER WRITTEN INSTRUCTIONS AND EQUIPMENT SHOP DRAWINGS.
5. WHERE EQUIPMENT IS NOT PRE-WIRED, THIS CONTRACTOR SHALL PROVIDE INTER-WIRING AS REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. AFFIX STICKER LABEL ON EACH RECEPTACLE/JUNCTION BOX INDICATING CIRCUIT BREAKER NUMBER.

RECEPTACLES NOTES:

1. ALL THE RECEPTACLES AND ELECTRICAL DEVICES SHOWN SHALL BE NEW UNLESS OTHERWISE NOTED. REVIEW OWNER SUPPLIED EQUIPMENT/APPLIANCES SCHEDULE, ARCHITECTURAL FLOOR PLAN, MILLWORK SHOP DRAWINGS AND MECHANICAL EQUIPMENT SHOP DRAWINGS BEFORE COMMENCING ROUGH-IN.
2. COORDINATE LOCATION OF EACH RECEPTACLE. REVIEW ARCHITECTURAL DRAWINGS FOR FURNITURE LAYOUT.
3. PROVIDE LABEL FOR EACH RECEPTACLE INDICATING THE CIRCUIT BREAKER NUMBER.
4. PROVIDE FOR EACH RECEPTACLE BACK BOX AND STAINLESS STEEL METAL PLATE WITH LABEL INDICATING CIRCUIT NUMBER.
5. RECEPTACLE IN RATED AND DEMISING WALLS SHALL BE INSTALL MAINTAINING THE FIRE RESISTANCE RATING. PROVIDE ALL REQUIRED WATER PROOF, NON SHRINK FIRE RATING SEALANTS.
6. ROOFTOP UNIT SERVICE RECEPTACLE (EXCEPT EXISTING TO REMAIN) SHALL BE 20A, 120V/1/60, GFI TYPE COMPLETE WITH WEATHER PROOF ENCLOSURE AND COVER.

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NOTES:	
	

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4.	TENDER	25 MAY 2026
3.	REVISION – CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD

1684 SHELLARD SIDE ROAD
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BUILDING
SYSTEMS LTD.

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226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD

200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

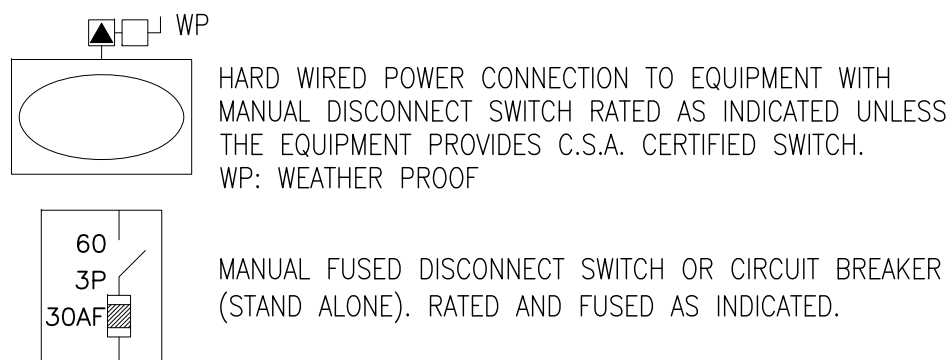
DRAWN NAME:

EQUIPMENT AND PANEL SCHEDULES
ELECTRICAL

DRAWN BY: N.P.	CHECKED BY: N.S.
DATE: SEPTEMBER 2025	JOB No.: 25–103
SCALE: NOT TO SCALE	SHEET No.: E3.01

GENERAL SINGLE LINE DIAGRAM NOTES

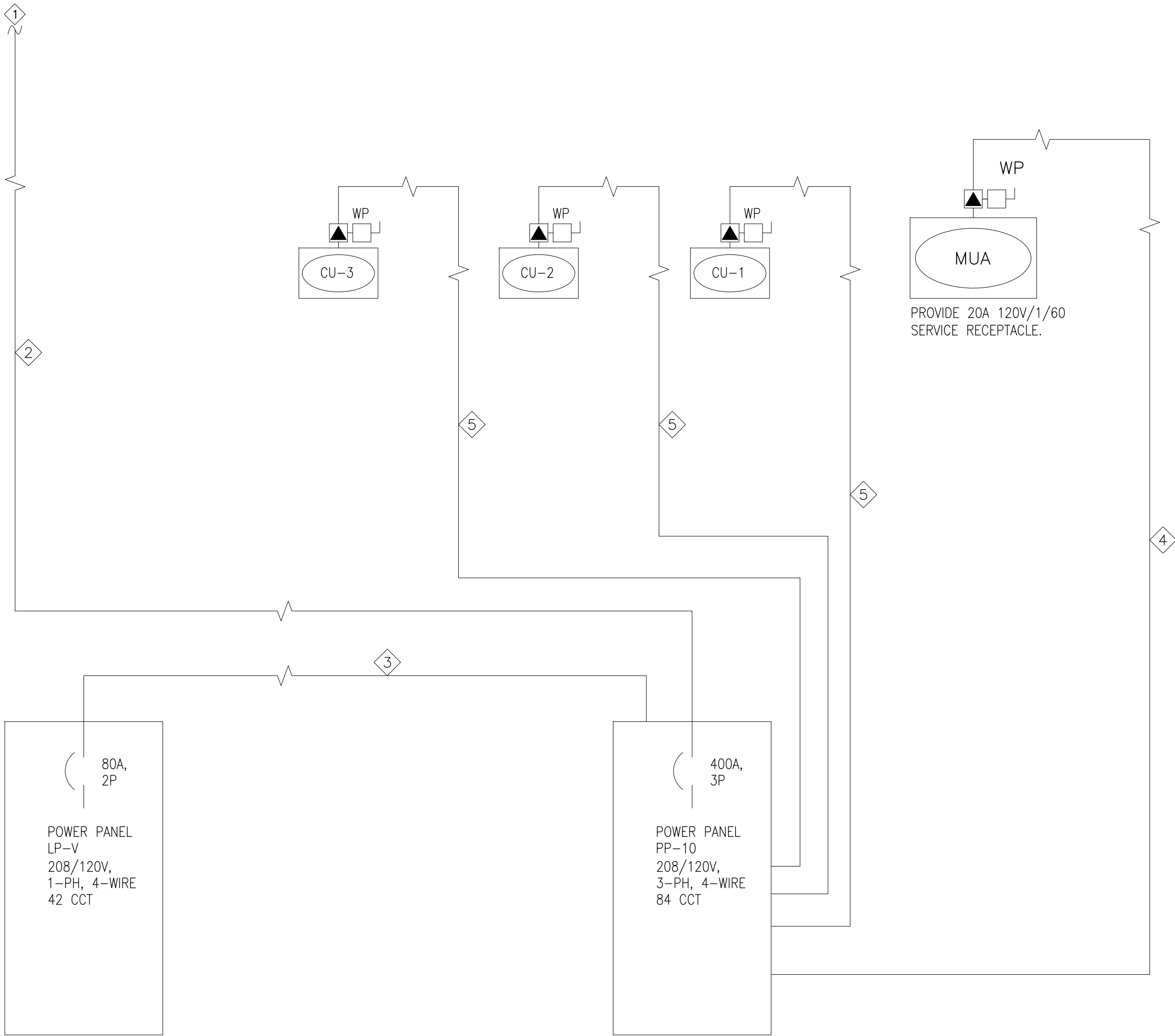
- A. THE SINGLE-LINE DIAGRAM IS BASED ON EXISTING POWER SERVICE FROM THE ELECTRICAL ROOM. THE ELECTRICAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. ONLY SELECTED EQUIPMENT IS SHOWN; REFER TO POWER PANELS ON DRAWINGS AND TO APPROVED EQUIPMENT SHOP DRAWINGS FOR COMPLETE ELECTRICAL REQUIREMENTS.
- B. PROVIDE NEW POWER PANEL, DISCONNECTS, SWITCHES, CONDUITS, AND ALL REQUIRED WIRING TO COMPLETE THE ELECTRICAL SYSTEM INSTALLATION. ALL CORE DRILLING IN WALLS SHALL BE PERFORMED BY THIS DIVISION. MARK ALL CORE LOCATIONS AND OBTAIN APPROVAL PRIOR TO DRILLING. ALL WIRING SHALL BE INSTALLED IN EMT CONDUITS UNLESS NOTED OTHERWISE.
- C. ANY REQUIRED BUILDING POWER SHUTDOWN SHALL BE COORDINATED, SCHEDULED, AND APPROVED PRIOR TO EXECUTION. WORK SHALL BE PERFORMED WITHOUT DISRUPTING THE OCCUPANCY OR USE OF THE BUILDING.



KEY TO ABBREVIATIONS USED:
L.S.I.C. = LONG-TIME, SHORT-TIME, INSTANTANEOUS AND GROUND-FAULT TRIP FUNCTION.
A = AMPERES; K = X1000; P = POLE; PH = PHASE;
W = WIRE. WP = WEATHER PROOF HARDWARE

DIAGRAM NOTES

- 1 PROVIDE A NEW BREAKER IN THE EXISTING DISTRIBUTION PANEL (EXISTING ELECTRICAL ROOM) AND INSTALL FEEDERS TO THE NEW POWER PANEL PP-10. CONFIRM BREAKER SIZE, PANEL BUS RATING, VOLTAGE, AND PHASE PRIOR TO INSTALLATION. ROUTE ALL CONDUITS AS REQUIRED TO SUIT FIELD CONDITIONS; FINAL ROUTING SHALL BE VERIFIED ON SITE AND INSTALLED CONCEALED WITHIN CEILING SPACES. PROVIDE FIRE-RATED SEALS AT ALL WALL PENETRATIONS IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS.
- 2 4-1C#2/0 AWG Cu RW90 + GND IN 75 mm (3") EMT CONDUIT.
- 3 3-1C#1 AWG Cu RW90 + GND IN 38 mm (1-1/2") EMT CONDUIT.
- 4 4-1C#10 AWG Cu RW90 + GND IN 25 mm (1") EMT CONDUIT.
- 5 TYPICAL ROOFTOP CONDENSING UNIT: REFER TO APPROVED SHOP DRAWINGS FOR ALL POWER AND ELECTRICAL REQUIREMENTS PRIOR TO COMMENCING ANY ROUGH-IN. VERIFY REQUIRED WIRING SIZE, CONDUIT SIZE, VOLTAGE, PHASE, MCA, AND MOP BEFORE INSTALLATION. PROVIDE ALL POWER WIRING IN CONDUITS.



SINGLE LINE DIAGRAM
N.T.S.

POWER PANEL — NEW										Panel No. LP-V	
Type: SIEMENS — RECESSED					Location: CAFETERIA 1042						
Power: 100A, 120/208V, 1 PH, 3 WIRE					Mounting: RECESSED WITH LOCKABLE DOOR						
Description	BREAKER AMPS	kW	Cct.	PH	Cct.	kW	BREAKER AMPS	Description			
LIGHTING	15		1		2		15	LIGHTING			
LIGHTING	15		3		4		15	LIGHTING			
LIGHTING	15		5		6		15	LIGHTING			
LIGHTING	15		7		8		15	LIGHTING			
LIGHTING	15		9		10		15	LIGHTING			
CIRCULATING FANS 1, 2, 4 & 5	15	0.41	11		12	1.56	20	MICROWAVE OVEN [41]			
CIRCULATING FANS 3, 6, 7 & 8	15	0.41	14		14	1.56	20	MICROWAVE OVEN [41]			
PROJECTOR	15	0.50	16		16	1.56	20	MICROWAVE OVEN [41]			
RECEPTACLES	15	0.80	17		18	1.56	20	MICROWAVE OVEN [41]			
RECEPTACLES	15	0.80	19		20	0.80	15	RECEPTACLES			
RECEPTACLES	15	0.80	21		22	0.30	15	TV SCREEN			
RECEPTACLES	15	0.50	23		24		15	ROOFTOP SERVICE RECEPTACLE			
DRINKING FOUNTAIN	15	0.55	25		26	0.20	15	EMERGENCY BATTERY UNIT			
CAFETERIA CLOCK	15	0.10	27		28						
PANEL RECEPTACLE	20		29		30						
			31		32						
			33		34						
			35		36						
			37		38						
			39		40						
			41		42						

PANELBOARD INTERIOR, SIEMENS P2, MAIN LUGS, 400A, AL BUS, 3 PHASE, 4 WIRE, 240VAC, 48VDC	MAX VOLTS: 240v
	Feeder Size:

POWER PANELS NOTES:

- THIS PROJECT REQUIRES REPLACEMENT OF EXISTING POWER PANEL LP-V WITH A NEW PANEL INSTALLED WHERE SHOWN. FIELD VERIFY ALL EXISTING CIRCUITS, BREAKERS, LOADS, AND WIRING ROUTING PRIOR TO COMMENCING ANY WORK. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR AND REVIEW EXISTING CONDITIONS ON SITE BEFORE ANY DEMOLITION OR INSTALLATION WORK.
- WIRE THE NEW POWER PANEL LP-V FROM POWER PANEL PP-10 COMPLETE WITH NEW FEEDERS, CONDUITS, AND ALL REQUIRED ACCESSORIES. VERIFY FEEDER SIZE, BREAKER RATING, AND ROUTING PRIOR TO INSTALLATION.
- IDENTIFY ALL EXISTING CIRCUITS THAT ARE LIVE AND REQUIRED TO REMAIN IN SERVICE. TRACE, TEST, AND CONFIRM EACH CIRCUIT FOR CONTINUITY, LOAD CAPACITY, AND CODE COMPLIANCE. RE-WIRE AND EXTEND ALL RE-USED CIRCUITS AS REQUIRED TO SUIT THE NEW PANEL LOCATION AND TO SERVE LIGHTING, RECEPTACLES, AND EQUIPMENT AS SHOWN ON THE DRAWINGS.
- EXISTING CIRCUITS NOT SHOWN ON THE PANEL SCHEDULE SHALL BE ACCOUNTED FOR. THE PANEL SCHEDULE IS BASED ON RECORD DRAWINGS AND DOES NOT REFLECT ALL CIRCUITS ADDED SINCE ORIGINAL CONSTRUCTION. CONTRACTOR SHALL IDENTIFY, LABEL, AND RECONNECT ALL ACTIVE CIRCUITS WHETHER OR NOT THEY APPEAR ON THE SCHEDULE.
- REMOVE ALL OBSOLETE AND REDUNDANT CIRCUIT BREAKERS COMPLETE WITH ASSOCIATED WIRES, CONDUITS, SPLICES, AND JUNCTION BOXES. REMOVE ALL REDUNDANT WIRING BACK TO SOURCE UNLESS OTHERWISE DIRECTED.
- DISCONNECT AND REMOVE ALL REDUNDANT AND OBSOLETE LIGHT FIXTURES, RECEPTACLES, ELECTRICAL DEVICES, ELECTRIC BASEBOARD HEATERS, EXIT SIGNS, AND EMERGENCY LIGHTING UNITS, INCLUDING ALL ASSOCIATED WIRING, CONDUITS, AND SWITCHES, WHERE INDICATED ON THE DRAWINGS.
- PROVIDE ALL REQUIRED NEW CIRCUIT BREAKERS FOR NEW AND RE-USED CIRCUITS. MATCH BREAKER RATINGS TO EXISTING CIRCUIT LOADS. VERIFY PANELBOARD BUS RATING, VOLTAGE, PHASE, AND AVAILABLE SPACES PRIOR TO INSTALLING NEW BREAKERS.
- ALL RECEPTACLES SHOWN SHALL BE NEW, COMPLETE WITH WIRING, UNLESS OTHERWISE NOTED WITH 'E' (EXISTING TO REMAIN). RECONNECT ALL EXISTING RECEPTACLES.
- WIRE ALL NEW AND MODIFIED CIRCUITS TO EQUIPMENT, LIGHT FIXTURES, AND RECEPTACLES AS SHOWN AND NOTED ON FLOOR PLANS. REFER TO ARCHITECTURAL DRAWINGS FOR MILLWORK AND FURNITURE LAYOUT TO CONFIRM DEVICE LOCATIONS.
- CONNECTION TO EACH NEW APPLIANCE AND MECHANICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS. WHERE EQUIPMENT IS NOT PRE-WIRED, PROVIDE ALL INTER-WIRING, CONTROL WIRING, AND POWER WIRING REQUIRED TO COMPLETE THE INSTALLATION. PROVIDE ALL POWER AND CONTROL WIRING FOR CIRCULATING FANS CF-1 TO CF-8. COORDINATE WITH MECHANICAL TRADE.
- PROVIDE NEW LIGHT FIXTURES, SWITCHES, EXIT SIGNS, AND EMERGENCY LIGHTING UNITS AS SHOWN. INSTALL, CIRCUIT, AND TEST ALL NEW DEVICES IN ACCORDANCE WITH ESA REQUIREMENTS. RE-WIRE ALL EXISTING LIGHT SWITCHES THAT ARE NOT SHOWN AND AFFECTED BY THE RENOVATION.
- AFFIX A DURABLE STICKER LABEL ON EACH RECEPTACLE, DEVICE, AND JUNCTION BOX INDICATING THE CIRCUIT BREAKER NUMBER SERVING THAT DEVICE. PROVIDE A COMPLETE UPDATED PANEL LABEL CHART IDENTIFYING ALL ACTIVE CIRCUITS INCLUDING NEW, MODIFIED, AND RE-USED CIRCUITS. LABELING SHALL BE CLEAR, ACCURATE, AND PERMANENT.
- ALL WIRING SHALL BE INSTALLED IN EMT CONDUITS UNLESS NOTED OTHERWISE.
- PROVIDE AND MAINTAIN TEMPORARY LIGHTING THROUGHOUT THE CONSTRUCTION PERIOD TO ENSURE SAFE WORKING CONDITIONS.
- PROVIDE LOCKABLE CIRCUIT BREAKER IN THE ON POSITION FOR THE EMERGENCY BATTERY UNIT SUPPLY CIRCUIT.



NOTES:

ALL DRAWINGS AND SPECIFICATIONS IS AN INSTRUMENT OF SERVICE AND REMAIN THE EXCLUSIVE PROPERTY OF DESIGNER AND ARE PROTECTED UNDER THE COPYRIGHT ACT. THEY MAY NOT BE REPRODUCED, DISTRIBUTED, ALTERED FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE DESIGNER.

DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS 'ISSUED FOR CONSTRUCTION'

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

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4.	TENDER	25 MAY 2026
3.	REVISION — CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
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SHELLARD BUILDING SYSTEMS LTD.

1684 SHELLARD SIDE ROAD
CAMBRIDGE, ONTARIO
N1R 5S7

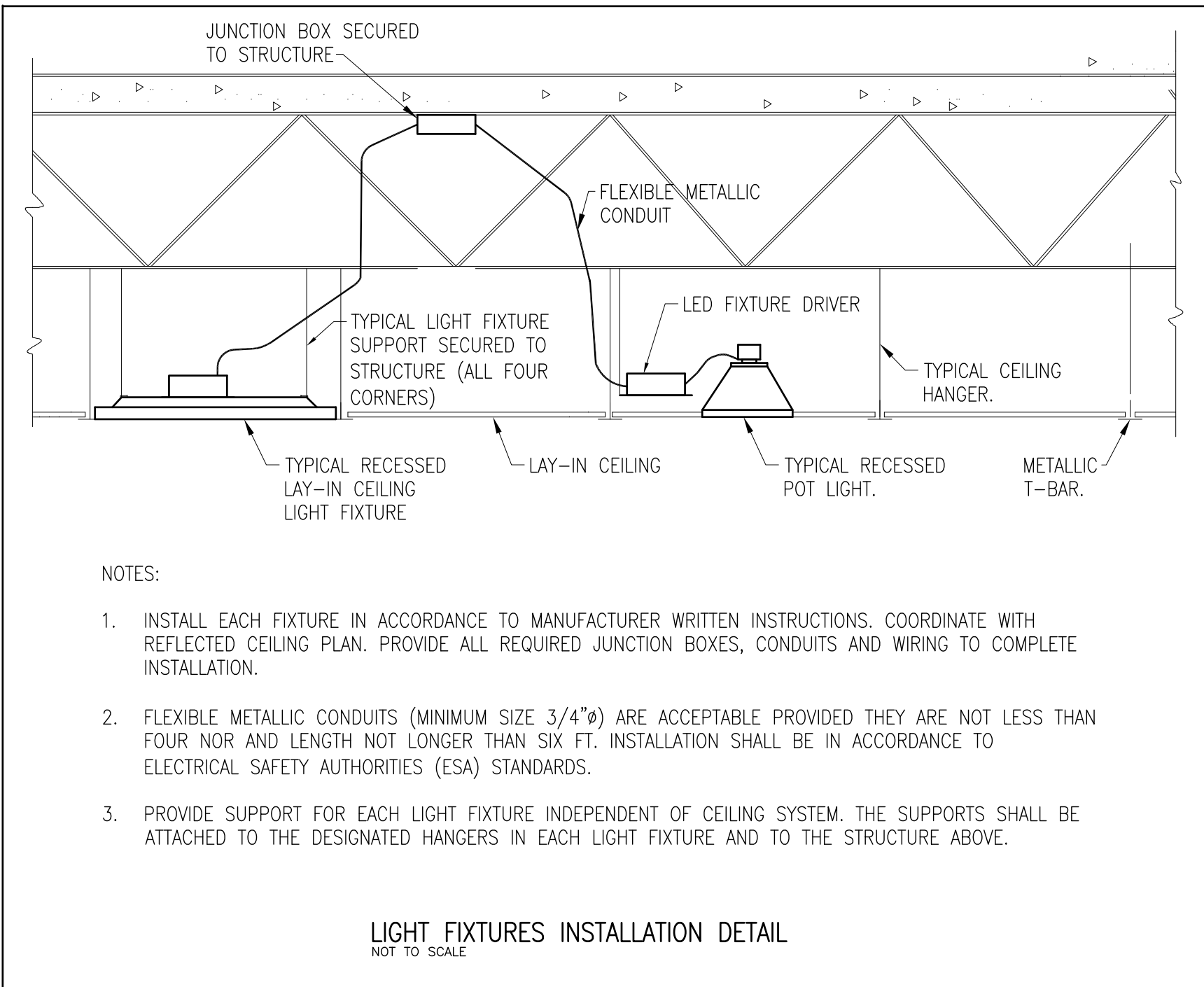
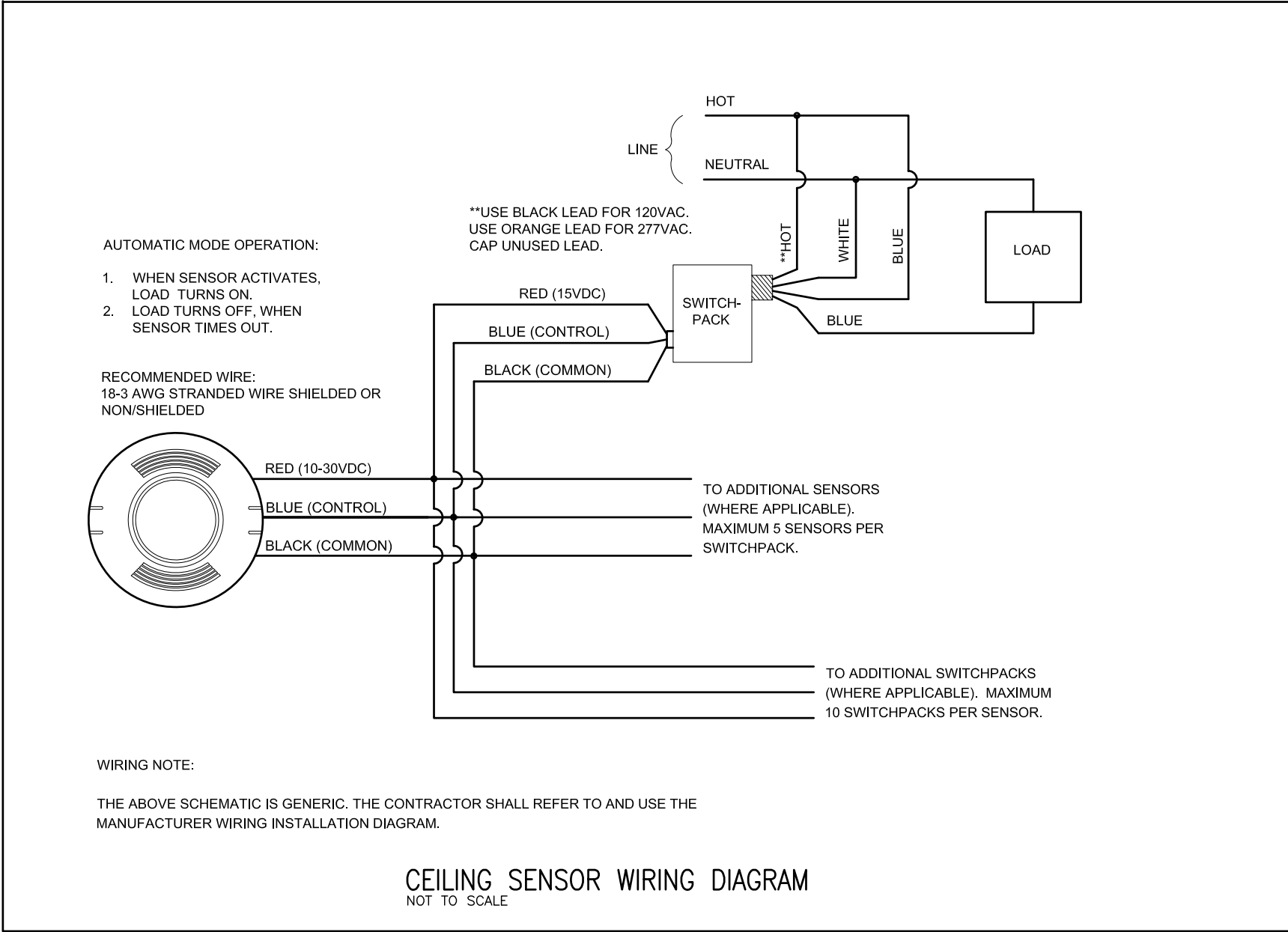
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ORCHARD PARK
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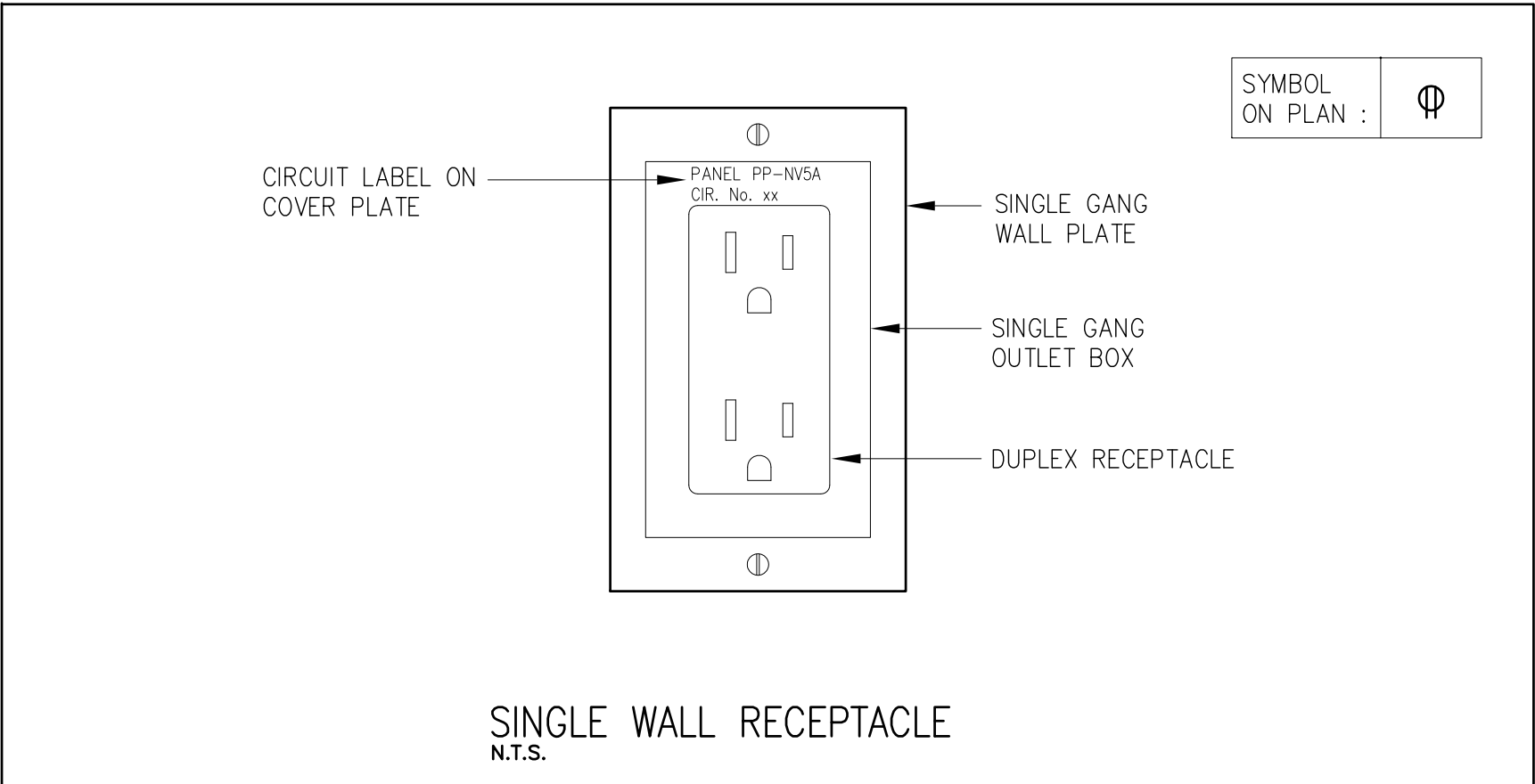
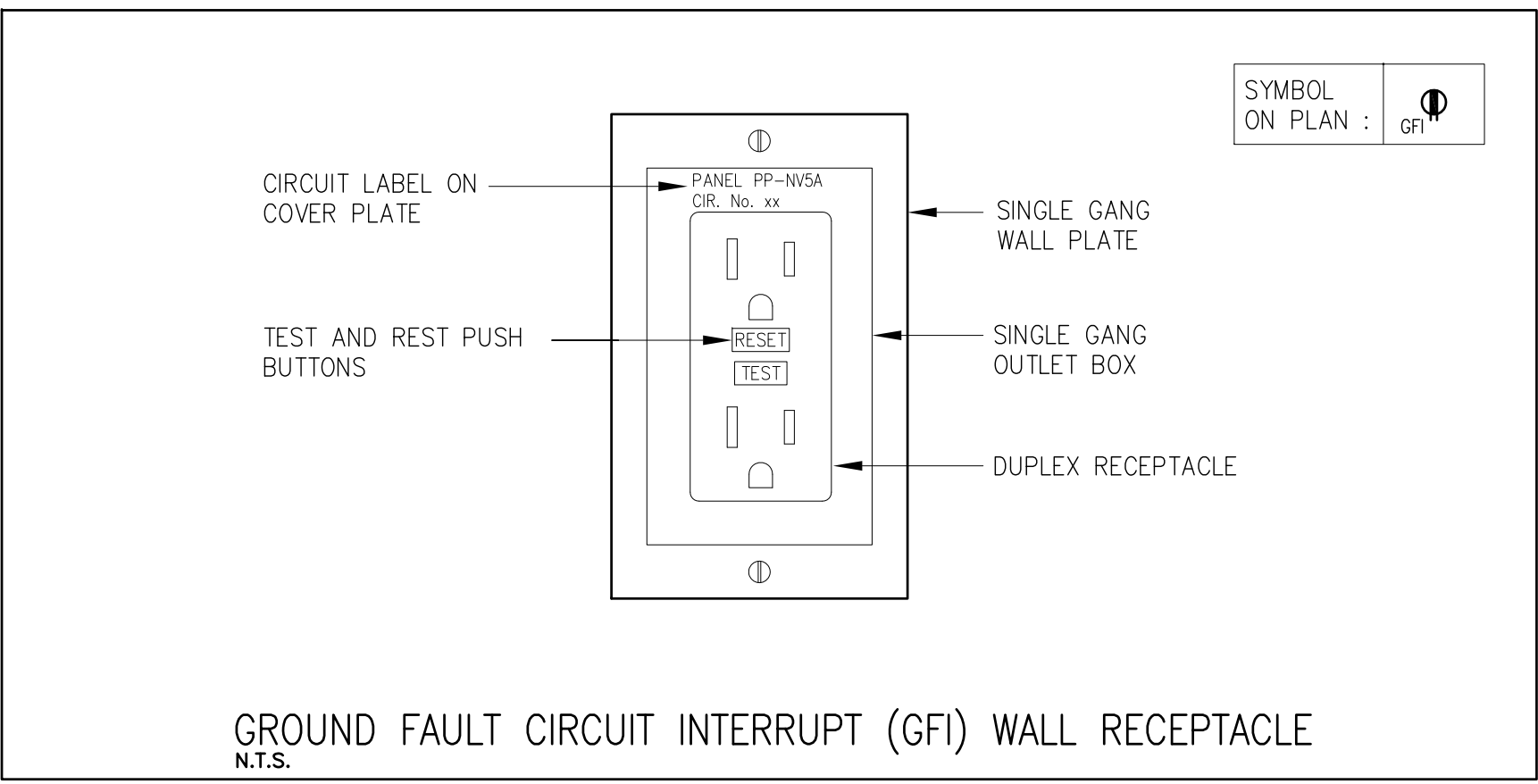
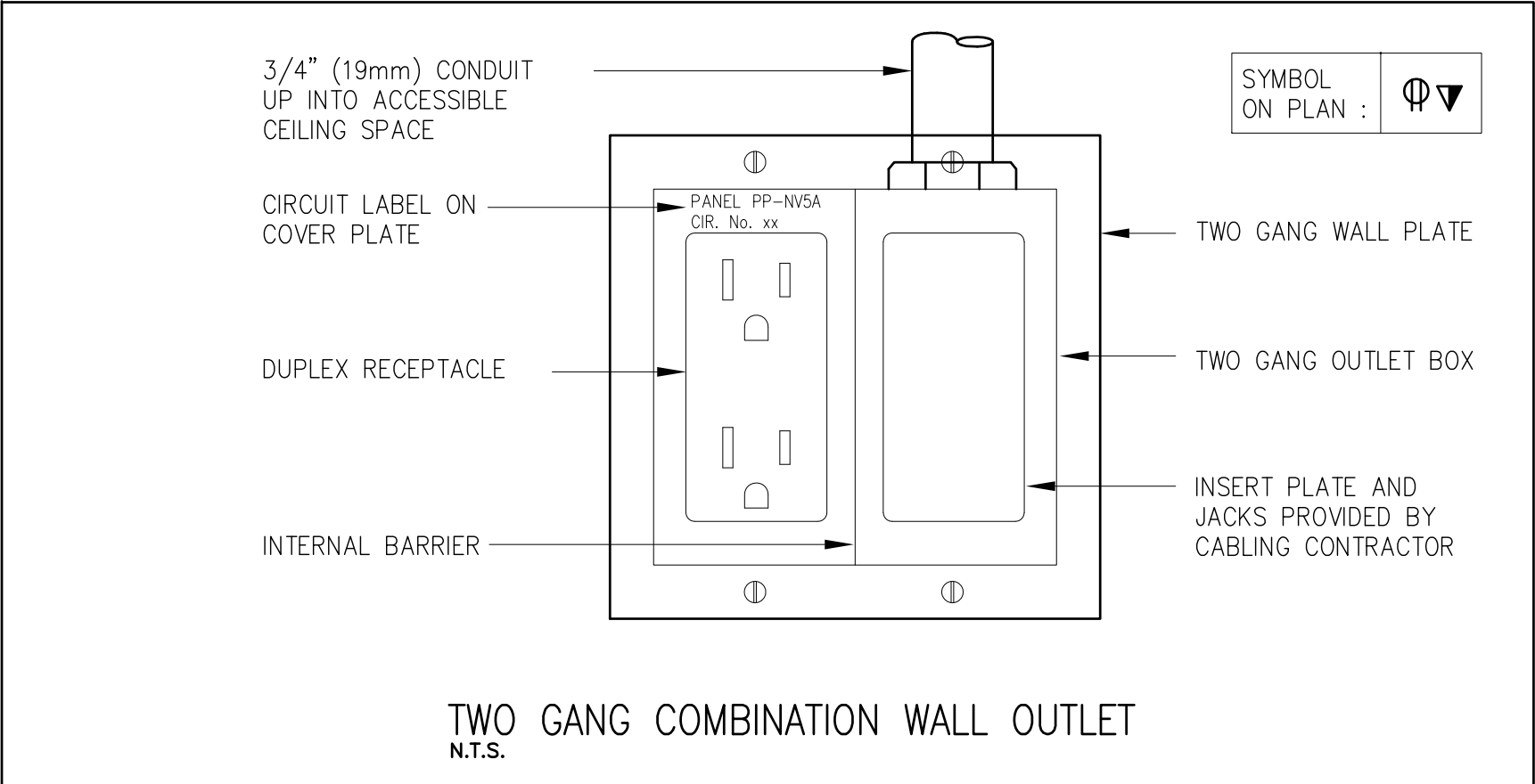
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PANEL SCHEDULE AND SINGLE LINE
DIAGRAM — ELECTRICAL

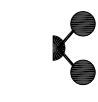
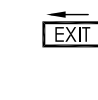
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SEPTEMBER 2025	25-103
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LIGHT FIXTURES SCHEDULE														
TAG	MAKE, MODEL AND DESCRIPTION	ELECTRICAL			SPECIFICATION FEATURES				MOUNTING			CEILING TYPE		
		VOLTS	PH	HZ	CCT	CRI	WATTS	LM/W	DIMMING	SURFACE	SUSPENDED	RECESSED	T-BAR	DRYWALL
LF-1	LED LIGHT FIXTURE SIZE 2'x4', RECESSED IN LAY-IN TILE CEILING PANEL, ILP MODEL VPAN24-44L-U-40-RFL, MVOLT, 4922LM, 4000K, 37W, DRIVER, 10KV SURGE PROTECTION, IC/NON/C RATED, TESTED TO TM21 STANDARDS, MOUNTING KIT, FRAME BOX, DLC, CSA AND ULC APPROVED. EACH FIXTURE SHALL HAVE 20 GAUGE COLD ROLLED STEEL HOUSING, 16 GAUGE DOOR FRAME, SILICON GASKETING, NFC LISTED ENCLOSURE, 0-10VDC DIMMING DRIVER AND ALL REQUIRED ACCESSORIES TO INSTALL IN PLACE COMPLETE WITH SAFETY CABLES. REFER TO NOTES BELOW.	120	1	60	4000K	80	37		●			●	●	
LF-2	LED LIGHT FIXTURE SIZE 4", RECESSED IN DROP CEILING. KIRLIN LIGHTING MODEL LRC-04IPD-2500L-120-40K-RWF(NON-IC), IP66 SEALED GASKETED TRIM, THERMAL MANAGEMENT SYSTEM, DRIVER, 10KV SURGE PROTECTION, IC/NON/C RATED, TESTED TO TM21 STANDARDS, CEILING MOUNTING KIT, DLC, CSA, AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVER (MINIMUM DIMMING 1%) AND ALL REQUIRED ACCESSORIES TO INSTALL IN PLACE. REFER TO NOTES BELOW.	120	1	60	4000K	80	25		●			●		●
LF-3	EMERGENCY LED LIGHT FIXTURE: EM-R1 LUMACELL LRAUR-WHDC, RECESSED ARCHITECTURAL EMERGENCY LIGHTING UNIT; WHITE TRIM; DC 6-24V INPUT; FOUR HIGH INTENSITY LEDS; FIXED OPTICS OPTIMIZED FOR CEILING HEIGHTS UP TO 3.7M; ULC, CSA 22.2 NO. 141; SUITABLE FOR T-BAR OR GYPSUM CEILINGS; ALL METAL BACKBOX; IC/PLENUM RATED; SQUARE DISTRIBUTION PATTERN; CONNECT TO 12V REMOTE CAPACITY EMERGENCY BATTERY UNIT.	12			5000K	90	7.25					●	●	
LF-4	LED LIGHT FIXTURE SIZE 2'x4', RECESSED IN LAY-IN TILE CEILING PANEL, ILP MODEL VPAN24-80L-U-40-RFL, MVOLT, 7503LM, 4000K, 56W, DRIVER, 10KV SURGE PROTECTION, IC/NON/C RATED, TESTED TO TM21 STANDARDS, MOUNTING KIT, FRAME BOX, DLC, CSA AND ULC APPROVED. EACH FIXTURE SHALL HAVE 20 GAUGE COLD ROLLED STEEL HOUSING, 16 GAUGE DOOR FRAME, SILICON GASKETING, NFC LISTED ENCLOSURE, 0-10VDC DIMMING DRIVER AND ALL REQUIRED ACCESSORIES TO INSTALL IN PLACE COMPLETE WITH SAFETY CABLES. REFER TO NOTES BELOW.	120	1	60	4000K	80	56		●			●	●	
LIGHT FIXTURES NOTES:														
1. REFER TO REFLECTED CEILING PLANS FOR LAYOUT AND NUMBER OF FIXTURES.					8. THE LIGHT FIXTURES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE TYPE, SIZE, DESCRIPTIONS, ACCESSORIES AND RATINGS IN THE LIGHT FIXTURE SCHEDULE, AS SOME MODEL NUMBERS MAY HAVE BEEN UPDATED BY THE MANUFACTURER.									
2. ALL LIGHT FIXTURES SHALL BE CSA, ULC AND DLC APPROVED.														
3. PROVIDE 0-10VDC DIMMER DRIVER (MINIMUM DIMMING 1%) FOR EACH FIXTURE NOTED TO HAVE DIMMING FEATURE.														
4. REFER TO LATEST DESIGN REFLECTED CEILING PLAN (ARCHITECTURAL DRAWINGS) FOR COORDINATION OF LIGHTING LAYOUT AND CEILINGS TYPES.														
5. PROVIDE SAFETY CHAINS OR APPROVED SAFETY CABLES FOR EACH CEILING MOUNTED LIGHT FIXTURE.														
6. WIRE LIGHT FIXTURES TO POWER CIRCUITS AND CONTROLS.														
7. LIGHT FIXTURES SHALL HAVE 10 YEAR WARRANTY.														



LEGEND AND DEVICES SPECIFICATIONS

	EMERGENCY LIGHTING WALL MOUNTED TWO LED LAMPHEADS, 12V. AIMLITE OR EQUAL.		EXHAUST FAN, FRACTIONAL HORSE POWER, SUPPLIED BY MECHANICAL, POWER WIRING TO PANEL AND TOGGLE ON/OFF SWITCH (IF REQUIRED) SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
	EMERGENCY LIGHTING WALL MOUNTED SINGLE LED LAMPHEAD, 12V. AIMLITE OR EQUAL.		HARD WIRED POWER CONNECTION TO EQUIPMENT COMPLETE WITH MANUAL DISCONNECT SWITCH RATED PER EQUIPMENT SPECIFICATION. WP - DENOTES WEATHER PROOF HARDWARE
	EMERGENCY LIGHTING CEILING MOUNTED DOUBLE LED LAMPHEAD, 12V. AIMLITE OR EQUAL.		HARD WIRED POWER CONNECTION TO EQUIPMENT. REVIEW SHOP DRAWINGS AND COORDINATE WITH OTHER TRADES FOR EQUIPMENT SPECIFICATION.
	EXIT SIGN AT CEILING WITH DIRECTIONAL ARROW. AIMLITE OR APPROVED EQUAL (RUNNING MAN) MODEL RPTE EDEGLIT		WALL MOUNTED HORN / STROBE COMBINATION UNIT. SPECTREALRT ADVANCE AUDIBLE VISIBLE NOTIFICATION MODEL HWA, WHITE, 85 dBA AT 10 FT (ULC REVERBERANT) AND COMPLETE WITH MOUNTING FRAME AND JUNCTION BOX. PROVIDE BACK BOX AND ALL REQUIRED WIRING.
	COMBINATION EXIT SIGN (RUNNING MAN) AND EMERGENCY LIGHTS. AIMLITE OR EQUAL, DURABLE 18 GAUGE STEEL, COMBINATION BATTERY UNIT, EXIT SING AND TWO 6W LED EMERGENCY LIGHTS, 12V, SLIM PROFILE, STEEL BOX, 144 W, MOMENTARY PUSH BUTTON TEST SWITCH, PILOT LED, CURRENT LIMITED CHARGER AND SEALED LEAD ACID BATTERY. UNIT SHALL BE CSA APPROVED. 'BU' DENOTES BATTERY UNIT.		WALL MOUNTED HORN UNIT. SPECTREALRT ADVANCE AUDIBLE VISIBLE NOTIFICATION HORN, 85 dBA AT 10 FT (ULC REVERBERANT) AND COMPLETE WITH MOUNTING FRAME AND JUNCTION BOX. PROVIDE BACK BOX AND ALL REQUIRED WIRING.
	COMBINATION EXIT SIGN (RUNNING MAN) AND BATTERY UNIT. AIMLITE OR EQUAL BATTERY UNIT, DURABLE 18 GAUGE STEEL, 120V, 144W, 12 VDC SLIM PROFILE, MOMENTARY PUSH BUTTON TEST SWITCH, PILOT LED, CURRENT LIMITED CHARGER AND SEALED LEAD ACID BATTERY. UNIT SHALL BE CSA APPROVED. WIRE EACH UNIT TO DEDICATED BREAKER IN NEAREST POWER PANEL.		WALL MOUNTED FIRE ALARM PULL STATION (MANUAL INITIATION DEVICE)
	BATTERY UNIT: AIMLITE OR EQUAL BATTERY UNIT, DURABLE 18 GAUGE STEEL, 120V, 144W, 12 VDC SLIM PROFILE, MOMENTARY PUSH BUTTON TEST SWITCH, PILOT LED, CURRENT LIMITED CHARGER AND SEALED LEAD ACID BATTERY. UNIT SHALL BE CSA APPROVED. WIRE EACH UNIT TO DEDICATED BREAKER IN NEAREST POWER PANEL. PROVIDE LOW VOLTAGE WIRING TO EACH REMOTE EMERGENCY LIGHT.		HIGH BAY CEILING MOUNTED OCCUPANCY SENSOR SWITCH. LUTRON OR EQUAL DUAL TECHNOLOGY WITH XCT AND POWER PACKS. WIRE TO LIGHT FIXTURES AS SHOWN. PROVIDE BACK BOX AND SUPPORT BRACKETS TO SECURE EACH SENSOR IN PLACE.
	RECESSED REMOTE EMERGENCY LIGHT FIXTURE. REFER TO LIGHT FIXTURES SCHEDULE.		CEILING MOUNTED SMOKE ALERT DETECTOR, SIMPLEX IONIZATION TYPE BASE SMOKE DETECTOR SERIES 4098 AND/OR RELAY BASE (PHOTO ELECTRIC) AND PROVIDE BACK BOX AND SUPPORT BRIDGE.
	PROVIDE SPECIFICATION GRADE RECEPTACLE LEVITON DUPLEX 120V, 15A. PROVIDE BACK BOX RECESSED IN WALL, STAINLESS STEEL COVER PLATE, CONDUITS AND WIRING TO POWER PANEL. LABEL EACH RECEPTACLE (BLACK ON TRANSPARENT LABEL TAPE) INDICATING POWER PANEL AND CIRCUIT BREAKER NUMBER. ALL WIRING SHALL BE IN 3/4" EMT CONDUITS,		CEILING MOUNTED HEAT DETECTOR, SIMPLEX COMBINATION 135°F (57°C) FIXED TEMPERATURE AND 15°F (8°C) PER MINUTE RATE-OF-RISE HEAT DETECTOR. PROVIDE BACK BOX AND SUPPORT BRIDGE.
	'HL' DENOTES RECEPTACLE AT HIGH LEVEL FOR EMERGENCY LIGHTING UNIT / TV / MONITOR.		CEILING MOUNTED MOTION SENSOR SWITCH, DUAL TECHNOLOGY, ULTRASONIC AND INFRARED TYPE FOR LIGHTING CONTROL. WATTSTOPPER OR EQUAL MODEL LMD CATALOGUE No. LMDC-100, 24VDC/VAC COMPLETE WITH LEGRAND BZ-250 POWER PACK. WIRE TO LIGHT FIXTURES AS SHOWN. PROVIDE FOR EACH SENSOR BACK BOX. PROVIDE FOR EACH SENSOR SUPPORT BRIDGE FOR LAY-IN TILE CEILING INSTALLATION.
	'AC' DENOTES ABOVE COUNTER (COORDINATE WITH ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS.)		CEILING MOUNTED HORN / STROBE COMBINATION UNIT. SPECTRALERT ADVANCE MODEL SPC-LENS RC, WHITE, 85 dBA AT 10 FT (ULC REVERBERANT), THREE POSITION SWITCH, AND COMPLETE WITH MOUNTING FRAME AND JUNCTION BOX. PROVIDE BACK BOX AND ALL REQUIRED WIRING.
	'GFI' GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE.		CEILING MOUNTED FIRE ALARM HORN UNIT. SIMPLEX OR APPROVED EQUAL WHITE, 85 dBA AT 10 FT (ULC REVERBERANT) AND COMPLETE WITH MOUNTING FRAME. PROVIDE JUNCTION BOX AND ALL REQUIRED WIRING. CONNECT TO EXISTING FIRE ALARM SYSTEM.
	120 VOLT, 15A SPECIFICATION GRADE SINGLE SWITCH COMPLETE WITH RECESSED BACKBOX AND STAINLESS STEEL COVER PLATE. WIRE TO LIGHT FIXTURES AS SHOWN. ALL WIRING SHALL BE IN EMT CONDUITS.		PUBLIC ADDRESS SPEAKER RECESSED AT CEILING. JBL MODEL CSS8008 OR APPROVED EQUAL, 15-WATTS, 8" ROUND, 120 DEGREES CONICAL COVERAGE, RECESSED IN CEILING. REVIEW EXISTING SYSTEM FOR COMPATIBILITY BEFORE ORDERING THE UNITS. PROVIDE EACH UNIT COMPLETE WITH ALL REQUIRED SUPPORT BRACKETS, BACK BOX, WIRES AND ACCESSORIES (PARTS) TO COMPLETE INSTALLATION. WIRE TO EXISTING PUBLIC ANNUNCIATION SYSTEM.
	'3' DENOTES THREE WAY LIGHT SWITCH		CEILING MOUNTED COMBINATION STROBE LIGHT/BUZZER DEVICE. SIMPLEX TRUEALERT OR APPROVED EQUAL. WIRE TO FIRE ALARM SYSTEM.
	'D' DENOTES DIMMER SWITCH		CEILING MOUNTED DAYLIGHT SENSOR, WATTSTOPPER OR APPROVED EQUAL, COMPLETE WITH INTEGRAL PHOTOCCELL AND CONTACTS FOR INTERFACE WITH LIGHTING CONTROL SYSTEM.
	'OS' DENOTES SWITCH WITH OCCUPANCY SENSOR		DATA OUTLET. PROVIDE BACK BOX WITH 3/4" EMT CONDUIT AND PULL STRING UP TO CEILING SPACE. CAT-6 WIRING BY THE INFORMATION TECHNOLOGY (IT) TEAM UNLESS OTHERWISE NOTED.
	SPECIFICATION GRADE RECEPTACLE, SPLIT CIRCUIT, LEVITON DUPLEX 120V, 15A. PROVIDE BACK BOX RECESSED IN WALL, STAINLESS STEEL COVER PLATE, CONDUITS AND WIRING TO POWER PANEL. LABEL EACH RECEPTACLE (BLACK ON TRANSPARENT LABEL TAPE) INDICATING POWER PANEL AND CIRCUIT BREAKER NUMBER. ALL WIRING SHALL BE IN 3/4" EMT CONDUITS,		TELEPHONE OUTLET. PROVIDE BACK BOX WITH 3/4" EMT CONDUIT WITH PULL STRING UP TO CEILING SPACE.
	LEVITON RANGE RECEPTACLE DUPLEX 240V, 40A. PROVIDE BACK BOX RECESSED IN WALL, STAINLESS STEEL COVER PLATE, CONDUITS AND WIRING TO POWER PANEL. LABEL EACH RECEPTACLE (BLACK ON TRANSPARENT LABEL TAPE) INDICATING POWER PANEL AND CIRCUIT BREAKER NUMBER.		PUBLIC ANNUNCIATOR
			SPEAKER - PUBLIC ANNUNCIATOR
			JUNCTION BOX WITH COVER PLATE

ABBREVIATIONS

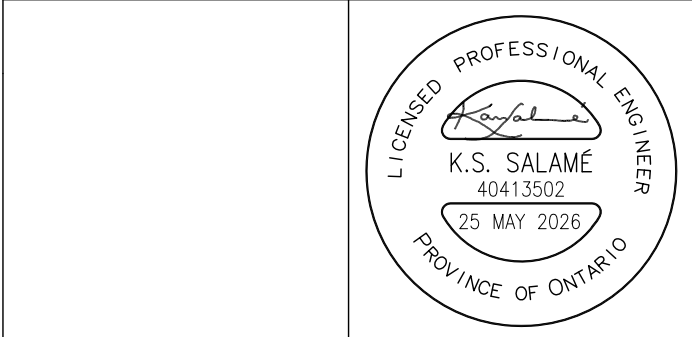
E	EXISTING TO REMAIN.	R	RELOCATE EXISTING UNIT/DEVICE.
N	PROVIDE NEW UNIT/DEVICE.	CTE	CONNECT TO EXISTING
D	DISCONNECT AND REMOVE.	RE	REPLACE EXISTING UNIT/DEVICE

ABBREVIATIONS

E	EXISTING TO REMAIN.	R	RELOCATE EXISTING UNIT/DEVICE.
N	PROVIDE NEW UNIT/DEVICE.	CTE	CONNECT TO EXISTING
D	DISCONNECT AND REMOVE.	RE	REPLACE EXISTING UNIT/DEVICE

GENERAL DEMOLITION NOTES

1. DISCONNECT AND RELOCATE EXISTING EQUIPMENT, DISCONNECTS, POWER PANEL, SWITCHES, CONDUITS, JUNCTION BOXES, DEVICES AND SYSTEMS AS NOTED AND REQUIRED. REMOVE ALL REDUNDANT CONDUITS AND WIRING BACK TO SOURCE. MAKE SAFE ALL EXISTING POWER CIRCUITS.
2. ALL MATERIALS AND ITEMS THAT ARE NOT BEING RE-USED SHALL BE REMOVED FROM SITE.
3. CONTRACTOR SHALL REVIEW THE CONSTRUCTION SCHEDULE AND COORDINATE REMOVAL OF ITEMS ACCORDINGLY. DO NOT DISCONNECT EQUIPMENT NOTED TO BE REMOVED OR SHUT DOWN SYSTEMS WITHOUT PRIOR SCHEDULING AND APPROVAL.
4. ALL FIXTURES, EQUIPMENT, SYSTEMS THAT ARE EXISTING TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
5. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE WORK AREA ON DAILY BASIS. COORDINATE WITH GENERAL CONTRACTOR FOR USE OF WASTE BINS.
6. ELECTRICAL DEMOLITION SHALL BE DONE SUCH THAT NO DAMAGE TO EXISTING WALLS AND/OR FLOORS.
7. EXISTING SYSTEMS AND FACILITIES SHALL NOT BE USED UNLESS ARRANGED FOR AND APPROVED BY OWNER.
8. SEAL ALL FLOOR AND WALL OPENINGS RESULTED FROM REMOVAL OF CONDUITS USING APPROVAL FIRE RESISTANT RATING SEALANT.
9. PROVIDE ALL REQUIRED CORE DRILLING AND OPENINGS FOR NEW CONDUITS AND WIRES. COORDINATE ON SITE AND OBTAIN APPROVAL BEFORE COMMENCING WORK.



NOTES:

ALL DRAWINGS AND SPECIFICATIONS IS AN INSTRUMENT OF SERVICE AND REMAIN THE EXCLUSIVE PROPERTY OF DESIGNER AND ARE PROTECTED UNDER THE COPYRIGHT ACT. THEY MAY NOT BE REPRODUCED, DISTRIBUTED, ALTERED FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE DESIGNER.

DO NOT SCALE DRAWINGS. DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS 'ISSUED FOR CONSTRUCTION'

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILS. IF IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

8.		
7.		
6.		
5.		
4.	TENDER	25 MAY 2026
3.	REVISION -- CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.

1684 SHELLARD SIDE ROAD
CAMBRIDGE, ONTARIO
N1R 5S7

shellard@consultant.com
226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON -- WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME:
**LEGEND, SCHEDULE AND DETAILS
ELECTRICAL**

DRAWN BY:	CHECKED BY:
N.P.	N.S.

DATE:	JOB No.:
SEPTEMBER 2025	25-103

SCALE:	SHEET No.:
NOT TO SCALE	E3.03

GENERAL CONDITIONS

1. SUPPLY AND INSTALL A COMPLETE MECHANICAL SYSTEM AS SHOWN AND/OR SPECIFIED HEREIN. VISIT JOB SITE AND EXAMINE ALL EXISTING CONDITIONS WHICH AFFECT THE WORK
2. THE SPECIFIED ITEMS OUTLINED IN THIS DOCUMENT ARE INTENDED TO COVER A BROAD RANGE OF MECHANICAL EQUIPMENT, DEVICES AND SYSTEMS. SOME SPECIFICATION ITEMS MAY NOT BE APPLICABLE AND THE CONTRACTOR SHALL IDENTIFY AND APPLY ONLY THE RELEVANT SPECIFICATIONS.
3. PAY AND OBTAIN ALL REQUIRED PERMITS, FEES, LICENSES, CERTIFICATE OF INSPECTIONS, ETC. PROVIDE AND SUBMIT DRAWINGS TO THE AUTHORITIES IF REQUIRED.
4. DESIGN DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH APPLICABLE BUILDING CODES, STANDARDS, AND LOCAL BY-LAWS. HOWEVER, THE DRAWINGS MAY NOT NECESSARILY ILLUSTRATE ALL REQUIRED ACCESSORIES, FITTINGS, DEVICES, OR INSTALLATION DETAILS NEEDED TO FULLY CONFORM TO GOVERNING STANDARDS. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLETE COMPLIANCE WITH THE INTENT AND DETAILED REQUIREMENTS OF ALL APPLICABLE CODES, STANDARDS, AND AUTHORITIES HAVING JURISDICTION.
5. COORDINATE WITH OTHER TRADES REGARDING LOCATION OF EQUIPMENT, DEVICES, DISTRIBUTION SYSTEM, ETC.
6. PROVIDE SHOP DRAWINGS TO ALL NEW EQUIPMENTS.
7. SUPPLY WIRING DIAGRAMS TO ELECTRICAL CONTRACTOR FOR THEIR CONNECTION.
8. CLEAN ALL EQUIPMENT AND OTHER INSTALLATIONS. FOLLOW WRITTEN MAINTENANCE INSTRUCTION FROM MANUFACTURER.
9. PROVIDE GUARANTEE IN WRITING FOR THE MATERIAL AND WORKMANSHIP INCLUDING THE MANUFACTURER'S GUARANTEE FOR THE PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
10. THE CONTRACTOR IS TO LOCATE THE EXACT DIMENSIONS AND POSITIONS OF OPENINGS AND HOLES WHERE CUTTING MAY BE REQUIRED IN ROOFS, CEILINGS AND/OR WALLS FOR PASSAGE OF PIPES, DUCTS, ETC. CUTTING AND PATCHING SHALL BE DONE BY THIS CONTRACTOR. REFER TO STRUCTURAL DRAWINGS FOR COORDINATION AND DETAILS.
11. ALL MATERIALS AND EQUIPMENT TO BE NEW AND FREE OF DEFECTS, AND SHALL BE C.S.A. APPROVED.
12. INSULATE EXHAUST AIR DUCT MINIMUM 6" FROM EXTERIOR WALLS AND ROOF.
13. COORDINATE ON SITE EXACT LOCATION OF EACH EQUIPMENT TO ENSURE ADEQUATE SPACE AND SERVICE ACCESS INCLUDING DIMENSIONS, LOCATIONS AND POSITIONS.
14. COORDINATE LOCATION OF OPENINGS AND CORE DRILLING WHERE REQUIRED IN FLOORS, ROOFS, CEILINGS AND/OR WALLS FOR PASSAGE OF DUCTS, PIPES, WIRES, ETC. MARK EACH LOCATION AND OBTAIN APPROVAL BEFORE PROCEEDING. ALL OPENINGS REQUIRED TO COMPLETE SYSTEMS INSTALLATION SHALL BE CARRIED BY THIS DIVISION.

H.V.A.C. GENERAL REQUIREMENTS

1. SUPPLY AND INSTALL DUCTS IN ACCORDANCE TO SMACNA AND ASHRAE STANDARDS.
2. ALL BRANCH DUCT TAKEOFFS TO BE COMPLETE WITH SPLITTER DAMPERS. ALL RETURN AIR BRANCH DUCTS SHALL BE COMPLETE WITH OPPOSED BLADE DAMPERS FOR AIR BALANCING. COORDINATE ON SITE LOCATION OF EACH DUCT AND ENSURE ADEQUATE SPACE TO FIT IN PLACE AS WELL AS FOR OTHER TRADES (FIRE PROTECTION, ELECTRICAL, FIRE PROTECTION DEVICES...ETC.). FINAL LOCATION OF ALL REGISTERS, GRILLES AND DIFFUSERS TO BE COORDINATED WITH LATEST CEILING LAY-OUT ON SITE PRIOR TO INSTALLATION AND ANY INTERFERENCES PROBLEMS PROMPTLY REPORTED.
3. CONTRACTOR TO CONFIRM CEILING TYPE (DRYHALL OR T-BAR) PRIOR TO ORDERING GRILLES AND DIFFUSERS. ALL DUCT SIZES SHOWN ARE FREE AREA REQUIREMENTS AND WHERE INTERNAL INSULATION IS SHOWN.
4. THE DUCT SIZES MUST BE INCREASED ACCORDINGLY. U/C DESIGNATES THAT A 20 MM DOOR UNDERCUT IS REQUIRED.
5. ALL EXHAUST DUCTS TO BE KEPT AT LEAST 4.5 M AWAY FROM ANY FRESH AIR INTAKES.
6. ALL HEATING, VENTILATING AND AIR CONDITIONING UNITS SHALL BE C.S.A. APPROVED AND THE INSTALLATION SHALL MEET C.S.A. STANDARDS.
7. THE EQUIPMENT AND SYSTEMS SHALL NOT BE USED DURING CONSTRUCTION EXCEPT FOR TESTING.

FIRE SEAL

1. MAINTAIN THE INTEGRITY OF ALL FIRE SEPARATIONS. PROVIDE ALL NECESSARY CSA AND ULC LISTED PRODUCTS WHICH ARE REQUIRED TO SEAL AROUND EACH PIPE, DUCT, CONDUITS AND WIRES. APPLY THE FIRE RATED SEALANT AT FLOORS AND RATED WALLS TO RETAIN THE FIRE RATING CONTINUITY OF THESE ASSEMBLIES.
2. WHERE DUCTS AND PIPES PASS THROUGH FLOORS AND FIRE RATED WALLS, SPACE BETWEEN WIRING AND SLEEVE FULL WITH FIREPROOFING, AND SEAL WITH CANSTRUT ELASTA-SEAL OR APPROVED CAULKING COMPOUND WITH FIRE RESISTANCE RATING EQUAL TO THE WALL/FLOOR BEING PENETRATED.
3. PACK ALL SLEEVES AND AROUND THE DUCTS FOR A COMPLETE TIGHT SEAL. ACCEPTED FIRE SEAL LIQUID OR PUTTY TYPE SHALL ONLY BE PROVIDED BY DOW CORNING OR 3M. MINERAL WOOL FIBRE SHALL NOT BE USED.

ALTERATIONS AND RELOCATIONS

1. THE OWNER AND/OR ENGINEER RESERVES THE RIGHT TO ALTER THE LOCATION OF ANY MECHANICAL UNIT, EQUIPMENT, DEVICES, DUCTS, PIPES, OR GRILLE/DIFFUSER DURING CONSTRUCTION AT NO EXTRA COST, PROVIDED THAT THE REQUEST IS MADE BEFORE THE COMMENCEMENT OF ROUGH-IN WORK AND THE REQUESTED CHANGES ARE WITHIN A 3-METER RADIUS. THE REQUESTED REVISIONS AND ADJUSTMENTS SHALL BE INTEGRATED INTO THE CONSTRUCTION PROCESS WITHOUT IMPACTING THE OVERALL PROJECT TIMELINE OR BUDGET. ALL REQUESTS FOR ALTERATION OR RELOCATION WILL BE COMMUNICATED IN WRITING TO THE CONSTRUCTION TEAM THROUGH THE GENERAL CONTRACTOR.
2. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES TO AVOID ANY INTERFERENCES, CONFLICTS OR DISRUPTIONS IN THE CONSTRUCTION SCHEDULE.

SANITARY DRAIN LOCATE AND VERIFICATION

1. THE CONTRACTOR SHALL CONDUCT A FULL LOCATE OF THE EXISTING BURIED SANITARY PIPING IN THE WORK AREAS USING A DRAIN DIGITAL CAMERA AND ASSOCIATED LOCATING EQUIPMENT PRIOR TO COMMENCING ANY EXCAVATION OR INSTALLATION WORK. VERIFY THE HORIZONTAL ALIGNMENT, DEPTH, AND INVERT ELEVATIONS OF ALL SANITARY LINES, INCLUDING ANY BRANCHES OR CONNECTIONS THAT MAY AFFECT THE PROPOSED WORK. CONTRACTOR SHALL DOCUMENT ALL FINDINGS AND DEVELOP ACCURATE AS-BUILT LOCATE DRAWINGS FOR REVIEW AND COORDINATION. THE CONTRACTOR SHALL REVISE THE LAYOUT AND ROUTING AND CONNECTION POINTS OF ALL PROPOSED DRAIN PIPING AS REQUIRED TO SUIT EXISTING CONDITIONS, AT NO ADDITIONAL COST TO THE OWNER.

NAMEPLATES

1. PROVIDE FOR EACH MECHANICAL UNIT LAMACOID NAMEPLATE SECURED MECHANICALLY TO THE UNIT CASING. LAMACOID NAMEPLATES SHALL BE CONSTRUCTED FROM 3-PLY PLASTIC ENGRAVING MATERIAL, BLACK WITH WHITE ENGRAVING, 3 MM THICK AND MINIMUM 10 MM HIGH LETTERING. THE NAMEPLATES SHOULD BE SUITABLE FOR BOTH INDOOR AND OUTDOOR USE.

UNITS AND EQUIPMENT

1. SUPPLY AND INSTALL MECHANICAL UNITS, EQUIPMENT AND SYSTEM AS SHOWN AND NOTED.
2. FAN EQUIPMENT:

A. PROVIDE FANS WHERE SHOWN AND NOTED ON DRAWINGS.

B. REFER TO SCHEDULE ON DRAWINGS FOR DETAILS.

C. EACH FAN SHALL BE CSA APPROVED AND COMPLETE WITH BACK DRAFT DAMPER, SCREEN, DISCONNECT, STARTER AND ACCESSORIES AS NOTED ON FAN SCHEDULE.

D. COORDINATE LOCATION OF EACH FAN ON SITE AND INSTALL IN ACCORDANCE TO MANUFACTURER WRITTEN INSTRUCTIONS.

E. INSTALL CEILING SUSPENDED FANS USING VIBRATION ISOLATION SPRINGS AND DUCT FLEXIBLE CONNECTORS.

F. MAINTAIN REQUIRED SERVICE ACCESS CLEARANCES.
3. ALL DUCTWORK CONSTRUCTION, SUPPORT AND INSTALLATION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF CURRENT A.S.H.R.A.E. GUIDE AND SMACNA STANDARDS UNLESS NOTED OTHERWISE HEREIN. APPLY CROSS-BREAKING TO SHEET METAL BETWEEN THE STANDING SEAMS OR REINFORCING ANGLES. CENTRE OF CROSSBREAK TO BE OF REQUIRED HEIGHT TO ASSURE SURFACE BEING RIGID. ALL DUCTWORK SHALL BE MEDIUM PRESSURE AND SEALED TO PREVENT LEAKAGE IN EXCESS OF 1% AT 100 PA. CONSTRUCT ALL CURB CAPS, ETC., OF GALVANIZED STEEL SHEETS WHICH ARE FREE FROM BLISTERS, SLIVERS, PITS, IMPERFECTLY COATED SPOTS, ETC., MAKE WITHOUT ADDITIONAL CHARGE, ANY NECESSARY CHANGES OR ADDITIONS TO LAYOUT OF SHEET METAL TO ACCOMMODATE STRUCTURAL ETC.
4. PROVIDE FIRE DAMPERS WHERE SHOWN AND AS REQUIRED BY ORDINANCES OR CODES. THE FIRE DAMPERS SHALL BE MADE TO CANADIAN UNDERWRITERS ASSOCIATION STANDARDS. DAMPERS SHALL BE KERR HUNT SLIDE GATE TYPE "B", DAMPERS, HOUSINGS, AND METHOD OF INSTALLATION SHALL HAVE C.S.A. OR U.L. CANADA APPROVAL. CONFIRM ALL FIRE DAMPER CONSTRUCTION AND LOCATION WITH ALL AUTHORITIES HAVING JURISDICTION.
5. PROVIDE FLEXIBLE AIR DUCT (FC) AT EACH CONNECTION TO MECHANICAL UNIT.
6. MOTORIZED DAMPERS SHALL BE "LOW LEAKAGE" TYPE, HEAVY DUTY AND SHALL BE PROVIDED COMPLETE WITH FLEXIBLE BLADE SEALS, 16 GAUGE STEEL BLADES AND FRAME (MAXIMUM LEAKAGE 5%) 120V ELECTRIC MOTOR AND DAMPER LINKAGE. MOTORIZED DAMPERS SHALL BE AS MANUFACTURED BY NAYLOR HART INDUSTRIES (OR EQUAL).
7. PROVIDE LOUVRES WHERE SHOWN AND NOTED. COORDINATE WITH GENERAL CONTRACTOR FOR OPENINGS IN WALLS, LOUVRES SHALL BE E.H. PRICE LIMITED OR APPROVED EQUAL, 16 GAUGE GALVANIZED STEEL CONSTRUCTION, PRE-PAINTED TO COLOUR AS SELECTED BY ARCHITECT, COMPLETE WITH INSECT SCREENS, STORM VANES, DRAIN CHANNELS, AND MOUNTING FRAMES.

GENERAL DEMOLITION NOTES:

1. REMOVE EXISTING EQUIPMENT, UNITS, DEVICES, WIRING, PLUMBING PIPES, DUCTS, HANGERS, VENTS...ETC. AS NOTED OR REQUIRED TO FACILITATE INSTALLATION OF NEW MECHANICAL SYSTEMS. REMOVE ALL ASSOCIATED ACCESSORIES AND PIPES AS NECESSARY TO PREPARE OF PLUMBING SYSTEM.
2. ALL EQUIPMENT AND ITEMS THAT ARE NOT BEING RE-USED SHALL BE REMOVED FROM SITE.
3. CONTRACTOR SHALL REVIEW THE CONSTRUCTION SCHEDULE AND COORDINATE REMOVAL OF ITEMS ACCORDINGLY. DO NOT DISCONNECT EQUIPMENT NOTED TO BE REMOVED OR SHUT DOWN SYSTEMS WITHOUT PRIOR SCHEDULING AND APPROVAL.
4. ALL FIXTURES, EQUIPMENT, SYSTEMS THAT ARE EXISTING TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
5. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE WORK AREA ON DAILY BASIS. COORDINATE WITH GENERAL CONTRACTOR FOR USE OF WASTE BINS.
6. THE MECHANICAL DEMOLITION SHALL BE DONE SUCH THAT NO DAMAGE TO EXISTING FINISHED SURFACES.

INSULATION AND LABELS

1. INSULATE ALL EXPOSES SUPPLY AIR AND RETURN AIR DUCTS USING MINIMUM 1" THICK FIBRE GLASS FOIL FACED INSULATION. SECURE JOINTS USING APPROVED INSULATION TAPES AND STRAPS. COVER INSULATION WITH PVC JACKETING WHERE NOTED ON DRAWINGS.
2. INSULATE DOMESTIC HOT AND COLD WATER PIPES USING 1" THICK FIBERGLASS PIPE INSULATION. TAPE ALL JOINTS USING MINIMUM 2" WIDE APPROVED INSULATION TAPE.
3. INSULATE HOT WATER HEATING PIPES USING 2" THICK FIBERGLASS PIPE INSULATION. TAPE ALL JOINTS USING MINIMUM 2" WIDE APPROVED INSULATION TAPE.
4. COVER ALL EXPOSED PIPES INSULATION WITH WHITE PVC JACKETING. SEAL ALL JOINTS TO APPROVAL. OVERLAP PVC JACKETING AND APPLY 2" PVC TAPE AT EACH JOINT. PVC JACKETING SHALL HAVE A FLAME SPREAD RATING NOT GREATER THAN 25 AND A SMOKE DEVELOPED RATING NOT GREATER THAN 50. TESTED PER ASTM E84. USE PRE-MOLDED OR PRE-FORMED PVC JACKETING FOR ELBOWS AND FITTINGS. SEAL ALL JOINTS WITH APPROVED PVC TAPE. LABEL ALL PIPES AND PROVIDE FLOW DIRECTIONAL ARROWS.
5. VALVES AND FITTINGS SHALL HAVE MOLDED INSULATION AND PVC JACKETING.
6. PROVIDE GALVANIZED SADDLES FOR EACH PIPE HANGER.
7. LABEL ALL PIPES AND PROVIDE ARROWS INDICATING FLOW DIRECTION.

RECORD DRAWINGS

1. REFER TO THE FRONT-END SPECIFICATIONS FOR THIS PROJECT FOR REQUIREMENTS RELATED TO AS-BUILT DRAWING PREPARATION AND SUBMITTAL. PREPARE, MAINTAIN, AND SUBMIT COMPLETE AS-BUILT DRAWINGS IN ACCORDANCE WITH ALL NOTES AND SPECIFIED PROCEDURES. AS-BUILT DRAWINGS SHALL CLEARLY SHOW THE ROUTING AND FINAL LOCATIONS OF ALL BURIED PIPING, UNDERGROUND SERVICES, MECHANICAL RISERS, MECHANICAL EQUIPMENT, ROUTING OF DUCTWORK, PIPES, AND ANY OTHER EXPOSED OR CONCEALED PLUMBING AND HVAC INSTALLATIONS.

HEATING PIPING SYSTEM TREATMENT

1. DRAIN, REFILL, AND VENT THE HOT WATER HEATING SYSTEM AS REQUIRED TO COMPLETE THE WORK. FLUSH THE EXISTING HOT WATER HEATING SYSTEM USING INDUSTRY STANDARD HYDRONIC CLEANING PRACTICES IN ACCORDANCE WITH CSA B214 AND ASHRAE GUIDELINE 12. REMOVE ALL SEDIMENT, SCALE, SLUDGE, AND ACCUMULATED DEBRIS FROM THE SYSTEM. PROVIDE AND INJECT ALL REQUIRED RUST INHIBITORS, CORROSION CONTROL CHEMICALS, AND WATER TREATMENT ADDITIVES SUITABLE FOR CLOSED LOOP HEATING SYSTEMS.
2. ALL SYSTEM FLUSHING, CHEMICAL TREATMENT, AND FINAL WATER QUALITY ADJUSTMENTS SHALL BE PERFORMED BY AQUARIAN CHEMICALS. FINAL WATER CHEMISTRY SHALL MEET THE PUBLISHED WATER QUALITY REQUIREMENTS OF THE EXISTING HEATING BOILERS, PUMPS, HEAT EXCHANGERS, AND ALL OTHER HYDRONIC EQUIPMENT INSTALLED IN THE BUILDING.
3. SUBMIT A FINAL WATER TREATMENT REPORT CONFIRMING SYSTEM CONDITION, CHEMICAL LEVELS, AND COMPLIANCE WITH MANUFACTURER REQUIREMENTS.

DUCT CLEANING

1. CLEAN THE ENTIRE EXISTING SUPPLY AIR DUCT SYSTEM WHERE NOTED, INCLUDING ALL MAIN DUCTS, BRANCHES, RISERS, FITTINGS, FLEX CONNECTIONS, AND TERMINAL OUTLET CONNECTIONS, USING A PROFESSIONAL DUCT CLEANING CONTRACTOR CERTIFIED FOR HVAC SYSTEM CLEANING. CLEANING SHALL INCLUDE REMOVAL OF ACCUMULATED DUST, DEBRIS, AND CONTAMINANTS FROM ALL ACCESSIBLE SECTIONS OF THE DUCTWORK. PROVIDE TEMPORARY ACCESS OPENINGS AS REQUIRED AND SEAL ALL OPENINGS IN ACCORDANCE WITH SMACNA STANDARDS AFTER CLEANING IS COMPLETE. UPON COMPLETION, PROVIDE A WRITTEN CLEANING REPORT DOCUMENTING CLEANING METHODS, LOCATIONS CLEANED, BEFORE/AFTER PHOTOGRAPHS, AND ANY DEFICIENCIES OR DAMAGE OBSERVED DURING CLEANING. ALL CLEANING WORK SHALL BE COMPLETED PRIOR TO TESTING AND BALANCING OF THE HVAC SYSTEM.

MECHANICAL SPECIFICATIONS

SCOPE OF WORK

1. WORK SHALL INCLUDE SUPPLY AND INSTALLATION OF ALL LABOUR AND MATERIALS NECESSARY FOR THE VARIOUS SYSTEMS SHOWN, NOTED AND REQUIRED TO COMPLETE SYSTEMS INSTALLATION. TEST AND COMMISSION EACH SYSTEM TO APPROVAL.
2. THE DRAWINGS INDICATE GENERAL LOCATION EQUIPMENT, ROUTING OF DUCTS, PIPES, FIXTURES, CONTROLS ...ETC. WHERE REQUIRED WORK IS NOT SHOWN OR ONLY SHOWN DIAGRAMMATICALLY, INSTALL SAME TO CONSERVE HEAD ROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH FREE USE OF SPACE THROUGH WHICH THEY PASS.
3. THE WORK SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE SUPPLY AND INSTALLATION OF THE FOLLOWING:

- VISIT PROJECT SITE AND REVIEW EXISTING CONDITIONS.
 - COORDINATION WITH GENERAL CONTRACTOR AND FACILITIES FOR ANY REQUIRED SHUT DOWN.
 - DEMOLITION AS NOTED AND REQUIRED TO COMPLETE SYSTEM INSTALLATION.
 - CONNECT TO EXISTING SERVICES.
 - SUBMITTAL OF SHOP DRAWINGS FOR REVIEW.
 - SUPPLY AND INSTALLATION OF MECHANICAL SYSTEMS AS SHOWN AND NOTED.
 - PLUMBING SYSTEM INCLUDING AND ALL REQUIRED PIPES, VALVES, FITTINGS...ETC.
 - HEATING EQUIPMENT AND ASSOCIATED PIPING.
 - HEATING AND VENTILATION SYSTEMS.
 - FIRE SEAL AT RATED WALLS AND FLOORS.
 - DUCTS AND PIPES INSULATION.
 - ALL REQUIRED CUTTING, CORE DRILLING AND PATCHING.
 - BUILDING AUTOMATION SYSTEM AND ALL REQUIRED CONTROL WIRING.
 - ARRANGING FOR INSPECTION BY LOCAL AUTHORITIES HAVING JURISDICTION.
 - TESTING, BALANCING AND COMMISSIONING.
 - ALL REQUIRED WORK NOT NECESSARILY DETAILED BUT REQUIRED TO COMPLETE SYSTEMS INSTALLATION.
4. CONTRACTOR AND SUB-TRADES SHALL EXAMINE THE SITE AS WELL AS ALL DRAWINGS AND SPECIFICATIONS RELATIVE TO THIS WORK. NO ALLOWANCE WILL BE MADE FOR FAILURE TO MAKE SUCH EXAMINATION AND TO TAKE INTO ACCOUNT ALL ASPECTS, WHICH MAY GOVERN THE EXECUTION AND COMPLETION OF THE WORK.
5. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING STRUCTURE FROM DAMAGE WHEN CARRYING OUT THE WORK. CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR ANY CLAIMS OR DAMAGES IN RELATION TO WORK OF THIS CONTRACT.
6. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING AS REQUIRED FOR ALL TRADES INCLUDING HOLES AND OPENINGS FOR EQUIPMENT ENTRY AND EXIT, CONDUITS, PIPING, VENTS, LOUVRES AND DUCT SYSTEMS.
7. ABIDE BY ONTARIO BUILDING CODE, CSA STANDARDS, ASHRAE STANDARDS AND ALL LOCAL BY LAWS RELATING TO THIS INSTALLATION. OBTAIN AND PAY FOR PERMIT, FEES, INSPECTIONS AND DEPOSITS REQUIRED BY ALL AUTHORITIES. SUBMIT ALL REQUIRED PRINTS AND FORMS AS REQUIRED BY AUTHORITIES.
8. ALL NOTES LISTED ON DRAWINGS SHALL FORM PART OF THE SPECIFICATIONS.
9. CERTAIN WORK INCLUDING SYSTEMS SHUT DOWN WILL HAVE TO BE COMPLETED AFTER HOURS AND ON WEEKENDS SUCH THAT IT DOES NOT AFFECT USE OF BUILDING AND SYSTEMS. CONTRACTS SHALL INCLUDE ALL PROVISIONS TO CARRY AFTER HOUR WORK IN BASE PRICE. AFTER HOUR WORK AND SHUT DOWN INCLUDE, BUT NOT NECESSARILY LIMITED TO THE FOLLOWING:

- DOMESTIC WATER SUPPLY
 - DRILLING AND ANY NOISY/VIBRATION WORK IN EXCESS OF 50db
 - WELDING OR SOLDERING THAT MAY CAUSE FUMES
 - POWER SHUT DOWN

VERIFICATION OF EXISTING CONDITIONS

1. CONTRACTOR SHALL REVIEW EXISTING SITE CONDITIONS AFFECTING THE PROPOSED WORK AND COORDINATE WITH ALL TRADES BEFORE COMMENCING WORK.
2. CONTRACTOR SHALL REVIEW SITE CONDITIONS AND PREPARE INTERFERENCE SKETCHES IF NEEDED AND SUBMIT FOR REVIEW BEFORE COMMENCING WORK.
3. REFER TO ARCHITECTURAL DRAWINGS, SPECIFICATIONS AND OWNER'S STANDARDS WHERE APPLICABLE FOR ADDITIONAL INFORMATION ABOUT EXISTING AND PROPOSED SYSTEMS.
4. BEFORE COMMENCING WORK VISIT SITE AND CHECK EXISTING CONDITIONS AFFECTING THE WORK INCLUDING DETAIL REVIEW OF EXISTING STRUCTURE, DOMESTIC WATER PIPES, SANITARY PIPES, DUCTS, EQUIPMENT, CONDUITS, POWER WIRING, CONTROLS AND FIRE PROTECTION. EXISTING CONDITIONS MAY VARY FROM THAT SHOWN ON DRAWINGS AND NO EXTRA WILL BE CONSIDERED FOR ANY VARIATION WITHIN 3 METERS (10 FT). THE CONSULTANT AND ARCHITECT ARE NOT RESPONSIBLE FOR CONDITIONS DISCOVERED DURING CONSTRUCTION WHICH DIFFER FROM THOSE INDICATED ON THESE DRAWINGS. THE CONTRACTOR, UPON MAKING SUCH A DISCOVERY, SHALL NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY WITH DETAILS FOR DIRECTION OR SITE INSTRUCTION ON HOW TO PROCEED.
5. THIS SET OF DESIGN DRAWINGS HAS BEEN PREPARED, IN PART, BASED UPON VISUAL INSPECTION OF SITE CONDITIONS AND INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER CANNOT ASSURE ITS ACCURACY, AND THIS IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING SYSTEMS AS SHOWN OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. CONTRACTOR SHALL INSPECT EXISTING CONDITIONS INCLUDING LOCATION OF DUCTS, PIPES, CONDUITS AND EQUIPMENT ABOVE CEILING AND IN CONCEALED SPACES BEFORE COMMENCING WORK.

TESTING AND BALANCING

1. TEST AND BALANCE SUPPLY AIRFLOW INCLUDING THE FOLLOWING:

- EXHAUST AIR FANS EF-1 AND EF-2.
 - KITCHEN MAKE UP AIR SYSTEM.
 - FAN COIL SYSTEM AND INTAKE OUTSIDE AIR.
 - EXISTING SUPPLY AIR SYSTEM SF-3 AND RETURN FAN RF-3 INCLUDING ALL ZONES AND OUTLETS.
 - WATER FLOW THRU THE HEATERS IN EXISTING CAFETERIA AND NEW FAN COIL.
2. THE TESTING AND BALANCING SHALL BE DONE FOR EACH SYSTEM SERVING THE RENOVATION AREAS AS A WHOLE AND NOT JUST THE RENOVATED ZONES. THE SYSTEM VOLUMES SHALL BE WITHIN 5% OF REQUIREMENTS SHOWN. ADJUST AND SET CIRCUIT BALANCING VALVES, DUCT BALANCING DAMPERS, FANS AND DRIVES TO GIVE THE SPECIFIED VOLUME FLOW RATES. THE BALANCING OF AIR AND WATER SYSTEMS SHALL BE DONE BY A BALANCING FIRM SPECIALIZING IN THIS WORK. CLEAN ALL EXISTING DUCT SYSTEMS AND REPLACE FILTERS BEFORE TESTING IS DONE.
3. PROVIDE TWO BOUND COPIES OF THE AIR BALANCING REPORT. AIR BALANCING SHALL BE DONE BY A PROFESSIONAL BEFORE TESTING IS DONE. TESTING AND BALANCING FIRM. AIR QUANTITIES AT EACH OUTLET SHALL BE AS INDICATED IN THE DRAWINGS. THIS REPORT SHALL SHOW THE QUANTITIES VELOCITIES AND AREA OF EACH OUTLET, TYPE AND MODEL. NUMBER OF FANS AND MOTOR INSTALLED, ACTUAL AIR DELIVERED BY THE FAN WITH TOTAL STATIC PRESSURE AND VOLTAGE DRAWN BY THE MOTORS ADJUST AND RETEST TO THE SATISFACTION OF THE PROJECT COORDINATOR PROVIDE ADDITIONAL COPY OF THE AIR BALANCE REPORT TO THE MECHANICAL CONSULTANT.
4. UPON COMPLETION OF THE AIR BALANCE AND SUBMITTAL OF THE AIR BALANCE MAINTENANCE MANUAL REPORT TO THE OWNER, THIS CONTRACTOR SHALL PROVIDE, IF CALLED FOR, A SPOT CHECK ON THE SYSTEM WITH THE CONSULTANT. IF ACTUAL AIR QUANTITIES DO NOT AGREE WITH THE AIR BALANCE REPORT DATA, THIS CONTRACTOR MAY BE CALLED UPON TO COMPLETELY RE-BALANCE THE SYSTEM UNTIL SATISFACTORY IS ACHIEVED AND ACCEPTED BY THE CONSULTANT.

GENERAL NOTES:

1. REFER TO GENERAL NOTES AND SPECIFICATIONS ON LATEST ARCHITECTURAL DRAWINGS ISSUED OR CONSTRUCTION.
2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF PLUMBING FIXTURES, HEIGHTS, AND DIMENSIONS.
3. FOR ANY PROPOSED EQUIPMENT ALTERNATIVE OR SUBSTITUTION AND WHERE THE TERM 'APPROVED EQUAL' IS NOTED, THE CONTRACTOR AND SUB-CONTRACTORS SHALL SUBMIT PROPOSED ALTERNATE EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO QUESTION PERIOD DEADLINE.
4. WHERE THE TERM 'PROVIDE' IS NOTED ON DRAWINGS, IT MEANS SUPPLY AND INSTALL.
5. CONTRACTOR TO FIELD VERIFY WORK SITE CONDITIONS.
6. CONTRACTOR TO COORDINATE INSTALLATION WITH EXISTING CONDITIONS INCLUDING DUCTS, PIPES, ELECTRICAL LIGHTING & BUILDING STRUCTURE.
7. INSTALL ACCESS DOOR FOR EACH CONCEALED VALVE, CLEANOUT AND WHERE SERVICE IS REQUIRED.
8. CONNECTIONS TO EXISTING BURIED SANITARY WILL HAVE TO BE DONE WITHOUT AFFECTING OPERATION IN ADJACENT UNITS. WORK WILL HAVE TO BE DONE AFTER HOURS UNLESS LOCAL SHUT DOWN WILL NOT AFFECT ANY FUNCTION IN THE BUILDING AND APPROVAL IS OBTAINED.
9. CONTRACTOR SHALL INCLUDE PRICE TO LOCATE EXISTING BURIED SANITARY PIPES USING DIGITAL TRACK CAMERA AND PRODUCE AS-BUILT DRAWINGS.
10. COORDINATE WITH OTHER TRADES AND REVIEW ARCHITECTURAL DRAWINGS BEFORE COMMENCING WORK.
11. ALL EQUIPMENT SHALL BE CSA AND ULC APPROVED. PROVIDE ALL REQUIRED FITTINGS, TRAPS, VALVES, FAUCETS AND ESCUTCHEONS TO COMPLETE EACH EQUIPMENT AND FIXTURE INSTALLATION. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BEFORE ORDERING ANY FIXTURE.
12. BEFORE COMMENCING WORK VISIT SITE AND CHECK EXISTING CONDITIONS AFFECTING THE WORK INCLUDING DETAIL REVIEW OF EXISTING SYSTEMS. EXISTING CONDITIONS MAY VARY FROM THAT SHOWN ON DRAWINGS AND NO EXTRA WILL BE CONSIDERED FOR ANY VARIATION WITHIN 3 METERS. THE CONSULTANTS ARE NOT RESPONSIBLE FOR CONDITIONS DISCOVERED DURING CONSTRUCTION WHICH DIFFER FROM THOSE INDICATED ON THESE DRAWINGS. THE CONTRACTOR, UPON MAKING SUCH A DISCOVERY, SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY FOR GUIDANCE ON HOW TO PROCEED.

PLUMBING AND HEATING PIPES

1. DOMESTIC HOT AND COLD WATER PIPES SHALL BE COPPER TYPE 'L' OR APPROVED EQUAL.
2. UNDERGROUND SANITARY AND VENT PIPES SHALL COMPLY WITH ONTARIO BUILDING CODE SECTION 7.2.5.10:

CAN/CSA-B 182.1, PLASTIC DRAIN AND SEWER PIPE AND PIPE FITTINGS;

CAN/CSA-B 182.2, PVC SEWER PIPE AND FITTINGS (PSM TYPE);

CAN/CSA-B 182.4, PROFILE (RIBBED) PVC SEWER PIPE AND FITTINGS;

CAN/CSA-B 182.6, PROFILE POLYETHYLENE SEWER PIPE AND FITTINGS; OR

CAN/CSA B 182.7, MULTI-LAYER PVC SEWER PIPE (PSM TYPE) HAVING REPROCESSED-RECYCLED CONTENT.
3. ABS SANITARY AND VENT PIPES MATERIAL SHALL BE PER ONTARIO BUILDING CODE 7.2.5.12, 3.1.5.16 AND CSA B181.2. EXPOSED ABS PIPES ARE NOT PERMITTED. PROVIDE NON-COMBUSTIBLE PIPING WHERE PIPING IS EXPOSED.
4. PLASTIC PIPES INSTALLED IN CEILING PLENUM SHALL BE SYSTEM XFR DWV CERTIFIED TO CSA B181.2 AND ULC S102-2
5. HOT WATER HEATING SUPPLY AND RETURN PIPES 2" DIAMETER AND UNDER SHALL BE COPPER TYPE 'L'.
6. HOT WATER HEATING PIPES SHALL BE BLACK STEEL SCHEDULE 40. PIPE SIZES UP TO 2½" SHALL HAVE HAVE THREADED FITTINGS. PIPES 3" AND LARGER SHALL HAVE FLANGED FITTINGS OR WELDED. TEST PIPING SYSTEM AT MINIMUM 150 PSI FOR 48 HOURS AND PROVIDE REPORT. THE TESTING SHALL BE WITNESSED BY THE OWNER'S REPRESENTATIVE. FLUSH AND CLEAN PIPING SYSTEM TO APPROVAL. PROVIDE TESTING AND FLUSHING REPORT.
7. FLUSH AND PRESSURE TEST EACH PIPING SYSTEM BEFORE INSULATION IS APPLIED. SUBMIT TEST REPORTS.

GENERAL DEMOLITION NOTES

1. DISCONNECT AND REMOVE NOTED EQUIPMENT, PLUMBING FIXTURES, PIPES, DUCTS, HANGERS, SUPPORT BRACKETS, CONTROLS AND ALL ASSOCIATED WIRING.
2. REVISE EXISTING PIPES AND DUCTS AS NOTED AND REQUIRED TO FACILITATE INSTALLATION OF NEW EQUIPMENT, FIXTURES AND LAYOUT. REMOVE ALL ASSOCIATED ACCESSORIES AND PIPES AS NECESSARY TO COMPLETE SYSTEMS REVISIONS.
3. ALL DEMOLITION DEBRIS AND OBSOLETE FIXTURES SHALL BE REMOVED FROM SITE ON A DAILY BASIS. COORDINATE WITH GENERAL CONTRACTOR FOR USE OF WASTE BINS.
4. CONTRACTOR SHALL REVIEW THE CONSTRUCTION SCHEDULE AND COORDINATE REMOVAL OF ITEMS ACCORDINGLY. DO NOT DISCONNECT EQUIPMENT NOTED TO BE REMOVED OR SHUT DOWN SYSTEMS WITHOUT PRIOR SCHEDULING AND APPROVAL.
5. ALL FIXTURES, EQUIPMENT, SYSTEMS THAT ARE EXISTING TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
6. THE MECHANICAL WORK AND ASSOCIATED DEMOLITION SHALL BE DONE SUCH THAT NO DAMAGE TO EXISTING WALLS AND/OR FLOORS.
7. EXISTING SYSTEMS AND FACILITIES SHALL NOT BE USED UNLESS ARRANGED FOR AND APPROVED BY OWNER.
8. EXISTING MECHANICAL, SANITARY AND DOMESTIC PIPING SYSTEMS SHALL REMAIN OPERATIONAL. PROVIDE ALL REQUIRED TEMPORARY ARRANGEMENTS AND REVISIONS TO MAINTAIN EXISTING SYSTEMS OPERATIONAL. INSULATE EXISTING DUCTS, PIPES AND VALVES WHERE INSULATION WAS DAMAGED OR REMOVED. INSULATE ALL NEW DOMESTIC WATER PIPES AND VALVES.

PIPE FREEZING REQUIREMENTS

1. THE CONTRACTOR SHALL INCLUDE ALL THE COSTS REQUIRED TO PERFORM PIPE FREEZING ON THE EXISTING PIPE MAINS AND BRANCHES AS NEEDED TO FACILITATE THE DEMOLITION AND THE MAKING OF NEW CONNECTIONS. THE WORK MUST BE CARRIED OUT SAFELY AND EFFICIENTLY, ENSURING MINIMAL DISRUPTION TO THE EXISTING SYSTEM.
2. THE LOCATION OF EACH PIPE FREEZING AND QUANTITIES SHALL BE DETERMINE ON SITE AND APPLIED AS NECESSARY. THE CONTRACTOR SHALL PLAN TO INSTALL STUBS WITH VALVES FOR THE NEW CONNECTIONS DURING THE DEMOLITION PERIOD.
3. PIPE FREEZING METHOD: USE LIQUID NITROGEN OR AN APPROVED DRY ICE METHOD. THE FREEZING METHOD SHALL BE SUITABLE FOR THE PIPE MATERIAL AND DIAMETER.
4. SAFETY: PIPE FREEZING SHALL BE APPLIED USING APPROPRIATE PROTECTIVE GEAR. ENSURE THE WORK AREA IS PROPERLY VENTILATED. THE CONTRACTOR SHALL ADHERE TO SAFETY GUIDELINES AND THE WRITTEN SAFETY AND APPLICATION INSTRUCTIONS OF THE FREEZING EQUIPMENT.



NOTES:

ALL DRAWINGS AND SPECIFICATIONS IS AN INSTRUMENT OF SERVICE AND REMAIN THE EXCLUSIVE PROPERTY OF DESIGNER AND ARE PROTECTED UNDER THE COPYRIGHT ACT. THEY MAY NOT BE REPRODUCED, DISTRIBUTED, ALTERED FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE DESIGNER.

DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS 'ISSUED FOR CONSTRUCTION'

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

8.		
7.		
6.		
5.		
4.	TENDER	25 MAY 2026
3.	REVISION -- CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE



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DRAWN NAME:

NOTES AND SPECIFICATIONS
MECHANICAL

DRAWN BY:	CHECKED BY:
N.P.	N.S.

DATE:	JOB No.:
SEPTEMBER 2025	25-103

SCALE:	SHEET No.:
NOT TO SCALE	M0.01

MECHANICAL LEGEND AND NOTES	
	EXISTING SANITARY TO REMAIN
	SANITARY DRAIN
	REMOVE EXISTING PIPE
	PIPES TURNING DOWN
	PIPES TURNING UP
	GAS LINE
	PRV
	HWS
	HWR
	DOMESTIC COLD WATER LINE
	DOMESTIC HOT WATER LINE
	BALL VALVE
	Clean Out Flush with Floor Union
	FD
	FC
	FFD
	CO
	RD
	CV
	MD
	T
	Thermostat
	Digital Thermostat with Lockable Guard
	DIRECTION OF AIR FLOW
	SUPPLY AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	BD
	SD
	U/C
	DHW
	DCW
	STM
	SUPPLY AIR GRILLE
	12x12 RETURN AIR GRILLE
	24x12 RETURN AIR GRILLE
	24x24 RETURN AIR GRILLE
	10 x 4 100
	10 x 4 100
	24" x 24" SUPPLY AIR DIFFUSER
	12" x 12" SUPPLY AIR DIFFUSER
	DRY CHEMICAL (FE) FIRE EXTINGUISHER 10 LB (ULC APPROVED)
	20x20 CEILING ACCESS PANEL WITH HINGED DOOR TO PROVIDE SERVICE ACCESS TO VALVES AND PLUMBING.
E' EXISTING TO REMAIN, SERVICE AS REQUIRED.	
D' DISCONNECT AND REMOVE ENTIRELY COMPLETE WITH ASSOCIATED ELEMENTS.	
R' RELOCATE TO WHERE SHOWN AND RECONNECT TO APPROVAL.	
RE' REMOVE EXISTING AND REPLACE WITH NEW	
N' PROVIDE NEW WHERE SHOWN COMPLETE WITH ASSOCIATED ELEMENTS.	
CITE' CONNECT TO EXISTING.	

FAN COIL SYSTEM

- PROVIDE ENGINEERED AIR OR EQUAL FAN COIL UNIT COMPLETE WITH HOT WATER COIL, DX COOLING COIL, MERV 13 FILTERS, DRAIN PAN AND FAN SECTION. THE FAN COIL UNIT SHALL BE A FULLY CASED, HORIZONTAL FAN COIL SUITABLE FOR ABOVE-CEILING INSTALLATION. THE CABINET SHALL BE GALVANIZED STEEL, INTERNALLY INSULATED, HINGED ACCESS PANELS FOR BLOWER, COIL, AND ELECTRICAL SERVICE. THE UNIT SHALL BE CSA APPROVED.
- FAN COIL UNIT SPECIFICATIONS:
 - HORIZONTAL CASED UNIT FOR INSTALLATION IN CEILING SPACE
 - MAXIMUM UNIT HEIGHT/DEPTH: 22" (MAXIMUM AVAILABLE CEILING SPACE IS 22")
 - SUPPLY AIRFLOW: 2150 CFM AT 0.6" ESP
 - 5 TON COOLING CAPACITY WITH VARIABLE REFRIGERANT FLOW COMPRESSOR (DIRECT EXPANSION COOLING COIL) USING R-454B OR R-32
 - 75 MBH HEATING OUTPUT AT 160°F ENTERING WATER TEMPERATURE AND 20° WATER TEMPERATURE DROP.
 - 7.5 GPM HOT WATER FLOW AND 2 FT ALLOWABLE WATER PRESSURE DROP
 - SLOPED, INSULATED DRAIN PAN WITH PRIMARY AND SECONDARY CONNECTIONS
 - 1 HP ECM MOTOR, 208/1/60
 - VARIABLE FREQUENCY DRIVE
 - MERV 13 FILTERS (FILTER SECTION)
 - HAND/OFF/AUTO STARTER
 - MANUAL DISCONNECT
 - MATCHED 5 TON REMOTE AIR COOLED CONDENSING UNIT WITH VARIABLE FLOW COMPRESSOR
 - CONTACTS FOR BUILDING AUTOMATION SYSTEM CONTROL. SEE BAS SPECIFICATIONS.
- COOLING COIL SHALL BE COPPER TUBE/ALUMINUM FIN, DESIGNED FOR R-454B REFRIGERANT, WITH FACTORY OR FIELD-INSTALLED R-454B TXV. HEATING COIL SHALL BE 3-ROW COPPER TUBE/ALUMINUM FIN HOT-WATER COIL WITH 3/4" CONNECTIONS AND MANUAL AIR VENT.
- HOT WATER HEATING COIL SHALL BE COPPER TUBES AND ALUMINUM FINS, COMPLETE WITH GALVANIZED STEEL CASING. COIL SHALL BE SUITABLE FOR THE SCHEDULED ENTERING/LEAVING WATER TEMPERATURES AND FLOW RATES. PROVIDE A MINIMUM OF TWO (2) ROWS UNLESS OTHERWISE 4 ROWS ARE REQUIRED FOR THE HEATING LOAD. COIL SHALL BE PRESSURE-TESTED AT THE FACTORY AND RATED FOR A MINIMUM WORKING PRESSURE OF 1,035 KPA (150 PSI). PROVIDE MANUAL AIR VENTS, DRAIN CONNECTIONS, AND ALL REQUIRED HEADERS. HEATING COIL SHALL BE FULLY ACCESSIBLE FOR CLEANING AND MAINTENANCE. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE COIL CONNECTS SIDE TO MAINTAIN ADEQUATE SERVICE ACCESS SPACE.
- BLOWER SHALL BE DIRECT-DRIVE WITH ECM MOTOR, CAPABLE OF DELIVERING REQUIRED AIRFLOW AT 0.60 IN. WG ESP. UNIT SHALL INCLUDE 24V TRANSFORMER, SERVICE DISCONNECT, DDC CONTROLLER (BACNET) AND ALL REQUIRED SAFETIES.
- COORDINATE FAN COIL UNIT PIPING AND ORIENTATION TO SUIT THE LAYOUT SHOWN ON THE DRAWINGS. INSTALL THE FAN COIL UNIT MAINTAINING ADEQUATE SERVICE ACCESS AND CLEARANCE FOR FILTER REPLACEMENT. UNIT SHALL BE INSTALLED WITH FILTER RACK AND DUCTED RETURN.
- PROVIDE FACTORY ASSEMBLED AND CHARGED AIR COOLED CONDENSING UNIT WITH NOMINAL CAPACITY OF 5 TONS (60,000 BTUH), MATCHED TO THE INDOOR DX FAN COIL UNIT. REFRIGERANT SHALL BE R-454B (A2L, LOW GWP). UNIT SHALL BE HIGH EFFICIENCY, MINIMUM 15.2 SEER2 AND 10.5 EER2, WITH HIGH EFFICIENCY SCROLL COMPRESSOR AND VERTICAL DISCHARGE PROPELLER FAN. OUTDOOR FAN MOTOR SHALL BE ECM OR EQUIVALENT HIGH-EFFICIENCY MOTOR. PROVIDE THE CONDENSING UNIT COMPLETE WITH BACNET COMPATIBLE CONTROLLER TO CONTROL FAN-SPEED, AND DX-COOLING. BAS SHALL PROVIDE SUPERVISORY COMMANDS ONLY. COOLING SHALL BE ENABLED AND DISABLED BY BAS THROUGH THE BACNET CONTROLLER; LOCAL THERMOSTAT SHALL NOT DIRECTLY CONTROL COOLING.
- SOUND PRESSURE LEVEL SHALL NOT EXCEED 74 DBA AT 1 METER UNDER RATED OPERATING CONDITIONS. PROVIDE COMPRESSOR SOUND BLANKET AND LOW-SOUND FAN BLADE DESIGN. CABINET SHALL BE GALVANIZED STEEL WITH BAKED ENAMEL FINISH, SUITABLE FOR OUTDOOR INSTALLATION, WITH INTEGRAL BASE RAILS FOR ROOF CURB OR PAD MOUNTING.
- PROVIDE FOR THE CONDENSING UNIT A WEATHERPROOF DISCONNECT. UNIT SHALL BE CSA APPROVED AND AHRI RATED. PROVIDE DDC CONTROLLER AND CONTACTS FOR BUILDING AUTOMATION SYSTEM INTERLOCK AND COOLING CONTROLS. REFER TO BAS SPECIFICATIONS.
- INSTALL THE FAN COIL UNIT IN CEILING SPACE USING VIBRATION ISOLATION SPRINGS AND FLEXIBLE DUCT CONNECTIONS. PROVIDE REFRIGERANT PIPING FROM FAN COIL TO AIR-COOLED CONDENSING UNIT ON ROOF. INSULATE ALL REFRIGERANT PIPING. CONNECT HOT-WATER HEATING SUPPLY AND RETURN PIPING (REFER TO PIPING DETAILS).
- PROVIDE 1"Ø CONDENSATE DRAIN WITH TRAP AND ROUTE TO SPILL OVER THE MOP SINK. VERTICAL CONDENSATE DROP SHALL BE CONCEALED IN NEW WALL PARTITION. REFER TO BUILDING AUTOMATION SYSTEM SPECIFICATIONS FOR CONTROLS.

ROOFTOP MAKE UP AIR UNIT (MUA-1)

- PROVIDE FACTORY ASSEMBLED ROOFTOP MAKE UP AIR UNIT, TAG MUA-1, CAPTIVEAIRE MODEL A2-D.500-20D (KMUA-1), OR APPROVED EQUAL. UNIT SHALL BE RATED FOR 4000 CFM DESIGN AIRFLOW AT 0.80 IN.W.G. ESP. UNIT SHALL BE CSA/UL APPROVED FOR OUTDOOR INSTALLATION AND SUPPLIED COMPLETE WITH ALL REQUIRED CONTROLS, SAFETIES, AND ACCESSORIES.
- HEATING SECTION SHALL BE DIRECT FIRED NATURAL GAS, 400 CFH GAS INPUT AND 400 MBH OUTPUT, WITH 93°F TEMPERATURE RISE AND MODULATING STAINLESS STEEL BURNER. PROVIDE COMBUSTION AIR PROVING SWITCH, FLAME SAFEGUARD, HIGH TEMPERATURE LIMIT, LOW TEMPERATURE LIMIT, UPSTREAM PILOT, AND ALL STANDARD MANUFACTURER SAFETY DEVICES. REQUIRED GAS PRESSURE: 7 TO 14 IN.W.G. NATURAL GAS.
- SUPPLY FAN SHALL BE DIRECT DRIVE WITH 3 HP, 208/3/60 PREMIUM EFFICIENCY ODP MOTOR, OPERATING AT 1618 RPM AND CAPABLE OF DELIVERING 4000 CFM AT 0.80 IN.W.G. ESP. PROVIDE HAND/OFF/AUTO STARTER, MOTORIZED BACKDRAFT DAMPER (AMCA CLASS 1A), DAMPER PROVING RELAY, VIBRATION ISOLATION, AND FACTORY INSTALLED VFD COMPATIBLE WITH ECM03 CONTROLS. PROVIDE HINGED ACCESS DOORS AND INTERNALLY INSULATED DOUBLE WALL A2-D.500 HOUSING.
- CABINET SHALL BE DOUBLE WALL, WEATHER RESISTANT CONSTRUCTION WITH HINGED ACCESS TO FILTER, FAN, BURNER, AND CONTROL COMPARTMENTS. PROVIDE MERV-13 FILTER SECTION COMPLETE WITH INITIAL FILTERS AND ONE SPARE SET. PROVIDE FACTORY INSULATED ROOF CURB, 31" W x 79" L x 24" H, R-4.3, WITH FULL PERIMETER GASKET. PROVIDE INTAKE HOOD WITH BIRD SCREEN AND ALL REQUIRED FLASHING FOR WATERTIGHT INSTALLATION.
- THE UNIT SHALL HAVE FACTORY MOUNTED CONTROL PANEL INCLUDING HMI 1 LOCATED INSIDE THE MAKE UP AIR UNIT, WITH HAND/OFF/AUTO SWITCH, FAN STATUS, HEAT ENABLE, DIRTY FILTER INDICATION, UNIT FAULT/SHUTDOWN INDICATION, AND BAS BACNET CARD WITH CONTACTS FOR BAS SYSTEM INTERLOCK. PROVIDE DRY CONTACTS FOR FIRE ALARM SHUTDOWN AND FULL INTERFACE WITH BUILDING AUTOMATION SYSTEM.
- PROVIDE HAND/OFF/AUTO STARTER AND INTERLOCK UNIT TO START WITH EF-1 IN AUTO POSITION.
- PROVIDE REMOTE CONTROL PANEL AND INSTALL IN THE KITCHEN ADJACENT TO EF-1 STARTER. THE PANEL SHALL BE FACTORY-ASSEMBLED WITH LCD DISPLAY AND KEY LOCKABLE HINGED DOOR TO PREVENT UNAUTHORIZED ADJUSTMENT OF SETTINGS.

- THE REMOTE PANEL LCD DISPLAY SHALL PROVIDE:
- SUPPLY-FAN-STATUS (AIRFLOW-PROVING)
 - DISCHARGE-AIR-TEMPERATURE (REAL-TIME)
 - DIRTY-FILTER-INDICATION (DIFFERENTIAL-PRESSURE-SWITCH)
 - HEAT-ON-STATUS
 - SUMMER/WINTER-MODE-SWITCH

- BEHIND THE LOCKABLE DOOR, PROVIDE:
- SYSTEM-ENABLE-SWITCH WITH OFF AND AUTO POSITIONS ONLY.
 - AUTO: UNIT OPERATES ON EF-1 INTERLOCK AND INTERNAL SAFETIES.
 - OFF: UNIT DISABLED AND SHALL GENERATE ALARM IF EF-1 IS COMMANDED TO RUN.
 - DISCHARGE-AIR-TEMPERATURE-SETPOINT (WHERE APPLICABLE)
 - SUMMER/WINTER-SELECTOR-SWITCH

MECHANICAL SPECIFICATIONS – CONTINUATION

ROOFTOP MAKE UP AIR UNIT (MUA-1) – (CONTINUED)

THE MAKE-UP-AIR-UNIT SHALL BE ELECTRICALLY AND LOGICALLY INTERLOCKED WITH EF-1 SO THAT EF-1 CANNOT OPERATE WITHOUT MUA RUNNING.

CONNECT BACNET INTERFACE TO BUILDING AUTOMATION SYSTEM FOR MONITORING OF STATUS POINTS ONLY. BAS SHALL NOT OVERRIDE OR BYPASS ANY FACTORY SAFETY DEVICES.

- COORDINATE WITH ELECTRICAL TRADE FOR POWER WIRING, DISCONNECT LOCATION AND FIRE ALARM INTERLOCK. CONTROL WIRING BY THIS DIVISION. ALL CONTROL WIRING SHALL BE FT-6 RATED IN EMT CONDUIT. INSTALL UNIT LEVEL ON ROOF CURB WITH VIBRATION ISOLATION RAILS AND FULL PERIMETER GASKET. PROVIDE ALL REQUIRED SEALING AND FLASHING FOR WATERTIGHT INSTALLATION.

HOT WATER FIN TUBE RADIATION HEATING ELEMENT

- PROVIDE MODINE (OR APPROVED EQUAL) COMMERCIAL HOT WATER FIN TUBE RADIATION, MODEL SP, COMPLETE WITH 16 GAUGE FACTORY-PAINED STEEL ENCLOSURE, 90 DEG INSIDE CORNER, HANGER STRIPS, WALL SUPPORT BRACKETS, END CAPS, 12 IN WIDE HINGED ACCESS DOOR, AND BOTTOM INLET PANEL. ENCLOSURE COLOR SELECTION BY ARCHITECT. ALL ENCLOSURE SECTIONS SHALL USE FACTORY SLP JOINT CONNECTIONS AND QUARTER TURN LATCHES AS PER MANUFACTURER INSTALLATION REQUIREMENTS.
 - HEATING ELEMENT SHALL BE A FACTORY ASSEMBLED 2 ROW COPPER TUBE AND ALUMINUM FIN COIL USING 3/4 IN COPPER TUBES WITH 4.25 IN BY 4.25 IN ALUMINUM FINS AT 42 FINS PER FOOT. PROVIDE 7 FT 0 IN ACTIVE ELEMENT LENGTH TO DELIVER 8680 BTU PER HOUR AT 160 F ENTERING WATER TEMPERATURE AND 20 F WATER TEMPERATURE DROP. PERFORMANCE BASED ON MODINE COMMERCIAL FINNED TUBE RADIATION RATINGS.
 - PROVIDE ALL REQUIRED ACCESSORIES INCLUDING HANGER STRIPS, ELEMENT SUPPORT BRACKETS, RETURN PIPE HANGERS, SLP JOINT ENCLOSURE CONNECTIONS, END CAPS, AND BOTTOM INLET PANEL. INSTALLATION SHALL FOLLOW MANUFACTURER WRITTEN RECOMMENDATIONS INCLUDING PROPER ENGAGEMENT OF HANGER STRIPS, ELEMENT CRADLES WITH NYLON WASHERS, RETURN PIPE HANGERS, AND QUARTER TURN LATCHES. FIELD VERIFY L SHAPED ENCLOSURE DIMENSIONS TO CONFIRM EXISTING PIPING IS BELOW THE HEATING UNIT.
 - CONNECT TO EXISTING HOT WATER SUPPLY AND RETURN PIPING AND PROVIDE SHUT OFF VALVES, STRAINER, UNIONS, AND AIR VENT. SEE DETAIL ON DRAWING M3.04. ALL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS AND LOCAL CODES.
 - INSULATE ALL NEW AND EXISTING PIPING AND LABEL PIPING AND FLOW DIRECTION OVER NEW INSULATION. PROVIDE ALL REQUIRED FITTINGS, SUPPORTS, AND ACCESSORIES TO COMPLETE THE INSTALLATION.
 - PROVIDE ALL REQUIRED ENCLOSURE ACCESSORIES AS NEEDED FOR A COMPLETE INSTALLATION INCLUDING INSIDE AND OUTSIDE CORNERS, ENCLOSURE EXTENSIONS, VALVE COMPARTMENTS, AND END ENCLOSURES WITH ACCESS DOORS WHERE REQUIRED. ALL ACCESSORIES SHALL MATCH THE ENCLOSURE GAUGE AND FINISH.
- REFRIGERANT PIPING
- THE INSTALLING CONTRACTOR SHALL BE TSSA CERTIFIED AND SHALL HAVE A CANADIAN REGISTRATION NUMBER OR CSA CERTIFICATION ACCEPTABLE TO TSSA. PROVIDE ALL REQUIRED FITTINGS, VALVES AND FILTERS TO COMPLETE EACH SYSTEM INSTALLATION
 - ALL SYSTEMS SHALL DISPLAY APPROPRIATE OZONE DEPLETION PREVENTION (ODP) TAGS PRIOR TO COMMISSIONING. MANUFACTURER SHALL NOT COMMISSION ANY SYSTEM NOT DISPLAYING PROPER ODP TAG.
 - THERE SHALL BE MINIMAL USE OF REFRIGERATION SPECIALTIES (FILTER DRIERS, ACCUMULATORS, RECEIVERS, CHECK VALVES, ETC.) IN THE PIPING SYSTEM.
 - ALL INDOOR REFRIGERANT LINES SHALL BE INSULATED WITH MINIMUM 15 MM (1/2") WALL DIAMETER ARMAFLEX WITH APPROVED FIRE RESISTANT RATING PER CAN/ULC S-103 FOR FLAME SPREAD AND SMOKE DEVELOPED INDEX.
 - ALL OUTDOOR REFRIGERANT LINES SHALL BE INSULATED WITH MINIMUM 19 mm (3/4") WALL DIAMETER ARMAFLEX AND SUITABLE FOR OUTDOOR SERVICE. EXPOSED INSULATION SHALL BE PROTECTED BY ALUMINUM, SHEET METAL, PAINTED CANVAS, PLASTIC COVER, OR PAINTED WITH AN APPROVED UV COATING THAT IS WATER RESISTANT AND PROVIDES SHIELDING FROM SOLAR RADIATION.
 - PIPE CLAMPS SHALL FASTEN AROUND THE PIPING INSULATION. PIPE CLAMPS THAT COMPRESS THE COPPER DIRECTLY SHALL BE INSTALLED A MINIMUM OF 36" AWAY FROM REFNET JOINTS, AND SHALL BE LOOSELY TIGHTENED TO ALLOW FOR COPPER EXPANSION.
 - ALL COPPER PIPING SHALL BE AIR CONDITIONING / REFRIGERANT GRADE ASTM B280, ANNEALED OR HARD DRAWN AS REQUIRED. SOFT ANNEALED COPPER TUBING SHALL NOT BE USED IN SIZES LARGER THAN 22 MM (7/8 INCHES). JOINTS SHALL BE BRAZED EXCEPT THAT JOINTS ON LINES 22 MM (7/8 INCH) AND SMALLER MAY BE FLARED. FITTINGS SHALL BE CAST COPPER ALLOY FOR FLARED COPPER TUBE, OR WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS. JOINTS AND FITTINGS FOR BRAZED JOINT SHALL BE WROUGHT-COPPER OR FORGED-BRASS SWEAT FITTINGS. CAST SWEAT-TYPE JOINTS AND FITTINGS SHALL NOT BE ALLOWED FOR BRAZED JOINTS. BRASS OR BRONZE ADAPTERS FOR BRAZED TUBING MAY BE USED FOR CONNECTING TUBING TO FLANGES AND TO THREADED ENDS OF VALVES AND EQUIPMENT.
 - FILLER METAL SHALL BE TYPE BAG-5 WITH AWS TYPE 3 FLUX, EXCEPT TYPE BCUP-5 OR BCUP-6 MAY BE USED FOR BRAZING COPPER-TO-COPPER JOINTS.
 - BRAZING RODS FOR ALL JOINTS SHALL BE 15% LUCAS MILHAUPT "SIL-FOS".
 - VALVES SHALL BE DESIGNED, MANUFACTURED, AND TESTED SPECIFICALLY FOR REFRIGERANT SERVICE. VALVE BODIES SHALL BE OF BRASS, BRONZE, STEEL, OR DUCTILE IRON CONSTRUCTION. VALVES 25 mm (1 INCH) AND SMALLER SHALL HAVE BRAZES OR SOCKET WELDED CONNECTIONS. VALVES LARGER THAN 25 mm (1 INCH) SHALL HAVE BUTT WELDED END CONNECTIONS. THREADED END CONNECTIONS SHALL NOT BE USED, EXCEPT IN PILOT PRESSURE OR GAUGE LINES WHERE MAINTENANCE DISASSEMBLY IS REQUIRED AND WELDED FLANGES CANNOT BE USED. INTERNAL PARTS SHALL BE REMOVABLE FOR INSPECTION OR REPLACEMENT WITHOUT APPLYING HEAT OR BREAKING PIPE CONNECTIONS. VALVE STEMS EXPOSED TO THE ATMOSPHERE SHALL BE STAINLESS STEEL OR CORROSION RESISTANT METAL PLATED CARBON STEEL. DIRECTION OF FLOW SHALL BE LEGIBLY AND PERMANENTLY INDICATED ON THE VALVE BODY. PURGE, CHARGE AND RECEIVER VALVES SHALL BE OF MANUFACTURER'S STANDARD CONFIGURATION.
 - REFRIGERANT ACCESS VALVES AND HOSE CONNECTIONS SHALL BE IN ACCORDANCE WITH ARI 720.
 - THE GENERAL ROUTINGS OF THE REFRIGERANT PIPES ARE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL COORDINATE ON SITE ROUTING OF EACH SET AND REVISE TO SUITE EXISTING CONDITIONS AT NO ADDITIONAL COST. PROVIDE ALL REQUIRED CORE DRILLING, PATCHING, WATER PROOFING, ROOF CONES, FLASHING AND FIRE RESISTANT SEALANT AT RATED FLOOR/WALLS.

CIRCULATING FANS (CF-1 TO CF-8)

- PROVIDE CANARM OR EQUAL CIRCULATING FANS, MODEL CP60-HPWP, UP/DOWN DRAFT TYPE, 1500 mm DIAMETER, 0.84 AMPS, 101 WATTS, 115/1/60 SUPPLY. EACH FAN SHALL BE SUPPLIED COMPLETE WITH ALL REQUIRED MOUNTING HARDWARE, SAFETY CABLES, AND ACCESSORIES FOR A COMPLETE INSTALLATION.
- FANS SHALL BE SUSPENDED BELOW THE LAY-IN TILE SUSPENDED CEILING AND SHALL NOT BE SUPPORTED BY THE CEILING GRID OR T-BAR SYSTEM. PROVIDE SUPPORTS FROM THE BUILDING STRUCTURE ABOVE USING THREADED RODS AND UNISTRUT OR APPROVED EQUAL. PROVIDE A MINIMUM OF FOUR (4) SUSPENSION POINTS OR AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS. INSTALL EACH FAN SUCH THAT THE BOTTOM OF THE UNIT IS 2.85 M (9'-4") ABOVE FINISHED FLOOR. COORDINATE EXACT MOUNTING HEIGHTS WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS PRIOR TO INSTALLATION. PROVIDE SECONDARY SAFETY CABLES FROM THE FAN HOUSING TO THE STRUCTURE ABOVE. ALL SAFETY CABLES, CLAMPS, EYELETS, BOLTS, AND ASSOCIATED HARDWARE SHALL BE RATED TO A MINIMUM OF THREE (3) TIMES THE FULL WEIGHT OF THE FAN.
- PROVIDE INDIVIDUAL LOCKABLE DISCONNECT SWITCH FOR EACH FAN. PROVIDE SPEED CONTROL FOR EACH FAN GROUP AS NOTED BELOW. COORDINATE WITH ELECTRICAL DIVISION TO GROUP EACH TWO (2) FANS TO ONE (1) SPEED CONTROLLER. SPEED CONTROLLERS SHALL BE SUITABLE FOR INDUCTIVE MOTOR LOADS AND INSTALLED IN METAL WALL BOXES WITH LOCKABLE GUARDS.
- LOCATE ALL SPEED CONTROLLERS ON SITE AS DIRECTED BY OWNER OR ARCHITECT. COORDINATE LOCATIONS PRIOR TO ROUGH-IN. PROVIDE ALL REQUIRED CONDUITS, WIRING, AND ACCESSORIES FOR A COMPLETE SYSTEM INSTALLATION.

BUILDING AUTOMATION SYSTEM (BAS)

CONNECT NEW MECHANICAL UNITS TO EXISTING BUILDING AUTOMATION SYSTEM (BAS). THE EXISTING BAS IS BY SIEMENS. THE CONTROLS WORK SHALL BE DONE BY SIEMENS OR SIEMENS APPROVED AGENT IN HAMILTON. INCLUDE IN THIS CONTRACT COST FOR ALL REQUIRED BUILDING AUTOMATION SYSTEM BY SIEMENS.

PROVIDE ALL REQUIRED DEVICES, CONTROLLERS, RELAYS, SENSORS, SWITCHES, CONDUITS, WIRING, CONTROL TRANSFORMERS, GRAPHICS AND SOFTWARE TO COMPLETE SYSTEMS INSTALLATION. THE BAS WORK SHALL BE COMMISSIONED AND TRAINING PROVIDED. ALL WIRING SHALL BE CONCEALED IN WALLS AND CEILINGS USING EMT CONDUITS. SUBMIT SHOP-DRAWINGS INCLUDING CONTROL-SCHEMATICS, DEVICE-LIST AND SEQUENCE OF OPERATION.

UPDATE SYSTEM GRAPHICS AND ALARMS. REMOVE THE DELETED UNIT VENTILATOR AND EXHAUST FANS FROM THE BAS SYSTEM. UPDATE THE EXISTING BAS GRAPHICS AND ALARMS. COMMISSION SYSTEM AND PROVIDE REQUIRED TRAINING.

THE CONTROLS SHALL BE COMMISSIONED AND VERIFIED BY SIEMENS. PROVIDE BAS SYSTEM TESTING AND VERIFICATION REPORT AT THE SUBSTANTIAL COMPLETION OF THE PROJECT. PROVIDE TRAINING TO FACILITIES. THE TRAINING SHALL BE ARRANGED AT END OF CONSTRUCTION AND SHALL INCLUDE MINIMUM OF TWO SESSIONS, EACH OF TWO HOURS.

KITCHEN HOOD VENTILATION SYSTEM

- PROVIDE BAS MONITORING AND ALARM FOR THE KITCHEN EXHAUST FAN AND GAS FIRED MAKE-UP AIR UNIT. WIRE TO MAKEUP AIR UNIT BACNET CARD. THE BAS SHALL RECEIVE RUN STATUS, FAILURE STATUS, AND MAKE-UP AIR TEMPERATURE INPUTS. THE EXHAUST FAN AND MAKE UP AIR UNIT SHALL OPERATE ONLY THROUGH THE HOOD CONTROL PANEL AND FIRE SUPPRESSION INTERLOCKS.
- PROVIDE ALARM SIGNALS FOR EXHAUST FAN FAILURE, HIGH MAKE UP AIR TEMPERATURE, LOW MAKE UP AIR TEMPERATURE, AND FIRE SUPPRESSION SYSTEM ACTIVATION. ALL CONTROL WIRING SHALL BE IN CONDUIT AND CONNECTED TO THE BAS CONTROL PANEL FOR MONITORING ONLY. UPDATE BAS INTERFACE GRAPHICS.
- PROVIDE KITCHEN HOOD SYSTEM MONITORING AND GRAPHICS INCLUDING THE FOLLOWING:
 - EXHAUST FAN STATUS (RUN/STOP)
 - NAKE-UP AIR FAN STATUS
 - FIRE SUPPRESSION SYSTEM ACTIVATED
 - GAS VALVE CLOSED
 - FAULT/ALARM CONDITION
 - TEMPERATURE HIGH / HOOD IN COOK MODE
 - HOOD IN PREP MODE

CIRCULATING FANS (CF-1 TO CF-8)

- PROVIDE WIRE FROM EACH HAND/OFF/AUTO STARTER TO THE BUILDING AUTOMATION SYSTEM FOR SCHEDULING, NIGHT SET-BACK AND RUN STATUS. FAN SEEDS WILL BE CONTROLLED LOCALLY USING SPEED CONTROLLERS. PROVIDE CONTROLLERS AND ALL REQUIRED DEVICES TO COMPLETE INSTALLATION. UPDATE BAS GRAPHICS.

WHEN THE HOA STARTER IS IN THE AUTO POSITION, THE BAS SHALL ENABLE (ON/OFF) THE ASSOCIATED CIRCULATING FANS IN ACCORDANCE WITH THE APPROVED OPERATING SCHEDULE. WHEN THE H/O/A STARTER IS IN HAND, THE FAN SHALL RUN LOCALLY AND SHALL OVERRIDE BAS COMMANDS. WHEN THE H/O/A STARTER IS IN OFF, THE FAN SHALL REMAIN OFF REGARDLESS OF BAS COMMANDS.

- FAN SPEEDS SHALL BE CONTROLLED LOCALLY USING WALL-MOUNTED SPEED CONTROLLERS. PROVIDE ALL SPEED CONTROLLERS, BACK BOXES, WIRING, AND ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. UPDATE BAS GRAPHICS TO SHOW ALL EIGHT CIRCULATING FANS, THEIR H/O/A STATUS, RUN STATUS, AND SCHEDULED ENABLE COMMAND.

CIRCULATING FANS SHALL BE SUPPLIED AND INSTALLED BY THE MECHANICAL DIVISION. SPEED CONTROLLERS SHALL BE SUPPLIED BY THE MECHANICAL DIVISION AND INSTALLED BY THIS CONTRACTOR. H/O/A STARTERS FOR EACH FAN SHALL BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. WIRE EACH SPEED CONTROLLER TO A GROUP OF TWO FANS AS FOLLOWS:

- SPEED CONTROLLER 1: CF-1 AND CF-2 SPEED CONTROLLER 3: CF-7 AND CF-8
SPEED CONTROLLER 2: CF-4 AND CF-5 SPEED CONTROLLER 4: CF-3 AND CF-6

FAN COIL SYSTEM (FCU)

- PROVIDE GREYSTONE-TE200-STYLE-ROOM-TEMPERATURE-SENSOR AND TWO-WAY (0-10V) MODULATING HOT WATER CONTROL VALVE FOR FCU HEATING CONTROL. PROVIDE ROOM THERMOSTAT FOR LOCAL DISPLAY AND OCCUPANT OVERRIDE ONLY. BAS SHALL USE ROOM TEMPERATURE SENSOR AS PRIMARY CONTROL INPUT. PROVIDE ALL REQUIRED WIRING, SENSORS, ACTUATORS, CONTROL-VALVES, CONTROLLERS, CONDUITS AND DEVICES FOR A COMPLETE BAS INSTALLATION.
- PROVIDE FIRESTOPPING AROUND CONDUITS AT ALL RATED WALLS AND FLOORS. ALL CONTROLLERS, DEVICES, SENSORS AND THERMOSTATS SHALL BE CSA/ULC APPROVED. THERMOSTAT SHALL BE SET TO LOCKED DISPLAY MODE. PROVIDE HEAVY DUTY TRANSPARENT LOCKABLE GUARD FOR ROOM TEMPERATURE SENSOR.
- BAS SHALL ENABLE/DISABLE THE FAN COIL SYSTEM TO MAINTAIN ROOM TEMPERATURE. FAN COIL VENDOR SHALL PROVIDE THE CONDENSING UNIT COMPLETE WITH BACNET COMPATIBLE CONTROLLER TO CONTROL FAN-SPEED, AND DX-COOLING. BAS SHALL PROVIDE SUPERVISORY COMMANDS ONLY. COOLING SHALL BE ENABLED AND DISABLED BY BAS THROUGH THE BACNET CONTROLLER; LOCAL THERMOSTAT SHALL NOT DIRECTLY CONTROL COOLING.
 - ENTERING AIR TEMPERATURE < 5°C, OR
 - HOT WATER SUPPLY TEMPERATURE < 5°C.
- PROVIDE MODULATING OUTSIDE AIR DAMPER, ROOM CO₂ SENSOR AND CONTROLLER TO MODULATE OUTSIDE AIR DAMPER FROM MINIMUM POSITION TO FULL OPEN BASED ON ADJUSTABLE CO₂ SETPOINT (ADJUSTABLE RANGE 800-1000 PPM). THE OUTSIDE AIR DAMPER SHALL BE SPRING RETURN TO CLOSED ON POWER LOSS OR FREEZE PROTECTION TRIP. PROVIDE ALL REQUIRED WIRING, ACTUATORS, POWER SUPPLIES AND CONTROL DEVICES.
- PROVIDE ENTERING AIR TEMPERATURE SENSOR AND HOT WATER SUPPLY TEMPERATURE SENSOR. CONNECT BOTH SENSORS TO THE BAS. PROGRAM BAS TO SHUT DOWN FCU FAN, CLOSE OUTSIDE AIR DAMPER, COMMAND HEATING-VALVE FULL-OPEN, DISABLE COOLING AND GENERATE FREEZE PROTECTION ALARM WHEN HEATING IS COMMANDED AND EITHER:
 - FREEZE PROTECTION LOGIC SHALL OVERRIDE ALL OTHER COMMANDS AND REQUIRE MANUAL RESET THROUGH BAS OR OPERATOR INTERFACE.
- PROVIDE CEILING MOUNTED OCCUPANCY SENSOR IN KITCHEN TO OVERRIDE SYSTEM TO OCCUPIED MODE DURING NIGHT SETBACK. SYSTEM SHALL RETURN TO NIGHT SETBACK AFTER 45-MINUTES (ADJUSTABLE) OF NO MOTION.
- FAN COIL SYSTEM SHALL PROVIDE HEATING AND COOLING BASED ON INDOOR SETPOINT USING 0-10V CONTROL. BAS SHALL PROVIDE THREE MODES:
 - OCCUPIED: 21°C
 - STANDBY: 19°C
 - UNOCCUPIED: 17°C

COORDINATE SENSORS AND DEVICES LOCATIONS ON SITE BEFORE INSTALLATION. ALL WIRING SHALL BE IN CONDUIT AND CONCEALED. WHERE SENSORS ARE INSTALLED ON EXISTING CONCRETE WALLS, USE LEGRAND 500/700 SERIES STEEL RACEWAY. COORDINATE WITH GENERAL-CONTRACTOR BEFORE CORE-DRILLING OR CUTTING.

PROVIDE CONTROLLERS, CONTROL MODULES, SENSORS, WIRING AND PROGRAMMING TO ACHIEVE:

- SYSTEM ENABLE/DISABLE (TIME OF DAY SCHEDULE)
- SYSTEM ON/OFF STATUS
- HEATING STATUS
- COOLING STATUS
- SYSTEM FAULT STATUS
- DIRTY-FILTER (DIFFERENTIAL PRESSURE)
- INDOOR UNIT FAN SPEED (0-10V)
- OCCUPANCY MODE (UNOCCUPIED/OVERRIDE/OCCUPIED)
- NIGHT SETBACK SCHEDULING
- OCCUPANCY SENSOR OVERRIDE STATUS
- ROOM TEMPERATURE
- ROOM CO₂ (PPM)
- FAN COIL DISCHARGE AIR TEMPERATURE
- RETURN AIR TEMPERATURE
- MIXED AIR TEMPERATURE
- COOLING COMPRESSOR ENABLE/DISABLE
- COOLING STATUS
- ALARMS
- GRAPHICS



NOTES:	
ALL DRAWINGS AND SPECIFICATIONS IS AN INSTRUMENT OF SERVICE AND REMAIN THE EXCLUSIVE PROPERTY OF DESIGNER AND ARE PROTECTED UNDER THE COPYRIGHT ACT. THEY MAY NOT BE REPRODUCED, DISTRIBUTED, ALTERED FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE DESIGNER.	
DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.	
CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.	
THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.	
ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.	
NOTE BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.	
THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS 'ISSUED FOR CONSTRUCTION'	
THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.	

HWDSB

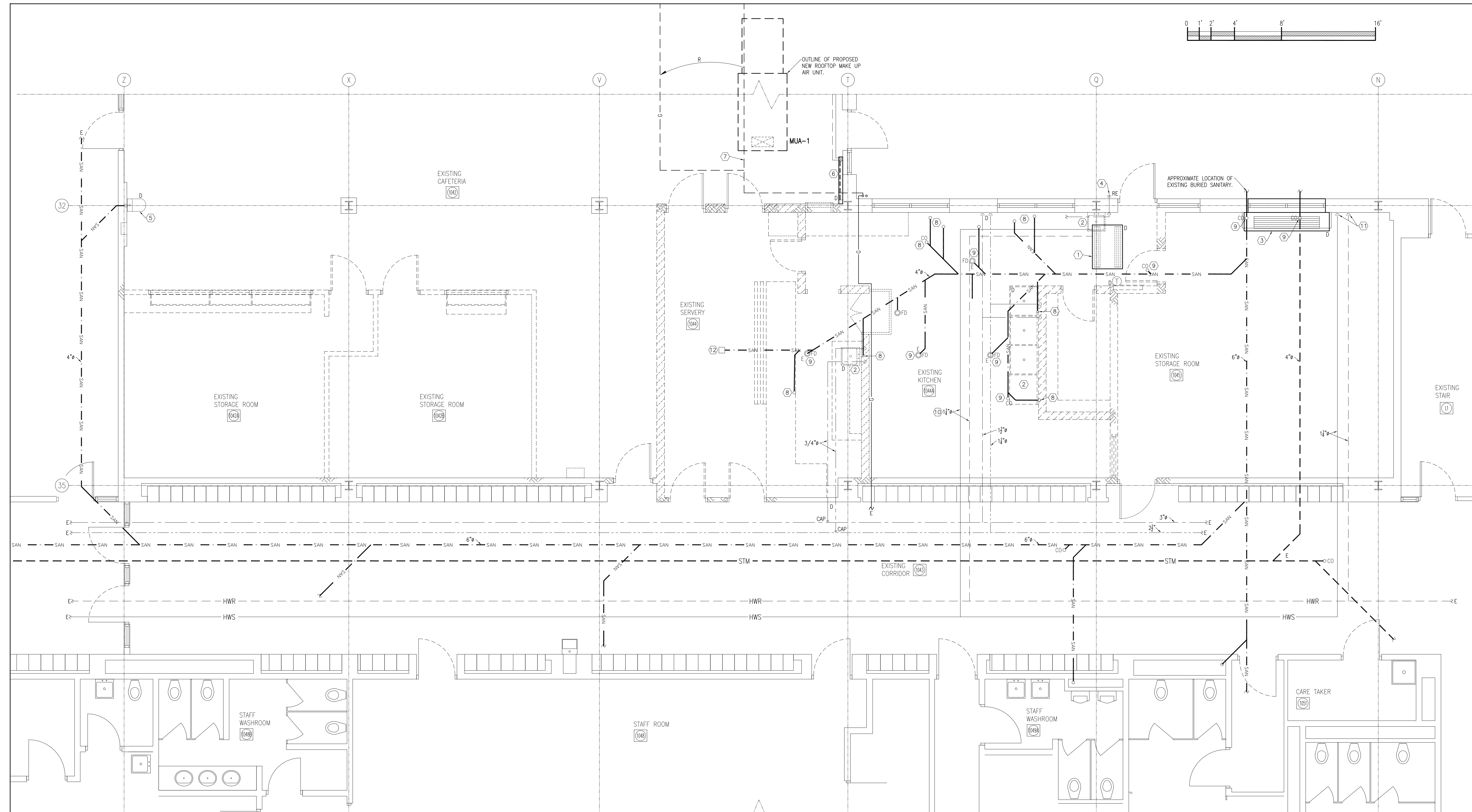
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**SHELLARD BUILDING SYSTEMS LTD.**
1684 SHELLARD SIDE ROAD
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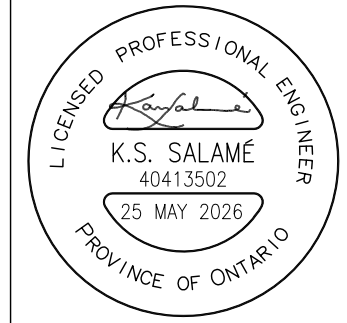
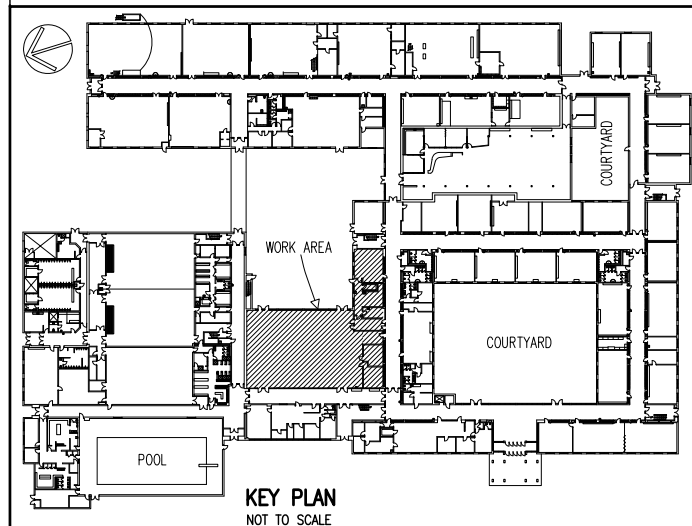
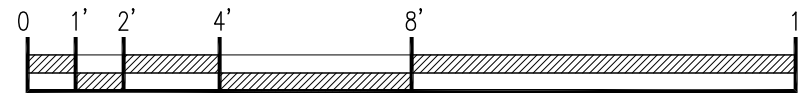
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DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
NOT TO SCALE	M0.02



PARTIAL GROUND FLOOR PLAN – DEMOLITION
SCALE: 1/4" = 1' - 0"

DRAWING NOTES:

- DISCONNECT AND REMOVE THE EXISTING HOT WATER HEATING UNIT, INCLUDING ALL ASSOCIATED HOT WATER HEATING PIPING, INSULATION, SUPPORTS, VALVES, FITTINGS, AND CONTROLS. REMOVE HOT WATER SUPPLY AND RETURN PIPING BACK TO THE MAINS WITHOUT AFFECTING THE HOT WATER SUPPLY TO THE UPPER-FLOOR HEATING UNIT(S). CAP PIPING TO APPROVAL. RE-INSULATE ALL EXISTING PIPES TO REMAIN AND SEAL ALL INSULATION JOINTS. THE CONTRACTOR SHALL INCLUDE ALL COSTS REQUIRED TO SHUT DOWN THE HEATING SYSTEM TO FACILITATE THE WORK AND TO RE-COMMISSION THE SYSTEM UPON COMPLETION. SYSTEM SHUTDOWN AND RE-COMMISSIONING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL NOT PROCEED WITHOUT PRIOR APPROVAL.
- DISCONNECT AND REMOVE ALL EXISTING PLUMBING FIXTURES AND HEATING UNITS (IDENTIFIED WITH 'D'). THE SCOPE OF DEMOLITION WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - THREE-COMPARTMENT SINK, HAND SINK AND COMPARTMENT SINK EACH COMPLETE WITH ASSOCIATED FAUCET, SANITARY, VENT AND WATER SUPPLY PIPES.
 - DRINKING FOUNTAIN COMPLETE WITH ASSOCIATED, SANITARY PIPES AND WATER SUPPLY PIPES. REMOVE WATER AND SANITARY PIPE DOWN TO FLOOR AND CAP. REMOVED DOMESTIC WATER PIPE CONCEALED BEHIND EXISTING BLOCK WALL BACK TO MAIN IN CORRIDOR CEILING SPACE.
- REMOVE ALL HOT AND COLD DOMESTIC WATER PIPES, SANITARY PIPES AND VENT PIPES BACK TO SOURCE. CAP UN-USED BRANCH PIPES TO APPROVAL. DISCONNECT AND REMOVE ALL REDUNDANT, CAPPED AND ABANDONED SANITARY, HOT AND COLD DOMESTIC WATER PIPES AT SOURCE AND CAP EXISTING LIVE PIPE TO APPROVAL SUCH THAT NO STAGNANT WATER IN ANY PIPE (DEAD LEG PIPE SHALL NOT EXCEED 2 TIMES THE PIPE DIAMETER.) RE-INSULATE EXISTING DOMESTIC WATER PIPES WHERE INSULATION WAS REMOVED OR DAMAGED DURING DEMOLITION.
- DISCONNECT AND REMOVE EXISTING CEILING-MOUNTED HOT WATER CONVECTOR AND UNIT VENTILATOR (IDENTIFIED WITH 'D', TOTAL OF TWO), COMPLETE WITH ASSOCIATED PIPING, FRAMING, WIRING, AND CONTROLS. REMOVE HOT WATER HEATING PIPES BACK TO MAINS AND CAP, ENSURING EXISTING PIPING SERVING OTHER HEATING UNITS OUTSIDE THE SCOPE OF WORK IS NOT AFFECTED. RE-INSULATE EXISTING PIPING WITH 2" THICK FIBERGLASS PIPE INSULATION.
- THE CONTRACTOR SHALL INCLUDE ALL THE COSTS REQUIRED TO PERFORM PIPE FREEZING ON THE EXISTING HOT AND COLD DOMESTIC WATER MAINS AND BRANCHES AS REQUIRED TO FACILITATE THE DEMOLITION AND THE MAKING NEW CONNECTIONS. REFER TO PIPE FREEZING NOTES AND REQUIREMENTS ON DRAWING M0.01.
- DISCONNECT AND REMOVE THE EXISTING UNIT VENTILATOR, INCLUDING ALL ASSOCIATED HOT WATER HEATING PIPING, INSULATION, SUPPORTS, VALVES, FITTINGS, THERMOSTAT AND CONTROL WIRING. REMOVE HOT WATER SUPPLY AND RETURN PIPING BACK TO THE MAINS WITHOUT AFFECTING THE HOT WATER SUPPLY TO THE UPPER-FLOOR HEATING UNIT(S). CAP PIPING TO APPROVAL. RE-INSULATE ALL EXISTING PIPES TO REMAIN AND SEAL ALL INSULATION JOINTS. THE CONTRACTOR SHALL INCLUDE ALL COSTS REQUIRED TO SHUT DOWN THE HEATING SYSTEM TO FACILITATE THE WORK AND TO RE-COMMISSION THE SYSTEM UPON COMPLETION. SYSTEM SHUTDOWN AND RE-COMMISSIONING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL NOT PROCEED WITHOUT PRIOR APPROVAL. EXISTING WALL LOUVER TO REMAIN. WALL PATCHING BY THE GENERAL CONTRACTOR.
- REPLACE EXISTING HOSE BIB. REFER TO DRAWING M1.03.
- DISCONNECT AND REMOVE EXISTING DRINKING FOUNTAIN COMPLETE WITH ASSOCIATED SANITARY PIPES AND WATER SUPPLY PIPES. REMOVE WATER AND SANITARY PIPES TO MAINS AND CAP TO APPROVAL. REMOVED DOMESTIC WATER PIPE CONCEALED BEHIND EXISTING BLOCK WALL BACK TO MAIN IN CORRIDOR CEILING SPACE. RE-INSULATE EXISTING DOMESTIC WATER PIPES IN CEILING SPACE. PERFORM PIPE FREEZING ON THE EXISTING DOMESTIC COLD WATER MAIN AS REQUIRED TO FACILITATE THE DEMOLITION.
- DISCONNECT AND REMOVE THE EXISTING HOT WATER HEATING UNIT, INCLUDING ALL ASSOCIATED PIPING, VALVES, AND SUPPORT HANGERS. REMOVE ALL ABANDONED MATERIALS FROM SITE. RECONNECT THE EXISTING HOT WATER SUPPLY AND RETURN PIPING TO THE NEW HEATING UNIT AS SHOWN ON DRAWING M1.03. PROVIDE ALL REQUIRED FITTINGS, ADAPTERS, AND TRANSITION PIECES FOR A COMPLETE INSTALLATION. INSULATE ALL NEW AND EXISTING EXPOSED PIPING TO MATCH EXISTING SPECIFICATION. SEAL ALL PENETRATIONS AND ENSURE WATERPROOFING IS MAINTAINED PRIOR TO BACKFILLING. VERIFY CONTROL INTERFACE WITH BUILDING AUTOMATION SYSTEM. EXISTING THERMOSTAT IN CAFETERIA 1042 TO REMAIN.
- RELOCATE THE EXISTING 1/2" ROOFTOP GAS PIPING AS REQUIRED TO PROVIDE CLEARANCE FOR THE NEW MAKE-UP AIR UNIT AND ASSOCIATED ROOF CURB. CONTRACTOR SHALL REMOVE, RE-ROUTE, AND RE-SUPPORT ALL AFFECTED GAS PIPING IN ACCORDANCE WITH TSSA REQUIREMENTS, CSA B149. PROVIDE ALL NEW PIPE, FITTINGS, UNIONS, VALVES, HANGERS, AND SUPPORTS REQUIRED FOR A COMPLETE AND CODE-COMPLIANT INSTALLATION. PRESSURE-TEST THE MODIFIED GAS LINE PRIOR TO RE-COMMISSIONING. PAINT NEW AND EXISTING PIPES.
- CAP THE EXISTING BURIED SANITARY LINE WITH APPROVED PERMANENT CAP SUITABLE FOR THE EXISTING PIPE MATERIAL. FLOOR CUTTING AND EXCAVATION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR. FLOOR PATCHING AND FINAL SURFACE FINISHING SHALL BE BY THE GENERAL CONTRACTOR. ENSURE THE CAP IS WATERTIGHT AND INSTALLED ON A CLEAN, SQUARE CUT PIPE END BEFORE BACKFILLING.
- REMOVE THE EXISTING STRAINER/CLEANOUT AND PROVIDE A NEW FLOOR DRAIN STRAINER/CLEANOUT SIZED AND SET TO SUIT THE NEW FLOOR FINISH, ELEVATION, AND SLOPE. COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION. TEST THE TRAP SEAL PRIMER. PROVIDE A MECHANICAL FLOOR DRAIN TRAP SEALER IN EACH NEW OR EXISTING FLOOR DRAIN WHERE A PRIMER CONNECTION IS NOT AVAILABLE OR NOT WORKING. THE DEVICE SHALL BE A ONE WAY, SELF SEALING INSERT DESIGNED TO PREVENT SEWER GAS MIGRATION WHILE ALLOWING NORMAL DRAINAGE FLOW. THE TRAP SEALER SHALL BE REMOVABLE FOR CLEANING, COMPATIBLE WITH THE DRAIN BODY, AND RATED FOR COMMERCIAL KITCHEN USE. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ENSURE A GAS TIGHT FIT.
- DISCONNECT HOT WATER HEATING SUPPLY AND RETURN PIPES. PROVIDE NEW PIPING TO FAN COIL UNIT. REFER TO DRAWING M1.02 AND FAN COIL PIPING DETAIL ON DRAWING M3.03.
- MODIFY THE EXISTING HOT-WATER HEATING SUPPLY AND RETURN PIPING AS REQUIRED TO PROVIDE CLEARANCE FOR THE NEW KITCHEN HOOD AND ASSOCIATED DUCTWORK. THE WORK SHALL INCLUDE THE FOLLOWING:
 - REMOVE AND RE-ROUTE ALL AFFECTED PIPING, FITTINGS, HANGERS, AND VALVES AS REQUIRED CLEAR SPACE FOR THE HOOD AND DUCTS.
 - MAINTAIN CONTINUITY OF SERVICE TO THE HEATING UNITS ON THE UPPER FLOOR AND RECONNECT TO THE EXISTING PIPING IN A MANNER THAT PRESERVES ORIGINAL FLOW DIRECTION AND BALANCING.
 - PROVIDE ALL NEW MATERIALS, COUPLINGS, AND TRANSITION FITTINGS REQUIRED TO COMPLETE THE WORK.
 - PRESSURE-TEST ALL NEW AND MODIFIED PIPING PRIOR TO INSULATION AND PRIOR TO RETURNING THE SYSTEM TO SERVICE.
 - INSULATE ALL NEW AND EXISTING PIPING DISTURBED BY THE WORK TO MATCH EXISTING THICKNESS, TYPE, AND VAPOUR BARRIER REQUIREMENTS.
 - REFER TO HEATING PIPING SYSTEM TREATMENT ON M0.01.
 - COORDINATE ALL WORK WITH THE HOOD INSTALLER AND OTHER TRADES TO AVOID INTERFERENCE.
- USE A DRAIN CAMERA TO CONFIRM THE LOCATION, SIZE, MATERIAL, AND INVERT ELEVATION OF THE EXISTING BURIED SANITARY PIPE SHOWN ON THE DRAWINGS. VERIFY ALL FIELD CONDITIONS PRIOR TO EXCAVATION AND CONNECTION. REVISE THE PROPOSED CONNECTION LOCATION AS REQUIRED TO SUIT ACTUAL EXISTING CONDITIONS. REPORT ANY DISCREPANCIES REQUIRING REDESIGN TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK. REFER TO DRAWING M1.02 FOR THE PROPOSED NEW BURIED SANITARY PIPING AND THE REQUIRED CONNECTION TO THE EXISTING SYSTEM.



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DO NOT SCALE DRAWINGS. DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED "ISSUED FOR CONSTRUCTION" AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

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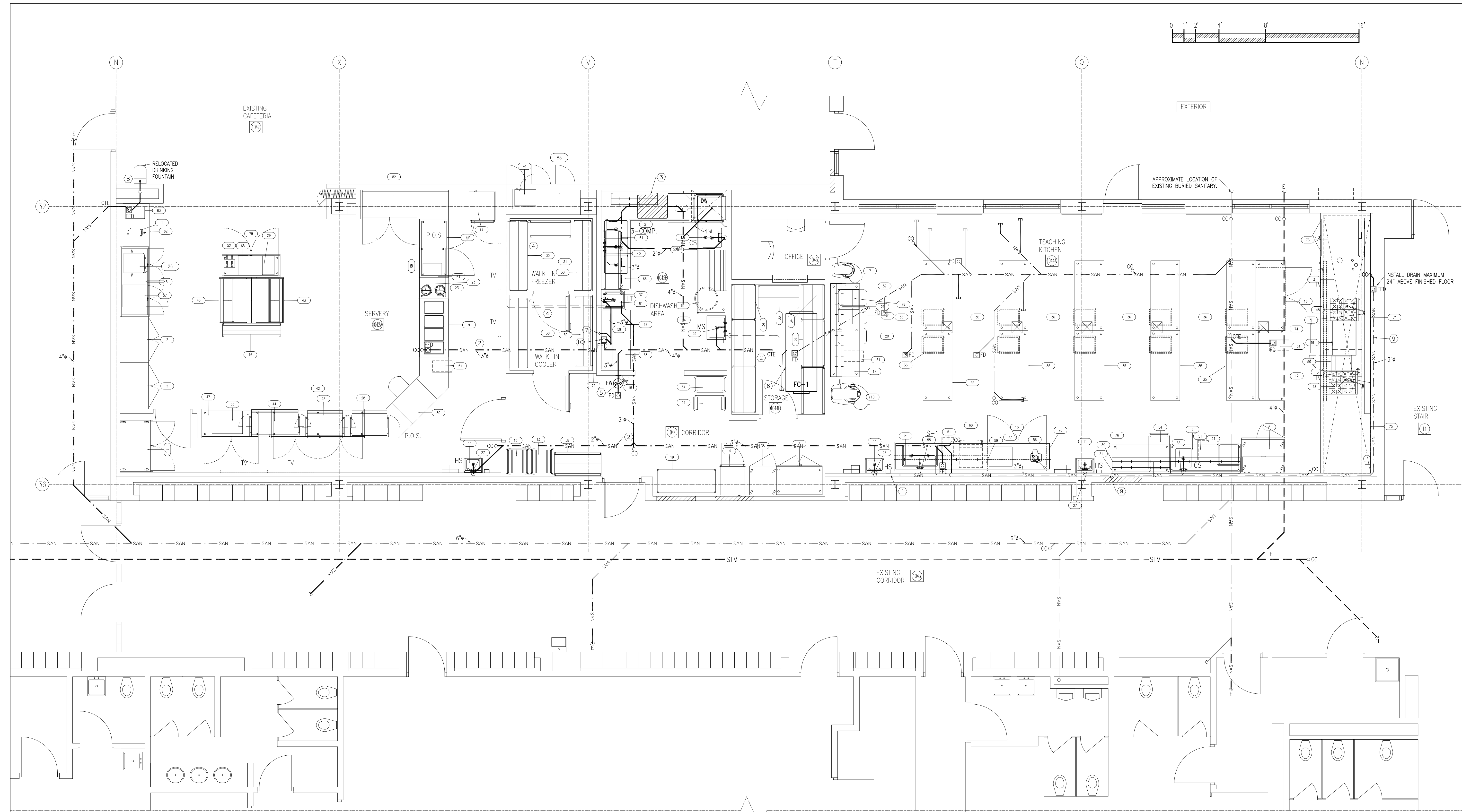
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**PARTIAL GROUND FLOOR PLAN
MECHANICAL – DEMOLITION**

DRAWN BY:	CHECKED BY:
N.P.	N.S.

DATE:	JOB No.:
SEPTEMBER 2025	25-103

SCALE:	SHEET No.:
1/4" = 1' - 0"	M1.01



PARTIAL GROUND FLOOR PLAN - DRAINAGE
SCALE: 1/4" = 1' - 0"

PLUMBING FIXTURES AND APPLIANCES INSTALLATION REQUIREMENTS

PROVIDE ALL SANITARY DRAIN PIPING FOR FIXTURES, APPLIANCES, AND EQUIPMENT CONDENSATE DRAIN CONNECTIONS. ALL PIPES SHALL BE NEW, FREE OF DEFECTS, AND COMPLETE WITH ALL REQUIRED TRAPS, FITTINGS, ACCESSORIES, AND COMPONENTS NECESSARY TO COMPLETE THE INSTALLATION. COORDINATE EXACT ROUTING OF ALL PIPING ON SITE AND CONNECT TO EXISTING MAINS.

THE EXACT LOCATION OF THE EXISTING SANITARY DRAIN AND CONNECTION POINTS SHALL BE DETERMINED ONSITE BEFORE COMMENCING EXCAVATION USING A SANITARY DIGITAL DRAIN CAMERA SYSTEM (LOCATOR UNIT, TRANSMITTERS AND ELECTRONIC MARKER). MARK THE LOCATION OF THE TRENCHES FOR NEW DRAINS AFTER CONFIRMING CONNECTION LOCATION TO THE EXISTING SYSTEM. FLOOR CUTTING AND EXCAVATION SHALL BE PERFORMED BY THE GENERAL CONTRACTOR. THIS CONTRACTOR SHALL BACKFILL OVER PIPES USING CLEAN SAND AND APPLY COMPACTION TO APPROVAL. TRENCHES BACKFILLING AND CONCRETE FLOORING SHALL BE COMPLETED BY THE GENERAL CONTRACTOR.

KITCHEN SINKS AND APPLIANCES WILL BE SUPPLIED BY THE KITCHEN EQUIPMENT VENDOR. INSTALLATION BY THIS CONTRACTOR. PROVIDE ALL REQUIRED SANITARY AND CONDENSATE DRAIN PIPING, TRAPS, FITTINGS, AND ACCESSORIES. REVIEW KITCHEN EQUIPMENT AND SINK SHOP DRAWINGS PRIOR TO COMMENCING WORK.

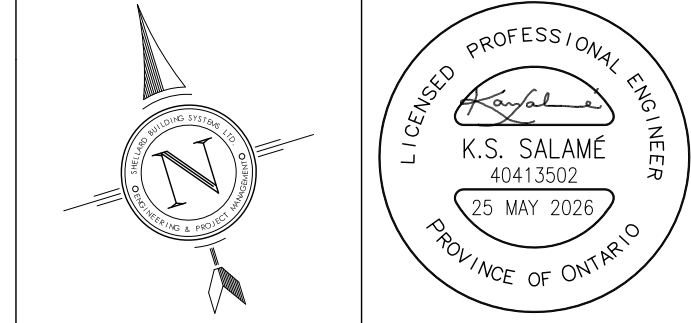
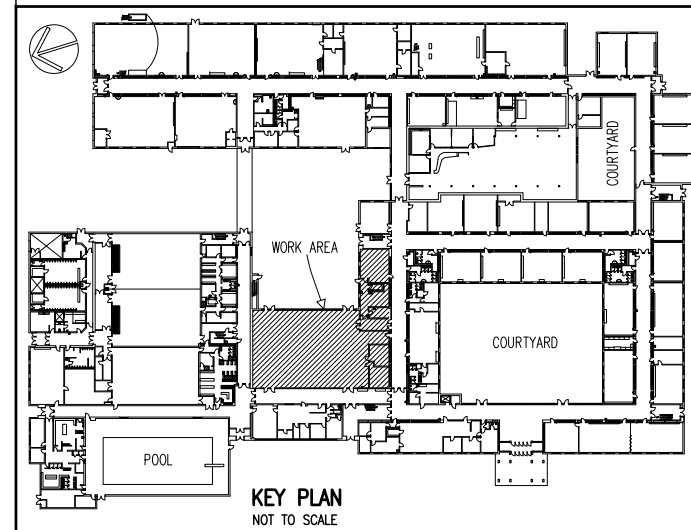
ALL CUTTING AND PATCHING REQUIRED FOR SANITARY AND CONDENSATE DRAIN WORK SHALL BE BY THIS DIVISION. MARK ALL PIPE PENETRATION LOCATIONS AND OBTAIN APPROVAL PRIOR TO CORING. FINAL ROUTING OF PIPING SHALL BE DETERMINED ON SITE AFTER EXISTING MAINS ARE EXPOSED.

THE ENGINEER RESERVES THE RIGHT TO MAKE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS DISCOVERED DURING CONSTRUCTION. SUCH CHANGES SHALL BE MADE AT NO EXTRA COST TO THE OWNER UNLESS THE NEW LOCATION, ARRANGEMENT, OR CONNECTION EXCEEDS 3.0 METERS (10 FT) FROM THAT SHOWN AND THE PIPING HAS NOT BEEN INSTALLED. PREPARE INTERFERENCE DRAWINGS AS REQUIRED TO OFFSET PIPING DUE TO EXISTING SITE CONDITIONS.

SANITARY AND VENT PIPING MATERIALS SHALL BE AS SPECIFIED ON THE DRAWINGS AND IN THE SPECIFICATIONS. ENSURE ALL MATERIALS AND FITTINGS ARE SUITABLE FOR THE INTENDED SERVICE. CONDENSATE DRAIN PIPING SHALL BE PVC, COPPER, OR AS SPECIFIED ON THE DRAWINGS.

DRAWING NOTES:

- 2" SANITARY PIPING TO RUN WITHIN WALL FURRING AT 2% SLOPE. COORDINATE EXACT ROUTING ON SITE. PROVIDE METAL STUD PROTECTION PLATES AT ALL PENETRATIONS TO PREVENT SCREWS FROM PUNCTURING THE SANITARY PIPE.
- NEW BURIED SANITARY PIPING
 - SCAN THE EXISTING CONCRETE FLOOR SLAB USING NON-DESTRUCTIVE LOCATING TECHNOLOGIES INCLUDING GROUND PENETRATING RADAR (GPR) AND MODERN CONCRETE IMAGING SCANNERS TO IDENTIFY EMBEDDED CONDUITS, PIPING, REINFORCING STEEL, POST TENSION CABLES, AND OTHER OBSTRUCTIONS PRIOR TO ANY CORING, SLAB CUTTING, OR EXCAVATION. ENGAGE A QUALIFIED TECHNICIAN WITH CALIBRATED EQUIPMENT TO PERFORM THE SCAN AND PROVIDE A MARKED LAYOUT ON THE SLAB SURFACE INDICATING DETECTED SERVICES AND EXCLUSION ZONES. COORDINATE SCANNING LIMITS WITH ARCHITECTURAL AND STRUCTURAL REQUIREMENTS. DO NOT PROCEED WITH EXCAVATION WORK UNTIL SCAN RESULTS HAVE BEEN REVIEWED, CONFIRMED, AND ALL INTERFERENCES ADDRESSED.
 - USE A DRAIN DIGITAL CAMERA TO DETERMINE THE LOCATION AND INVERTS OF EXISTING BURIED PIPES. MARK THE EXACT ROUTING OF EXISTING PIPES ON THE FLOOR FOR REVIEW AND COORDINATION.
 - CONNECT NEW SANITARY PIPING TO THE EXISTING BURIED PIPE. THE EXACT CONNECTION LOCATION SHALL BE DETERMINED ON SITE BASED ON SCAN RESULTS AND DRAIN CAMERA FINDINGS
- PROVIDE GREASE INTERCEPTOR RECESSED IN FLOOR. THE INTERCEPTOR SHALL BE ENDURA MODEL 3950A03 OR APPROVED EQUAL, RECESSED IN GROUND, 50 GPM, 31" x 24" x 18.5" HIGH, 3" INLET, 55 kg GREASE CAPACITY. PROVIDE UNIT COMPLETE WITH STAINLESS STEEL COVER, STAINLESS STEEL CLEAN-OUT PLUGS, FLOW CONTROL FITTING AND ALL REQUIRED ACCESSORIES TO COMPLETE INSTALLATION. COORDINATE ON SITE EXACT LOCATION OF UNIT BEFORE COMMENCING WORK. THE GREASE INTERCEPTOR SHALL BE CSA-B481 AND ASME APPROVED. SCAN EXISTING FLOOR SLAB BEFORE COMMENCING WORK AS DESCRIBED IN DRAWING NOTE NO. 2 ABOVE.
- PROVIDE 1" CONDENSATE DRAIN FROM THE WALK IN FREEZER TRAY PAN AND ONE FROM FROM THE WALK IN COOLER TRAY PAN AND PIPE EACH TO SPILL OVER THE LAUNDRY TUB. PROVIDE SELF REGULATED HEAT TRACE FOR PIPE IN THE WALK-IN FREEZER. INSULATE ALL PIPES AND COVER WITH WHITE PVC JACKETING. COORDINATE ON SITE CONNECTION LOCATIONS AND ROUTING OF PIPES.
- PROVIDE DRAIN FROM EYE WASH STATION TO BURIED SANITARY MAIN.
- PROVIDE 1" CONDENSATE DRAIN FROM FAN COIL UNIT, COMPLETE WITH TRAP, ROUTE THE CONDENSATE DRAIN TO SPILL OVER THE MOP SINK. VERTICAL CONDENSATE DROP SHALL BE CONCEALED IN NEW WALL PARTITION. (EXPOSED VERTICAL DROP NOT ACCEPTABLE). INSULATE HORIZONTAL SECTIONS OF THE CONDENSATE DRAIN PIPE.
- PROVIDE A COMMERCIAL GRADE RECESSED WALL BOX ASSEMBLY COMPLETE WITH DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND DRAIN CONNECTION. WALL BOX SHALL INCLUDE INTEGRAL SHUT-OFF VALVES FOR BOTH HOT AND COLD WATER SUPPLIES, ACCESSIBLE AFTER INSTALLATION, AND SIZED TO SUIT THE EQUIPMENT CONNECTION REQUIREMENTS. DRAIN CONNECTION SHALL BE 2" HUB PIPED TO THE BURIED SANITARY. REFER TO APPLIANCE DIMENSION FOR BOX ELEVATION. PROVIDE DRAIN FROM THE VENTLESS CLOTHES DRYER TO THE FUNNEL FLOOR DRAIN.
- PROVIDE NEW FUNNEL FLOOR DRAIN AND PIPE DRAIN FROM THE DRINKING FOUNTAIN TO SPILL OVER THE FFD. PROVIDE 1/2" DOMESTIC COLD WATER FROM EXISTING MAIN TO THE NEW LOCATION OF THE DRINKING FOUNTAIN COMPLETE WITH ISOLATING VALVE AND BACK FLOW PREVENTER.
- 3" COPPER DWV SANITARY PIPING TO RUN WITHIN WALL FURRING AT 2% SLOPE. COORDINATE EXACT ROUTING ON SITE. PROVIDE METAL STUD PROTECTION PLATES AT ALL PENETRATIONS TO PREVENT SCREWS FROM PUNCTURING THE SANITARY PIPE.
- PROVIDE 3" FUNNEL FLOOR DRAIN (FFD) COMPLETE WITH TRAP SEAL PRIMER AND CONNECT TO BURIED SANITARY MAIN. PIPE FROM CLOTHES DRYER APPLIANCE TO SPILL OVER THE FFD.



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ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:
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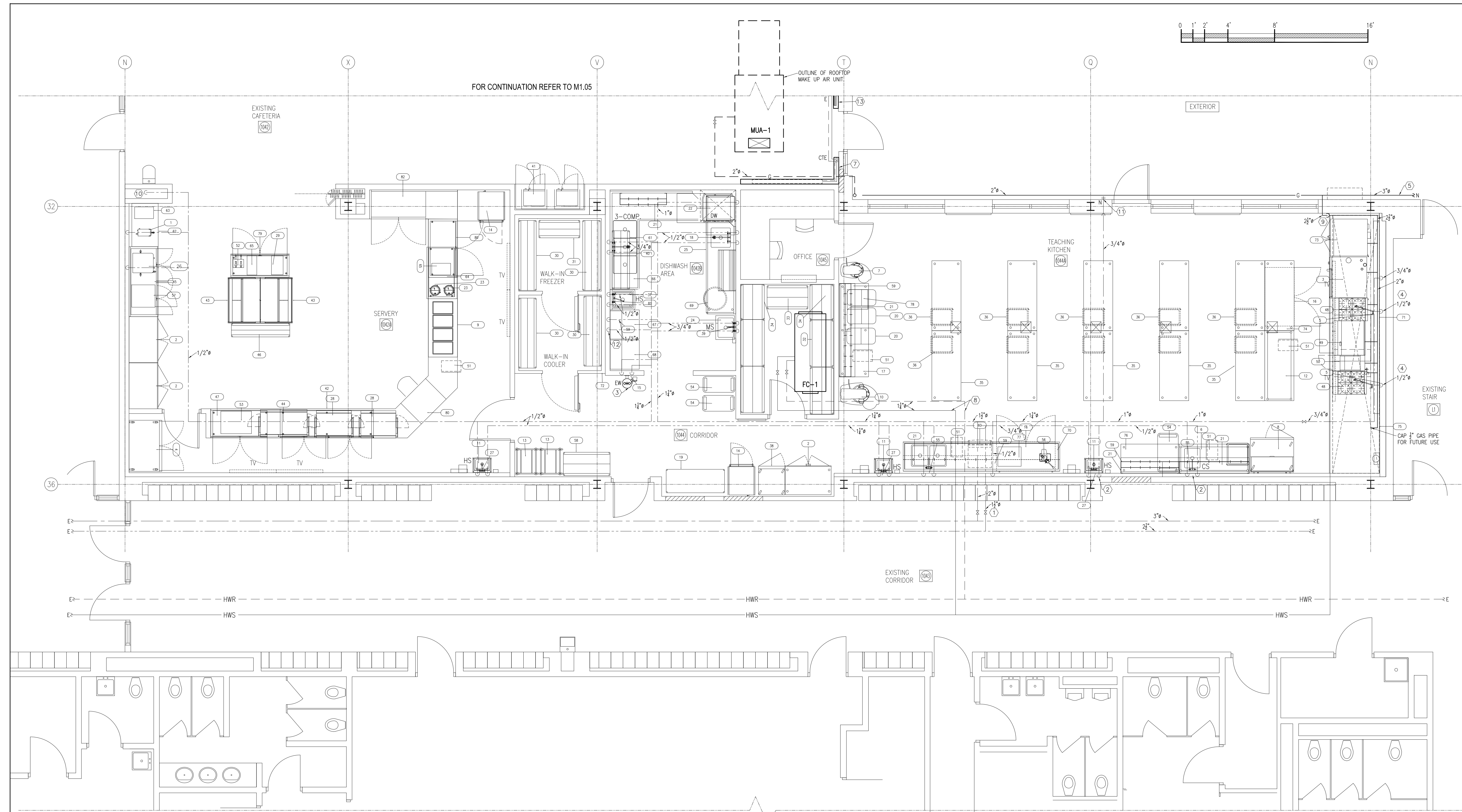
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MECHANICAL - DRAINAGE**

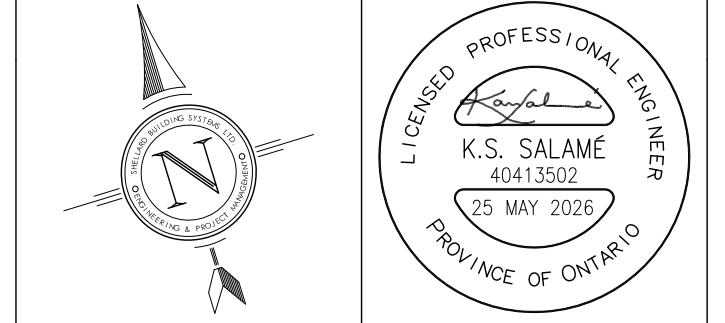
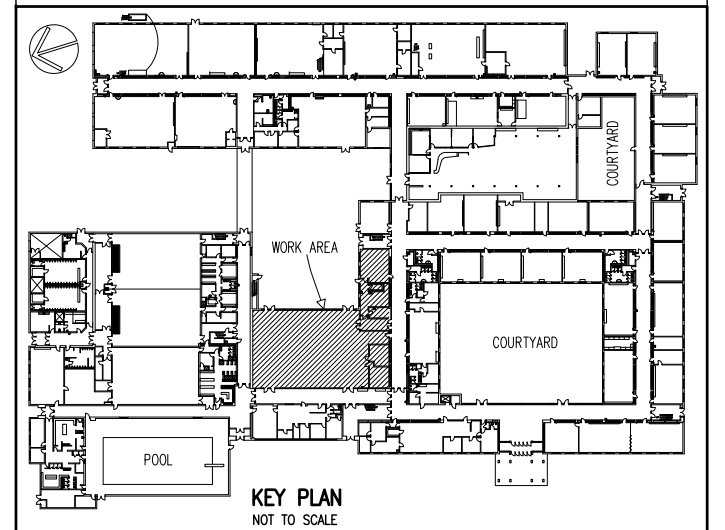
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PARTIAL GROUND FLOOR PLAN - PIPING
SCALE: 1/4" = 1' - 0"

- PLUMBING FIXTURES AND APPLIANCES INSTALLATION REQUIREMENTS**
- SUPPLY AND INSTALL PLUMBING FIXTURE UNITS AS SHOWN AND NOTED. SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE RELEASING ANY ORDER. ALL PLUMBING FIXTURES SHALL BE NEW AND FREE OF DEFECTS. PROVIDE WITH EACH UNIT ALL REQUIRED FITTINGS, TRAPS, COMPONENTS, ACCESSORIES, FAUCETS, VALVES, CONNECTORS, TRAPS...ETC. AS SPECIFIED AND REQUIRED TO COMPLETE INSTALLATION.
 - THE KITCHEN SINKS WILL BE SUPPLIED BY THE KITCHEN EQUIPMENT VENDOR. INSTALLATION BY THIS CONTRACTOR. PROVIDE ALL REQUIRED PIPING, TRAPS, FITTINGS AND ACCESSORIES. REVIEW KITCHEN SINKS AND APPLIANCES SHOP DRAWINGS BEFORE COMMENCING WORK.
 - PROVIDE DOMESTIC WATER PIPING AND SANITARY DRAIN TO EACH FIXTURE AS NOTED AND REQUIRED TO COMPLETE INSTALLATION. COORDINATE EXACT ROUTING OF PIPES ON SITE AND CONNECT TO EXISTING MAINS. PROVIDE ISOLATION VALVES AT EACH CONNECTION.
 - INSULATE ALL DOMESTIC HOT, COLD AND HORIZONTAL SANITARY PIPES USING 1" THICK FIBRE GLASS PIPE INSULATION AND TAPE ALL JOINTS. COVER EXPOSE INSULATION WITH WHITE PVC JACKETING AND TAPE ALL JOINTS USING APPROVED 2" WIDE PVC JACKETING TAPE.
 - LABEL ALL PIPES AND PROVIDE FLOW DIRECTION ARROWS.
 - PROVIDE SHUT OFF VALVE AT EACH PLUMBING FIXTURE, FAUCET, KITCHEN APPLIANCE AND WHERE SHOWN ON DRAWINGS.
 - ALL CUTTING AND PATCHING SHALL BE BY THIS DIVISION. MARK LOCATION OF EACH PIPE PENETRATION AND OBTAIN APPROVAL BEFORE CORING. ROUTING OF PIPES SHALL BE DETERMINE ON SITE AFTER EXISTING MAINS ARE EXPOSED.
 - THE RIGHT IS RESERVED BY THE ENGINEER TO MAKE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK. SUCH CHANGES SHALL BE DONE AT NO EXTRA COST TO THE OWNER UNLESS LOCATION, ARRANGEMENT OR CONNECTION IS MORE THAN 3.0 METERS (10 FT) FROM SHOWN. THE CONTRACTOR SHALL PREPARE INTERFERENCE DRAWINGS IF REQUIRED TO OFFSET PIPES DUE TO EXISTING SITE CONDITIONS.
 - DOMESTIC HOT AND COLD WATER PIPES SHALL BE TYPE "L" COPPER COMPLETE WITH LEAD FREE SOLDERED FITTINGS. INSULATE ALL NEW AND EXISTING PIPES.

- DRAWING NOTES**
- PROVIDE NEW 2" DOMESTIC COLD WATER SUPPLY AND 1 1/2" DOMESTIC HOT WATER SUPPLY FROM EXISTING MAINS IN THE CORRIDOR CEILING SPACE COMPLETE WITH ISOLATING VALVES. PROVIDE LAMACOD IDENTIFICATION AT THE CEILING BELOW THE VALVES INDICATING KITCHEN DOMESTIC WATER VALVES
 - ROUTE THE 3/4" DOMESTIC HOT AND COLD WATER PIPES DOWN WITHIN THE WALL FURRING AND CONNECT TO PLUMBING FIXTURE COMPLETE WITH ISOLATING VALVES.
 - PROVIDE THERMOSTATIC MIXING VALVE AT HIGH LEVEL ABOVE THE EYE WASH STATION AND PIPE HOT AND COLD WATER SUPPLIES TO THE EMERGENCY EYEWASH STATION. THE VALVE SHALL BE CSA-B125 CERTIFIED FOR USE WITH EMERGENCY FIXTURES AND SHALL DELIVER TEPID WATER WITHIN 16-38°C (60-100°F) UNDER ALL OPERATING CONDITIONS. THE MIXING VALVE SHALL BE FAIL SAFE: LOSS OF COLD WATER SHALL IMMEDIATELY SHUT OFF HOT WATER, AND LOSS OF HOT WATER SHALL NOT INTERRUPT COLD WATER FLOW. INSTALL THE VALVE IN AN ACCESSIBLE LOCATION FOR TESTING AND MAINTENANCE, AND ROUTE THE TEMPERED OUTLET DIRECTLY TO THE EYEWASH STATION IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS AND APPLICABLE SAFETY STANDARDS.
 - PIPE DOWN TO POT FILLER FAUCET COMPLETE WITH ISOLATING VALVE.
 - GAS PIPING FROM THE EXISTING GAS HEADER IN THE BOILER ROOM. COORDINATE ON SITE ROUTING OF THE PIPE AND OFFSET TO SUIT EXISTING CONDITIONS. PROVIDE ALL REQUIRED CORE DRILLING AND FIR SEAL AROUND EACH PIPE PENETRATION. PAINT GAS PIPING WITH PRIMER AND YELLOW FINISH COAT. PROVIDE IDENTIFICATION LABELS AT MAXIMUM 3 m (10 FT) INTERVALS. PROVIDE GAS PIPING SUPPORTS ON ROOF AT MAXIMUM 2 m (6 FT) INTERVALS.
 - PROVIDE MODINE OR EQUAL COMMERCIAL HOT WATER WALL FIN TUBE RADIATION HEATING ELEMENT MODEL SP. THE UNIT SHALL BE COMPLETE WITH 16 GAUGE FACTORY PAINTED ENCLOSURE, 90° INSIDE CORNER, HANGER STRIPS, WALL SUPPORT BRACKETS, END CAPS, 12" WIDE HINGED ACCESS DOOR AND BOTTOM INLET PANEL. THE HEATING ELEMENT SHALL INCLUDE FACTORY ASSEMBLED 2-ROW COPPER TUBE/ALUMINUM FIN HEATING ELEMENT, 3/4" COPPER TUBE WITH 4-1/4" X 4-1/4" ALUMINUM FINS AND 42 FINS/FT. PROVIDE 7'-0" ACTIVE HEATING ELEMENT LENGTH TO PROVIDE 8680 BTU/H AT 160°F ENTERING WATER TEMPERATURE. FIELD MEASURE THE L-SHAPE ENCLOSURE TO ENSURE EXISTING PIPES WILL BE BELOW THE HEATING UNIT. PROVIDE ALL REQUIRED ACCESSORIES TO COMPLETE INSTALLATION. CONNECT TO EXISTING HOT WATER HEATING SUPPLY AND RETURN PIPES COMPLETE WITH ISOLATING VALVE, UNIONS, STRAINER, AND CIRCUIT BALANCING VALVE. (ENCLOSURE COLOUR SELECTION BY ARCHITECT.)
 - CONNECT HOT WATER HEATING SUPPLY AND RETURN PIPES TO FAN COIL UNIT COMPLETE WITH VALVES AND FITTING. REFER TO FAN COIL PIPING DETAIL ON DRAWING M3.03. INSULATE ALL NEW AND EXISTING PIPES.
 - PROVIDE SOLENOID VALVE AND WIRE TO THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM. PROVIDE A MANUAL SHUT-OFF VALVE UPSTREAM OF THE SOLENOID VALVE. CONNECT GAS PIPING TO EACH APPLIANCE COMPLETE WITH INDIVIDUAL SHUT-OFF VALVES. PROVIDE DRIP LEGS AND UNION CONNECTIONS AT EACH APPLIANCE. CONTRACTOR SHALL REVIEW APPROVED SHOP DRAWINGS TO VERIFY GAS BRANCH SIZE FOR EACH APPLIANCE. PAINT ALL GAS PIPING AND LABEL "NATURAL GAS" AT INTERVALS NOT EXCEEDING 6 FT. COORDINATE ON-SITE GAS PIPE ROUTING, SUPPORT LOCATIONS, AND FINAL CONNECTIONS TO EACH APPLIANCE.
 - PROVIDE 1/2" DOMESTIC COLD WATER FROM EXISTING MAIN TO THE NEW LOCATION OF THE DRINKING FOUNTAIN COMPLETE WITH ISOLATING VALVE AND BACK FLOW PREVENTER.
 - PROVIDE ZURN MODEL Z1300 ECOLOTROL ENCLOSED NON-FREEZE WALL HYDRANT/HOSE BIB-3/4 HOSE CONNECTION. INSTALL UNIT RECESSED IN WALL AND PIPE 3/4" DOMESTIC COLD WATER TO DOMESTIC WATER MAIN. INSULATE ALL PIPES.
 - PROVIDE FOR THE WASHING MACHINE A COMMERCIAL GRADE RECESSED WALL BOX ASSEMBLY COMPLETE WITH DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND DRAIN CONNECTION. WALL BOX SHALL INCLUDE INTEGRAL SHUT-OFF VALVES FOR BOTH HOT AND COLD WATER SUPPLIES, ACCESSIBLE AFTER INSTALLATION, AND SIZED TO SUIT THE EQUIPMENT CONNECTION REQUIREMENTS. DRAIN CONNECTION SHALL BE 2" HUB PIPED TO THE BURIED SANITARY. REFER TO APPLIANCE DIMENSION FOR BOX ELEVATION.
 - REPLACE EXISTING WALL-FIN ENCLOSURES. FOR CONTINUATION AND INSTALLATION REQUIREMENTS, REFER TO DRAWING M1.04.



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DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED "ISSUED FOR CONSTRUCTION" AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS "ISSUED FOR CONSTRUCTION"

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

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4.	TENDER	25 MAY 2026
3.	REVISION - CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.

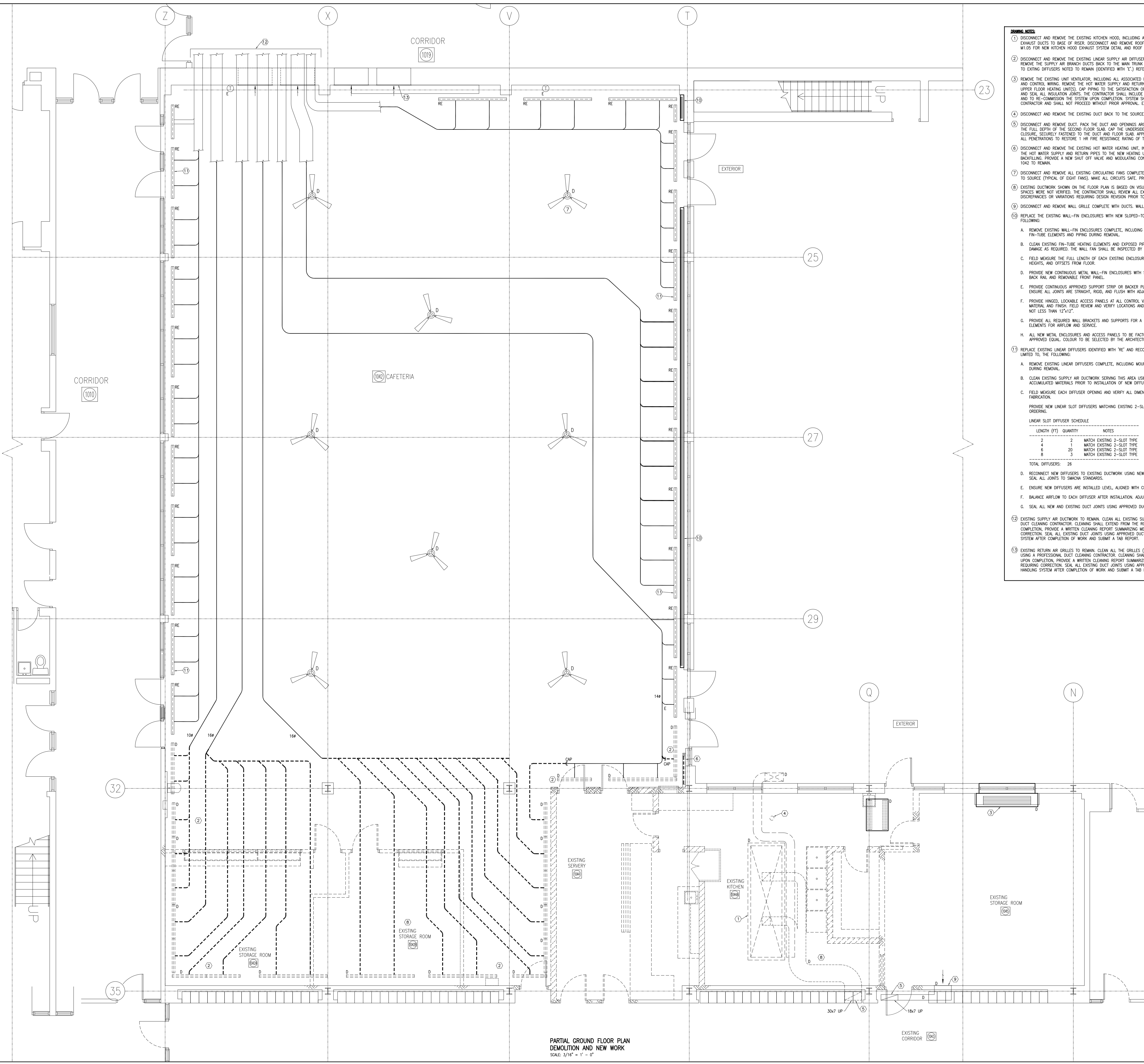
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HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

**PARTIAL GROUND FLOOR PLAN
MECHANICAL - PIPING SYSTEM**

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
1/4" = 1' - 0"	M1.03



PARTIAL GROUND FLOOR PLAN
DEMOLITION AND NEW WORK
SCALE: 3/16" = 1' - 0"

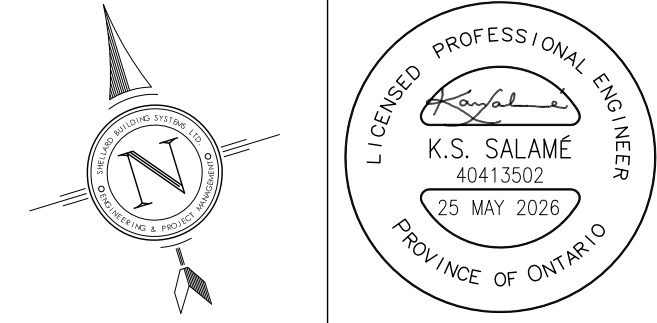
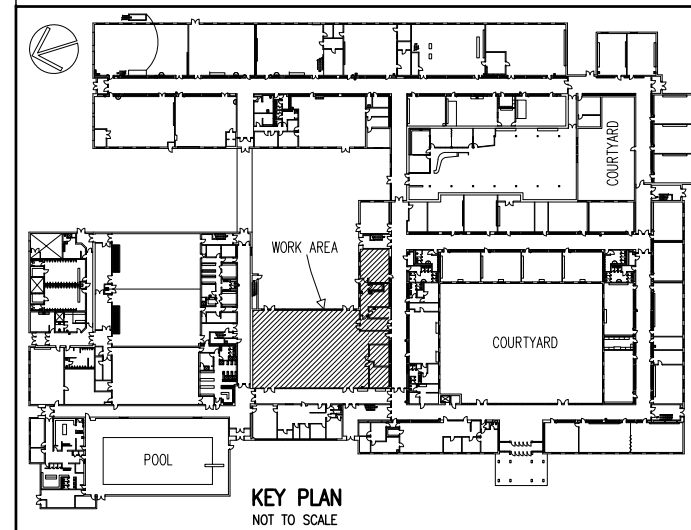
- WORKING NOTES:**
- DISCONNECT AND REMOVE THE EXISTING KITCHEN HOOD, INCLUDING ALL ASSOCIATED DUCTS, FIRE SUPPRESSION SYSTEM, WIRING, AND CONTROLS. REMOVE EXHAUST DUCTS TO BASE OF RISER. DISCONNECT AND REMOVE ROOFTOP EXHAUST FAN (EF-7) COMPLETE WITH ASSOCIATED CONTROLS. REFER TO DRAWING M1.03 FOR NEW KITCHEN HOOD, EXHAUST SYSTEM DETAIL AND ROOF PLAN M1.03 FOR CAP DETAIL.
 - DISCONNECT AND REMOVE THE EXISTING LINEAR SUPPLY AIR DIFFUSERS (IDENTIFIED WITH 'D'), INCLUDING ALL ASSOCIATED DUCTWORK AND HANGERS. REMOVE THE SUPPLY AIR BRANCH DUCTS BACK TO THE MAIN TRUNK AND CAP AT MAIN COMPLETE WITH JOINT SEAL. MAINTAIN EXISTING SUPPLY AIR DUCTS TO EXISTING DIFFUSERS NOTED TO REMAIN (IDENTIFIED WITH 'E'). REFER TO DRAWING M1.04 FOR THE NEW DUCTWORK AND DIFFUSER LAYOUT.
 - REMOVE THE EXISTING UNIT VENTILATOR, INCLUDING ALL ASSOCIATED HOT WATER HEATING PIPING, INSULATION, SUPPORTS, VALVES, FITTINGS, THERMOSTAT, AND CONTROL WIRING. REMOVE THE HOT WATER SUPPLY AND RETURN PIPING BACK TO THE MAINS WITHOUT AFFECTING THE HOT WATER SUPPLY TO THE UPPER FLOOR HEATING UNITS. CAP PIPING TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. RE-INSULATE ALL EXISTING PIPING TO REMAIN AND SEAL ALL INSULATION JOINTS. THE CONTRACTOR SHALL INCLUDE ALL COSTS REQUIRED TO SHUT DOWN THE HEATING SYSTEM TO FACILITATE THE WORK AND TO RE-COMMISSION THE SYSTEM UPON COMPLETION. SYSTEM SHUTDOWN AND RE-COMMISSIONING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL NOT PROCEED WITHOUT PRIOR APPROVAL. EXISTING WALL LOUVER TO REMAIN. WALL PATCHING BY THE GENERAL CONTRACTOR.
 - DISCONNECT AND REMOVE THE EXISTING DUCT BACK TO THE SOURCE CONNECTION POINT, INCLUDING ALL ASSOCIATED HANGERS, SEALANT, AND FASTENERS.
 - DISCONNECT AND REMOVE DUCT. PACK THE DUCT AND OPENINGS AROUND IT WITH MINERAL WOOL (ROXUL OR EQUIVALENT) FIRE RESISTANT INSULATION TO THE FULL DEPTH OF THE SECOND FLOOR SLAB. CAP THE UNDERSIDE OF THE SECOND FLOOR SLAB USING A MINIMUM 18 GAUGE GALVANIZED SHEET METAL CLOSURE, SECURELY FASTENED TO THE DUCT AND FLOOR SLAB. APPLY A UL5 LISTED FIRESTOP SEALANT AROUND THE PERIMETER OF THE CAP AND AT ALL PENETRATIONS TO RESTORE 1 HR FIRE RESISTANCE RATING OF THE FLOOR ASSEMBLY.
 - DISCONNECT AND REMOVE THE EXISTING HOT WATER HEATING UNIT, INCLUDING ALL ASSOCIATED PIPING, CONTROLS, AND SUPPORT HANGERS. RECONNECT THE HOT WATER SUPPLY AND RETURN PIPES TO THE NEW HEATING UNIT (REFER TO DRAWING M1.03). INSULATE PIPES AND SEAL WATER PROOF BEFORE BACKFILLING. PROVIDE A NEW SHUT OFF VALVE AND INSULATING CONTROL VALVE AT EXISTING HEATER TO REMAIN. EXISTING THERMOSTAT IN CAFETERIA 1042 TO REMAIN.
 - DISCONNECT AND REMOVE ALL EXISTING CIRCULATING FANS COMPLETE WITH ASSOCIATED CONTROLS, WIRING, CONDUITS, SUPPORTS, AND ACCESSORIES BACK TO SOURCE (TYPICAL OF EIGHT FANS). MAKE ALL CIRCUITS SAFE. PROVIDE NEW CIRCULATING FANS AS SHOWN AND NOTED ON DRAWING M1.05.
 - EXISTING DUCTWORK SHOWN ON THE FLOOR PLAN IS BASED ON VISUAL REVIEW AND AVAILABLE RECORD DOCUMENTS. DUCTS WITH CONCEALED CEILING SPACES WERE NOT VERIFIED. THE CONTRACTOR SHALL REVIEW ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES OR VARIATIONS REQUIRING DESIGN REVISION PRIOR TO STARTING DEMOLITION OR NEW CONSTRUCTION.
 - DISCONNECT AND REMOVE WALL GRILLE COMPLETE WITH DUCTS. WALL PATCHING BY THE GENERAL CONTRACTOR.
 - REPLACE THE EXISTING WALL-FIN ENCLOSURES WITH NEW SLOPED-TOP COVERS. THE WORK SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING:
 - REMOVE EXISTING WALL-FIN ENCLOSURES COMPLETE, INCLUDING COVERS, END CAPS, INTERNAL BRACKETS, AND SUPPORTS. PROTECT EXISTING FIN-TUBE ELEMENTS AND PIPING DURING REMOVAL.
 - CLEAN EXISTING FIN-TUBE HEATING ELEMENTS AND EXPOSED PIPING. REMOVE DUST, DEBRIS, LOOSE PAINT, AND SURFACE RUST. REPAIR MINOR FIN DAMAGE AS REQUIRED. THE WALL FIN SHALL BE INSPECTED BY THE ENGINEER BEFORE THE NEW ENCLOSURES ARE INSTALLED.
 - FIELD MEASURE THE FULL LENGTH OF EACH EXISTING ENCLOSURE PRIOR TO FABRICATION. NEW ENCLOSURES SHALL MATCH EXISTING LENGTHS, HEIGHTS, AND OFFSETS FROM FLOOR.
 - PROVIDE NEW CONTINUOUS METAL WALL-FIN ENCLOSURES WITH SLOPED TOP. FABRICATE FROM MINIMUM 1.2 mm SHEET STEEL WITH REINFORCED BACK RAIL AND REMOVABLE FRONT PANEL.
 - PROVIDE CONTINUOUS APPROVED SUPPORT STRIP OR BACKER PLATE BEHIND ALL ENCLOSURE SEAMS. SEAMS SHALL NOT BE SIMPLE OVERLAPS. ENSURE ALL JOINTS ARE STRAIGHT, RIGID, AND FLUSH WITH ADJACENT PANELS.
 - PROVIDE HINGED, LOCKABLE ACCESS PANELS AT ALL CONTROL VALVES, UNION CONNECTIONS, AND AIR VENTS. ACCESS PANELS TO MATCH ENCLOSURE MATERIAL AND FINISH. FIELD REVIEW AND VERIFY LOCATIONS AND NUMBER OF REQUIRED ACCESS PANELS. SIZES SHALL SUIT REQUIRED ACCESS BUT NOT LESS THAN 12"x12".
 - PROVIDE ALL REQUIRED WALL BRACKETS AND SUPPORTS FOR A RIGID, LEVEL INSTALLATION. MAINTAIN REQUIRED CLEARANCES AROUND FIN-TUBE ELEMENTS FOR AIRFLOW AND SERVICE.
 - ALL NEW METAL ENCLOSURES AND ACCESS PANELS TO BE FACTORY-FRAMED AND PAINTED WITH DURABLE EPOXY OR POLYURETHANE ENAMEL OR APPROVED EQUAL. COLOUR TO BE SELECTED BY THE ARCHITECTURAL.
 - REPLACE EXISTING LINEAR DIFFUSERS IDENTIFIED WITH 'RE' AND RECONNECT TO EXISTING SUPPLY AIR. THE WORK SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING:
 - REMOVE EXISTING LINEAR DIFFUSERS COMPLETE, INCLUDING MOUNTING FRAMES, FASTENERS, AND ASSOCIATED HARDWARE. PROTECT EXISTING DUCTWORK DURING REMOVAL.
 - CLEAN EXISTING SUPPLY AIR DUCTWORK SERVING THIS AREA USING A PROFESSIONAL DUCT CLEANING CONTRACTOR. REMOVE ALL DUST, DEBRIS, AND ACCUMULATED MATERIALS PRIOR TO INSTALLATION OF NEW DIFFUSERS.
 - FIELD MEASURE EACH DIFFUSER OPENING AND VERIFY ALL DIMENSIONS PRIOR TO ORDERING NEW UNITS. SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION.

PROVIDE NEW LINEAR SLOT DIFFUSERS MATCHING EXISTING 2-SLOT PROFILE, LENGTH, AND APPEARANCE. FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING.

LENGTH (FT)	QUANTITY	NOTES
2	2	MATCH EXISTING 2-SLOT TYPE
4	1	MATCH EXISTING 2-SLOT TYPE
6	20	MATCH EXISTING 2-SLOT TYPE
8	3	MATCH EXISTING 2-SLOT TYPE

TOTAL DIFFUSERS: 28

 - RECONNECT NEW DIFFUSERS TO EXISTING DUCTWORK USING NEW COLLARS, TRANSITIONS, AND SEALANT AS REQUIRED FOR AIRTIGHT CONNECTIONS. SEAL ALL JOINTS TO SMACNA STANDARDS.
 - ENSURE NEW DIFFUSERS ARE INSTALLED LEVEL, ALIGNED WITH CEILING GRID, AND MATCHING ARCHITECTURAL LAYOUT.
 - BALANCE AIRFLOW TO EACH DIFFUSER AFTER INSTALLATION. ADJUST EXISTING DAMPERS AS REQUIRED TO ACHIEVE DESIGN AIR QUANTITIES.
 - SEAL ALL NEW AND EXISTING DUCT JOINTS USING APPROVED DUCT SEALANT.
 - EXISTING SUPPLY AIR DUCTWORK TO REMAIN. CLEAN ALL EXISTING SUPPLY AIR DUCTS SERVING THIS AREA (SUPPLY AIR FAN SF-3) USING A PROFESSIONAL DUCT CLEANING CONTRACTOR. CLEANING SHALL EXTEND FROM THE ROOM DIFFUSERS BACK TO THE AIR HANDLING UNIT IN THE MECHANICAL ROOM. UPON COMPLETION, PROVIDE A WRITTEN CLEANING REPORT SUMMARIZING METHODS, LOCATIONS, BEFORE/AFTER CONDITIONS, AND ANY DEFICIENCIES REQUIRING CORRECTION. SEAL ALL EXISTING DUCT JOINTS USING APPROVED DUCT SEALANT TO SMACNA STANDARDS. TEST AND BALANCE THE ENTIRE AIR HANDLING SYSTEM AFTER COMPLETION OF WORK AND SUBMIT A TAB REPORT.
 - EXISTING RETURN AIR GRILLES TO REMAIN. CLEAN ALL THE GRILLES (TYPICAL OF FOUR) AND EXISTING RETURN AIR DUCTS SERVING RETURN AIR FAN (RF-3) USING A PROFESSIONAL DUCT CLEANING CONTRACTOR. CLEANING SHALL EXTEND FROM THE ROOM BACK BACK TO THE FAN IN THE MECHANICAL ROOM. UPON COMPLETION, PROVIDE A WRITTEN CLEANING REPORT SUMMARIZING METHODS, LOCATIONS, BEFORE/AFTER CONDITIONS, AND ANY DEFICIENCIES REQUIRING CORRECTION. SEAL ALL EXISTING DUCT JOINTS USING APPROVED DUCT SEALANT TO SMACNA STANDARDS. TEST AND BALANCE THE ENTIRE AIR HANDLING SYSTEM AFTER COMPLETION OF WORK AND SUBMIT A TAB REPORT.



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NOTE BEFORE COMMENCING WORK:

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HWDSB

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4.	TENDER	25 MAY 2026
3.	REVISION - CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

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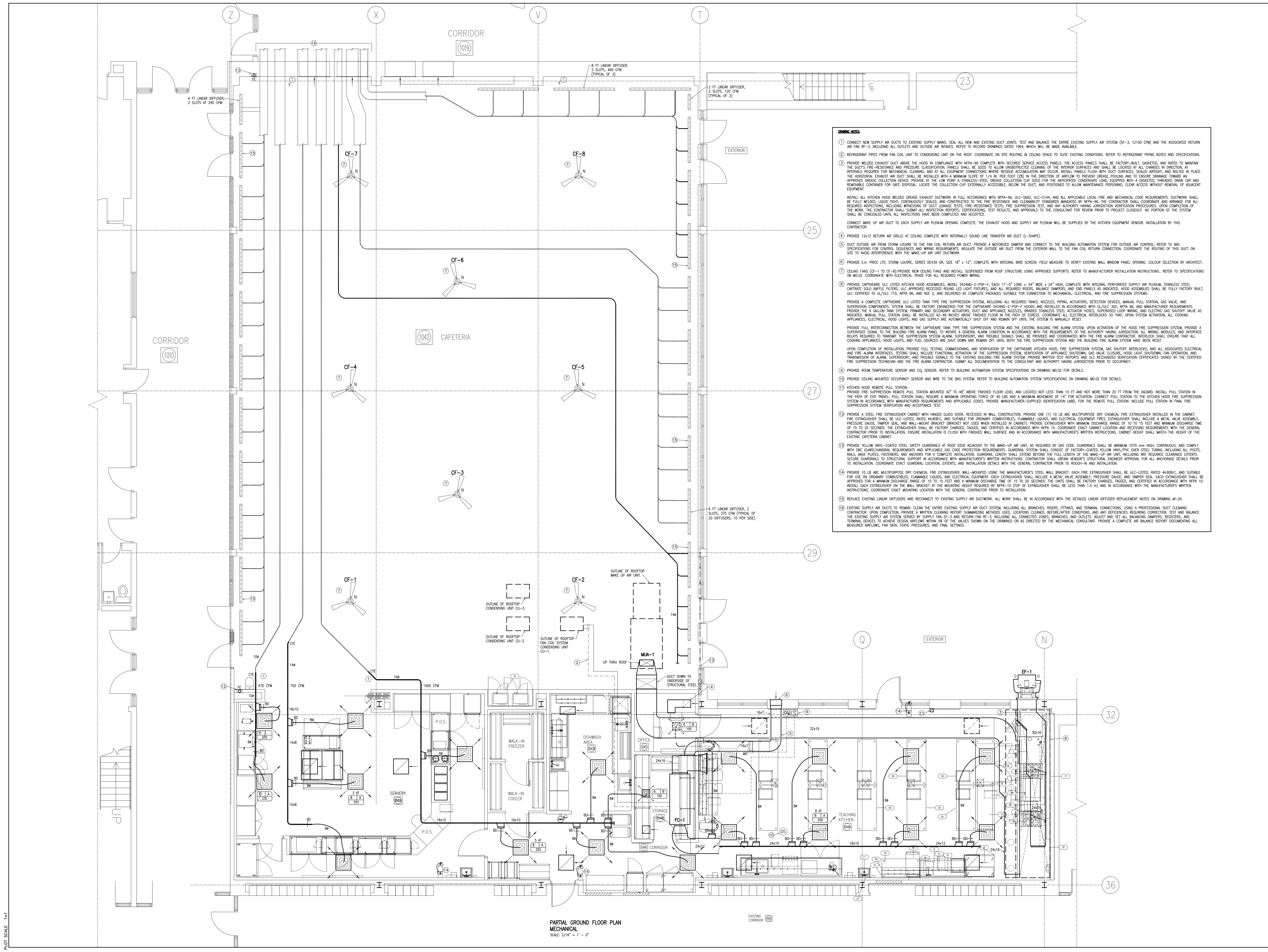
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CAMBRIDGE, ONTARIO
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shellard@consultant.com
226 606 6542

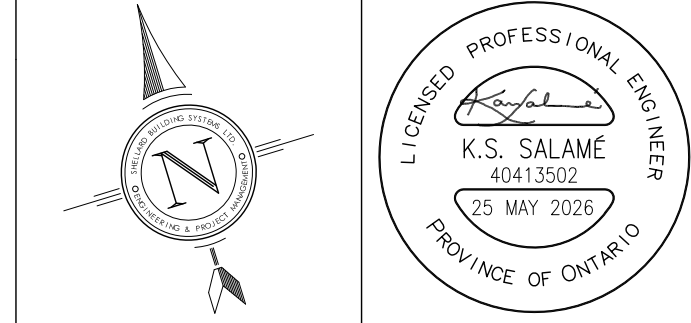
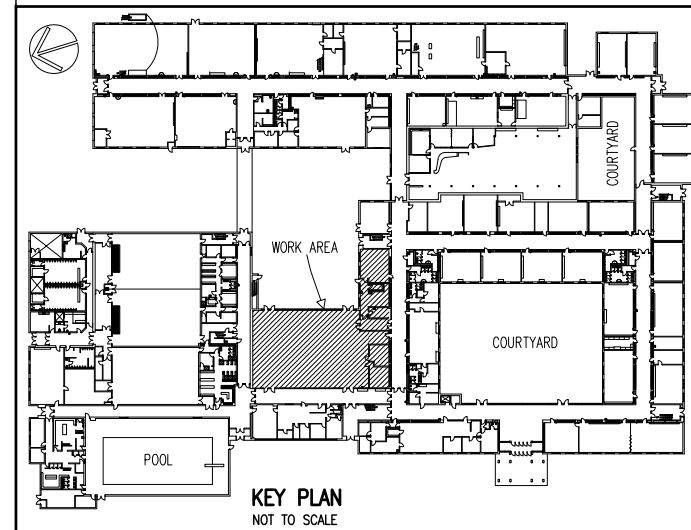
ORCHARD PARK
SECONDARY SCHOOL
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO L8E 4M5

DRAWN NAME:
**PARTIAL GROUND FLOOR PLAN
MECHANICAL - DEMOLITION**

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
3/ 16" = 1' - 0"	M1.04



- WORKING NOTES:**
- CONNECT NEW SUPPLY AIR DUCTS TO EXISTING SUPPLY MAINS. SEAL ALL NEW AND EXISTING DUCT JOINTS. TEST AND BALANCE THE ENTIRE EXISTING SUPPLY AIR SYSTEM (SF-3, 12100 CFM) AND THE ASSOCIATED RETURN AIR FAN RF-3, INCLUDING ALL OUTLETS AND OUTSIDE AIR INTAKES. REFER TO RECORD DRAWINGS DATED 1964, WHICH WILL BE MADE AVAILABLE.
 - REFRIGERANT PIPES FROM FAN COIL UNIT TO CONDENSING UNIT ON THE ROOF. COORDINATE ON SITE ROUTING IN CEILING SPACE TO SUITE EXISTING CONDITIONS. REFER TO REFRIGERANT PIPING NOTES AND SPECIFICATIONS.
 - PROVIDE WELDED EXHAUST DUCT ABOVE THE HOOD IN COMPLIANCE WITH NFPA-96 COMPLETE WITH SECURED SERVICE ACCESS PANELS. THE ACCESS PANELS SHALL BE FACTORY-BUILT, GASKETED, AND RATED TO MAINTAIN THE DUCT'S FIRE-RESISTANCE AND PRESSURE CLASSIFICATION. PANELS SHALL BE SIZED TO ALLOW UNRESTRICTED CLEANING OF THE INTERIOR SURFACES AND SHALL BE LOCATED AT ALL CHANGES IN DIRECTION, AT INTERVALS REQUIRED FOR MECHANICAL CLEANING, AND AT ALL EQUIPMENT CONNECTIONS WHERE RESIDUE ACCUMULATION MAY OCCUR. INSTALL PANELS FLUSH WITH DUCT SURFACES, SEALED AIRTIGHT, AND REINFORCED IN PLACE. THE HORIZONTAL EXHAUST AIR DUCT SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 1/4 IN. PER FOOT (2%) IN THE DIRECTION OF AIRFLOW TO PREVENT GREASE POOLING AND TO ENSURE DRAINAGE TOWARD AN APPROVED GREASE COLLECTION DEVICE PROVIDED AT THE LOW POINT A STAINLESS-STEEL GREASE COLLECTION CUP SIZED FOR THE ANTICIPATED CONDENSATE LOAD, EQUIPPED WITH A GASKETED, TREADED DRAIN CAP AND REMOVABLE CONTAINER FOR SAFE DISPOSAL. LOCATE THE COLLECTION CUP EXTERNALLY ACCESSIBLE, BELOW THE DUCT, AND POSITIONED TO ALLOW MAINTENANCE PERSONNEL CLEAR ACCESS WITHOUT REMOVAL OF ADJACENT EQUIPMENT.
 - INSTALL ALL KITCHEN HOOD WELDED GREASE EXHAUST DUCTWORK IN FULL ACCORDANCE WITH NFPA-96, ULC-S562, ULC-S144, AND ALL APPLICABLE LOCAL FIRE AND MECHANICAL CODE REQUIREMENTS. DUCTWORK SHALL BE FULLY WELDED, LIQUID TIGHT, CONTINUOUSLY SEALED, AND CONSTRUCTED TO THE FIRE RESISTANCE AND CLEANABILITY STANDARDS MANDED BY NFPA-96. THE CONTRACTOR SHALL COORDINATE AND ARRANGE FOR ALL REQUIRED INSPECTIONS, INCLUDING WITNESSING OF DUCT LEAKAGE TESTS, FIRE-RESISTANCE TESTS, FIRE SUPPRESSION TEST, AND ANY AUTHORITY HAVING JURISDICTION VERIFICATION PROCEDURES. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT ALL INSPECTION REPORTS, CERTIFICATIONS, TEST RESULTS, AND APPROVALS TO THE CONSULTANT FOR REVIEW PRIOR TO PROJECT CLOSURE. NO PORTION OF THE SYSTEM SHALL BE CONCEALED UNTIL ALL INSPECTIONS HAVE BEEN COMPLETED AND ACCEPTED.
 - CONNECT MAKE UP AIR DUCT TO EACH SUPPLY AIR PLENUM OPENING COMPLETE. THE EXHAUST HOOD AND SUPPLY AIR PLENUM WILL BE SUPPLIED BY THE KITCHEN EQUIPMENT VENDOR. INSTALLATION BY THIS CONTRACTOR.
 - PROVIDE 12x12 RETURN AIR GRILLE AT CEILING COMPLETE WITH INTERNALLY SOUND LINE TRANSFER AIR DUCT (L-SHAPE).
 - DUCT OUTSIDE AIR FROM STORM LOUVER TO THE FAN COIL RETURN AIR DUCT. PROVIDE A MOTORIZED DAMPER AND CONNECT TO THE BUILDING AUTOMATION SYSTEM FOR OUTSIDE AIR CONTROL. REFER TO BAS SPECIFICATIONS FOR CONTROL SEQUENCES AND WIRING REQUIREMENTS. INSULATE THE OUTSIDE AIR DUCT FROM THE EXTERIOR WALL TO THE FAN COIL RETURN CONNECTION. COORDINATE THE ROUTING OF THIS DUCT ON SITE TO AVOID INTERFERENCE WITH THE MAKE-UP AIR UNIT DUCTWORK.
 - PROVIDE E.H. PRICE LTD. STORM LOUVER, SERIES DE439 OR, SIZE 18" x 12", COMPLETE WITH INTEGRAL BIRD SCREEN. FIELD MEASURE TO VERIFY EXISTING WALL WINDOW PANEL OPENING. COLOUR SELECTION BY ARCHITECT.
 - CEILING FANS (CF-1 TO CF-8) PROVIDE NEW CEILING FANS AND INSTALL SUSPENDED FROM ROOF STRUCTURE USING APPROVED SUPPORTS. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS. REFER TO SPECIFICATIONS ON M.O.2. COORDINATE WITH ELECTRICAL TRADE FOR ALL REQUIRED POWER WIRING.
 - PROVIDE CAPTIVEAIRE ULC LISTED KITCHEN HOOD ASSEMBLIES, MODEL 5424ND-2-PSP-F, EACH 11'-0" LONG x 54" WIDE x 24" HIGH, COMPLETE WITH INTEGRAL PERFORATED SUPPLY AIR PLENUM, STAINLESS STEEL CAPRITATE SOLID BATTLE FILTERS, ULC APPROVED RECESSED ROUND LED LIGHT FIXTURES, AND ALL REQUIRED RISERS, BALANCE DAMPERS, AND END PANELS AS INDICATED. HOOD ASSEMBLIES SHALL BE FULLY FACTORY BUILT, ULC CERTIFIED TO UL/ULC 710, NFPA 96, AND NSF 2, AND DELIVERED AS COMPLETE PACKAGES SUITABLE FOR CONNECTION TO MECHANICAL, ELECTRICAL, AND FIRE SUPPRESSION SYSTEMS.
 - PROVIDE A COMPLETE CAPTIVEAIRE ULC LISTED TANK TYPE FIRE SUPPRESSION SYSTEM, INCLUDING ALL REQUIRED TANKS, NOZZLES, PIPING, ACTUATORS, DETECTION DEVICES, MANUAL PULL STATION, GAS VALVE, AND SUPERVISION COMPONENTS. SYSTEM SHALL BE FACTORY ENGINEERED FOR THE CAPTIVEAIRE 5424ND-2-PSP-F HOODS AND INSTALLED IN ACCORDANCE WITH UL/ULC 300, NFPA 96, AND MANUFACTURER REQUIREMENTS. PROVIDE THE 4 GALLON TANK SYSTEM, PRIMARY AND SECONDARY ACTUATORS, DUCT AND APPLIANCE NOZZLES, BRANDED STAINLESS STEEL ACTUATOR HOSES, SUPERVISED LOOP WIRING, AND ELECTRIC GAS SHUTOFF VALVE AS INDICATED. MANUAL PULL STATION SHALL BE INSTALLED 42-48 INCHES ABOVE FINISHED FLOOR IN THE PATH OF EGRESS. COORDINATE ALL ELECTRICAL, INTERLOCKS SO THAT, UPON SYSTEM ACTIVATION, ALL COOKING APPLIANCES, ELECTRICAL, HOOD LIGHTS, AND GAS SUPPLY ARE AUTOMATICALLY SHUT OFF AND REMAIN OFF UNTIL THE SYSTEM IS MANUALLY RESET.
 - PROVIDE FULL INTERCONNECTION BETWEEN THE CAPTIVEAIRE TANK TYPE FIRE SUPPRESSION SYSTEM AND THE EXISTING BUILDING FIRE ALARM SYSTEM. UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, PROVIDE A SUPERVISED SIGNAL TO THE BUILDING FIRE ALARM PANEL TO INITIATE A GENERAL ALARM CONDITION IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. ALL WIRING, MODULES, AND INTERFACE RELAYS REQUIRED TO TRANSMIT THE SUPPRESSION SYSTEM ALARM, SUPERVISORY, AND TROUBLE SIGNALS SHALL BE PROVIDED AND COORDINATED WITH THE FIRE ALARM CONTRACTOR. INTERLOCK SHALL ENSURE THAT ALL COOKING APPLIANCES, HOOD LIGHTS, AND GAS SUPPLY ARE SHUT DOWN AND REMAIN OFF UNTIL BOTH THE FIRE SUPPRESSION SYSTEM AND THE BUILDING FIRE ALARM SYSTEM HAVE BEEN RESET.
 - UPON COMPLETION OF INSTALLATION, PROVIDE PULL TESTING, COMMISSIONING, AND VERIFICATION OF THE CAPTIVEAIRE KITCHEN HOOD, FIRE SUPPRESSION SYSTEM, GAS SHUTOFF INTERLOCKS, AND ALL ASSOCIATED ELECTRICAL AND FIRE ALARM INTERFACES. TESTING SHALL INCLUDE FUNCTIONAL ACTIVATION OF THE SUPPRESSION SYSTEM, VERIFICATION OF APPLIANCE SHUTDOWN, GAS VALVE CLOSURE, HOOD LIGHT SHUTDOWN, FAN OPERATION, AND TRANSMISSION OF ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO THE EXISTING BUILDING FIRE ALARM SYSTEM. PROVIDE WRITTEN TEST REPORTS AND ULC RECOGNIZED VERIFICATION CERTIFICATES SIGNED BY THE CERTIFIED FIRE SUPPRESSION TECHNICIAN AND THE FIRE ALARM CONTRACTOR. SUBMIT ALL DOCUMENTATION TO THE CONSULTANT AND AUTHORITY HAVING JURISDICTION PRIOR TO OCCUPANCY.
 - PROVIDE ROOM TEMPERATURE SENSOR AND CO₂ SENSOR. REFER TO BUILDING AUTOMATION SYSTEM SPECIFICATIONS ON DRAWING M.O.2 FOR DETAILS.
 - PROVIDE CEILING MOUNTED OCCUPANCY SENSOR AND WIRE TO THE BAS SYSTEM. REFER TO BUILDING AUTOMATION SYSTEM SPECIFICATIONS ON DRAWING M.O.2 FOR DETAILS.
 - KITCHEN HOOD REMOTE PULL STATION: PROVIDE FIRE SUPPRESSION REMOTE PULL STATION MOUNTED 42" TO 48" ABOVE FINISHED FLOOR LEVEL AND LOCATED NOT LESS THAN 10 FT AND NOT MORE THAN 20 FT FROM THE HAZARD. INSTALL PULL STATION IN THE PATH OF EXIT TRAVEL. PULL STATION SHALL REQUIRE A MAXIMUM OPERATING FORCE OF 40 LBS AND A MAXIMUM MOVEMENT OF 14" FOR ACTIVATION. CONNECT PULL STATION TO THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS AND APPLICABLE CODES. PROVIDE MANUFACTURER-SUPPLIED IDENTIFICATION LABEL FOR THE REMOTE PULL STATION. INCLUDE PULL STATION IN FINAL FIRE SUPPRESSION SYSTEM VERIFICATION AND ACCEPTANCE TEST.
 - PROVIDE A STEEL FIRE EXTINGUISHER CABINET WITH HINGED GLASS DOOR, RECESSED IN WALL CONSTRUCTION. PROVIDE ONE (1) 10 LB ABC MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER INSTALLED IN THE CABINET. FIRE EXTINGUISHER SHALL BE ULC-LISTED, RATED 4A:BC, AND SUITABLE FOR ORDINARY COMBUSTIBLES, FLAMMABLE LIQUIDS, AND ELECTRICAL EQUIPMENT FIRES. EXTINGUISHER SHALL INCLUDE A METAL VALVE ASSEMBLY, PRESSURE GAUGE, TAMPER SEAL, AND WALL MOUNT BRACKET (BRACKET NOT USED WHEN INSTALLED IN CABINET). PROVIDE EXTINGUISHER WITH MINIMUM DISCHARGE RANGE OF 10 TO 15 FEET AND MINIMUM DISCHARGE TIME OF 15 TO 20 SECONDS. THE EXTINGUISHER SHALL BE FACTORY CHARGED, TAGGED, AND CERTIFIED IN ACCORDANCE WITH NFPA 10. COORDINATE EXACT CABINET LOCATION AND RECESSING REQUIREMENTS WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION. ENSURE INSTALLATION IS FLUSH WITH FINISHED WALL SURFACE AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. CABINET HEIGHT SHALL MATCH THE HEIGHT OF THE EXISTING CATERINA CABINET.
 - PROVIDE YELLOW VINYL-COATED STEEL SAFETY GUARDRAILS AT ROOF EDGE ADJACENT TO THE MAKE-UP AIR UNIT, AS REQUIRED BY GAS CODE. GUARDRAILS SHALL BE MINIMUM 1070 mm HOH, CONTINUOUS, AND COMPLY WITH OBC GUARDRAIL REQUIREMENTS AND APPLICABLE GAS CODE PROTECTION REQUIREMENTS. GUARDRAIL SYSTEM SHALL CONSIST OF FACTORY-COATED YELLOW VINYL/PVC OVER STEEL TUBING, INCLUDING ALL POSTS, RAILS, BASE PLATES, FASTENERS, AND ANCHORS FOR A COMPLETE INSTALLATION. GUARDRAIL LENGTH SHALL EXTEND BEYOND THE FULL LENGTH OF THE MAKE-UP AIR UNIT, INCLUDING ANY REQUIRED CLEARANCE EXTENTS. SECURE GUARDRAILS TO STRUCTURAL SUPPORT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. CONTRACTOR SHALL OBTAIN VENDOR'S STRUCTURAL ENGINEER APPROVAL FOR ALL ANCHORAGE DETAILS PRIOR TO INSTALLATION. COORDINATE EXACT GUARDRAIL LOCATION, EXTENTS, AND INSTALLATION DETAILS WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN AND INSTALLATION.
 - PROVIDE 10 LB ABC MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHER, WALL-MOUNTED USING THE MANUFACTURER'S STEEL WALL BRACKET. EACH FIRE EXTINGUISHER SHALL BE ULC-LISTED, RATED 4A:BC, AND SUITABLE FOR USE ON ORDINARY COMBUSTIBLES, FLAMMABLE LIQUIDS, AND ELECTRICAL EQUIPMENT. EACH EXTINGUISHER SHALL INCLUDE A METAL VALVE ASSEMBLY, PRESSURE GAUGE, AND TAMPER SEAL. EACH EXTINGUISHER SHALL BE APPROVED FOR A MINIMUM DISCHARGE RANGE OF 10 TO 15 FEET AND A MINIMUM DISCHARGE TIME OF 15 TO 20 SECONDS. THE UNITS SHALL BE FACTORY CHARGED, TAGGED, AND CERTIFIED IN ACCORDANCE WITH NFPA 10. INSTALL EACH EXTINGUISHER ON THE WALL BRACKET AT THE MOUNTING HEIGHT REQUIRED BY NFPA-10 (TOP OF EXTINGUISHER SHALL BE LESS THAN 1.5 m) AND IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE EXACT MOUNTING LOCATION WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION.
 - REPLACE EXISTING LINEAR DIFFUSERS AND RECONNECT TO EXISTING SUPPLY AIR DUCTWORK. ALL WORK SHALL BE IN ACCORDANCE WITH THE DETAILED LINEAR DIFFUSER REPLACEMENT NOTES ON DRAWING M1.04.
 - EXISTING SUPPLY AIR DUCTS TO REMAIN. CLEAN THE ENTIRE EXISTING SUPPLY AIR DUCT SYSTEM, INCLUDING ALL BRANCHES, RISERS, FITTINGS, AND TERMINAL CONNECTIONS, USING A PROFESSIONAL DUCT CLEANING CONTRACTOR. UPON COMPLETION, PROVIDE A WRITTEN CLEANING REPORT SUMMARIZING METHODS USED, LOCATIONS CLEANED, BEFORE/AFTER CONDITIONS, AND ANY DEFICIENCIES REQUIRING CORRECTION. TEST AND BALANCE THE EXISTING SUPPLY AIR SYSTEM SERVED BY SUPPLY FAN SF-3 AND RETURN FAN RF-3, INCLUDING ALL CONNECTED ZONES, BRANCHES, AND OUTLETS. ADJUST AND SET ALL BALANCING DAMPERS, REGISTERS, AND TERMINAL EXCESSES TO ACHIEVE DESIGN AIRFLOW WITHIN 5% OF THE VALUES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE MECHANICAL CONSULTANT. PROVIDE A COMPLETE AIR BALANCE REPORT DOCUMENTING ALL MEASURED AIRFLOWS, FAN DATA, STATIC PRESSURES, AND FINAL SETTINGS.



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DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED "ISSUED FOR CONSTRUCTION" AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL, AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS "ISSUED FOR CONSTRUCTION"

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

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4.	TENDER	25 MAY 2026
3.	REVISION - CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

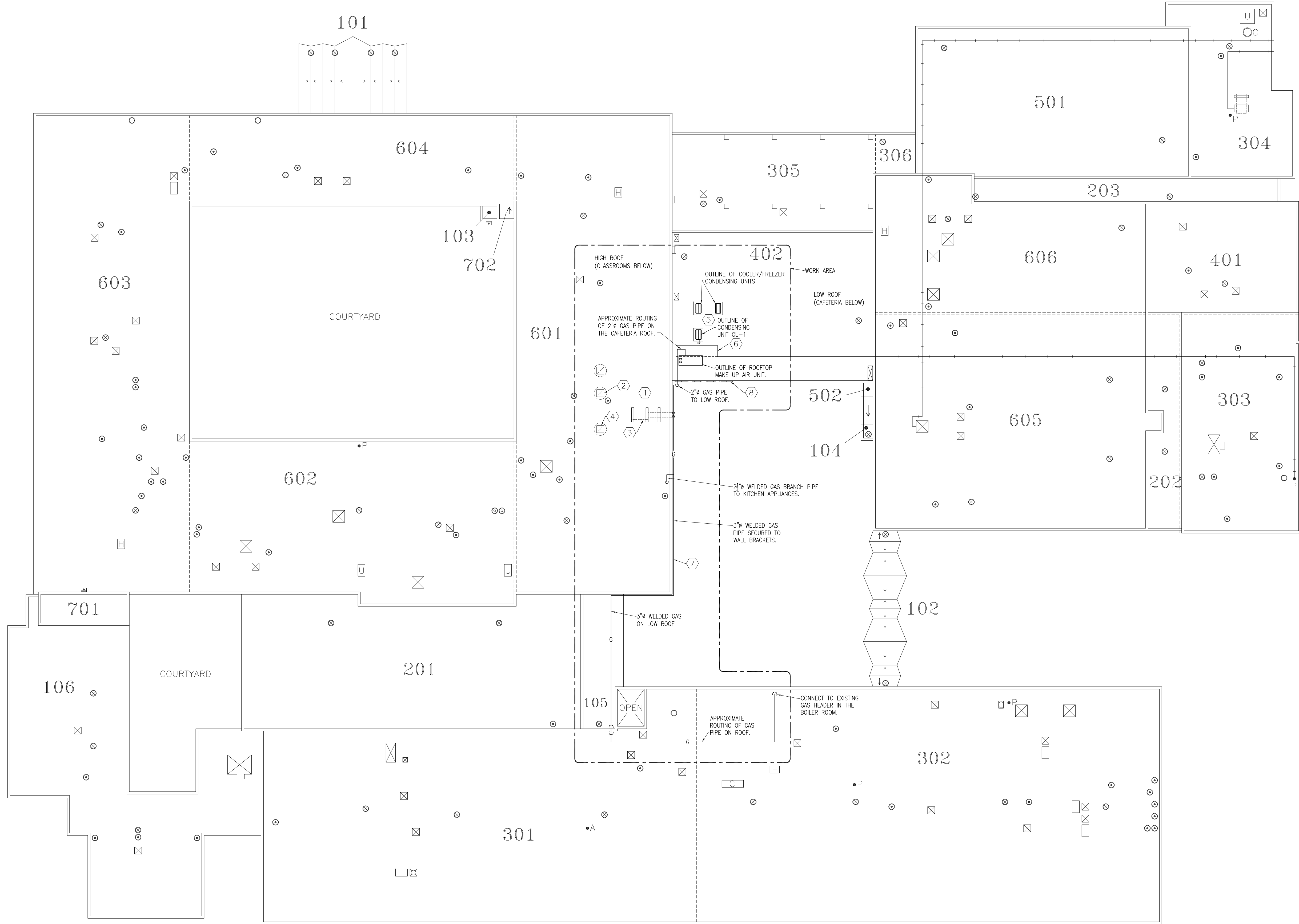
SHELLARD BUILDING SYSTEMS LTD.

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ORCHARD PARK
SECONDARY SCHOOL
HAMILTON - WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO L8E 4M5

DRAWN NAME: PARTIAL GROUND FLOOR PLAN MECHANICAL - HVAC	
DRAWN BY: N.P.	CHECKED BY: N.S.
DATE: SEPTEMBER 2025	JOB No.: 25-103
SCALE: 3/ 16" = 1' - 0"	SHEET No.: M1.05



LEGEND	
	ROOF DRAIN
	PLUMBING STACK
	SLEEVE & COLLAR
	VENT
	EQUIPMENT CURB
	PITCH PAN

ROOF PLAN
SCALE: 3/64" = 1' - 0"

WORKING ON THE ROOF NOTES:

- ACCESS TO THE ROOF SHALL BE ARRANGED WITH THE SCHOOL BOARD.
- ANY PERSON ON THE ROOF SHALL ADHERE TO THE HEALTH AND SAFETY INSTRUCTIONS AND REQUIREMENTS FOR WORKING ON THE ROOF INCLUDING FALL PROTECTION, WARNING LINES, PERSONAL PROTECTION EQUIPMENT, AND PERSONAL FALL ARREST SYSTEM.
- REVIEW SAFETY TRAINING AND COMPLY WITH ANY REQUIRED SAFE WORK PRACTICE TRAINING.
- THE WORK ON THE ROOF SHALL BE RESTRICTED TO THE NOTED AREA. THE EXISTING ROOF DRAINS, PLUMBING STACKS, ROOF OPENINGS...ETC. ARE NOTED FOR INFORMATION.
- THE ROOF DRAWING WAS OBTAINED FROM THE SCHOOL BOARD ARCHIVE (PREPARED BY FISHBURN BUILDING SCIENCES GROUP, DATED JAN 2007.) AND THE ROOF PLAN IS PROVIDED FOR REFERENCE ONLY. THE DIMENSIONS HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL EXAMINE AND CONFIRM ALL EXISTING CONDITIONS AND MEASUREMENTS PRIOR TO COMMENCING WORK.

DRAWING NOTES:

- GENERAL NOTES FOR CONTRACTOR REQUIREMENTS FOR WORKING ON THE ROOF:

CONTRACTOR SHALL IMPLEMENT FULL ROOF MEMBRANE PROTECTION MEASURES DURING ALL DEMOLITION AND REMOVAL ACTIVITIES. PROTECTION SHALL INCLUDE, AT MINIMUM: RIGID WALK PADS, PLYWOOD SHEETS WITH NON-SLIP UNDERLAYMENT, AND ANY ADDITIONAL SHIELDING REQUIRED TO PREVENT PUNCTURES, TEARS, ABRASION, OR DISPLACEMENT OF THE EXISTING ROOFING SYSTEM. NO EQUIPMENT, TOOLS, OR DEBRIS SHALL BE PLACED DIRECTLY ON THE MEMBRANE AT ANY TIME.

ALL WORK SHALL BE COMPLETED WITHOUT CAUSING DAMAGE TO THE EXISTING ROOF ASSEMBLY. ANY DAMAGE TO THE ROOF MEMBRANE, INSULATION, FLASHING, OR DRAINAGE COMPONENTS CAUSED BY THE CONTRACTOR'S WORK SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE, USING MATERIALS AND METHODS APPROVED BY THE OWNER'S ROOFING WARRANTY PROVIDER.

AT COMPLETION OF WORK, REMOVE ALL DISCONNECTED EQUIPMENT, ALL DEMOLITION DEBRIS, AND ALL TEMPORARY ROOF MEMBRANE PROTECTION MATERIALS FROM THE SITE, AND LEAVE THE ROOF FULLY CLEAN.
- DISCONNECT AND REMOVE EXISTING KITCHEN HOOD EXHAUST FAN. COVER ROOF OPENING WITH 4" RIGID INSULATION AND 16 GAUGE GALVANIZED METAL CAP, COMPLETE WITH STIFFENERS, SECURED TO THE EXISTING ROOF CURB. SEAL ALL PERIMETER JOINTS WITH CONTINUOUS POLYURETHANE OR SILICONE ROOFING GRADE SEALANT TO PROVIDE A FULLY WATERTIGHT ASSEMBLY.
- DISCONNECT AND REMOVE THE EXISTING MAKE-UP AIR UNIT, INCLUDING ALL ASSOCIATED DUCTWORK, SUPPORTS, AND CONTROL WIRING. REMOVE THE EXPOSED DUCTS ALONG THE EXTERIOR WALL DOWN TO THE KITCHEN EXHAUST HOOD. REMOVE ALL SUPPORT BRACKETS.
- DISCONNECT AND REMOVE EXISTING GENERAL EXHAUST FAN. VERIFY FAN IS SERVING ROOM 1045 BEFORE COMMENCING WORK. COVER ROOF OPENING WITH 4" RIGID INSULATION AND 16 GAUGE GALVANIZED METAL CAP, COMPLETE WITH STIFFENERS, SECURED TO THE EXISTING ROOF CURB. SEAL ALL PERIMETER JOINTS WITH CONTINUOUS POLYURETHANE OR SILICONE ROOFING GRADE SEALANT TO PROVIDE A FULLY WATERTIGHT ASSEMBLY.
- COORDINATE ON SITE LOCATION OF THE CONDENSING UNIT TO SUIT EXISTING CONDITIONS. SET CONDENSING UNIT ON A LEVEL CONCRETE PAD, MINIMUM 3" THICK, INSTALLED OVER HIGH-DENSITY RIGID INSULATION SUITABLE FOR ROOF APPLICATIONS. INSULATION SHALL HAVE ADEQUATE COMPRESSIVE STRENGTH TO SUPPORT THE EQUIPMENT LOAD WITHOUT DAMAGING THE EXISTING ROOF ASSEMBLY.

PROVIDE A SEPARATION LAYER BETWEEN THE CONCRETE PAD AND ROOF MEMBRANE TO PREVENT ABRASION OR DAMAGE. ENSURE PAD BEARS EVENLY ON INSULATION AND MAINTAIN POSITIVE DRAINAGE AROUND THE UNIT.

ANCHOR CONDENSING UNIT TO THE CONCRETE PAD USING CORROSION-RESISTANT ANCHORS. PROVIDE VIBRATION ISOLATION PADS OR RAILS BETWEEN UNIT BASE AND PAD AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

CORE DRILL THRU EXISTING ROOF FOR INSTALLATION OF THE REFRIGERANT PIPES AND POWER CONDUIT. PROVIDE GALVANIZED CONE, FLASHING AND COUNTER FLASHING. SEAL TOP OF CONE WATER PROOF. ROOFING WORK SHALL BE DONE BY SCHOOL BOARD APPROVED ROOFING CONTRACTOR.

PROVIDE REFRIGERANT PIPES FROM FAN COIL UNIT TO THE CONDENSING UNIT. INSULATE ALL PIPES AND PROVIDE PIPE SUPPORTS. COORDINATE OUTING OF PIPES ON SITE AND REVISE TO SUITE EXISTING CONDITIONS.

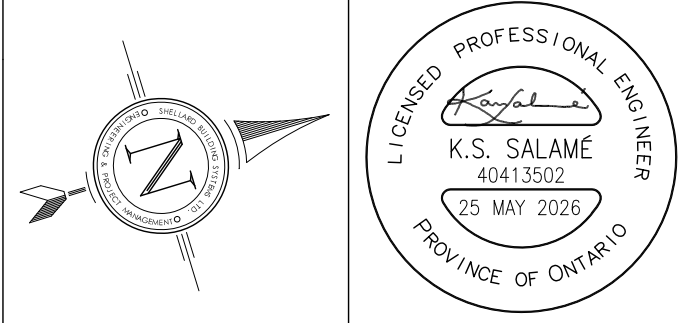
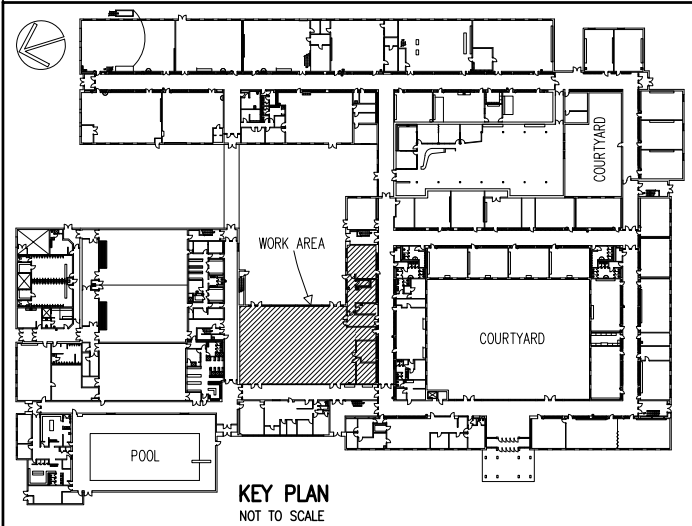
INSULATE ALL REFRIGERANT PIPES. EXPOSED INSULATION ON THE ROOF SHALL BE UV RESISTANT TYPE.
- RELOCATE SECTION OF THE EXISTING 2" GAS PIPE TO CLEAR SPACE FOR INSTALLATION OF NEW ROOF TOP MAKE UP AIR UNIT. PROVIDE NEW PIPES AND ROOF PIPING SUPPORTS. PAINT NEW AND EXISTING PIPES USING PRIMER AND ONE COAT OF YELLOW PAINT.
- PROVIDE 3/8" NATURAL GAS PIPING ON EXTERIOR OF BUILDING AS SHOWN AND NOTED. ALL EXTERIOR GAS PIPING SHALL BE HOT-DIPPED GALVANIZED OR FACTORY EPOXY COATED FOR CORROSION PROTECTION. TOUCH UP ALL FIELD-CUT THREADS AND DAMAGED COATINGS WITH ZINC-RICH PAINT SUITABLE FOR EXTERIOR USE.

SUPPORT 3/8" GAS PIPE WITH HOT-DIPPED GALVANIZED UNISTRUT STAND-OFF BRACKETS ANCHORING TO BUILDING STRUCTURE. PROVIDE MINIMUM 1-1/2" STAND-OFF FROM WALL. MAXIMUM SUPPORT SPACING FOR 3" PIPE SHALL BE 8 FT O.C. PROVIDE ADDITIONAL SUPPORTS AT ALL CHANGES OF DIRECTION,

MAINTAIN CLEARANCES FROM WINDOWS, DOORS, COMBUSTION AIR INLETS, ELECTRICAL EQUIPMENT, AND GRADE AS REQUIRED BY GAS CODE. DO NOT ROUTE GAS PIPING OVER DOORS OR WINDOWS UNLESS SPECIFICALLY DETAILED ON DRAWINGS.

PROVIDE FULL-PORT CSA-APPROVED GAS BALL VALVES AT METER OUTLET, AT BRANCH TAKE-OFFS, AND AT APPLIANCE CONNECTIONS. PROVIDE DRIP LEGS AND UNION CONNECTIONS AT EACH APPLIANCE.

LABEL GAS PIPING "NATURAL GAS" WITH FLOW ARROWS AT INTERVALS NOT EXCEEDING 20 FT AND AT ALL CHANGES OF DIRECTION AND PENETRATIONS. COORDINATE ON SITE PIPE ROUTING, SUPPORT LOCATIONS, AND PENETRATIONS AND REVISE TO SUITE EXISTING CONDITIONS.
- PROVIDE YELLOW VINYL-COATED STEEL SAFETY GUARDRAILS AT ROOF EDGE ADJACENT TO THE MAKE-UP AIR UNIT. GUARDRAILS SHALL BE MINIMUM 1070 mm HIGH, CONTINUOUS, AND COMPLY WITH OBC GUARD/HANDRAIL REQUIREMENTS AND APPLICABLE GAS CODE PROTECTION REQUIREMENTS. GUARDRAIL SYSTEM SHALL CONSIST OF FACTORY-COATED YELLOW VINYL/PVC OVER STEEL TUBING, INCLUDING ALL POSTS, RAILS, BASE PLATES, FASTENERS, AND ANCHORS FOR A COMPLETE INSTALLATION. GUARDRAIL LENGTH SHALL EXTEND BEYOND THE FULL LENGTH OF THE MAKE-UP AIR UNIT, INCLUDING ANY REQUIRED CLEARANCE EXTENTS. SECURE GUARDRAILS TO STRUCTURAL SUPPORT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. CONTRACTOR SHALL OBTAIN VENDOR'S STRUCTURAL ENGINEER APPROVAL FOR ALL ANCHORAGE DETAILS PRIOR TO INSTALLATION. COORDINATE EXACT GUARDRAIL LOCATION, EXTENTS, AND INSTALLATION DETAILS WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN AND INSTALLATION.



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SHELLARD BUILDING SYSTEMS LTD.

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226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON -- WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONE CREEK, ONTARIO L8E 4M5

DRAWN NAME:

ROOF PLAN
MECHANICAL

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
3/ 64" = 1' - 0"	M1.06

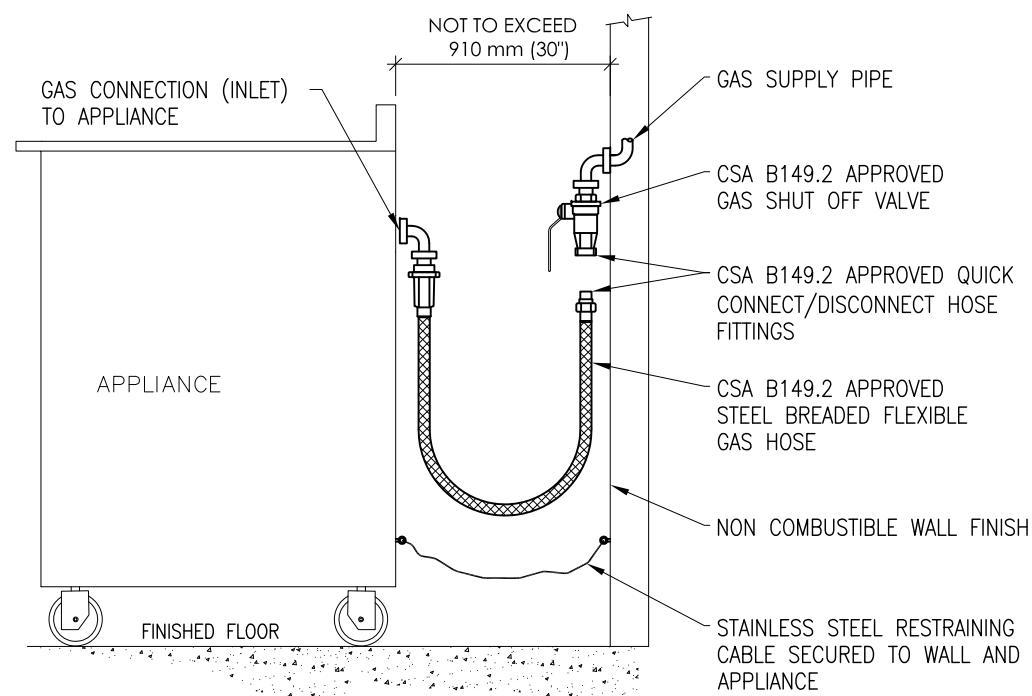
KITCHEN EQUIPMENT SCHEDULE						ELECTRICAL										PLUMBING											
Item No.	Quantity	Unit	Category	Mfr	Model	Voltage	Phase	Amps	Cycle	Hp	Kw	ConnectionType	NEMA	Cold Water (in)	Hot Water (in)	Indirect Waste Size	Direct Waste Size	Gas Size(in)	Gas MBTU	BACKFLOW PREVENTER	Remarks						
1	1	ea	Hot Water Dispenser	BUNN	43600.0002	208	1	19.5	60		4.05			1/4"						1/2							
2	3	ea	Refrigerated Merchandiser	True Refrigeration Canada ULC (CAD)	TWM-48-HC-WM01	115	1	10.5	60	1/2		Cord & Plug	5-15P														
3	1	ea	Combi Oven, Gas	RATIONAL Canada	ICP 6-FULL NG 208/240V 1 PH (LW1000C)	208/240	1		60		.9	Cord only		3/4"		2"			106.5	3/4							
4	1	ea	Reach-In Refrigerator	True Refrigeration Canada ULC (CAD)	STR2R-2S-HC	115	1	5.9	60	1/2		Cord & Plug	5-15P	1/4"						1/2							
5	2	ea	Pot Filler	T&S Brass	B-1146-D4																						
6	1	ea	Work Table, with Prep Sink(s)	John Boos	EPT6R5-3072SSK-R-X									1/2"	1/2"					1/2							
7	1	ea	Planetary Mixer	Hobart Canada	HL200C-1STD	100-120	1			1/2		Cord & Plug															
8	1	ea	Pizza Preparation Refrigerator	True Refrigeration Canada ULC (CAD)	TPP-AT-44-HC	115	1	3.9	60	4			5-15P														
9	4	ea	Hot Food Serving Counter / Table	Garland Canada	KH-4-NU	120/208-230	1	22	60			Cord & Plug	14-30P			1/2"											
10	1	ea	Planetary Mixer	Hobart Canada	HL400	230	1	15	60	1 1/2		Cord & Plug	6-15P					1-1/4"									
11	3	ea	Hand Sink	CUSTOM										1/2"	1/2"												
12	0	ea	Work Table, 72", Stainless Steel Top / w Sink	John Boos	EPT6R5-3072SSK-L-X																						
13	2	ea	Bun / Sheet Pan Rack	John Boos	ABPR-1820-RWD-X																						
14	2	ea	Proofer/Holding Cabinet	Metro	CS39-HDC-4			16.7000				Cord & Plug	5-20P					3/4"	81.0								
15	1	ea	Eye Wash Station	T&S Brass	EW-765NWC									1/2"		2"	2"			1/2							
16	2	ea	Undercounter Refrigerator	True Refrigeration Canada ULC (CAD)	ULC-60-HC	115	1	4	60	1/4		Cord & Plug	5-15P														
17	1	ea	Work Table, 96", Stainless Steel Top	John Boos	ST6R5-3096GBK-X									1/2"	1/2"												
18	1	ea	Pre-Rinse Faucet Assembly	John Boos	B-0133-CRLB-0109-01									1/2"	1/2"												
19	1	ea	Security Unit	Metro	SEC560C																						
20	3	ea	Ingredient Bin	Combio	ISS27148																						
21	1	ea	Pot Rack	CUSTOM																							
22	1	ea	Dishwasher, Door Type	Hobart Canada	AM16M-BAS2	120/240	1	53.5																			
23	2	ea	Soup Kettle	Halco Canada	SMB-70T-OS	120	1	3.5	60			cord & plug	NEMA 5-15P														
24	1	ea	Mop Sink	CUSTOM																							
25	1	ea	Salted Dishtable	CUSTOM																							
26	1	ea	Coffee Brewer	BUNN	S3400.0101	120/240	1	25	60		6	Cord Only		3/8"						1/2							
27	3	ea	Wall / Splash Mount Faucet	T&S	B-1146-D4									1/2"	1/2"					VACUUM BREAKER							
28	2	ea	Display Merchandiser, Heated, For Multi-Product	Halco Canada	HOMS-360	120/208-240	1	9.2	60		2.2	Cord & Plug	L14-20P														
29	1	ea	Conveyor Toaster	Halco Canada	T03900240B20																						
30	4	ea	Wire Shelving	Metro	1872NK3																						
31	1	ea	Wire Shelving	Metro	1842NK3																						
32	4	ea	Wire Shelving	Metro	2448NK3																						
33	1	ea	Wire Shelving	Metro	2442NK3																						
34	2	ea	Wire Shelving	Metro	2438NK3																						
35	11	ea	Work Table, 72", Stainless Steel Top	CUSTOM																							
36	10	ea	Work Table Drawer	CUSTOM																							
37	1	ea	Laundry Sink	CUSTOM																							
38	1	ea	Reach-In Freezer	True Refrigeration Canada ULC (CAD)	T-23F-HC	115	1	3.7	60	1/2		Cord & Plug	5-15P														
39	1	ea	Service Faucet	T&S	B-1146-D4									1/2"	1/2"					VACUUM BREAKER							
40	2	ea	Splash Mount Faucet, 8" Center, 12" Spout	T&S	B-0231-CC									1/2"	1/2"												
41	4	ea	Microwave Oven	ACP, Inc. Canada	RCS100SE	120	1	13	60		1.55	Cord & Plug	5-20P														
42	1	ea	Work Table, Cabinet Base Hinged doors	CUSTOM																							
43	2	ea	Open Display Merchandiser	Turbo Air Canada	TOM-60L-URD-W(B)-3S-N	115	1	15	60	3/4x2		Cord & Plug	5-20P														
44	1	ea	Display Merchandiser, Heated, For Multi-Product	Halco Canada	HOMS-480	120/208-240	1	12.1	60		2.9	Cord & Plug	L14-20P														
45	1	ea	Work Table, Cabinet Base Hinged doors	CUSTOM																							
46	1	ea	Wire Shelving	Metro	1460BR																						
47	1	ea	Work Table, Cabinet Base Hinged doors	CUSTOM																							
48	2	ea	Range, 24", 4 Open Burners	Garland Canada	GE24-4L													3/4"	164.0								
49	1	ea	Griddle, Gas, Countertop	Garland Canada	GTC36-CT36M													3/4"	81.0								
50	1	ea	Gas Floor Fryer	Garland Canada	MJ140													3/4"	110.0								
51	5	ea	Recycling Receptacle / Container, Plastic	Winco	PTC-230RC																						
52	1	ea	Condiment Dispenser	Sevier Products	07140																						
53	1	ea	Display Case, Non-Refrigerated Countertop	Structural Concepts	SC3223	110-120	1	.7	60				5-15P														
54	3	ea	Cart, Utility/Bussing	Combio	BC331W0110																						
55	1	ea	Splash Mount Faucet 4" Center, 10" Spout	T&S	SF-4MLX10									1/2"	1/2"												
56	1	ea	Food Processor, Benchtop / Countertop	Robot Coupe Canada	R301U	120	1	9	60	1-1/2		Cord & Plug	5-15P														
57	1	ea	Counter Freezer	Beverage Air	CF3HC-1-W	115	1	4	60	1/4		Cord & Plug	5-15P														
58	1	ea	Wire Shelving	Metro	2448BR																						
59	4	ea	Shelving, Wall Mounted	CUSTOM																							
60	1	ea	Ice Maker with Bin, Cube-Style	Scotsman	UC2024SA-1	115	1		60			Cord & Plug	5-15P	3/8"		3/4"				1/2							
61	1	ea	Wire Shelving	Metro	1860NK3																						
62	1	ea	Work Table, Cabinet Base Hinged doors	John Boos																							
63	1	ea	Cup & Lid Organizer	Cal-Mil	23449-13																						
64	1	ea	Work Table, Cabinet Base Open Front	CUSTOM																							
65	2	ea	Paper Napkin Dispenser	Valtrath	CTND-06																						
66	1	ea	Dishtable, Clean L" Shaped	Custom	DISH TABLE TRIPLE SINK																						
67	1	ea	Laundry Washer Top Load	Maytag	MW6430XM																						
68	1	ea	Laundry Dryer Front Load	Maytag	DV3406000HMAC	240	1		60				14-30P														
69	1	ea	Commercial Waste Container	CPS Brands	84103203																						
70	1	ea	Work Table, with Prep Sink(s)	Custom	CUSTOM																						
71	1	ea	Stainless Clad Special Service Wall	Custom	WALL CLADDING KITCHEN																						
72	1	ea	Walk In Combination Cooler Freezer, Remote	Curtis	WALK-IN COOLER/FREEZER																						
73	1	ea	Double Stack Convection Oven, Gas	Garland	SUMC-200	120	1	9.8	60	2-3/4		Cord & Plug	5-15P					3/4"	106								
74	1	ea	Work Table Open Base	Custom																							
75	1	ea	FUTURE APPLIANCE			208	1	48	60									1-1/4"			PROVIDE 1-1/4" CAPPED GAS OUTLET FOR FUTURE APPLIANCE						
76	1	ea	Work Table Open Base	John Boos	ST6R5-3060GBK																						
77	1	ea	Food Packaging Machine	Berkel	350-STD	115	1	14.2	60	1 1/4		Cord & Plug	5-15P						</								

GENERAL PLUMBING NOTES

- A. ALL STORE EQUIPMENT, ESPRESSO MACHINES, DISHWASHER, FRIDGES, FOOD DISPLAY, FILTRATION UNIT, NITROGEN UNIT, INSTANT HEATER, SPECIALITY EQUIPMENT WILL BE SUPPLIED BY THE STORE OWNER. INSTALLATION BY THIS CONTRACTOR.
- B. REVIEW OWNER SUPPLIED EQUIPMENT SHOP DRAWINGS, SCHEMATICS INSTALLATION INSTRUCTIONS AND PIPING DETAILS BEFORE COMMENCING WORK.
- C. PROVIDE ISOLATING VALVE AT EACH PIPE CONNECTION TO EQUIPMENT.
- D. REFER TO SCHEDULE ON THIS DRAWINGS FOR REQUIRED DOMESTIC HOT WATER, FILTERED WATER AND COLD WATER PIPING REQUIREMENTS.
- E. INSTALL THE WATER FILTRATION EQUIPMENT AND MAINTAIN REQUIRED CLEARANCES AND ADJACENCIES. REFER TO SYSTEM SHOP DRAWINGS AND MANUFACTURER INSTALLATION INSTRUCTIONS.
- F. PROVIDE FOR EACH EQUIPMENT/APPLIANCE/UNIT NOTED TO HAVE DRAIN (OR CONDENSATE DRAIN) PIPE FROM UNIT OUTLET TO NEAREST FUNNEL FLOOR DRAIN. ALL DRAIN AND CONDENSATE DRAIN PIPES SHALL BE COPPER 'L' PIPES.
- G. REFER TO ARCHITECTURAL DRAWINGS AND MANUFACTURER INSTALLATION INSTRUCTIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF MECHANICAL DEVICES, FIXTURES, AND EQUIPMENT. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS AS REQUIRED.
- H. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL UTILITY REQUIREMENTS (E.G., WATER, FILTERED WATER, DRAINAGE, VENTING) FOR OWNER-SUPPLIED EQUIPMENT AND PROVIDING ANY NECESSARY PRESSURE REGULATORS, BACKFLOW PREVENTERS, OR OTHER ACCESSORIES TO MEET CODE AND MANUFACTURER SPECIFICATIONS. NOT ALL REQUIREMENTS MAY BE INDICATED ON THE DRAWINGS.
- I. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED COMPLETE WITH APPROPRIATE PIPING, VALVES, AND SUPPORTS TO ENABLE FUTURE OPERATION AND MAINTENANCE. PROVIDE ISOLATING VALVES AND ACCESS PANELS WHERE REQUIRED.
- J. WHERE MECHANICAL EQUIPMENT IS INSTALLED WITHIN 750 mm OF A SINK OR OPEN WATER SOURCE, ENSURE COMPLIANCE WITH APPLICABLE CODES REGARDING PROTECTION FROM WATER EXPOSURE, INCLUDING USE OF CORROSION-RESISTANT MATERIALS AND PROPER SEALING.
- K. INSULATE ALL DOMESTIC WATER LINES, INCLUDING HOT WATER, COLD WATER, AND FILTERED WATER PIPES, THROUGHOUT THE FACILITY TO IMPROVE ENERGY EFFICIENCY AND PREVENT HEAT LOSS OR CONDENSATION.
- L. RECOVER ALL EXPOSED INSULATION USING WHITE PVC JACKETING TO ENSURE A CLEAN, DURABLE, AND UNIFORM FINISH THAT MEETS INDUSTRY STANDARDS.
- M. LABEL ALL INSULATED PIPES CLEARLY AND ACCURATELY, INDICATING THE TYPE OF SERVICE (E.G., HOT WATER, COLD WATER, FILTERED WATER) AND THE FLOW DIRECTION.
- N. THE RIGHT IS RESERVED BY THE ENGINEER AND/OR ARCHITECT TO MAKE REVISIONS REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK. SUCH CHANGES SHALL BE DONE AT NO EXTRA COST TO THE OWNER UNLESS LOCATION, ROUTING, ARRANGEMENT OR NEW CONNECTION IS MORE THAN 3.0 METERS (10 FT) FROM SHOWN AND THE INSTALLATION NOT DONE.
- O. THE CONTRACTOR SHALL PREPARE INTERFERENCE SKETCHES IF REQUIRED TO OFFSET PIPES DUE TO EXISTING SITE CONDITIONS AND SUBMIT FOR REVIEW AND APPROVAL.

GAS PIPING

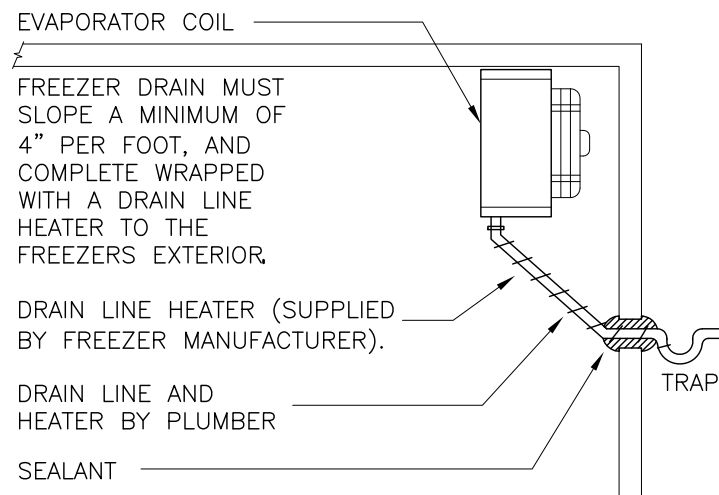
1. GAS PIPING SHALL BE SUPPLIED, INSTALLED, AND TESTED IN ACCORDANCE WITH THE FUEL SAFETY REGULATION AND CSA B149.1 NATURAL GAS AND PROPANE INSTALLATION CODE, LATEST EDITION.
2. ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL. ALL VALVES, FITTINGS, AND ACCESSORIES SHALL BE CSA-APPROVED FOR NATURAL GAS SERVICE.
3. DO NOT INSTALL GAS FITTINGS IN CONCEALED, UN-VENTED SPACES.
4. PROVIDE EXPANSION LOOPS OR OFFSETS FOR STRAIGHT PIPE RUNS EXCEEDING 30 m IN LENGTH.
5. COORDINATE ALL WALL, FLOOR, AND ROOF PENETRATIONS ON SITE. OBTAIN APPROVAL PRIOR TO ANY CORING, DRILLING, OR ROOF OPENINGS.
6. GAS PIPING 63 mm (2-1/2") DIAMETER AND LARGER SHALL BE WELDED CONSTRUCTION.
7. PROVIDE FIRE-RATED DROP CEILING OR FIRE-RATED ENCLOSURES BELOW GAS PIPING WHERE REQUIRED BY CODE OR AUTHORITY HAVING JURISDICTION.
8. PROVIDE GAS CONNECTION TO EACH MECHANICAL UNIT AND APPLIANCE COMPLETE WITH AN ISOLATING VALVE. VERIFY CONNECTION SIZES, LOCATIONS, AND LOAD REQUIREMENTS ON APPROVED SHOP DRAWINGS.
9. PAINT EXPOSED GAS PIPING WITH PRIMER AND YELLOW FINISH COAT. PROVIDE GAS IDENTIFICATION LABELS AT MAXIMUM 3 m (10 FT) INTERVALS AND AT ALL CHANGES IN DIRECTION, WALL PENETRATIONS, AND VALVES.
10. PROVIDE ROOF-MOUNTED GAS PIPING SUPPORTS SUITABLE FOR ROOFING SYSTEM. SUPPORTS SHALL BE NON-PENETRATING, UV-RESISTANT, AND SIZED TO DISTRIBUTE LOAD WITHOUT DAMAGING ROOF MEMBRANE. PROVIDE PIPE CLAMPS, BASE PADS, AND ELEVATION TO MAINTAIN REQUIRED CLEARANCES ABOVE ROOF SURFACE.
11. COORDINATE WITH LOCAL GAS UTILITY TO VERIFY EXISTING GAS SERVICE CAPACITY AND ARRANGE FOR ALL REQUIRED UPGRADES TO THE GAS METER, REGULATOR, AND SERVICE PIPING TO SUIT THE NEW 1097 CFH EQUIPMENT LOADS. PROVIDE ALL APPLICATIONS, SCHEDULING, AND SITE COORDINATION REQUIRED FOR GAS COMPANY WORK. NO GAS-FIRED EQUIPMENT SHALL BE STARTED UNTIL GAS COMPANY APPROVAL AND UPGRADED SERVICE ARE COMPLETE.



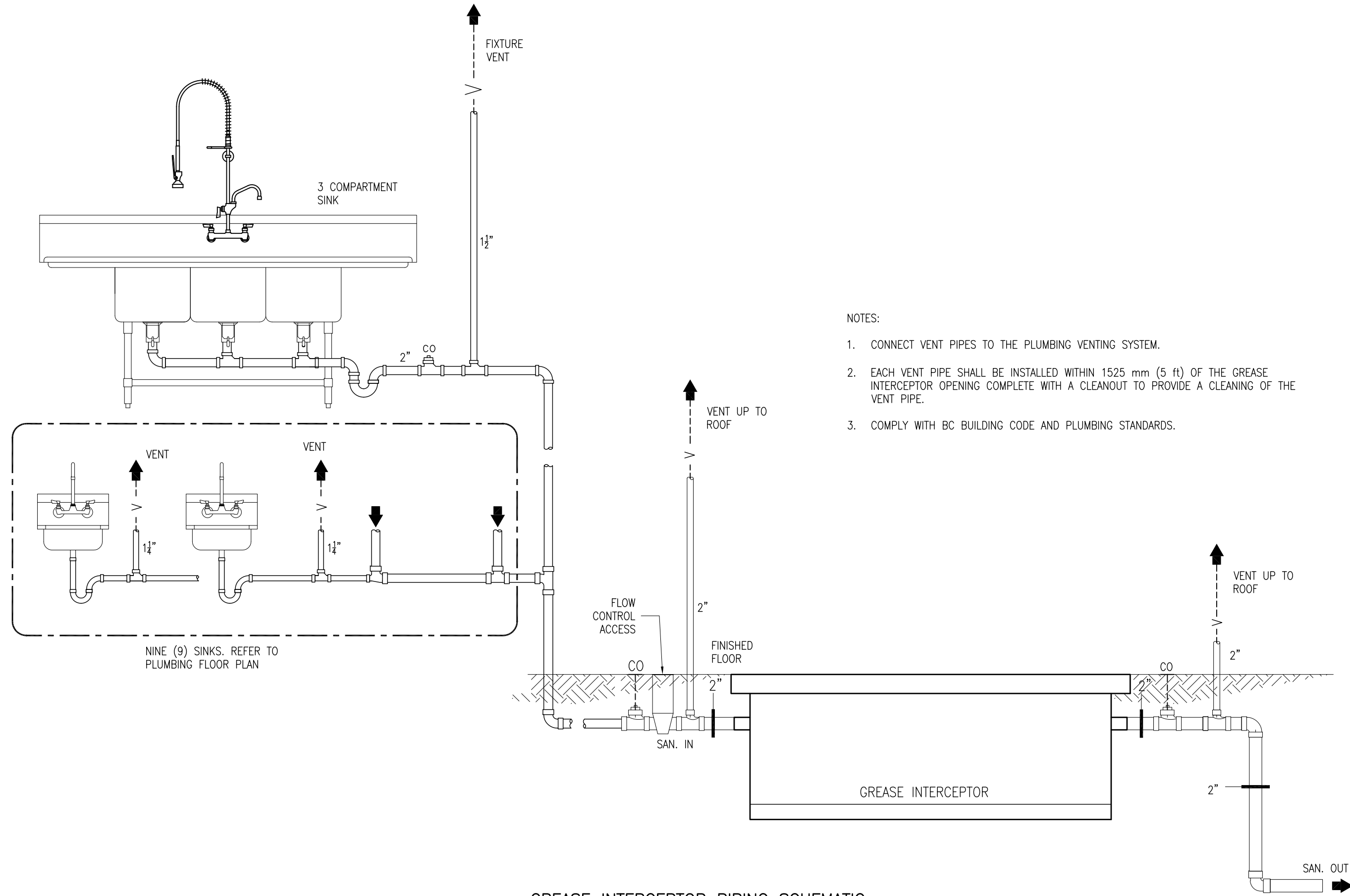
DETAIL NOTES:

1. THE GAS FLEXIBLE CONNECTION AND ASSOCIATE FITTINGS SHALL BE CSA B149.2 APPROVED.
2. ALL INSTALLATIONS SHALL BE TESTED AND CERTIFIED BEFORE CONNECTION TO APPLIANCES.
3. THE GAS PIPING CONTRACTOR SHALL REVIEW APPLIANCES SHOP DRAWINGS TO VERIFY SIZE AND LOCATION OF EACH APPLIANCE GAS INLET.
4. PROVIDE SOLENOID GAS SHUT OFF VALVE AT MAIN PIPE UPSTREAM OF APPLIANCES AND WIRE TO FIRE SUPPRESSION SYSTEM CONTROL PANEL (COORDINATE WITH GENERAL AND ELECTRICAL CONTRACTORS.)

FLEXIBLE GAS PIPING CONNECTION DETAIL
N.T.S.



FREEZER DRAIN DETAIL
SCALE : N.T.S.



GREASE INTERCEPTOR PIPING SCHEMATIC
SCALE : N.T.S.

PLUMBING FIXTURES PIPES CONNECTION SCHEDULE

MARK	HW	CW	WASTE	REMARKS
HS / CS	1/2"	1/2"	1 1/4"	HAND SINK / COUNTER SINK
S-1	1/2"	1/2"	1-1/2"	SINK
S-2	1/2"	1/2"	1-1/2"	SINK
DW	1"	-	2"	DISHWASHER
FD, FFD	-	3/8"	3"	FLOOR & FUNNEL FLOOR DRAINS
EW	1/2"	1/2"	2"	EYE WASH
WF	3/4"	3/4"	2"	WASH FOUNTAIN
DF	1/2"	-	1 1/2"	DRINKING FOUNTAIN
MS	3/4"	3/4"	3"	MOP SINK
LT	1/2"	1/2"	2"	

NOTES:

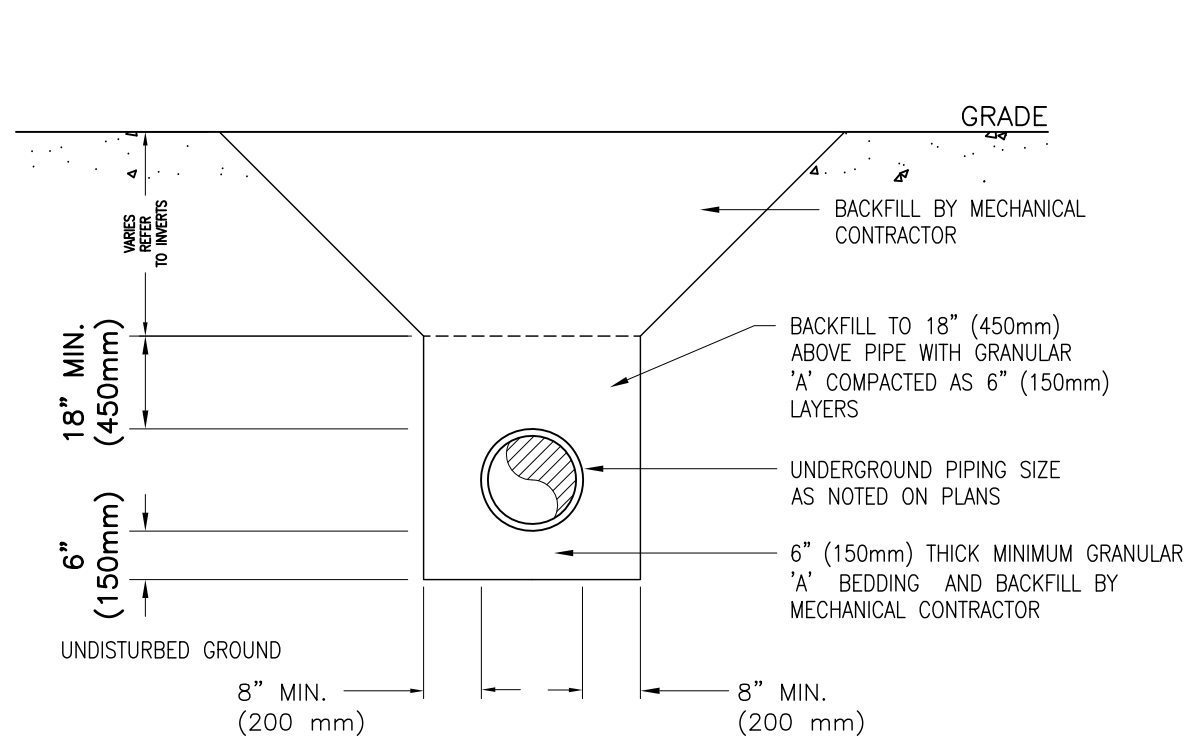
1. FLOOR DRAIN, HUB DRAIN AND FUNNEL FLOOR DRAINS SHALL BE PRIMED, TRAPPED AND VENTED. FLOOR DRAIN SHALL BE FLUSH WITH FLOOR LEVEL. COORDINATE/VERIFY TYPE AND LOCATION OF EACH PLUMBING FIXTURE WITH LATEST ARCHITECTURAL DRAWINGS. PROVIDE TRAP SEAL PRIMER FOR EACH FLOOR DRAIN. INSTALL EACH PLUMBING FIXTURE COMPLETE WITH ISOLATING VALVES. REFER TO ARCHITECTURAL DRAWINGS.
2. EACH VENT PIPE SIZE SHALL BE IN ACCORDANCE TO PART 7 OF THE ONTARIO BUILDING CODE.
3. EACH CONNECTION TO EACH FIXTURE OR APPLIANCE SHALL BE COMPLETE WITH SHUT OFF VALVE AT BOTH HOT AND COLD WATER PIPES.
4. THE MECHANICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL THE PLUMBING FIXTURES, ALONG WITH ASSOCIATED FAUCETS AND ACCESSORIES. EACH FIXTURE MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. TRAP SEAL PRIMERS: PROVIDE MIFAB M1-500-NPB OR SYSTEM MONITORING SENSOR MODEL PRO1-500 PPP PRIME-PRO TRAP SEAL PRIMER VALVE OR APPROVED EQUAL, LEAD-FREE BRASS BODY, SERVING INDIVIDUAL OR REMOTE AREA DRAINS (PRIMER AUTOMATICALLY ACTIVATED WHEN THERE IS A PRESSURE DROP IN THE SYSTEM) WITH 1/2" (12.7MM) NPT CONNECTIONS WITH STAINLESS STEEL SCREEN AND INTEGRAL NEOPERL CHECK VALVE. (FOR 2, 3 OR 4 DRAINS PROVIDE PRIMER UNIT WITH DISTRIBUTION UNIT ASSEMBLY #DU-U).

GREASE INTERCEPTOR FLOW RATE

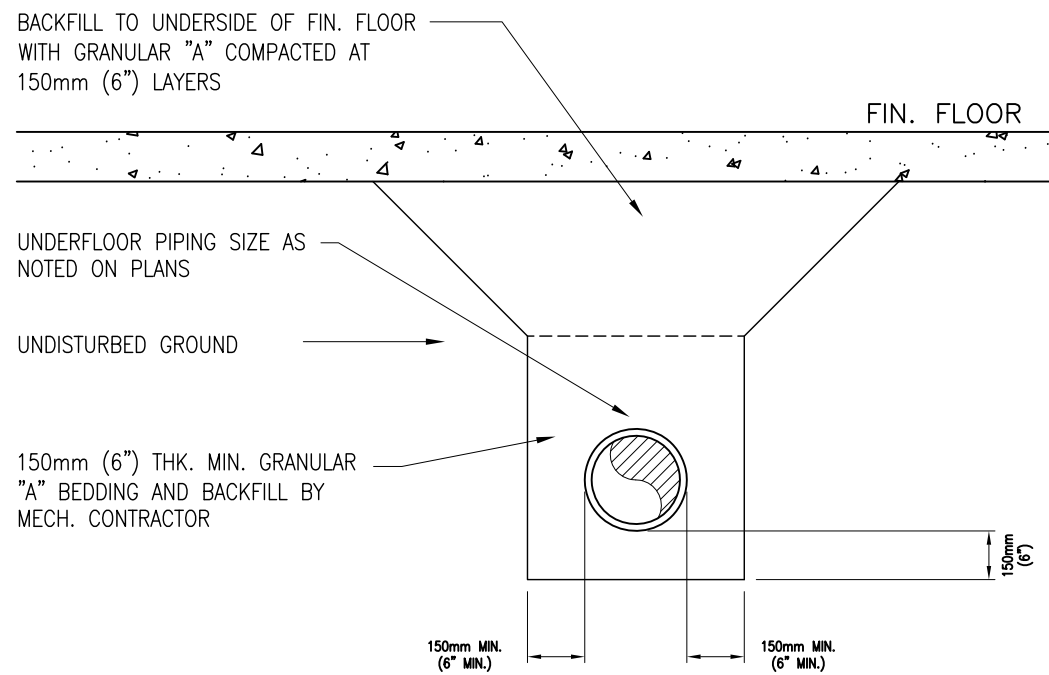
DESCRIPTION	FLOW (GPM)
THREE COMPARTMENT SINK: (24"x18"x13" DEEP) x 3 = 16,848 IN³ (73 GAL.) CONSIDER 2 MINUTES DRAIN DOWN: 73/2 = 36.5 GPM ADJUST FOR DISPLACEMENT: 36.5x0.75 = 27.4 GPM	27.4
SINKS (5 x 1.2 GPM)	6.0
COMBI OVEN	2.4
TOTAL INTERCEPTOR DESIGN FLOW:	35.8

INTERCEPTOR SELECTION:

PROVIDE GREASE INTERCEPTOR ENDURA MODEL 3950A03 OR APPROVED EQUAL, RECESSED IN GROUND, 50 GPM, 31" x 24" x 18.5" HIGH, 3"Ø INLET, 18 kg GREASE CAPACITY. PROVIDE UNIT COMPLETE WITH STAINLESS STEEL COVER, STAINLESS STEEL CLEAN-OUT PLUGS, FLOW CONTROL FITTING AND ALL REQUIRED ACCESSORIES TO COMPLETE INSTALLATION. COORDINATE ON SITE EXACT LOCATION OF UNIT BEFORE COMMENCING WORK. THE GREASE INTERCEPTOR SHALL BE CSA-B481 AND ASME APPROVED.



SANITARY PIPES BEDDING DETAIL
N.T.S.



NOTES:

ALL DRAWINGS AND SPECIFICATIONS IS AN INSTRUMENT OF SERVICE AND REMAIN THE EXCLUSIVE PROPERTY OF DESIGNER AND ARE PROTECTED UNDER THE COPYRIGHT ACT. THEY MAY NOT BE REPRODUCED, DISTRIBUTED, ALTERED FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE DESIGNER.

DO NOT SCALE DRAWINGS, DIMENSIONS TO TAKE PRECEDENT OVER SCALE.

CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER AND OBTAIN CLARIFICATION PRIOR TO COMMENCING WITH THE WORK.

THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.

ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.

NOTE BEFORE COMMENCING WORK:

THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS, DIFFUSERS, CONDUITS, LIGHT FIXTURES, STRUCTURAL AND EQUIPMENT AND COORDINATE WITH OTHER TRADES ON SITE TO PREVENT INTERFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER.

THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS NOTED ON THE TITLE BLOCKS AS 'ISSUED FOR CONSTRUCTION'

THE INFORMATION CONTAINED WITHIN THE DRAWINGS IS INTENDED TO PROVIDE DESIGN AND BASIC CONSTRUCTION DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY DETAILS AND PRACTICES WHICH WILL RESULT IN A QUALITY ASSURANCE AND FULLY FUNCTIONING SYSTEMS.

HWDSB

8.		
7.		
6.		
5.		
4.	TENDER	25 MAY 2026
3.	REVISION -- CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.

1684 SHELLARD SIDE ROAD
CAMBRIDGE, ONTARIO
N1R 5S7

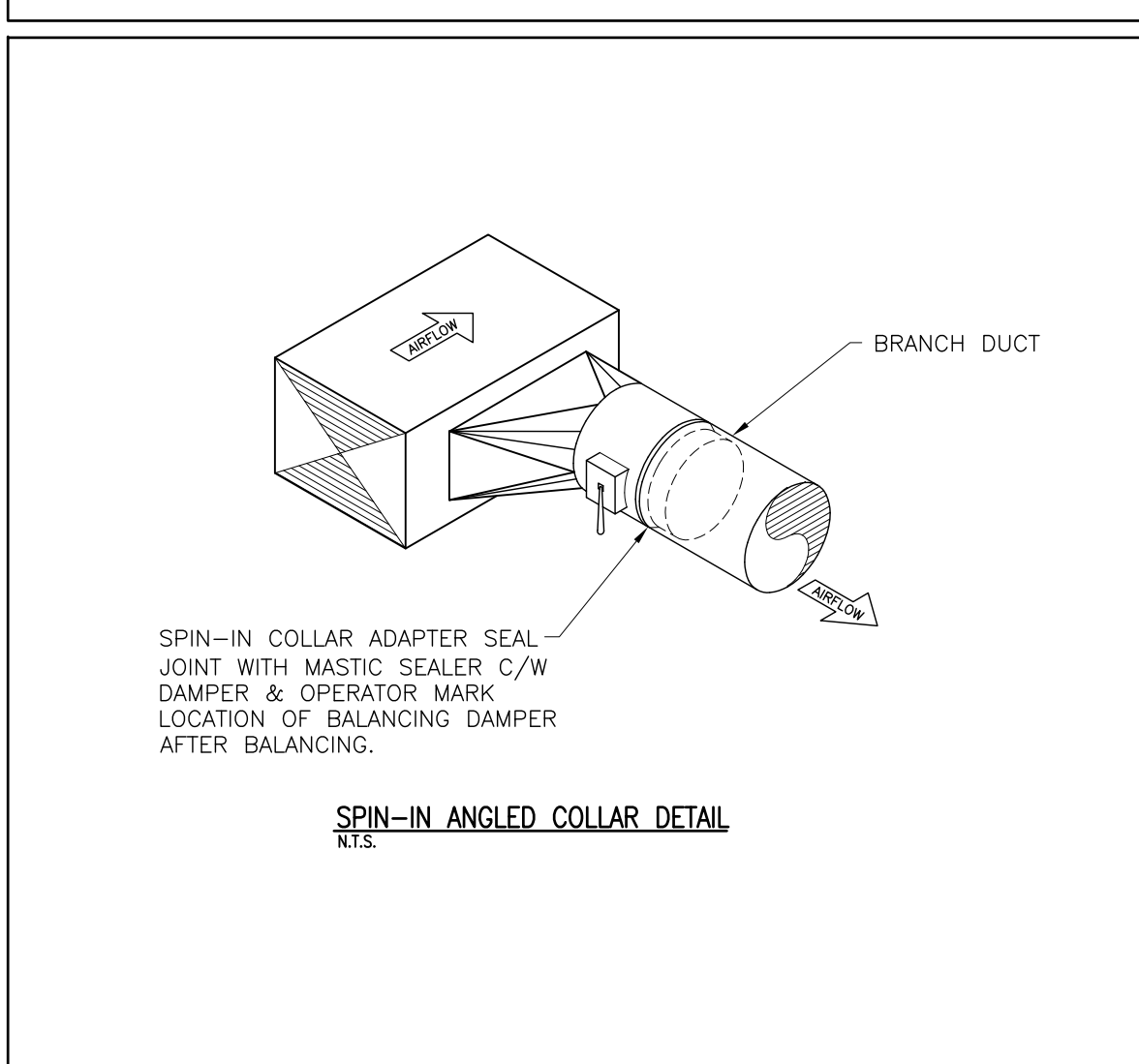
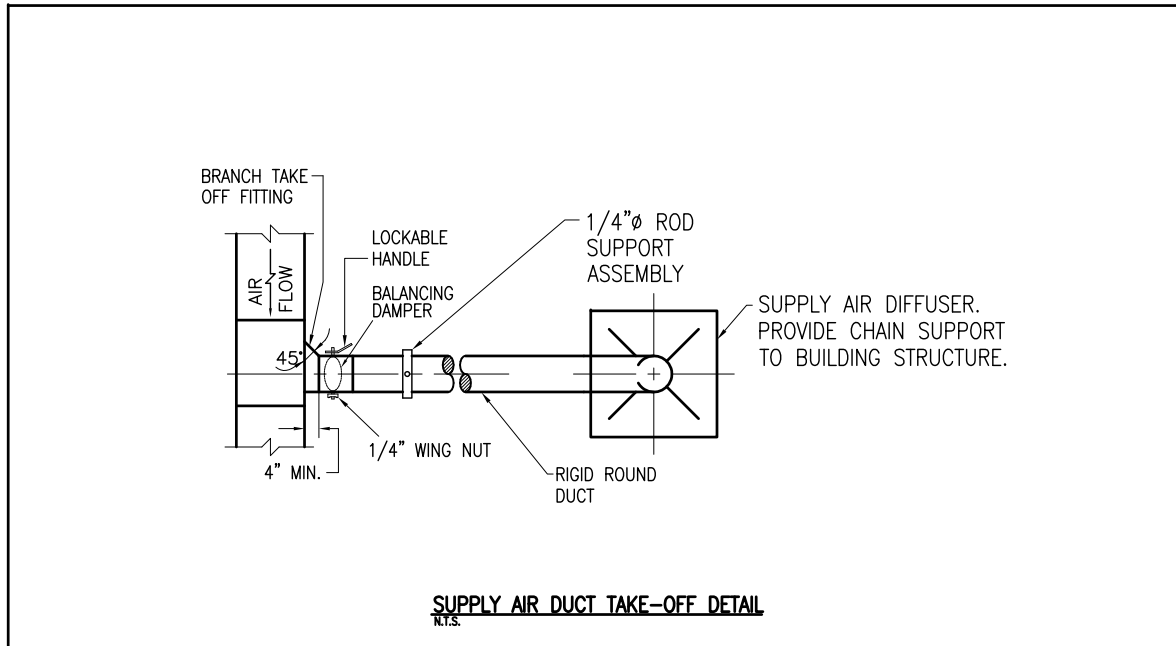
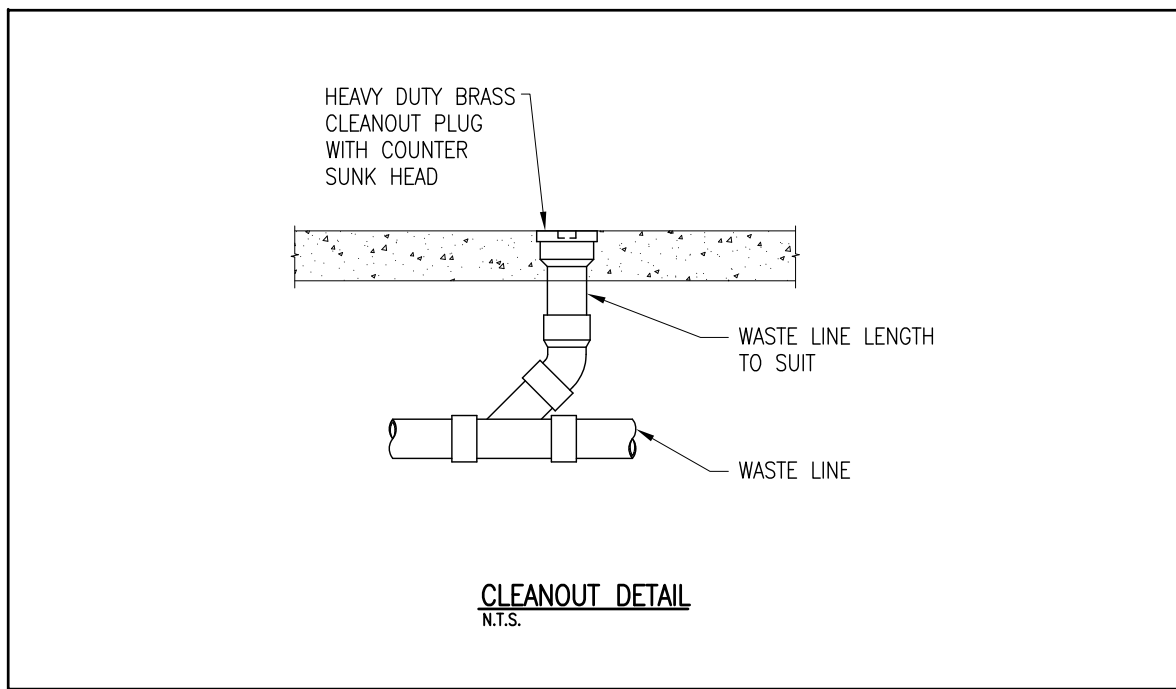
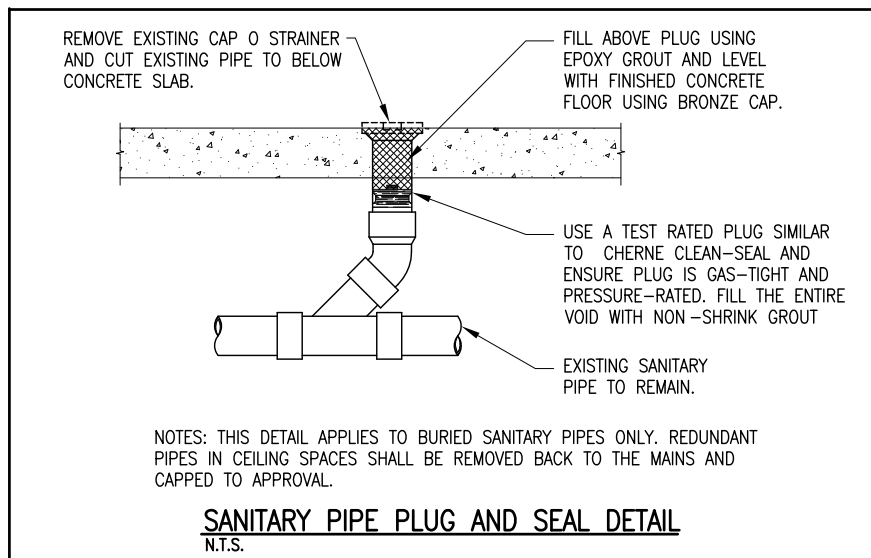
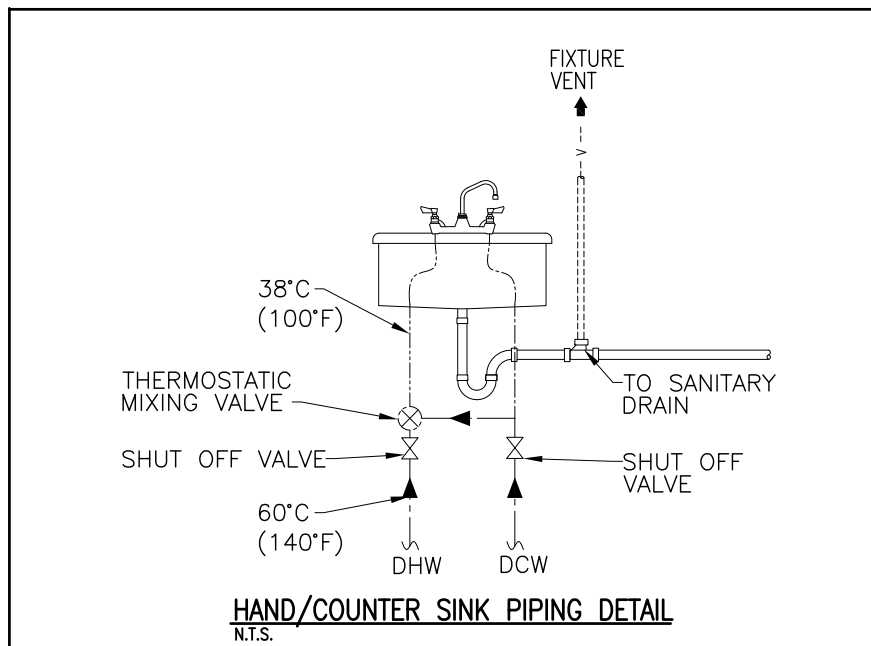
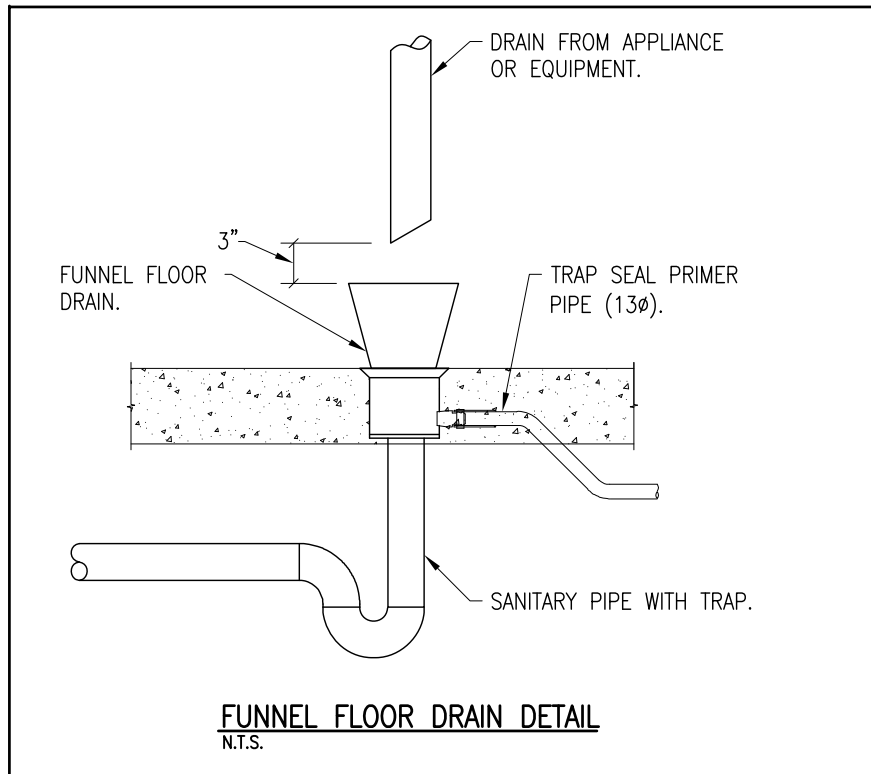
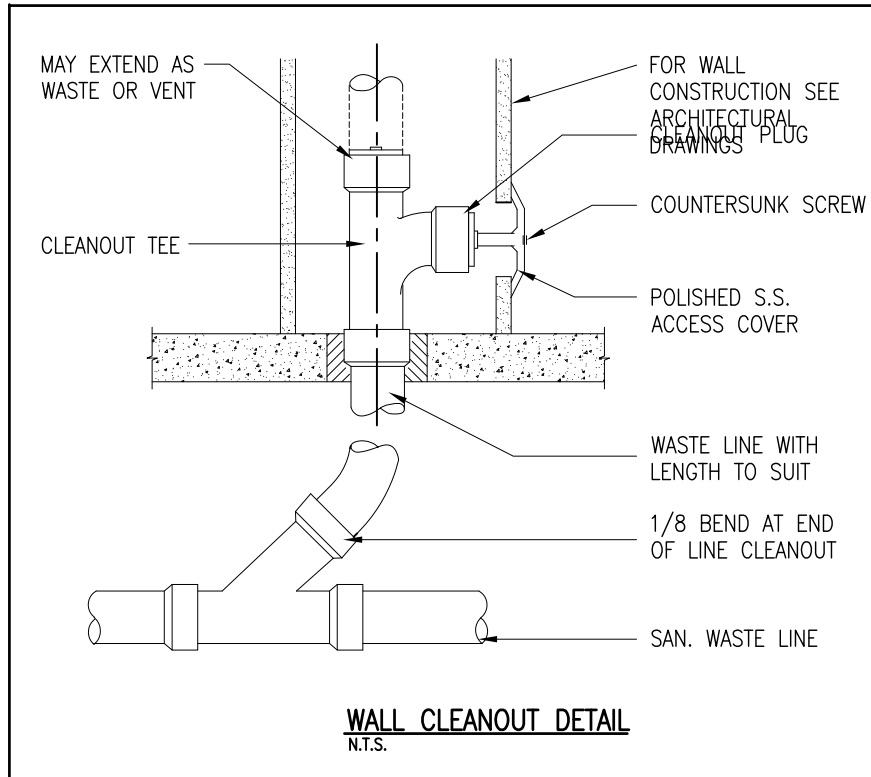
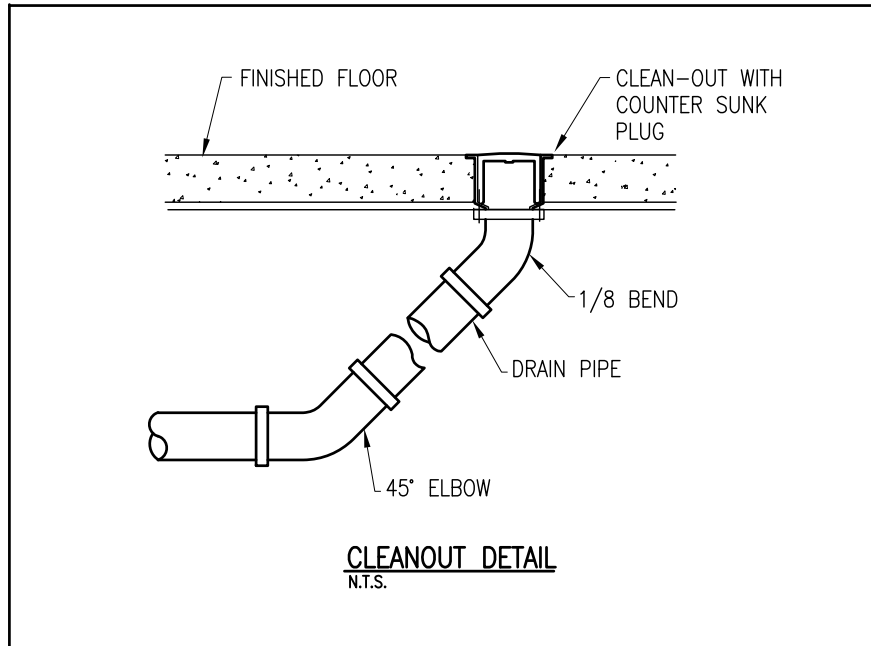
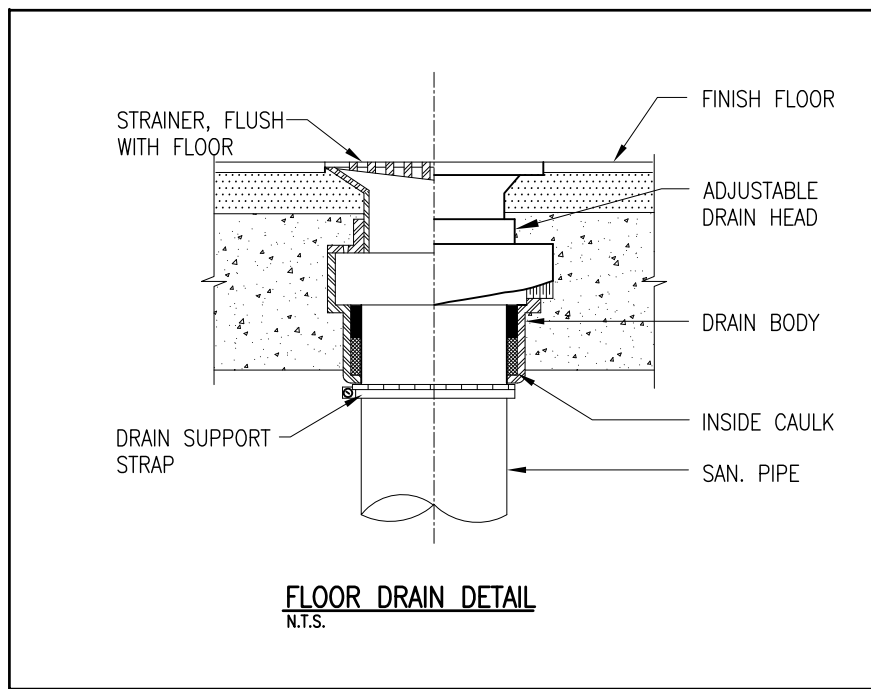
shellard@consultant.com
226 606 6542

ORCHARD PARK
SECONDARY SCHOOL
HAMILTON -- WENTWORTH
DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME:

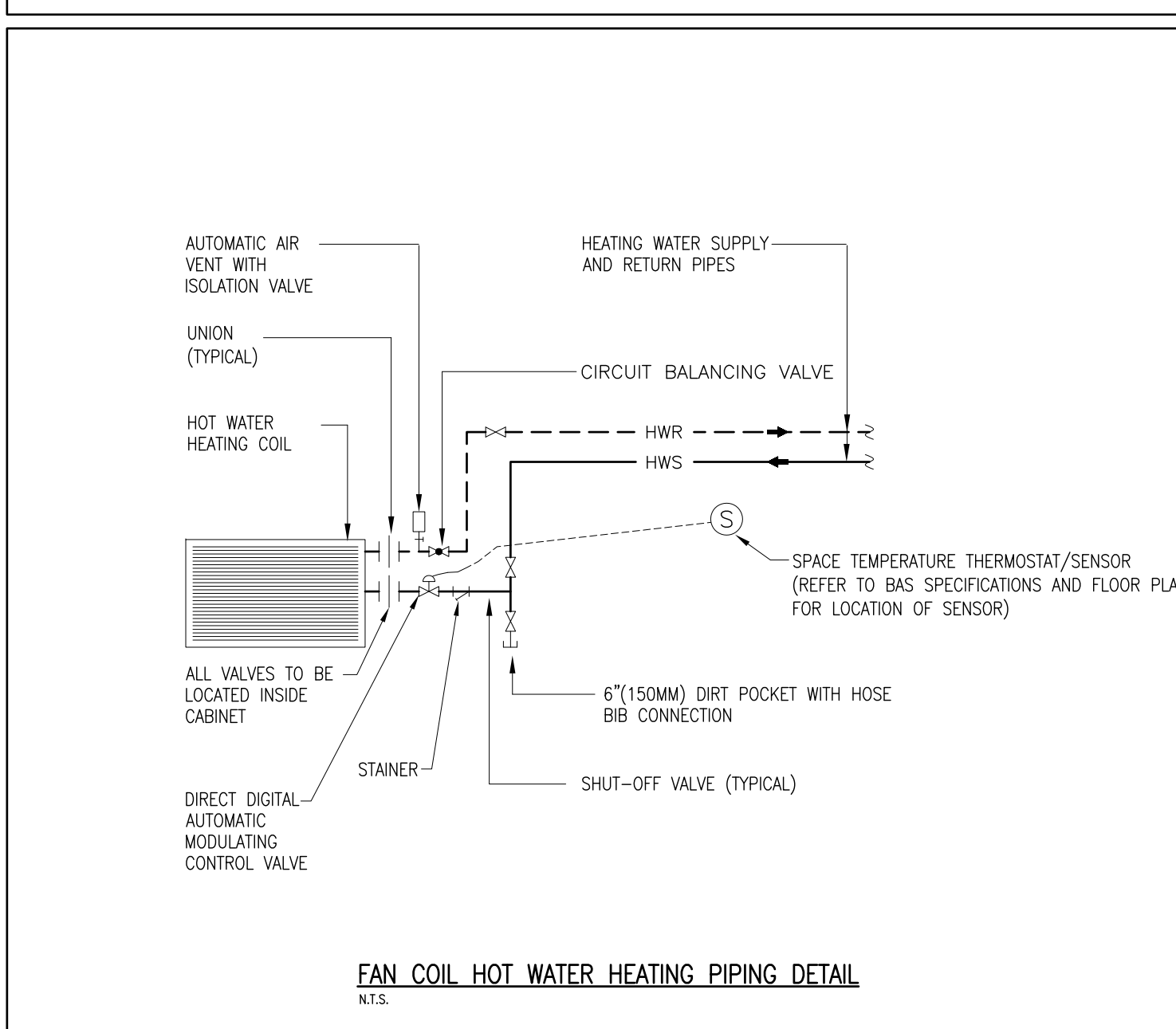
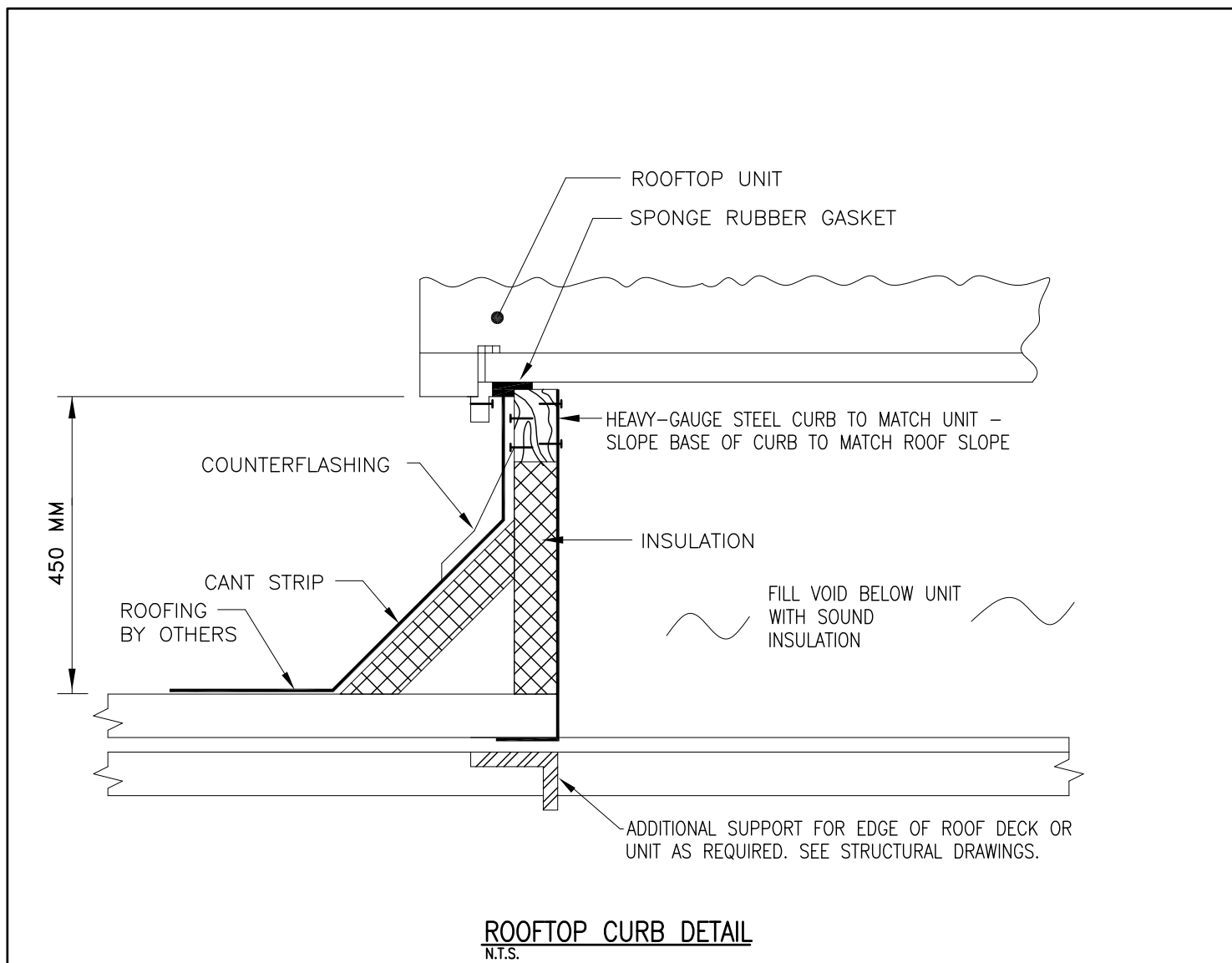
**SPECIFICATIONS AND DETAILS
MECHANICAL**

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
NOT TO SCALE	M3.02



GRILLES AND DIFFUSERS SCHEDULE					
TAG	MANUFACTURER	MODEL	SERVICE	FINISH	REMARKS
A	E.H. PRICE LTD.	ASPD	SQURE PLANE DIFFUSER	B12	24" x 24" PANEL
B	E.H. PRICE LTD.	ASPD	SQURE PLANE DIFFUSER	B12	12" x 12" PANEL
	E.H. PRICE LTD.	82	EGGCRATE FACE RETURN	B12	RETURN AIR GRILLES, ALUMINUM GRID CORE C/W 1" FRAME.
NOTES: 1. PROVIDE ALUMINUM DAMPER FOR EACH ALUMINUM GRILLE AND DIFFUSER. 2. DIFFUSERS NECK SIZES CRITERIA: UP TO 100 CFM = 6" NECK; 101 CFM TO 250 CFM = 8"; 251 CFM TO 380 CFM = 10" NECK; 381 CFM TO 550 CFM = 12" NECK. ALL DIFFUSERS AND GRILLES RATED AT NC30 OR LESS. 3. EACH GRILLE AND DIFFUSER SHALL HAVE BALANCING DAMPER AND MOUNTING FRAME PER CEILING CONSTRUCTION TYPE. 4. GRILLES AND DIFFUSERS COLOURS SHALL BE REVIEWED AND APPROVED BY THE DESIGN CONSULTANT OR OWNER.					

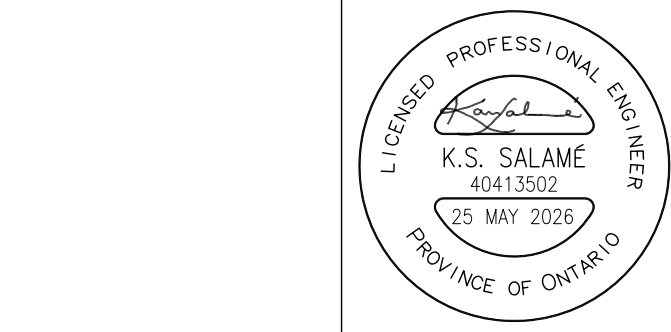
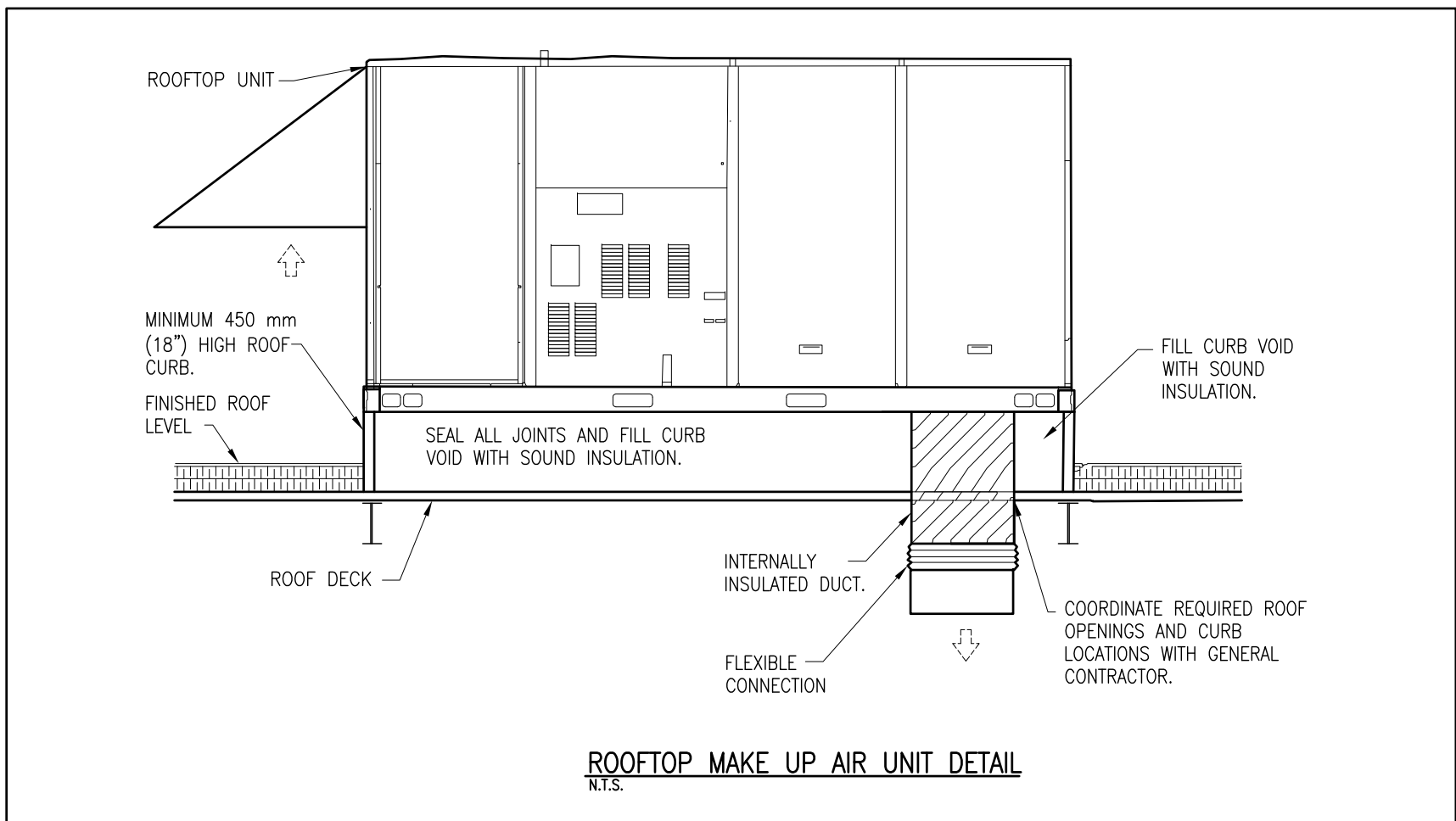
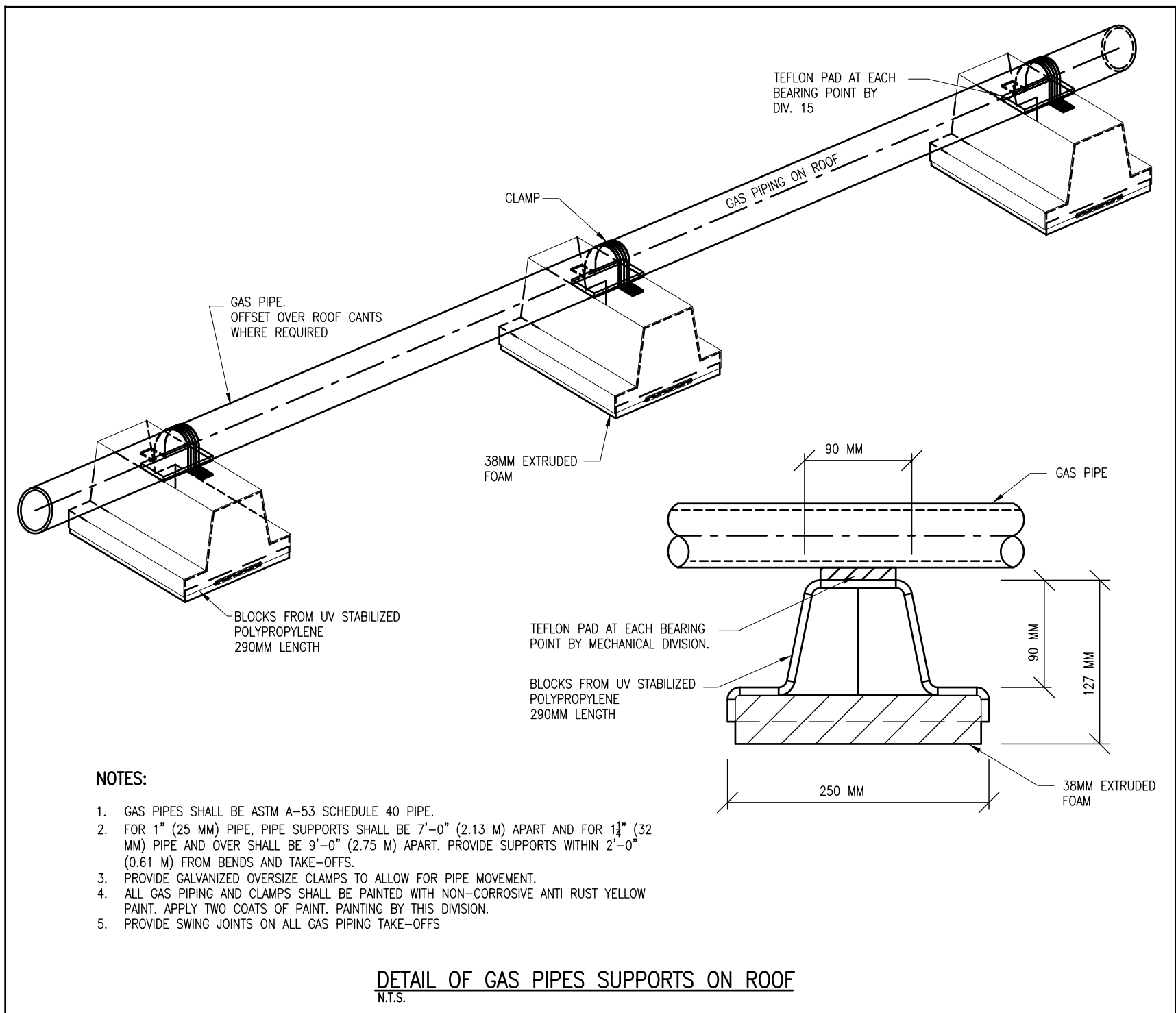
VENTILATION SCHECLE					
SPACES	AREA (FT²)	OCCUPANCY	DESIGN FLOWRATE (CFM/PERSON)	DESIGN FLOWRATE (CFM/FT²)	TOTAL REQUIRED VENTILATION (CFM)
TEACHING KITCHEN	1048	30	10	0.12	425
OFFICE	62	1	5	0.06	9
TOTAL	1110	31			434
REMARKS BREATHING ZONE CALCULATION: Eg COOLING: 1.0 Eg Heating: 0.8 CFM/c: 434/0.8 = 542 cfm DESIGN VENTILATION RATE: 542 CFM NOTE: THE VENTILATION CALCULATIONS ARE PREPARED BASED ON ASHRAE 62.1 STANDARDS TABLE 6.2.2.1 MINIMUM VENTILATION RATES IN BREATHING ZONES.					



FAN EQUIPMENT SCHEDULE												
TAG	SERVICE AND LABEL	MAKE OF FAN	MODEL No.	VOL. FLOW (CFM)	ESP (IN)	SPEED R.P.M.	TIP SPEED F.P.M.	SONES	ELECTRICAL			ACCESSORIES & REMARKS
									H.P.	PH	V	
EF-1	EXHAUST FAN No. EF-1 KITCHEN HOOD	GREENHECK	CUBE-240-VGD-30	4400	2.0	931	-	-	5	3	208	A, D, AND I. FAN SHALL BE ULC APPROVED AND COMPLETE WITH GREASE CUP.
OPTIONS AND ACCESSORIES:												
A	DISCONNECT SWITCH	C	INSULATED ROOF CURB	E	60 MINUTES TIMER	G	SPEED CONTROL AT FAN	I	HAND/OFF/AUTO STARTER	K	ON/OFF STARTER	
B	BACK DRAFT DAMPER	D	WEATHER PROOF DISCONNECT	F	OCCUPANCY SENSOR	H	INLET GRILLE	J	MOTORIZED DAMPER			

ROOFTOP MAKE UP AIR UNIT SCHEDULE																
TAG	COOLING TONS	MAKE	MODEL No.	COOLING		HEATING			SUPPLY FAN			ELECT.	MCA	MOCP	WEIGHT	ACCESSORIES /REMARKS
				TOTAL	STAGES	INPUT	OUTPUT	STAGES	AIR FLOW	EXT. S.P.	MOTOR					
MUA-1	--	CAPTIVEAIRE	A2-D500-20d	--	--	450 CFH	450 MBH	MODULATING	4000 CFM	0.80\"/>W.C.	3 HP	208/3/60	13.1	20 A	450 kg	A, C, D, F, J, K, L, M AND N.
A. PREFABRICATED ROOF MOUNTING CURB (18" HIGH). B. ECONOMIZER WITH ENTHALPY CONTROL/DAMPER HOOD. C. FACTORY WEATHERPROOF (NON-FUSED) DISCONNECT. D. VARIABLE FREQUENCY DRIVE. E. PROGRAMMABLE THERMOSTAT (HONEYWELL TR820). F. FT-6 RATED CONTROL WIRING. G. BAROMETRIC RELIEF DAMPER. H. DISCONNECT. I. WALL MOUNTED BRACKET. J. INTAKE AIR HOOD K. MOTORIZED DAMPER. L. REMOTE CONTROL PANEL. M. HINGED ACCESS DOORS. N. DISCHARGE AIR TEMPERATURE SENSOR.																
UNIT REQUIREMENTS, FUNCTION AND INSTALLATION PROVISIONS: THE MAKE UP AIR UNIT SHALL BE ULC, CSA APPROVED AND COMPLETE WITH VIBRATION ISOLATION SPRINGS RAIL AND DUCT FLEXIBLE CONNECTION. PROVIDE UNIT COMPLETE WITH STAINLESS STEEL HEAT EXCHANGERS, AIR PROOFING SWITCH, FLAME VERIFICATION SWITCH, HIGH LIMIT SWITCH, VARIABLE FREQUENCY DRIVE, REMOTE CONTROL PANEL, DISCONNECT, CONTACTS FOR FIRE ALARM SHUT DOWN, DUCT STAT AND REMOTE CONTROL PANEL. THE REMOTE CONTROL PANEL SHALL HAVE HAND/OFF/AUTO SWITCH, S/A TEMPERATURE SET-POINT, SUMMER/WINTER SWITCH, DRY/FILTER AND LCD DISPLAY SCREEN. INTERLOCK UNIT TO OPERATE WHEN EF-1 IS ON. COORDINATE WITH ELECTRICAL TRADE TO WIRE UNIT TO DOWN FROM THE FIRE SUPPRESSION SYSTEM AND FIRE ALARM SYSTEM. COORDINATE EXACT LOCATION OF THE REMOTE PANEL ON SITE. PROVIDE ALL REQUIRED CONTROL WIRING. ALL WIRES SHALL BE IN EMT CONDUITS.																

FAN COIL UNIT SCHEDULE															
TAG	MAKE	MODEL No.	COOLING		HEATING			SUPPLY FAN		ELECT.	MCA	MOCp	WEIGHT	ACCESSORIES /REMARKS	
			TONS	STAGES	OUTPUT	EWt	LWT	AIR FLOW	EXT. S.P.						MOTOR
FC-1	ENGINEERED AIR	HORIZONTAL	5	MODULATING	22 kW	160°F	140°F	2150 CFM	0.60" W.G.	1 HP (ECM)	208/1/60	TBD	-	175 kg	C, D, H, J, M AND N. (MERV 13 FILTERS)
A. PREFABRICATED ROOF MOUNTING CURB (18" HIGH). B. ECONOMIZER WITH ENTHALPHY CONTROL/DAMPER HOOD.															
C. FACTORY WEATHERPROOF (NON-FUSED) DISCONNECT. D. VARIABLE FREQUENCY DRIVE.															
E. PROGRAMMABLE THERMOSTAT (HONEYWELL TR8220). F. FT-6 RATED CONTROL WIRING.															
G. BAROMETRIC RELIEF DAMPER. H. DISCONNECT															
I. WALL MOUNTED BRACKET. J. HAND/OFF/AUTO STARTER															
K. MOTORIZED DAMPER. L. REMOTE CONTROL PANEL.															
M. MOTORIZED DAMPER. N. DISCHARGE AIR TEMPERATURE SENSOR															
UNIT REQUIREMENTS, FUNCTION AND INSTALLATION PROVISIONS: MAXIMUM UNIT HEIGHT/DEPTH: 22" (MAXIMUM AVAILABLE CEILING SPACE IS 22") THE FAN COIL UNIT SHALL BE ULCS APPROVED AND COMPLETE WITH VIBRATION ISOLATION SPRINGS AND DUCT FLEXIBLE CONNECTIONS. PROVIDE UNIT COMPLETE WITH HOT WATER HEATING COIL, COOLING COIL, AIR PROOFING SWITCH, DISCONNECT, HAND/OFF/AUTO STARTER, VARIABLE FREQUENCY DRIVE, CONTACTS FOR FIVE ALARM SHUT DOWN, AND CONTACTS FOR BACNET BAS. PROVIDE CONDENSING UNIT ON ROOF COMPLETE WITH GALVANIZED METAL STAND, BACNET CONTROLLER, VARIABLE REFRIGERANT FLOW COMPRESSOR AND ALL PROVIDE ALL REQUIRED CONTROL WIRING. ALL WIRES SHALL BE IN EMT CONDUITS. REFER TO BAS SPECIFICATIONS ON DRAWING 30.02.															



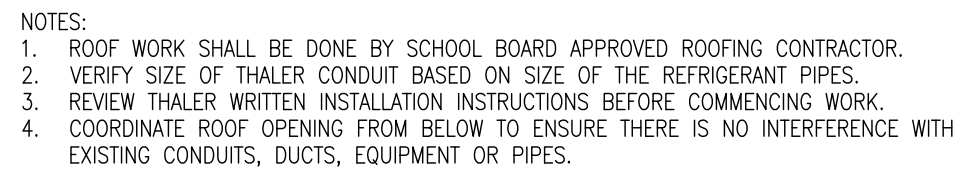
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THE CONTRACTOR ACCEPTS ALL RESPONSIBILITY FOR WORKING WITH DRAWINGS, NOT MARKED 'ISSUED FOR CONSTRUCTION' AND FOR ANY CHANGES TO THE DRAWINGS WITHOUT THE EXPRESS APPROVAL OF SHELLARD BUILDING SYSTEMS LTD.
ALL WORK TO CONFORM TO ALL GOVERNING CODES AND BY-LAWS.
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HWDSB

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4.	TENDER	25 MAY 2026
3.	REVISION -- CAFETERIA RENOVATION	29 APR 2026
2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE

SHELLARD BUILDING SYSTEMS LTD.
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DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

SCHEDULES AND DETAILS MECHANICAL	
DRAWN BY: N.P.	CHECKED BY: N.S.
DATE: SEPTEMBER 2025	JOB No.: 25-103
SCALE: NOT TO SCALE	SHEET No.: M3.03



LIQUID TIGHT FLEXIBLE CONDUIT DETAIL FOR REFRIGERANT PIPES
N.T.S.



1. MECHANICAL CONTRACTOR SHALL SUBMIT FIRE SUPPRESSION SYSTEM SHOP DRAWINGS FOR THE NEW EXHAUST HOOD. THE FIRE SUPPRESSION SYSTEM SHALL BE CSA AND ULC APPROVED.
2. MECHANICAL CONTRACTOR SHALL INSTALL A GAS SOLENOID VALVE AT MAIN GAS PIPE BEFORE APPLIANCES AND INTERLOCK THE VALVE TO CLOSE WHEN THE SYSTEM IS IN ALARM.
3. PROVIDE ALL REQUIRED CONTACTS IN ACCORDANCE WITH NFPA 96 STANDARDS, WHEN THE KITCHEN HOOD FIRE SUPPRESSION IS ACTIVATED, THE FOLLOWING SEQUENCE OF OPERATION SHALL OCCUR VIA CONTACTORS:
 - EXHAUST FAN EF-1 ON.
 - ROOFTOP MAKE-UP AIR UNIT OFF.
 - ELECTRICAL DEVICES LOCATED UNDER EXHAUST HOOD OFF.
 - GAS SUPPLY OFF (SOLENOID VALVE CLOSED).
4. ELECTRICAL CONTRACTOR SHALL PROVIDE INPUT MODULE ON FIRE ALARM SYSTEM (IF APPLICABLE) FOR KITCHEN HOOD.
5. THE FIRE SUPPRESSION SYSTEM SHALL BE INSTALLED AND TESTED PER CAN/ULC-5537-04. SUBMIT A VERIFICATION CERTIFICATE TO LOCAL AUTHORITIES WAVING JURISDICTION AND A COPY TO CONSULTANTS PRIOR TO ISSUANCE OF FINAL COMPLETION AND CONFORMITY LETTER TO THE LOCAL CHIEF BUILDING OFFICIAL.
6. REFER TO BUILDING AUTOMATION SYSTEM CONTROLS FOR REQUIRED MONITORING AND EQUIPMENT STATUS.

KITCHEN HOOD EXHAUST AND MAIR UP AIR SYSTEM SCHEMATIC

KITCHEN HOOD SYSTEM SPECIFICATION

- THE HOODS AND STAINLESS STEEL FILTERS WILL BE SUPPLIED BY THE KITCHEN EQUIPMENT VENDOR. INSTALLATION BY THIS DIVISION. ALL OTHER KITCHEN VENTILATION EQUIPMENT INCLUDING EXHAUST FAN, MAKE-UP AIR UNIT, DUCTS, GAS PIPING, HOOD CONTROL PANEL, AND THE FIRE SUPPRESSION SYSTEM SHALL BE SUPPLIED AND INSTALLED BY THIS DIVISION. FIRE SUPPRESSION TESTING AND VERIFICATION BY THIS DIVISION.
2. INSTALL THE COMPLETE COMMERCIAL KITCHEN HOOD ASSEMBLY WHICH IS CONSISTING OF TWO FACTORY-BUILT SECTIONS THAT TOGETHER FORM ONE CONTINUOUS ULC-LISTED AND NFPA-96 COMPLIANT HOOD. THE HOOD SHALL INCLUDE HIGH-EFFICIENCY BAFFLE-TYPE FILTERS, RECESSED INTEGRAL LIGHTING, AND UTILITY CABINETS WHERE INDICATED. PROVIDE BALANCE DAMPERS AND INSULATED END PANELS AS REQUIRED. SUPPLY PLenums SHALL BE PERFORMED, FACTORY-BUILT MAKE-UP-AIR ASSEMBLIES COORDINATED WITH THE FULL HOOD LENGTH AND MOUNTING CONDITIONS. THE FIRE-SUPPRESSION SYSTEM SHALL BE INSTALLED IN A REMOTE CABINET AND SHALL NOT BE LOCATED WITHIN OR AS AN INTEGRAL PART OF THE HOOD. THE HOOD ASSEMBLY SHALL INCLUDE ALL REQUIRED PROVISIONS FOR FIRE-SUPPRESSION SYSTEM INTERFACE, ELECTRICAL CONNECTIONS FOR LIGHTS AND CONTROLS, AND ALL NECESSARY HANGING HARDWARE. CONTRACTOR SHALL COORDINATE ALL FINAL DIMENSIONS, SERVICES, AND INSTALLATION REQUIREMENTS WITH THE MANUFACTURER'S CERTIFIED SHOP DRAWINGS.
3. INSTALL STAINLESS-STEEL, SINGLE-STAGE GREASE FILTERS WITH AN 8-BAFFLE DESIGN AND REAR SLOTTED BAFFLE FOR HIGH-EFFICIENCY GREASE CAPTURE. FILTERS SHALL BE SIZED FOR STANDARD 2-INCH HOOD CHANNELS AND SHALL INCLUDE STAINLESS-STEEL HANDLES AND FASTENING HARDWARE. FILTERS SHALL MEET TESTED PERFORMANCE REQUIREMENTS FOR FINE-PARTICLE GREASE REMOVAL. WITH LOW PRESSURE DROP AND SHALL BE CERTIFIED TO ASTM F2519 FOR USE AS SPARK ARRESTERS IN COMMERCIAL KITCHEN VENTILATION SYSTEMS. FILTERS SHALL COMPLY WITH ULC-S649
4. PROVIDE AN ELECTRIC GAS SOLENOID VALVE WITH STRAINER, SIZED AND RATED FOR THE FULL APPLIANCE GAS LOAD. THE VALVE SHALL BE INTERLOCKED WITH THE FIRE-SUPPRESSION SYSTEM AND SHALL CLOSE AUTOMATICALLY UPON SYSTEM ACTIVATION. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE GAS CODES AND MANUFACTURER REQUIREMENTS.
5. PROVIDE A COMPLETE PRE-ENGINEERED WET-CHEMICAL FIRE-SUPPRESSION SYSTEM INSTALLED IN A REMOTE FIRE CABINET. SYSTEM SHALL NOT BE LOCATED WITHIN OR AS AN INTEGRAL PART OF THE HOOD. SYSTEM SHALL INCLUDE THREE 4-GALLON TANKS, PRIMARY AND SECONDARY ACTUATORS, PRESSURE SUPERVISION SWITCH, HOSE ASSEMBLIES, MANUAL ACTIVATION DEVICE, AND ALL REQUIRED PIPING AND NOZZLES. NOZZLE LOCATIONS SHALL BE FIELD-ADJUSTED TO AVOID OBSTRUCTIONS. SYSTEM SHALL COMPLY WITH UL 300, ULC REQUIREMENTS, NFPA-96, AND ALL MANUFACTURER DESIGN LIMITATIONS INCLUDING MAXIMUM PIPE LENGTHS AND RISER REQUIREMENTS.
6. PROVIDE A DIGITAL DEMAND CONTROL VENTILATION SYSTEM FOR THE COMMERCIAL KITCHEN HOODS. THE SYSTEM SHALL INCLUDE A NEMA 1 RATED CONTROL PANEL INSTALLED INSIDE THE HOOD UTILITY CABINET, WITH STAINLESS-STEEL OR PAINTED ENCLOSURE. SYSTEM SHALL BE LISTED TO ULC 508A AND COMPLY WITH NFPA-96 AND OBC PART 6. PROVIDE STAINLESS-STEEL DUCT TEMPERATURE PROBES AND ROOM TEMPERATURE SENSORS. DIGITAL CONTROLLER SHALL MODULATE EXHAUST AND SUPPLY FAN SPEEDS BASED ON TEMPERATURE DIFFERENTIAL, WITH ADJUSTABLE HYSTERESIS AND FAN RUN-TIME SETTINGS TO PREVENT CYCLING. SYSTEM SHALL INCLUDE VARIABLE FREQUENCY DRIVES (VFD) AND INTERNAL LOGIC TO MAINTAIN MINIMUM VENTILATION SPEEDS AND PROPORTIONAL SUPPLY FAN CONTROLS. SYSTEM SHALL OPERATE IN AUTOMATIC, MANUAL, SCHEDULED, OR EXTERNAL CONTROL MODES. FIRE MODE SHALL SHUT DOWN SUPPLY FANS, ACTIVATE ALARM BELL, TRIP THE ELECTRIC SHUT BREAKER, AND CLOSE THE ELECTRIC GAS VALVE. PROVIDE LCD INTERFACE WITH FAN AND LIGHT SWITCH, GAS VALVE RESET, VFD FAULT AND SENSOR FAILURE ALARMS, RJ-45 CONNECTION, AND ENERGY SAVINGS INDICATOR. SYSTEM SHALL ALLOW EXTERNAL BMS FAN CONTROL VIA DRY CONTACT WITHOUT OVERRIDING FIRE SYSTEM LOGIC.
7. PROVIDE HOOD CONTROL PANEL WITH DRY CONTACTS FOR BAS TO INDICATE THE FOLLOWING:
- EXHAUST FAN STATUS (RUN/STOP)
 - FAULT/ALARM CONDITION
 - MAKE-UP AIR FAN STATUS
 - TEMPERATURE HIGH / HOOD IN COOK MODE
 - FIRE SUPPRESSION SYSTEM ACTIVATED
 - HOOD IN PREP MODE
 - GAS VALVE CLOSED
 - VFD SPEED FEEDBACK (0-10 VDC OR BACKNET)
8. SUBMIT COMPLETE HOOD, FIRE-SUPPRESSION, AND GAS-SAFETY SYSTEM SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.



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2.	PERMIT	23 MAR 2026
1.	REVIEW AND COORDINATION	17 MAR 2026
No.	DESCRIPTION	DATE



SHELLARD BUILDING
SYSTEMS LTD.

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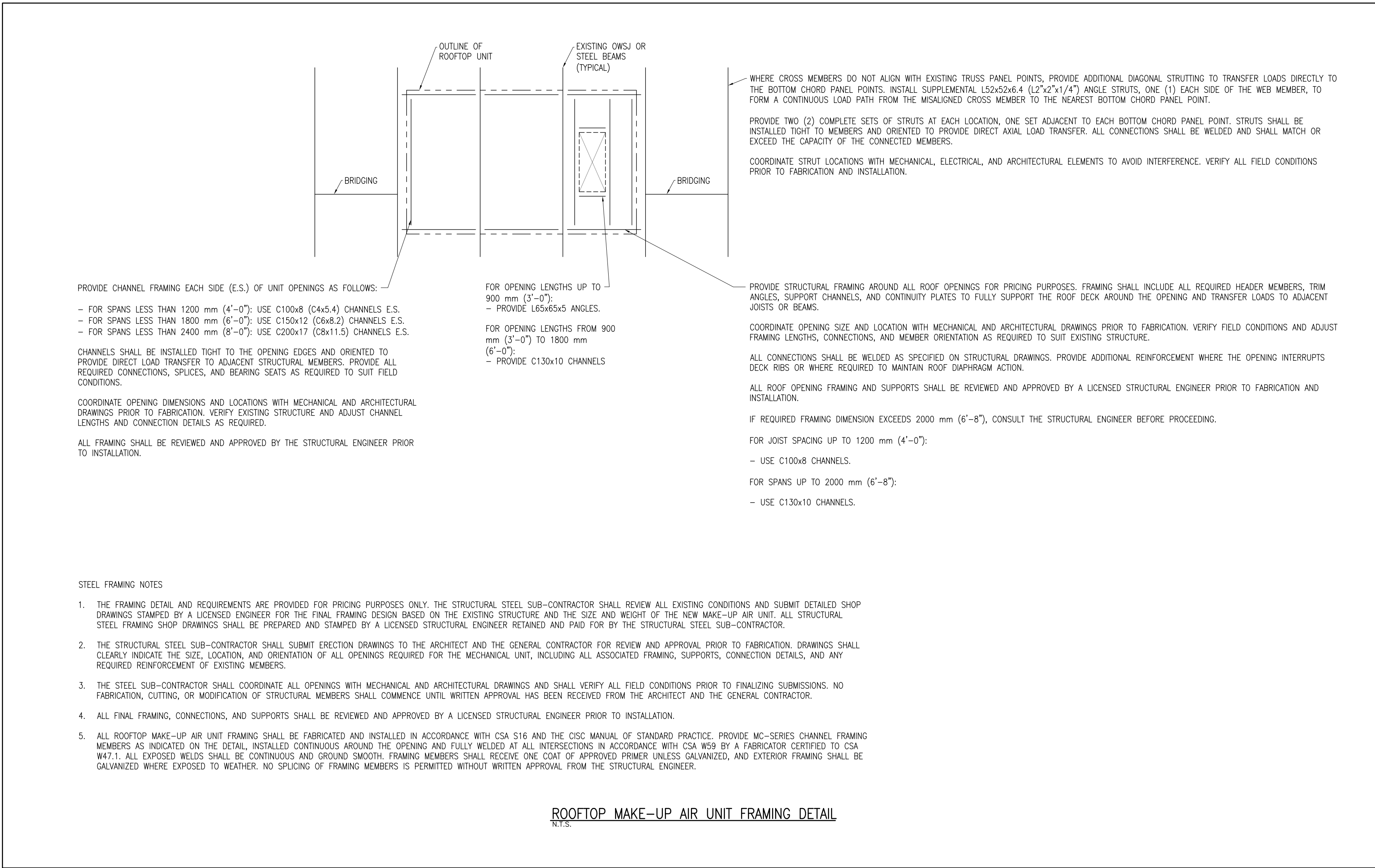
ORCHARD PARK
SECONDARY SCHOOL
HAMILTON – WENTWORTH
DISTRICT SCHOOL BOARD

200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME

SCHEMATIC AND DETAILS
MECHANICAL

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
NOT TO SCALE	M3.04



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DISTRICT SCHOOL BOARD
200 DEWITT ROAD
STONEY CREEK, ONTARIO L8E 4M5

DRAWN NAME:
**MAKE-UP AIR UNIT
FRAMING DETAIL**

DRAWN BY:	CHECKED BY:
N.P.	N.S.
DATE:	JOB No.:
SEPTEMBER 2025	25-103
SCALE:	SHEET No.:
NOT TO SCALE	M3.05