	RICHARD G. BUTTERWURTH ARCHITECT INC.	. CERTIFICATE OF PRAC THE CERTIFICATE OF
@ – AT	TEL 905 304-0241	OF THE HOLDER IS T
& – AND		
C = WASHROOM CURTAINS = ACOUSTIC	NAME OF PROJECT:	
ALUM. – ALUMINUM	WESTDALE SECONDARY SCHOOL	
APPROX. – APPROXIMATE(LY)	HAMILION - WENIWORTH DISTRICT SCHOOL BOARD	
AT – ACOUSTIC TILE	LUCATION: 700 MAIN STREET WEST HAMILTON, UNTARIO	
BD. – BOARD		
C.J. – CONTROL JOINT	UNTARIO BUILDING (JODE PART IT REVIEW MATRIX
C/W – COMPLETE WITH CAR. – CARPET	PROJECT DESCRIPTION: BASIC RENOVATION	TO WESTDALE SECONDARY SCHOOL
CH – CEILING HEIGHT	AGE OF BUILDING (YEARS): 93	ANY ADDITION:
¢ – CENTRE LINE	AGE OF ADDITION (YEARS): N/A	WILL ADDITION BE AFFECTED
DB – DISPOSAL BAG UNITS		
ELEC. – ELECTRICAL	TABLE 11 2 1 1 A	TABLE 11 2 1 1
FIN. – FINISH(ED) FL. – FLOOR	NUMBER OF STOREYS: 4	HAZARD INDEX (NEW): TABLE 11.2.1.1.
GL – GLAZING GR. – GRADE	HEIGHT OF BUILDING (m): 20	HAZARD INDEX CREDIT APPLICABLE: TABLE 11.2.1.1. (2)
HD – GTPSIUM HD – ELECTRIC HAND DRYER HDG – HOT DIPPED GALVANIZED	NUMBER OF STREETS: 4	FARM BUILDING: TABLE 11423 (1)(c)
H.M. – HOLLOW METAL HSS – HOLLOW STRUCTURAL SECTION	STRUCTURAL UPGRADING REQUIRED: YES STABLE 11.4.2.1.1	NO COMPLIANCE ALTERNATIVE NUMBER:
H.W. – HOT WATER		
	TYPE OF CONSTRUCTION:	NON-COMBUSTABLE HEAVY IIMBER
MIN. – MINIMUM NBC – NATIONAL BUILDING CODE	EARLY WARMING AND EVACUATION SYSTEM UPGRADE REQUIRED: TABLE 11.3.3.	🗆 YES 🖾 NO
(N.I.C.) – NOT IN CONTRACT OBC – ONTARIO BUILING CODE	BUILDING DETAILS	EXISTING
O.C. – ON CENTRE O.W.S.J. – OPEN WEB STEEL JOISTS	MAJOR OCCUPANCY CLASSIFICATIONS: TABLE 3.1.2.1.	GROUP A DIVISION 2
PT – PAPER TOWEL DISPENSER P.V.C. – POLY VINYL CHLORIDE	OCCUPANCY LOAD DETERMINATION: TABLE 3.1.16.1 (3.1.17.1 CORRECTED)	900
PLY. – PLYWOOD POLY. – POLYETHYLENE PURPER COVE PASE	FRR FLOORS OVER BASEMENT (HOURS):	N/A
R.D. – ROOF DRAIN R.W.I. – RAIN WATER I FADER	FRR OTHER FLOORS (HOURS):	N/A
REV. – REVERSED SD. – SOAP DISPENSER	FRR ROOF (HOURS):	N/A
SIM. – SIMILAR TYP. – TYPICAL	NUMBER OF SUITES OF GROUP C: OCCUPANCY 11.4.2.3 (1)(b)	N/A
U/S – UNDERSIDE VAT – VINYL ASBESTOS TILE	AREA OF BUILDING (SQ.M.):	7900 SQ.FT.
VCT - VINYL COMPOSITE TILE VRT - VINYL REINFORCED TILE	BUILDING SPRINKLERED:	YES NO
	FIRE ALARM SYSTEM REQUIRED:	YES NO



	RIO AS	SSOC/A			
	O ARCHI	TECTS Z			
RIH BRTH	RICHARD G. E	BUTTERWORTH NCE 59			
$\tilde{\mathcal{L}}$ "All drawings, specifications, relate	ed documents and	design are the			
documents and design in whole without the architect's written p	drawings, specifico e or in part is str ermission."	itions, related ictly forbidden			
This drawing shall not be used countersigned by:	for construction pu	irposes unless			
GENERAL NOTES					
 GEINERAL INOTES 1. BEFORE TENDERING AN CONDITIONS AFFECTING DONE THEREON IS RECO ARE FURNISHED IN GOO OF THE CONTRACTOR, E RELIEVE THE CONTRACTO OF ASCERTAINING, TO T THE NATURE OF ALL CO 2. REPORT TO THE OWNER OMISSIONS, ERRORS, DE APPLICABLE CODES, BY GOOD PRACTICE AND AN BE OF DUBIOUS INTENT PERIOD DEADLINE, SO T CONSIDERED DESIRABLE ADDENDA. THE OWNER OF BE RESPONSIBLE FOR OF 3. ALL DIMENSIONS AND IN CONTRACT DRAWINGS M VERIFIED ON SITE PRIOF FABRICATION OF ITS CO EXISTING CONDITIONS OF VARY FOR THAT INDICAT DRAWINGS, THE ARCHITE IMMEDIATELY. 4. ALL CUTTING AND PATO CONTRACTOR. PERFORM SCANNING OF ALL FLOOD CONDUIT OR LIVE WIRES DRILLING. MAKE GOOD OF EXISTING FLUSH. 5. REMOVE ALL EXISTING IN INDICATED ON DRAWINGS SURFACES TO MATCH E FLUSH WITH EXISTING S MATCH. 6. PAINT ALL NEW AND EXITEMS WITH SPECIAL CO ALL BASED PAINT AND 7. DO NOT SCALE THE DR 	EXAMINATION O THE SITE AND OMMENDED. THE DD FAITH FOR T BUT SHALL IN N OR OF THE RES HEIR OWN SATIS DNDITIONS ON T ALL DISCREPA EPARTURES FRO -LAWS AND REP Y POINTS CON PRIOR TO THE THAT THE OWNE , ISSUE INSTRUCTION AND ARCHITECT ORAL INSTRUCTION FORMATION SH UST BE CHECKE R TO CONSTRUCT MPONENTS, SHO NFORMATION SH UST BE CHECKE R TO CONSTRUCT MPONENTS, SHO ST D DETECT S BEFORE CUTT ALL SURFACES TEMS SHOWN D S. MAKE GOOD XISTING SURFACE OLOUR BLOCK P 2 FINISHED CO. AWINGS.	F ALL WORK TO BE DOCUMENTS HE GUIDANCE IO WAY SPONSIBILITY SFACTION, THE SITE. NCIES, M ALL GULATIONS, SIDERED TO QUESTION R MAY IF CTIONS BY WILL NOT ONS. OWN ON THE ED AND CTION AND DULD FOUND TO INTRACT OTIFIED RAL MAGNETIC ANY PIPING, ING OR CORE TO MATCH OTTED AS ALL ALL HOLES PAINT TO ES AND RIMER FOR ATS (TYP.)			
	WENTW	ORTH			
	DISTRIC SCHOOL	Τ			
	BOARD				
3. ISSUED FOR TENDER		FEB. 28, 2025			
2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW	MIT	JAN. 31, 2025 NOV. 05, 2024			
No. REVISIONS		DATE			
RICHARD G. ARCHITECT Architecture	BUTTERN	ORTH + № с.			
Interiors UrbanPlanning Ancaster		Ontario			
WESTDALE SEC	CONDARY	,			
HAMILTON – WENTWORTH DISTRICT SCHOOL BOARD 700 MAIN STREET WEST HAMILTON ONTABIO					
HAMILION, ONTARIO KEY PLANS AND ONTARIO BUILDING CODE MATRIX AND GENERAL NOTES					
DRAWN BY:		ſ:			
DATE:	JOB No.:				
FEBRUARY 2025 SCALE:	24-107 SHEET No.:				
		1			



		ASSOC PA ARCHITECTS Z			
	PROJECT	RICHARD G. E	BUTTERWORTH NCE 59		
"All copy requ docu with	drawings, specifications, relate rright property of the archit lest. Reproduction of the uments and design in whole out the architect's written p	ed documents and ect and must be drawings, specifica or in part is str ermission."	design are the returned upon ations, related ictly forbidden		
This cour	drawing shall not be used ttersigned by:	for construction p	urposes unless		
	DEMOLITION LEGE		"		
E	C – EXISTING TERRA REMOVE H – REMOVE EXISTIN UR – EXISTING URINAL	IG HOOK	HIGH		
E	(SEE MECH.) S - REMOVE EXISTIN	IG SINK (SEE N	AECH.)		
E E E	SD – REMOVE EXISTIN FD – REMOVE EXISTIN BS – EXISTING BENCH	IG SOAP DISPEI IG FLOOR DRAII I / SHELF REN	NSER N 10VE		
S	T – EXISTING PLUME (SEE MECH.)	BING STACK TO	REMAIN		
E	SH — EXISTING DESKT SH — EXISTING SHELF M — EXISTING MIRRO	OP / SHELF R REMOVE R REMOVE	EMUVE		
E	L – EXISTING LOCKE P – EXISTING TOILET	RS (QTY) REMO PARTITION REM	DVE MOVE		
E F	RAD – EXISTING RADIAT HC – EXISTING FIRE H	OR REMOVE (S HOSE CABINET	EE MECH.) TO REMAIN		
E	DF — EXISTING DRINK MS — EXISTING MOP S	ING FOUNTAIN F SINK REMOVE (REMOVE SEE MECH.)		
E	W – EXISTING WINDO ML – REMOVE EXISTIN	W TO REMAIN IG METAL LOCK	ER (QTY)		
E	EGB – EXISTING GRAB BAR REMOVE EVB – REMOVE EXISTING SHOWER VALVE AND BO				
E	SH – REMOVE FIBERG MC – EXISTING MEDIC	LAS SHOWER U INE CABINET RE	NIT EMOVE		
E	ED/M – EXISTING DESK AND MILLWORK REMOVE ETF – EXISTING TERRAZZO FLOOR REMOVE OR				
E	TO REMAIN TRD – EXISTING TOILET AND TURNOVER	ROLL DISPENS	ER REMOVE		
E	PTD – EXISTING PAPER REMOVE AND TU	TOWEL DISPEN JRNOVER TO O	ISER WNER		
E	WF – EXISTING WOOD REMAIN	FLOOR REMOVI	E OR TO		
E	WC – EXISTING WATER REMAIN (SEE M	CLOSET REMO	VE OR		
E	WS – EXISTING EXISTI	NG SIGN			
		WENTW	ORTH		
		DISTRIC SCHOOL	Т		
		BOARD	_		
3.	ISSUED FOR TENDER		FEB. 28, 2025		
2. 1.	ISSUED FOR BUILDING PERI ISSUED FOR REVIEW	MIT	JAN. 31, 2025 NOV. 05, 2024		
No.	REVISIONS		DATE		
R	RICHARD G.	BUTTERN	IN C.		
Ar Un Ar	rchitecture Iteriors rbanPlanning ncaster	\geq	Ontario		
W	ESTDALE SEC	CONDARY	,		
	CHOOL MILTON - WEN	ITWORTH			
DI 700	STRICT SCHOOL	BOARD IST			
HA	MILTON, ONTARIO)R		
	PLAN - DEMOI	LITION			
DRA	WN BY:	CHECKED B	Y:		
	S E:				
FE	BRUARY 2025	24-107			
	LE: /4"=1'-0"	SHEET No.:)1		
	r - I - V				



1/4"=1'-0"

THIS DRAWING IS INCLUDED ONLY FOR CORES AND STUB-UPS FOR FUTURE PLUMBING FIXTURES WORK. ALL EXISTING PLUMBING FIXTURES TO BE REMOVED (SEE MECH.) PATCH EXISTING HOLES IN FLOOR FLUSH WITH CONCRETE THICKNESS TO MATCH EXISTING FLOOR CONDITION WHERE EXISTING PLUMBING IS RTEMOVED

NOTE

PROJECT NORTH	RICHARD G. E	SSOC FECTS Z BUTTERWORTH NCE 59
"All drawings, specifications, related copyright property of the archite request. Reproduction of the of documents and design in whole without the architect's written per This drawing shall not be used for countersigned by: Richard G. Butterworth, Architect	d documents and ict and must be rawings, specifico or in part is stri rmission." or construction pu	design are the returned upon titions, related ctly forbidden urposes unless
DEMOLITION LEGE ES – REMOVE EXISTING EFD – REMOVE EXISTING EFD – REMOVE EXISTING EFD – REMOVE EXISTING EFD – REMOVE EXISTING FD – REMOVE EXISTING FD – REMOVE EXISTING FD – REMOVE EXISTING FD – EXISTING PLUMB (SEE MECH.) TP – EXISTING TOILET ETRD – EXISTING TOILET END – EXISTING PAPER REMOVE AND TU ERAD – EXISTING RAD. T EWC – EXISTING WATER REMAIN (SEE ME ● NEW CORES AND 8" MIN. SANITAR CONNECTIONS W BASEMENT SCOP Image: Construction of the set of the	ND G SINK (SEE M G SOAP DISPER G FLOOR DRAIN ING STACK TO PARTITION REM ROLL DISPENS TO OWNER TOWEL DISPEN RNOVER TO OW O REMAIN (SEI CLOSET REMO ECH.) O CAPPED OFF Y LINES FOR I ILL BE PART OF E. R HEAD AND W E MEH.)	AECH.) NSER N (SEE REMAIN MOVE SER REMOVE SER REMOVE SER NNER E MECH.) VE OR STUB-UPS FUTURE OF ALVE BOX
	HAMILT WENTW DISTRIC SCHOOL BOARD	ON- ORTH ⊤
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM	HAMILT WENTW DISTRIC SCHOOL BOARD	ON- ORTH ↓ ↓ FEB. 28, 2025 JAN. 31, 2025
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS	HAMILT WENTW DISTRIC SCHOOL BOARD	ON- ORTH T FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T	HAMILT VENTW DISTRIC SCHOOL BOARD	ON- ORTH T FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C.
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster	HAMILT VENTW DISTRIC SCHOOL BOARD	DN-DORTH T FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors Urbon Plonning Ancaster WESTDALE SEC SCHOOL HAMILTON - WEN DISTRICT SCHOOL 700 MAIN STREET WES HAMILTON, ONTARIO PARTIAL FIRST DEMOLITION	HAMILTO VENTW DISTRIC SCHOOL BOARD	CN- CORTH JAN. 31, 2025 NOV. 05, 2024 DATE CORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancoster WESTDALE SEC SCHOOL HAMILTON - WENN DISTRICT SCHOOL 700 MAIN STREET WES HAMILTON, ONTARIO PARTIAL FIRST DEMOLITION		DN- DRTH FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH IN C. Ontorio
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESSTDALE SEC SCHOOL HAMILTON - WEN DISTRICT SCHOOL 700 MAIN STREET WES HAMILTON, ONTARIO PARTIAL FIRST DRAWN BY: MS	HAMILTO VENTW DISTRIC SCHOOL BOARD	DN- DRTH FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
Image: Structure of the st	HAMILTO VENTV DISTRIC SCHOOL SCHOOL SOARD BUTTERM BUTTERM SONDARY FLOOR PL ST FLOOR PL ST FLOOR PL ST FLOOR PL CHECKED B RGB JOB No.: 24–107	DN- DRTH FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario



OUECT ATH ATH	AS A A A A A A A A A A A A A A A A A A	SSO TECTS Z BUTTERWORTH NCE					
PR	·····	10000000					
"All drawings, specifications, relat copyright property of the archi request. Reproduction of the documents and design in whole without the architect's written p This drawing shall not be used countersigned by:	"All drawings, specifications, related documents and design are the copyright property of the architect and must be returned upon request. Reproduction of the drawings, specifications, related documents and design in whole or in part is strictly forbidden without the architect's written permission." This drawing shall not be used for construction purposes unless countersigned by:						
Richard G. Butterworth, Architect							
PROPOSED LEGEN	D						
AP – NEW ACCESS PA B – BENCH (SEE SPE B/S – BENCH / SHELF BN – BULLNOSE CORN BR – NEW WASHFOUNT MF2944 FLOOR	NEL (SEE SPEC' EC'S) WITH HOOKS (: ER AIN TERREON M MOUNT (SEE ME	'S) SEE SPEC'S) ODEL ICH.)					
ETF – EXISTING TERRAZ EFG – NEW EXHAUST F/ EL – NEW RECESSED HD – ELEQTRIC HAND M – MIRROR (SEE SP FM – FULL MIRROR (SE TM – TILT MIRROR (SE	ZO FLOOR AN GRILLE (SEE EMERGENCY LIGI DRYER (SEE ELI EC'S) EE SPEC'S) E SPEC'S)	MECH.) HT (SEE EC.)					
IK – L – LOCKER (30) AN S – NEW SINK / FAU SH – SHOWER (SEE M SL – SLOPE TO DRAIN C – CURTAIN AND RC CH – BREAK AWAY CO/	D QUANTITIES (: JCET (SEE MECH ECH.) (SEE MECH.) D (SEE SPEC'S AT / TOWER HC	SEE SPEC'S) H.)) DOKS (SEE					
SPEC'S) CT – NEW CERAMIC WALL TILE FULL HEIGHT (SEE SPEC'S) WC – NEW TOILET FLUSH VALVE (SEE MECH.) NEG – NEW EXHAUST GRILLE (SEE MECH.) NWB – NEW WALL MOUNTED WASTE BIN (SEE NSG – NEW WALL MOUNTED WASTE BIN (SEE NSG – NEW RETURN AIR GRILLE (SEE MECH.) NRG – NEW RETURN AIR GRILLE (SEE MECH.)							
SPEC'S) FDS – FOLD DOWN SEA FD – NEW FLOOR DRA GB – 24" STRAIGHT GF	T (SEE SPEC'S) IN (SEE SPEC'S RAB BAR (SEE S	AND MECH.) SPEC'S)					
	HAMILT WENTW DISTRIC SCHOOL BOARD	ON- ORTH ⊤					
2. ISSUED FOR BUILDING PER	MIT	JAN. 31, 2025					
1. ISSUED FOR REVIEW No. REVISIONS		NOV. 05, 2024 DATE					
RICHARD G. ARCHITECT Architecture Interiors Urban Planning	BUTTERN	IN C.					
Ancaster	I	Ontario					
WESTDALE SECONDARY SCHOOL HAMILTON – WENTWORTH DISTRICT SCHOOL BOARD 700 MAIN STREET WEST HAMILTON, ONTARIO							
PARTIAL BASEMENT FLOOR PLAN – PROPOSED							
DRAWN BY:	CHECKED B	Y:					
DATE:	JOB No ·						
FEBRUARY 2025	24–107						
SCALE:	<u> </u>						
	SHEET No.:						



NOTE

EXISTING POURED

THIS DRAWING IS ONLY INCLUDED FOR THE LOCATION OF THE NEW FIXTURES FOR CORES AND STUB-UP FOR FUTURE WORK!

TOILET

EXISTING CUSTODIAL

PROP	OSED LEGEND
AP –	NEW ACCESS PANEL (SEE SPEC'S)
B/S -	BENCH (SEE SPECS) BENCH / SHELF WITH HOOKS (SEE SPEC'S)
BN -	BULLNOSE CORNER
BR –	NEW WASHFOUNTAIN TERREON MODEL MF2944
	FLOOR MOUNT (SEE MECH.)
	TO TOP (SEE SPEC'S AND ELEC.)
	EXISTING TERRAZZO FLOOR
EFG —	NEW EXHAUST FAN GRILLE (SEE MECH.)
HD –	FLECTRIC HAND DRYER (SEE FLEC)
M –	MIRROR (SEE SPEC'S)
FM —	FILL MIRROR (SEE SPEC'S)
ТМ —	TILT MIRROR (SEE SPEC'S)
TR –	
L –	LOCKER (30) AND QUANTITIES (SEE SPEC'S)
S –	NEW SINK / FAUCET (SEE MECH.)
SH –	SHOWER (SEE MECH.)
SL –	SLOPE TO DRAIN (SEE MECH.)
C –	CURTAIN AND ROD (SEE SPEC'S)
CH -	BREAK AWAY COAT / TOWER HOOKS (SEE SPEC'S)
CT –	NEW CERAMIC WALL TILE FULL HEIGHT (SEE SPEC'S)
WC -	NEW TOILET FLUSH VALVE (SEE MECH.)
NEG —	NEW EXHAUST GRILLE (SEE MECH.)
NWB -	NEW WALL MOUNTED WASTE BIN (SEE SPEC'S)
NSG -	NEW SUPPLY AIR GRILLE (SEE MECH.)
NVB -	NEW VENTED GYMNASIUM FLOOR BASE (SEE
FDS -	FOLD DOWN SFAT (SFF SPFC'S)
FD -	NEW FLOOR DRAIN (SEE SPEC'S AND MECH)
GB -	24" STRAICHT CRAR RAR (SEE SHEO'S AND MEON.)
	'L' SHADE CDAD DAD (SEE SDEC'S)
TRD -	L SHAFE GRAD DAR (SEE SFECS)
III	AND INSTALLED BY GENERAL CONTRACTOR
TP –	NEW TOILET PARTITION SOLID PHENOLIC IN SHOWERS / CHANGE ROOMS AND METAL IN WASHROOMS (SEE SPEC'S)
TD –	NEW TRENCH DRAIN (SEE MECH.)
SSH –	SHAMPOO SHELF (SEE SPEC'S)
NOS -	NEW OCCUPANCY SENSOR (SEE ELEC.)
NSD -	NEW SMOKE DETECTOR (SEE ELEC.)
SD –	SOAP DISPENSER SUPPLY BY OWNER AND INSTALLED BY GENERAL CONTRACTOR
SH -	STAINLESS STEEL SHELF (SEE SPEC'S)
SND -	SANITARY DISPOSAL SUPPLY BY OWNER AND INSTALLED BY GENERAL CONTRACTOR
SK –	NEW SPEAKER (SEE ELEC.)
NAP -	NEW LEILING ACCESS PANEL (SEE SPEC'S)
NIF -	NEW 2 IHIN SEI SEAMLESS IERRAZZO FLOOR ON DRY PACKED CEMENT BASE NEW CONVECTOR (SEE MECH)
LF-1 -	NEW 2'x4' FLAT PANEL LED LIGHT FIXTURE (SEE ELEC.)
LF-2 -	NEW 1'x4' FLAT PANEL LED LIGHT FIXTURE (SEE ELEC.)
LF-3 -	NEW 1'x2' FLAT PANEL LED LIGHT FIXTURE (SEE ELEC.)
MC —	METAL CORNER MOLDING FULL HEIGHT (SEE SPEC'S)
MS –	NEW MOP SINK (SEE MECH.)
LVT –	NEW LUXURY VINYL TILE (SEE SPEC'S)
WS(1)-	NEW WALL SIGN (SEE SPEC'S)
× −	NEW EXIT SIGN (SEE ELEC.) SHOWER HEAD / VALVE (SEE MECH.)
-	DENOTES: PATCH EXISTING WALLS FLUSH BOTH SIDES TO MATCH EXISTING WITH RECLAIMED MATERIALS
-	DENOTES: MAKE GOOD EXISTING SURFACES FLUSH TO MATCH EXISTING (TYP.)
	DENOTES: NEW CONCRETE BLOCK WALL TO U/S OF EXISTING FLOOR STRUCTURE ABOVE





PARTIAL BASEMENT REFELECTED CEILING PLAN – PROPOSED

A3.01 1/4"=1'-0"



PROJECT DRTH	AS AS ARCHI RICHARD G. E MILLICE 385	DSO PA FECTS Z NUTTERWORTH NCE				
"All drawings, specifications, related documents and design are the copyright property of the architect and must be returned upon request. Reproduction of the drawings, specifications, related documents and design in whole or in part is strictly forbidden without the architect's written permission." This drawing shall not be used for construction purposes unless countersigned by: Richard G. Butterworth, Architect						
PROPOSED LEGENELNEW EMERGENCI ELEC.)NEGNEW EXHAUST (C NSGNSGNEW SUPPLY AI NRGNRGNEW RETURN AI NOSNOSNEW OCCUPANC NSDNSDNEW SMOKE DE NHSNHSNEW HORN STRUCT ELEC.)LF-1NEW PUBLIC AD ELEC.)LF-2NEW 1'x4' LED LF-3LF-3NEW 1'x4' LED LF-5LF-4NEW 1'x4' LED CEILING PAINTEDNEW GYPSUM W WALLBOARD PAIN @ 1'-4" O.C.,MEHOCC APNEW ACCESS PA APNEW CEILING IN SEE MECH.)	ID Y LIGHT FIXTURI GRILLE (SEE MEI R GRILLE (SEE R GRILLE (SEE Y SENSOR (SEE TECTOR (SEE ELEC. DRESS SPEAKEF LIGHT FIXTURE LIGHT FIXTURE LIGHT FIXTURE LIGHT FIXTURE LIGHT FIXTURE LIGHT FIXTURE LIGHT FIXTURE O GYPSUM WALL ALLBOARD BULK STURE RESISTAN NTED ON 3 §" N 20 GAUGE ANEL (SEE MECH RADIATION P	E (SEE CH.) MECH.) MECH.) ELEC.) LEC.) EC.) (SEE ELEC.) (SEE ELEC.) (SEE ELEC.) (SEE ELEC.) (SEE ELEC.) (SEE ELEC.) BOARD (HEAD NT GYPSUM METAL STUDS H.)				
	HAMILTO WENTW DISTRIC SCHOOL BOARD	ON- ORTH ⊤				
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS	MIT	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE				
RICHARD G. ARCHITECT Architecture Interiors UrbanPlanning Ancaster	RICHARD G. BUTTERWORTH A R C H I T E C T I N C. Architecture Interiors UrbanPlanning					
WESTDALE SECONDARY SCHOOL HAMILTON – WENTWORTH DISTRICT SCHOOL BOARD 700 MAIN STREET WEST HAMILTON, ONTARIO						
PARTIAL BASEMENT REFLECTED CEILING PLAN – PROPOSED						
MS DATE: FEBRUARY 2025	RGB JOB No.: 24–107					
SCALE: 1/4"=1'-0"	SHEET NO.: A3.0)1				

										÷		
[DOOR									FRAM	1E	
No.	QUANTITY	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	GLASS	LABEL	TYPE	MATERIAL	FINISH
D1	1	3'-0"	7'-0"	1 <u>3</u> "	1	НМ	PAINTED	-	1 HR	А	HM	PAINTED
D2	1											
D3	1											
D4	1											
D5	1											
D6	1	\bigvee			\bigvee				\checkmark	\checkmark		
D7	1	3'-0"	6'-2 1/2"±		2			FIRE RATED	FIRE RATED	FIRE RATED		
D8	1	3'-0"±	7'-0"±		EXISTING			EXISTING	EXISTING	EXISTING		
D8a	2	3'-0"±	7'-0"±		EXISTING			EXISTING	EXISTING	EXISTING		
D8b	1	3'-0"±	7'-0"±		EXISTING			EXISTING	EXISTING	EXISTING		



								WALLS
No.	ROOM NAME	FLOOR FINIS	н	BASE	NO	RTH	EAST	SO
0003	GIRL'S CHANGE ROOM	SEAMLESS TERRAZ	ZO 6"PRE	CAST TERRAZZO	CONCRETE BLOC	k painted		
0003A	VESTIBULE							
0004H	WASHROOM							
0005	BOY'S CHANGE ROOM							
0004E	NEW GYMNASIUM OFFICE	LVL	6" RCB	}			EXISTING BRICK PAINTED	CONCRETE I
0004F	WASHROOM	SEAMLESS TERRAZ	ZO 6"PRE	CAST TERRAZZO				
0004G	WASHROOM	SEAMLESS TERRAZ	ZO 6"PRE	CAST TERRAZZO		V		
0007A	NEW STORAGE ROOM	LVL	6" RCB	}	CONCRETE BLOCK PAINTED		EXISTING BRICK PAINTED	EXISTING BR
0007B	EXISTING VESTIBULE	LVL	6"RCB	}	EXISTING BRICK	PAINTED	EXISTING BRICK PAINTED	EXISTING BE CONCRETE
0003B	TOILET STALL		6"PRE	CAST TERRAZZO	CONCRETE BLOC	k painted	_	CONCRETE
0003C	SHOWER		CERAMI	C TILE	CERAMIC TILE		CERAMIC TILE-	CERAMIC
0003D	SHOWER				-			
0004A	SHOWER				CERAMIC TILE			
0004B	SHOWER							
0004H	SHOWER							
0004J	SHOWER							
0005A	TOILET STALL		6"PRE	CAST TERRAZZO	CONCRETE BLOC	, K PAINTED	_	CONCRETE

NOTES AND LEGEND

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.

9. GENERAL CONTRACTOR TO SITE VERIFY ALL DIMENSIONS.

10. ALL WALLS TO HAVE 2-FINISHED COATS AND 1-COAT COLOUR BLOCK PRIMER. 11. ON EXISTING SURFACES USE SPECIAL PRIMER FOR EXISTING OIL BASED PAINT TO NEW

3. EXISTING BULKHEAD WALLS & CEILINGS, REMOVE ALL LOOSE FINISHES AND PATCH ALL HOLES, CRACKS, ETC. FLUSH TO MATCH WITH EXISTING BEFORE APPLYING NEW FINISHES.

4. REMOVE CLEAN AND REINSTALL ALL MECHANICAL GRILLS. PAINT ALL GRILLS, RADS, ETC. PREVIOUSLY PAINTED.

5. 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 IF REQUIRED.

6. PAINT ALL EXISTING OR NEW MECHANICAL AND ELECTRICAL ITEMS ON WALLS AND CEILINGS, BOXES, CONDUITS ETC. INCLUDING ALL PREVIOUSLY PAINTED ITEMS.

PAINTED SURFACES. 12. PAINT ALL EXPOSED PIPING, DUCTWORK AND GRILLES AT CEILINGS AND WALLS. 13. REMOVE AND REINSTALL ALL ITEMS SUCH AS FIRE EXTINGUISHERS, WIRE GUARD CAGES, NOTICE PLAQUES, SIGNS, WALL MATTS, ETC. ALL OTHER ITEMS TO BE FULLY MASKED OFF

BEFORE PAINTING. 14. ALL EXISTING WALL GRAPHICS, LETTERING OR LOGOS TO BE PAINTED OVER USE COLOUR BLOCKING PRIMER.

15. DO NOT PAINT ANY RED FIRE EXTINGUISHER CABINETS OR GRILLES.

		CEILING		
UTH	WEST	FINISH	HEIGHT	REMARKS
		> gypsum wallboard painted	9'-0"	
		>	8'-0"	
		>	9'-0"	
		> /	9'-0"	
BLOCK PAINTED	EXISTING BRICK PAINTED	SUSPENDED ACOUSTIC TILE AND GRID	8'-0"	
		⇒ gypsum wallboard painted	8'-0"	
		→ GYPSUM WALLBOARD PAINTED	8'-0"	
RICK PAINTED	EXISTING BRICK PAINTED	EXISTING CONCRETE PAINTED / GYPSUM WALLBOARD PAINTED	7'-4"±	
RICK PAINTED / BLOCK PAINTED	EXISTING BRICK PAINTED	EXISTING CONCRETE PAINTED	EXISTING	
BLOCK PAINTED	CONCRETE BLOCK PAINTED		9'-0"	
TILE	-			
	CERAMIC TILE			
	-		8'-0"	
	CERAMIC TILE		8'-0"	
BLOCK PAINTED	CONCRETE BLOCK PAINTED		9'-0"	

7. SCAN ALL FLOORS FOR UNDERGROUND SERVICES BEFORE CORING OR CUTTING. 8. PATCH ALL HOLES IN WALLS AND PLASTER CEILINGS FLUSH TO MATCH EXISTING.

16. USE MOISTURE RESISTANT GYPSUM WALLBOARD IN SHOWERS. 17. USE ABUSE RESISTANT GYPSUM WALLBOARD IN ALL OTHER AREAS.

A4.02

3/4"=1'-0"

(1) ELEV. A4.04 1/2"=1

1/2"=1'-0"

1 ELE VA III A4.06 1/2"=1'-0"

^		
PROJECT	AS AS ARCHI RICHARD G. E LICE 385	DSO F TECTS Z BUTTERWORTH NCE 59
"All drawings, specifications, relate copyright property of the archite request. Reproduction of the documents and design in whole without the architect's written p This drawing shall not be used countersigned by:	ed documents and ect and must be drawings, specifico or in part is stri ermission." for construction pu	design are the returned upon utions, related ctly forbidden urposes unless
Richard G. Butterworth, Architect		
		ON-
	VENIV	
	SCHOOL	-
	SCHOOL BOARD	-
	SCHOOL BOARD	-
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025
J. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERN 1. ISSUED FOR REVIEW No. REVISIONS	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS REVISIONS	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH INC.
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PERM 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors Urbon Planning Ancaster	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH INC. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC	BUTTERN SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON – WEN DISTRICT SCHOOL		FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON – WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON ONTARIO	SCHOOL SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON – WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON, ONTARIO	SCHOOL SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON – WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON, ONTARIO	SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
3. ISSUED FOR TENDER 2. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON – WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON, ONTARIO DETAILS		FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
J ISSUED FOR TENDER 3. ISSUED FOR BUILDING PER 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbanPlanning Ancaster WESTDALE SEC SCHOOL HAMILTON - WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON, ONTARIO DETAILS DRAWN BY: MS DATE:	SCHOOL SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
J ISSUED FOR TENDER 3. ISSUED FOR BUILDING PERI 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture G. Architecture G. Architecture G. Architecture G. Architecture G. Ancaster G. WESTDALE SEC DISTRICT SCHOOL 700 MAIN DISTRICT SCHOOL 700 MAIN STRICT SCHOOL 700 MAIN DETAILS DETAILS DRAWN BY: MS DATE: FEBRUARY 2025	SCHOOL SCHOOL BOARD	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario
J ISSUED FOR TENDER 3. ISSUED FOR BUILDING PERI 1. ISSUED FOR REVIEW No. REVISIONS RICHARD G. A R C H I T E C T Architecture Interiors UrbonPlanning Ancaster WESTDALE SEC MESTDALE SEC SCHOOL 700 MAIN STREET WE HAMILTON - WEN DISTRICT SCHOOL 700 MAIN STREET WE HAMILTON, ONTARIO DETAILS DRAWN BY: MS DATE: FEBRUARY 2025 SCALE:	SCHOOL SCHOOL BOARD BUTTERM BUTTERM ST CONDARY CONDARY ST CHECKED BY RGB JOB No.: 24–107 SHEET No.: A A C	FEB. 28, 2025 JAN. 31, 2025 NOV. 05, 2024 DATE ORTH I N C. Ontario

GENERAL NOTES:

- I. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2024 EDITION, ALL APPLICABLE REGULATIONS, REFERENCE STANDARDS, AND GOOD CONSTRUCTION PRACTICE.
- 2. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
- 3. DO NOT SCALE THE DRAWINGS.
- 4. LOCATIONS OF ALL STRUCTURAL ELEMENTS TO BE SITE VERIFIED BY THE CONTRACTOR. REPORT ANY INCONSISTENCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK
- 5. DESIGN BASED ON ARCHITECTURAL DRAWINGS PREPARED BY RICHARD G. BUTTERWORTH ARCHITECT INC. STRUCTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. REPORT ANY INCONSISTENCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 6. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT (SHORING) OF ANY STRUCTURE SUPPORTED ON WALLS TO BE REMOVED. ALL TEMPORARY BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL ENSURE THAT THE EXISTING STRUCTURE IS NOT OVERLOADED IN ANY WAY DURING CONSTRUCTION OR DEMOLITION WORK. CONSTRUCTION LOADING SHALL NOT EXCEED DESIGN LOADING.
- 8. THE CONTRACTOR SHALL KEEP THE SITE CLEAN AND FREE OF ALL DEBRIS DURING AND AFTER COMPLETION OF THE WORK.
- 9. THE STEEL FABRICATOR SHALL BE CERTIFIED TO CSA W47.1 DIV.1 OR 2.
- 10. ALL STRUCTURAL STEEL SHALL BE CLEANED OF ALL LOOSE MILL SCALE, LOOSE RUST, WELD SLAG AND FLUX DEPOSITS, OIL, GREASE, DIRT, OTHER FOREIGN MATTER, AND EXCESSIVE WELD SPLATTER PRIOR TO APPLICATION OF THE COATING. STRUCTURAL STEEL TO BE SHOP PRIMED WITH ONE COAT IN CONFORMANCE WITH CISC/CPMA STANDARD 1-73a.
- II. MASONRY SHALL CONFORM TO CAN/CSA S304.1 "DESIGN OF MASONRY STRUCTURES" AND CAN/CSA A37 I "MASONRY CONSTRUCTION FOR BUILDINGS".
- I 2. PROVIDE STANDARD LINTELS OVER ALL OPENINGS IN MASONRY WALL PARTITIONS AS SHOWN ON TYPICAL DETAILS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS THROUGH NEW OR EXISTING WALLS THAT ARE NOT NECESSARILY CALLED OUT ON THE STRUCTURAL DRAWINGS.
- 13. UNLESS NOTED OTHERWISE, MASONRY WALLS SHALL BE INTERLOCKED IN RUNNING BOND AT INTERSECTIONS AND CORNERS.

GENERAL DESIGN AND MATERIAL DATA:

	STRUCTURAL STEEL SHALL E SECTIONS 350W. HSS SEC ALL OTHER STEEL 300W.	BE IN ACCORDANCE TIONS ARE ASTM AS	VITH CAN/CSA DO GRADE C (G40.21M. WIDE FLAN fy=345MPa).	IGE
	ANCHOR RODS IN ACCORD	ANCE WITH ASTM FI	554 GRADE 3	6 (fy=248Mpa).	
-	ALL STEEL CONNECTIONS S IN ACCORDANCE WITH CSA	HALL BE WELDED UN W59. ELECTRODE C	ESS NOTED C ASSIFICATION	THERWISE. ALL WELDIN E43XX.	NG
	ALL CONCRETE WORK SHAL CSA A23.1 AND CSA A23.3	L BE IN ACCORDANC 3.	WITH LATEST	EDITIONS OF STANDA	ARDS
•.	MINIMUM CONCRETE SPECI	FIED COMPRESSIVE	TRENGTH f'c	= 25MPa.	
	STRUCTURAL MASONRY: - HOLLOW BLOCK: - SOLID BLOCK:	CSA A165.1 - H/I CSA A165.1 - S/I	i/x/x i/x/x		
	- GROUT:	CSA A I 79 - COL - FINE	RSE GROUT F GROUT FOR A	OR WALLS 6" AND THIC ALL 4" BLOCK WALLS	CKER
	- MORTAR	CSA A 179 TYPE	S' MORTAR		
	- MASONRY COMPRESSIVE HOL GRC	STRENGTH I'm, IS AS LOW BLOCK DUTED HOLLOW BLOC	FOLLOWS: - 9.8 MF < - 7.5 MF	a a	
	- FLEXURAL TENSILE BOND S CON GRC	GTRENGTH AT MORTA ICRETE BLOCK DUTED HOLLOW BLOC	R JOINTS IS A - 0.45 M < - 0.70 M	S FOLLOWS: IPa IPa	
	REINFORCING STEEL SHALL 400R/400W.	BE IN ACCORDANCE	WITH CAN/CSA	G30.18M GRADE	

- 6.

SHOP DRAWINGS REVIEW

REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS ONLY. ANY COMMENTS MADE ON THE SUBMITTED SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS NOR DO THEY AUTHORIZE CHANGES TO THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL QUANTITIES. FIELD MEASUREMENTS, DETAIL DIMENSIONS, COORDINATION WITH ALL TRADES, FABRICATION PROCESSES AND PROCEDURES, METHODS, MEANS, AND SEQUENCE OF CONSTRUCTION, AND THE PERFORMANCE OF ALL WORK IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE IN A SAFE MANNER. THE REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE TO NOR DIMINISH THE RESPONSIBILITIES OF OTHER CONSULTANT'S IN THE CARRYING OUT OF THEIR WORK.

DRAWING ABBREVIATIONS:

Af ALT. ARCH.	FACTORED AXIAL LOAD IN KN.POSITIVE VALUES INDICATE TENSION FORCE AND NEGATIVE VALUES INDICATE COMPRESSION FORCE] ALTERNATE ARCHITECTURAL	ldc Idt Id LG LL LLH LLV	COMPRESSION DEVELOP TENSION DEVELOPMENT DEVELOPMENT LENGTH STEEL ANGLE LONG LIVE LOAD LONG LEG HORIZONTAL LONG LEG VERTICAL
BOTT. BEW BM. BP	BOTTOM BOTTOM EACH WAY BEAM BASEPLATE	MAX. Mf MIN.	MAXIMUM FACTORED MOMENT IN k MINIMUM
CANT		NTS	NOT TO SCALE
CANT. c/c CL. COL.	CENTRE-TO-CENTRE CLEAR COLUMN	OBC o/c OPNG	ONTARIO BUILDING COD ON CENTRE OPENING
CONT.	CONTINUOUS	Pf PL.	FACTORED POINT LOAD I PLATE
DIA. DIM. DL DN	DIAMETER DIMENSION DEAL LOAD DOWN	REINF. REM.	REINFORCEMENT REMOVE
DO DP DWG	DITTO DEEP DRAWING	SC SDF SDL	SLIP CRITICAL STEP DOWN FOOTING SUPERIMPOSED DEAD LC
EA EF EL. EMBED. EQ. EX.	EACH EACH FACE ELEVATION EMBEDMENT EQUAL EXISTING	SIM. SLS SOG SPF STIR. STIFF.	SIMILAR SERVICEABILITY LIMIT ST SLAB ON GRADE SPRUCE PINE FIR STIRRUP STIFFENER
FIN. FL. FTG	FINISHED FLOOR FOOTING	t TEW TJ	THICKNESS TOP EACH WAY TIE JOIST
f'c fy	CONCRETE COMPRESSIVE STRENGTH TENSILE YIELD STRENGTH	TOF TYP.	TOP OF FOOTING TYPICAL
GALV. GL	GALVANIZED GRIDLINE	ULS U/S U/N	ULTIMATE LIMIT STATE UNDERSIDE UNLESS NOTED
h HOR. HDG HEF HSS	HEIGHT HORIZONTAL HOT DIPPPED GALVANIZED HORIZONTAL EACH FACE HOLLOW STRUCTURAL SECTION	VB VEF VERT. VxB Vf	VERTICAL BRACE VERTICAL EACH FACE VERTICAL VERTICAL X BRACE FACTORED SHEAR IN KN

COMPRESSION DEVELOPMENT LENGTH TENSION DEVELOPMENT LENGTH DEVELOPMENT LENGTH STEEL ANGLE LONG LIVE LOAD LONG LEG HORIZONTAL LONG LEG VERTICAL
MAXIMUM FACTORED MOMENT IN kN-m MINIMUM
NOT TO SCALE
ONTARIO BUILDING CODE ON CENTRE OPENING
FACTORED POINT LOAD IN KN PLATE
REINFORCEMENT REMOVE
SLIP CRITICAL STEP DOWN FOOTING SUPERIMPOSED DEAD LOAD SIMILAR SERVICEABILITY LIMIT STATE SLAB ON GRADE SPRUCE PINE FIR STIRRUP STIFFENER
THICKNESS TOP EACH WAY TIE JOIST
TOP OF FOOTING TYPICAL
ULTIMATE LIMIT STATE UNDERSIDE UNLESS NOTED
VERTICAL BRACE VERTICAL EACH FACE VERTICAL

CODES AND STANDARDS

1. THE ELECTRICAL AND FIRE ALARM WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE ELECTRICAL SAFETY AUTHORITY, CANADIAN ELECTRICAL CODE, ONTARIO BUILDING CODE, CSA STANDARDS, ULC, NFPA, AND OTHER APPLICABLE CODES AS REQUIRED. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (OHSA).

CONTRACT DOCUMENTS

- 1. THE DRAWINGS ARE DIAGRAMMATIC PERFORMANCE DRAWINGS ONLY, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE LOCATION OF ELECTRICAL EQUIPMENT, SENSORS, SWITCHES, DEVICES AND FIXTURES. THE DRAWINGS DO NOT INTEND TO SHOW ARCHITECTURAL, INTERIOR DESIGN, MECHANICAL, STRUCTURAL OR BASE BUILDING DETAILS. BE RESPONSIBLE FOR A THOROUGH KNOWLEDGE OF SAME BEFORE PROCEEDING WITH THE WORK.
- 2. COOPERATE AND COORDINATE WITH OTHER TRADES IN LAYING OUT OF WORK SO AS NOT TO CONFLICT WITH THE WORK OF OTHER TRADES. CARRY OUT WORK PROMPTLY AS PER CONSTRUCTION SCHEDULE AND COORDINATE WITH WORK OF OTHER TRADES.
- 3. MAKE, AT NO ADDITIONAL COST, ANY CHANGES OR ADDITIONS TO MATERIALS AND EQUIPMENT NECESSARY TO ACCOMMODATE STRUCTURAL CONDITIONS (OFFSETS AROUND BEAMS, COLUMN, ETC.)

MATERIALS AND EQUIPMENT

1. ALL SUPPLIED EQUIPMENT AND MATERIALS SHALL BE NEW, UNUSED, AND FREE FROM DEFECTS, CONFORMING TO ALL REQUIRED QUALITY APPROVALS. THIS INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, CERTIFICATIONS FROM CSA, ULC, AND COMPLIANCE WITH ALL APPLICABLE STANDARDS AND REGULATIONS. ANY ALTERNATE EQUIPMENT OR MATERIALS PROPOSED MUST ALSO MEET THE SAME STANDARDS AND CERTIFICATIONS.

LOCATION OF OUTLETS

1. REFER TO ARCHITECTURAL ELEVATIONS AND PLANS FOR THE EXACT LOCATIONS OF LIGHTING, MILLWORK, FURNITURE, ETC. REVISE THE LOCATION OF OUTLETS TO SUIT THE ARCHITECTURAL PLANS AND EXISTING CONDITIONS. THE MINIMUM ELEVATION OF RECEPTACLES FROM THE FINISHED FLOOR SHALL BE 16 INCHES, UNLESS INSTALLED OVER COUNTERTOPS OR OTHERWISE NOTED.

WORK IN RENOVATED AREAS

- 1. WHEN DELETING AND/OR MAKING SAFE EXISTING ELECTRICAL WORK, ENSURE THAT IT INCLUDES REMOVAL OF ALL DISCONNECTED WIRING BACK TO THE ASSOCIATED PANELBOARD.
- 2. DISCONNECT AND REMOVE ALL EXISTING LUMINAIRES, DEVICES, OUTLETS, AND RELATED COMPONENTS THAT ARE NOT DESIGNATED FOR REUSE. REMOVED ITEMS SHALL BE DISPOSED OF OFF-SITE IN A SAFE AND ENVIRONMENTALLY APPROVED METHOD. CUT BACK AND CAP UNUSED RACEWAY THAT ARE CONCEALED AND CANNOT BE REMOVED AND REMOVE UNUSED WIRING BACK TO PANELBOARD. REMOVE ALL REDUNDANT COMMUNICATIONS CABLES WHERE FOUND.
- 3. ENSURE THAT ALL EXISTING EQUIPMENT WHICH IS TO BE REUSED AND/OR RELOCATED IS THOROUGHLY INSPECTED AND REFURBISHED TO ENSURE CORRECT OPERATION WHEN PUT BACK INTO SERVICE AND TO MEET ELECTRICAL SAFETY AUTHORITY AND CANADIAN ELECTRICAL CODE (CEC).
- 4. ALL EXISTING ELECTRICAL EQUIPMENT WHICH IS NO LONGER REQUIRED SHALL BE REMOVED AND DISPOSED OF, OFF SITE.
- 5. WHERE EXISTING OUTLET BOXES OR CONDUITS CANNOT BE REMOVED FROM THE FLOOR, PLUG AND CAP EXISTING HOLES FLUSH WITH FLOOR USING APPROVED FITTINGS.
- 6. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BASE BUILDING INCURRED BY WORK OF THIS DIVISION, OR REPAIR TO THE SATISFACTION OF THE CONSULTANT.
- 7. CARRY OUT THE WORK WITH A MINIMUM OF NOISE, DUST AND DISTURBANCE.
- 8. PROVIDE ALL REQUIRED TOOLS TO COMPLETE THE WORK. OBTAIN PERMISSION FOR THE USE OF EXISTING ELECTRICAL OUTLETS, ELEVATOR, WASHROOMS OR EXISTING SYSTEMS.
- 9. PERFORM DAILY CLEANUP AND DISPOSE OF DEBRIS PROPERLY. UPON COMPLETION, REMOVE ALL TOOLS, SURPLUS, AND WASTE MATERIALS, LEAVING THE PREMISES CLEAN.

WIRING FOR OTHER TRADES

- 1. ALL STARTERS AND LOW VOLTAGE CONTROL WIRING WILL BE SUPPLIED BY OTHER TRADES. THIS ELECTRICAL DIVISION SHALL RECEIVE, INSTALL AND WIRE ALL STARTERS. REVIEW SHOP DRAWINGS BEFORE COMMENCING WORK AND VERIFY POWER, VOLTAGE AND BREAKERS REQUIREMENTS.
- 2. SUPPLY, INSTALL AND WIRE ALL REQUIRED DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT. CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND DEVICES WITH OTHER DIVISIONS PRIOR TO INSTALLATION. COORDINATE WITH MECHANICAL AND ARCHITECTURAL DRAWINGS, AS REQUIRED.

FIRE SEAL

- 1. MAINTAIN THE INTEGRITY OF ALL FIRE SEPARATIONS. PROVIDE ALL NECESSARY CSA AND ULC LISTED PRODUCTS WHICH ARE REQUIRED TO GO AROUND AND IN CABLE TROUGH FIRE RATED ASSEMBLIES, TO RETAIN THE FIRE RATING OF THESE ASSEMBLIES.
- 2. WHERE CABLES OR CONDUITS PASS THROUGH FLOORS AND FIRE RATED WALLS, PACK 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, CONDUITS AND AROUND THE CONDUITS 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.

EMERGENCY LIGHTING AND TESTING NOTE

1. ELECTRICAL CONTRACTOR SHALL PROVIDE DEDICATED CIRCUIT BREAKERS IN POWER PANELS FOR THE EMERGENCY LIGHTS AND EXIT SIGNS. TEST ALL EMERGENCY LIGHTS AND PROVIDE A SIGNED LETTER CERTIFYING THAT 10 LUX IS MAINTAINED AND ALL EMERGENCY LAMPS WERE ON 100% FOR A DURATION OF 30 MINUTES TIMED AFTER EACH CIRCUIT BREAKER IS TURNED OFF.

ALTERATIONS AND RELOCATIONS

- 1. THE ARCHITECT AND/OR ENGINEER RESERVES THE RIGHT TO ALTER THE LOCATION OF ANY EQUIPMENT, DEVICES, CONDUITS, OR WIRING 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. ANY REQUEST FOR ALTERATION OR RELOCATION WILL BE COMMUNICATED IN WRITING TO THE CONSTRUCTION TEAM SUPERVISOR.
- 2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES TO AVOID ANY INTERFERENCES. CONFLICTS OR DISRUPTIONS IN THE CONSTRUCTION SCHEDULE.

COMPLETION OF CONTRACT

- THE DEFICIENCY LIST.

- OWNER.

AS-BUILT DRAWINGS

GENERAL ELECTRICAL SPECIFICATIONS

- 1. OBTAIN AND PAY FOR PERMIT REQUIRED BY ESA AND LOCAL AUTHORITIES FOR THIS WORK. SUBMIT FINAL INSPECTION CERTIFICATES.
- 2. CARRY OUT ALL WORK IN ACCORDANCE WITH OEC (ONTARIO ELECTRICAL CODE) REGULATIONS AND ESA INSPECTION REQUIREMENTS.
- 3. ALL EQUIPMENTS SHALL BE NEW AND CSA APPROVED UNLESS OTHERWISE NOTES. 4. SUBMIT SHOP DRAWINGS FOR LIGHTING FIXTURES, EXIT LIGHTS, EMERGENCY LIGHTS,
- WORK
- AS DIRECTED BY OWNER.
- 7. ON COMPLETION OF PROJECT AND BEFORE FINAL PAYMENT, SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS WITH ALL CHANGES AND BURIED SERVICES EXACT LOCATIONS AND THEREON.
- 8. PROVIDE LAMACOID LABELS (3-PLY) WHITE LETTERED ON BLACK BACKGROUND 1/4" HIGH LETTERING ON ELECTRICAL EQUIPMENTS SUPPLIED, MOUNTED AND/OR CONNECTED BY THIS CONTRACT. PROVIDE STICKER AT EACH RECEPTACLE INDICATING POWER PANEL NAME AND CIRCUIT BREAKER NUMBER.
- COMPLETION OF CONTRACT.
- 10. CONFER WITH ALL TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHER APPARATUS, DUCTS, PIPES, ETC. AND WITH BUILDING CONSTRUCTION AND ARCHITECTURAL FINISHES.
- 11. GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER/CONSULTANT. PROVIDE WRITTEN GUARANTEE.
- 12. BOXES FOR OUTDOOR USE SHALL BE GALVANIZED CAST FERALLOY AND EQUIPPED WITH NEOPRENE GASKET.
- 13. WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS OTHERWISE APPROVED.

SPECIFICATIONS AND ON ASSOCIATED DRAWINGS.

- B) "EXPOSED" ALL ELECTRICAL WORK VISIBLE TO BUILDING OCCUPANTS. C) "PROVIDE" - (AND ALL TENSES OF PROVIDE) SUPPLY, INSTALL, WIRE AND CONNECT
- COMPLETE.
- D) "INSTALL" (AND ALL TENSES OF INSTALL) INSTALL WIRE AND CONNECT COMPLETE, PRODUCTS AND SERVICES SPECIFIED.
- E) "SUPPLY" SUPPLY ONLY.
- F) "OR APPROVED EQUAL" MATERIAL OR EQUIPMENT PROPOSED BY CONTRACTOR, IN LIEU OF THAT SPECIFIED, AS APPROVED BY CONSULTANT.
- G) "AS INDICATED" AS SHOWN ON DRAWINGS AND/OR NOTED IN SPECIFICATIONS.
- 15. ALL WIRING SHALL BE COLOUR CODED AS PER OHESC AND BE IDENTIFIED WITH BRADY OR EQUIVALENT SELF STICKING PERMACODE WIRE MARKERS. ALL JUNCTION BOXES IN CONCEALED CEILING SPACES SHALL BE LABELED WITH PEN MARKER TO CIRCUITS
- CONTAINED THEREIN.
- MENTIONED.
- 18. DISCONNECT SWITCHES: FUSED AND NON-FUSED, HEAVY DUTY, QUICK-MAKE. QUICK-BREAK MECHANISM. LOAD BREAK TYPE WITH DOOR. HANDLE AND SWITCHING MECHANISM INTERLOCK, ARC EXTINGUISHERS, SILVER PLATED WIPE ACTION CONTACTS, AND SPRING REINFORCED FUSE CLIPS, OF SIZES INDICATED, CSA APPROVED AND CERTIFIED. PROVIDE DISCONNECT SWITCHES AHEAD OF EACH PIECE OF EQUIPMENT WHERE NECESSARY TO MEET CODE REQUIREMENTS.
- 19. POWER PANELS SHALL BE NDP, CDP OR QMB, QMQB TYPE WITH BOLT-ON BREAKERS OR FUSES, BREAKERS: MINIMUM 22,000-AIC SYMMETRICAL @ 240V.

PUBLIC ADDRESS SYSTEM

- 1. WORK ON EXISTING PUBLIC ADDRESS SYSTEM SHALL BE DONE BY HAMILTON VIDEO & SOUND LTD.
- 2. PROVIDE PUBLIC ADDRESS SPEAKER UNITS RECESSED AT CEILING WHERE SHOWN. COORDINATE WITH REFLECTED CEILING PLAN. EACH SPEAKER SHALL BE 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 EXITING PUBLIC ANNUNCIATION SYSTEM.
- IN EMT CONDUITS.

1. ALL EQUIPMENT MUST BE CLEANED AND TESTED BEFORE FINAL ACCEPTANCE BY THE ENGINEER OR ARCHITECT. PRIOR TO CONTACTING THE CONSULTANT FOR FINAL INSPECTION, THE CONTRACTOR MUST CORRECT ALL DEFICIENCIES AS SPECIFIED ON

2. AFTER COMPLETION OF WORK PROVIDE A COPY OF ESA INSPECTION CERTIFICATE. FIRE ALARM VERIFICATION CERTIFICATE (AS PER STANDARD ULC 537) MUST BE PROVIDED WHEN THE FIRE ALARM SYSTEM WAS MODIFIED UNDER THE CONTRACT.

3. PROVIDE A WRITTEN GUARRANTY FOR ONE YEAR COVERING ALL EQUIPMENT, MATERIALS AND WORKMANSHIP FROM THE DATE OF ACCEPTANCE OF THE INSTALLATION BY THE ARCHITECT OR ENGINEER.

4. ANY DEFECTS OR DEFICIENCIES WHICH ORIGINATE OR BECOME EVIDENT DURING THE WARRANTY PERIOD MUST BE REPAIRED OR CORRECTED AT NO EXTRA COST TO THE

5. IF, DURING THE WARRANTY PERIOD, TRANSFORMERS, DEVICES, BALLASTS OR OTHER NOISE AND VIBRATION PRODUCING EQUIPMENT ARE CONSIDERED BY THE CONSULTANT TO EXCEED ACCEPTABLE STANDARDS, THEN THESE MUST BE REPLACED WITHOUT DELAY OR ADDITIONAL COST TO THE OWNER. ALL WORK RELATING TO THE REPLACEMENT OF DEFECTIVE ITEMS. MUST BE CARRIED OUT AFTER NORMAL WORKING HOURS AND AT A TIME WHICH IS ACCEPTABLE TO THE OWNER.

1. REFER TO THE FRONT END SPECIFICATIONS FOR THIS PROJECT FOR DETAILS ABOUT AS-BUILT DRAWINGS PREPARATION AND SUBMITTAL. PREPARE AND SUBMIT AS-BUILT DRAWINGS AS NOTED AND SPECIFIED.

- AND BATTERY UNITS AND NEW PANELS TO CONSULTANT FOR REVIEW. 5. REFER TO ARCHITECTURAL SPECIFICATIONS AND DRAWINGS WHICH ARE PART OF THIS
- 6. MATERIAL DEMOLISHED AND REMOVED AND NOT REUSED, SHALL BECOME OWNERS PROPERTY AND SHALL BE REMOVED FROM THE SITE PRIOR TO COMPLETION OF WORK
- 9. THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENTS DURING CONSTRUCTION AND
- 14. DEFINITIONS: THE FOLLOWING ARE DEFINITIONS OF WORDS FOUND IN THIS
- A) "CONCEALED" HIDDEN FROM NORMAL SIGHT IN FURRED SPACES, SHAFTS, CEILING SPACES, WALLS, UNDER FLOOR AND PARTITIONS.
- 16. SUPPLY, INSTALL WIRE AND CONNECT ALL EQUIPMENT SHOWN SPECIFIED OR
- 17. WIRE AND CONNECT MOTORS SUPPLIED BY OTHERS, AS INDICATED.

3. PROVIDE ALL REQUIRED WIRES, JUNCTION BOXES, DEVICES AND ACCESSORIES TO COMPLETE SYSTEM INSTALLATION. CONNECT TO EXISTING SYSTEM. ALL WIRES SHALL BE

- 21. BOXES FOR INDOOR USE: CODE GAUGE ELECTRO GALVANIZED STEEL FOR CONCEAL MOUNTING AND GALVANIZED CAST FERALOY OR CAST BRUSHED ALUMINUM FOR EXPOSED USE, UNLESS OTHERWISE NO=TED.
- 22. FIXTURE BOXES: ELECTRO GALVANIZED STEEL. 100mm (4") OCTAGON COMPLETE WITH 10mm (3/8") FIXTURE STUD WHERE NECESSARY.
- 23. WHERE OUTLET BOXES ARE INSTALLED IN EXTERIOR WALLS AND / OR INSULATED CEILING HAVING ASSOCIATED VAPOUR BARRIERS ON THE WARM SIDE OF THE INSULATION AND WHERE OUTLET BOXES PERFORATE THE VAPOUR BARRIER. PROVIDE ELECTRICAL BOX VAPOUR BARRIERS BEHIND AND AROUND OUTLET BOXES.
- 24. SWITCHES AND RECEPTACLE BOXES SHALL BE 1104 TYPE FOR RECESSED MOUNTING. 25. ALL CONDUCTORS: COPPER WITH OR R-90 INSULATION, MINIMUM #12AWG, UNLESS
- OTHERWISE NOTED. 26. EMT SHALL BE USED FOR WIRING AND CONCEALED WHEREVER POSSIBLE. EMT COUPLINGS AND CONNECTORS SHALL BE STEEL SETSCREW CONCRETE TIGHT OR STEEL
- COMPRESSION RAIN TIGHT. 27. ALL SWITCHES RECEPTACLES AND COMMUNICATION OUTLETS SHALL BE WHITE. TO BE LEVITON COMMERCIAL GRADE DECORA SERIES.
- 28. ALL COVER PLATES SHALL BE BRUSHED STAINLESS STEEL.
- 29. USB RECEPTACLE: NEW 14A, 125V COMMERCIAL DECORA TAMPER RESISTANT COMBINATION USB CHARGER / DUPLEX RECEPTACLE UNDER STAINLESS STEEL COVER PLATE, LEVITON T5632-W OR APPROVED EQUAL.
- 30. SWITCH: NEW 15A, 125V COMMERCIAL DECORA SERIES SWITCH UNDER STAINLESS STEEL COVER PLATE, DIMMER SWITCH TO BE "MAESTRO" LED, MULTI LOCATION DIGITAL FADE DIMMER BY LUTRON. CONSULT WITH MANUFACTURERS FOR COMPATIBILITY WITH ACTUAL LIGHT FIXTURE SELECTION PRIOR TO ORDERING
- 31. RECEPTACLES: WHITE FINISH WITH STAINLESS STEEL COVER PLATES. RECEPTACLES: LEVITON COMMERCIAL GRADE DECORA SERIES.
- 32. MOUNT DEVICES AT HEIGHTS SHOWN ON DRAWINGS. COMPLY WITH OBC, BARRIER FREE DESIGN.
- 33. PROVIDE, RELOCATE, INSTALL, WIRE AND CONNECT EMERGENCY LIGHTING AND EXIT LIGHTING SHOWN. PROVIDE NEW LAMPS FOR ALL RELOCATED EMERGENCY AND EXIT LIGHTS.
- 34. IF ASBESTOS MATERIAL IS ENCOUNTERED, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND NOTIFY THE CONSULTANT AND PROJECT MANAGER.
- 35. ALL PANEL BOARDS TO HAVE LOCKING HINGED DOOR C/W TYPED PLASTIC DIRECTORY AND NOTIFY THE CONSULTANT.
- 36. FOR RENOVATIONS: PROVIDE ALL CUTTING AND PATCHING REQUIRED TO CARRY OUT WORK UNDER THIS CONTRACT
- 37. MINIMUM WIRE SIZE SHALL BE #14 AWG..

GROUNDING

1. GROUND ALL EQUIPMENT IN ACCORDANCE WITH LATEST EDITION OF THE ELECTRICAL SAFETY CODE. PROVIDE SEPARATE GREEN INSULATED GROUND CONDUCTOR IN EVERY CONDUIT TO ALL DEVICES, LUMINAIRES AND FEEDERS (PANELBOARDS, SPLITTERS, DISCONNECT SWITCHES, ETC.).

OCCUPANCY SENSORS

- 1. THIS SECTION APPLIES WHEN OCCUPANCY SENSORS ARE SHOWN AND/OR NOTED ON THE FLOOR PLAN(S).
- 2. CEILING SENSORS TO BE WATTSTOPPER DT-355 SERIES OR BY HUBBELL OR LEVITON. THE SENSORS SHALL CARRY A FIVE (5) YEAR WARRANTY
- 3. SENSORS SHALL SENSE A PERSON OF AVERAGE SIZE MOVING DISTANCE OF 2" (50mm) AND RETAIN LIGHTS IN "ON" STATE.
- 4. SENSORS SHALL HAVE AN INTEGRAL BYPASS SHUNT SWITCH FOR SERVICE OR MANUAL OPERATION.
- 5. MULTIPLE SENSORS SHALL BE WIRED IN PARALLEL TO OBTAIN COVERAGE NOTED ON DRAWINGS.
- 6. THE DELAY TO "OFF" SHALL BE ADJUSTED FROM 5 TO 30 MINUTES AND THE SENSOR SHALL BE COMPLETE WITH WALK THROUGH AND TEST MODE.
- 7. SENSORS SHALL INTERFACE WITH POWER / RELAY PACKS AS REQUIRED BY THE SAME MANUFACTURER TO CONTROL THE LOADS NOTED ON THE DRAWINGS.

WORKING HOURS AND SYSTEMS OPERATING NOTES

- 1. ALL EXISTING MECHANICAL SYSTEMS SERVING THE RENOVATION AREA AND EXISTING BUILDING SHALL REMAIN FULLY OPERATIONAL DURING CONSTRUCTION. ALL NEW AND EXISTING SYSTEMS SHALL BE TESTED AND COMMISSIONED.
- 2. REVIEW EXISTING CONDITIONS BEFORE COMMENCING WORK AND COORDINATE WITH OTHER TRADES FOR POWER WIRING REQUIREMENTS. PROVIDE ALL REQUIRED TEMPORARY CONNECTIONS AS NEEDED TO MAINTAIN SYSTEMS OPERATIONAL.
- 3. COVER DURING CONSTRUCTION EXISTING ELECTRICAL EQUIPMENT AND LIGHT FIXTURES THAT WILL BE AFFECTED BY THE CONSTRUCTION ACTIVITIES AND SUBJECT TO DUST.
- 4. REFER TO INSTRUCTIONS PROVIDED BY THE BOARD REGARDING THE FIRE ALARM SYSTEM AND BY-PASS INSTRUCTIONS.
- 5. 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:

 BUILDING POWER SHUT DOWN - DRILLING AND ANY NOISY/VIBRATION WORK IN EXCESS OF 60db

VERIFICATION OF EXISTING CONDITIONS

- 1. CONTRACTOR SHALL REVIEW EXISTING SITE CONDITIONS AFFECTING THE PROPOSED WORK AND COORDINATE WITH ALL TRADES BEFORE COMMENCING WORK. PREPARE INTERFERENCE SKETCHES IF NEEDED AND SUBMIT FOR REVIEW.
- 2. REFER TO RECORD DRAWINGS, ARCHITECTURAL DRAWINGS, SPECIFICATIONS AND OWNER'S STANDARDS WHERE APPLICABLE FOR ADDITIONAL INFORMATION ABOUT EXISTING AND PROPOSED SYSTEMS.
- 3. BEFORE COMMENCING WORK VISIT SITE AND CHECK EXISTING CONDITIONS AFFECTING THE WORK INCLUDING DETAIL REVIEW OF EXISTING DEVICES, POWER PANELS, DISCONNECTS, STARTERS, CONDUITS, CABLES, WIRING, PIPES, DUCTS, EQUIPMENT, 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.

GENERAL ELECTRICAL DEMOLITION NOTES

- BASIS.

FIRE ALARM SPECIFICATIONS AND NOTES

- SCHOOL.

- SYSTEMS. SYSTEMS.
- SYSTEMS. SYSTEMS.

- REPRESENTATIVE.

1. DISCONNECT AND REMOVE ALL EXISTING EQUIPMENT, DEVICES, WIRES, CONDUITS AND CABLES AS SHOWN AND NOTED ON THE ELECTRICAL AND ARCHITECTURAL DRAWINGS. EXISTING WIRING AND CONDUITS THAT ARE IN GOOD CONDITION AND MEETING THE STANDARDS CAN BE REUSED.

2. DISCONNECT AND REMOVE EXISTING WIRING AND CONDUITS THAT ARE ASSOCIATED WITH LIGHT FIXTURES AND ELECTRICAL EQUIPMENT NOTED TO BE REMOVED. REMOVE CONDUITS AND WIRES BACK TO THE SOURCE UNLESS OTHERWISE NOTED. ALL DISCONNECT ELECTRICAL EQUIPMENT, DEVICES, CONDUITS AND WIRES SHALL BE REMOVED FROM SITE ON DAILY BASIS. EQUIPMENT THAT ARE NOTED TO BE RE-USED SHALL BE STORED ON SITE IN A SECURE PLACE. COORDINATE WITH GENERAL CONTRACTOR.

3. ALL WORK SHALL BE DONE IN ACCORDANCE TO ESA STANDARDS AND ALL WIRING/SYSTEMS SHALL BE PROTECTED SAFELY AFTER EACH SHIFT ON A DAILY

4. THE DEMOLITION DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON EXISTING RECORD DRAWINGS, VISUAL SITE REVIEW AND INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN ENGINEER CANNOT ASSURE ITS ACCURACY, AND THUS THE CONTRACTOR SHALL REVIEW SITE CONDITIONS BEFORE COMMENCING WORK.

5. BEFORE COMMENCING WORK ON ANY SYSTEM, THE CONTRACTOR SHALL PERFORM SITE REVIEWS TO CHECK AND CONFIRM ALL EXISTING ELECTRICAL SYSTEMS INCLUDING POWER PANELS, DISCONNECTS, STARTERS, CIRCUITS, WIRING, JUNCTION BOXES, DEVICES, SWITCHES, LIGHT FIXTURES, HVAC UNITS, FANS AND CONTROLS.

1. THE FIRE ALARM WORK SHALL BE DONE BY A LICENSED AND QUALIFIED CONTRACTOR THAT IS APPROVED BY THE SCHOOL BOARD TO WORK IN THE

2. SUPPLY AND INSTALL ALL REQUIRED DEVICES, CONDUITS, WIRING, CONTROLLERS TO COMPLETE INSTALLATION OF FIRE ALARM SYSTEM. COMPLY WITH CAN/CSA - S524 (INSTALLATION OF FIRE ALARM SYSTEMS), CAN/CSA - S537 (VERIFICATION OF FIRE ALARM SYSTEM), NFPA 72 AND THE ONTARIO BUILDING CODE.

3. THE SYSTEM SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING: INPUT DEVICES, OUTPUT DEVICES, RELAYS, CONDUITS, JUNCTION BOXES, WIRING, MANUAL PULL STATIONS, TONE ALARM (SPEAKERS) TYPE SIGNAL, ALARM INITIATING AND INDICATING PERIPHERAL DEVICES AND ALL ACCESSORIES REQUIRED TO FURNISH A COMPLETE OPERATIONAL SYSTEM.

4. ALL DEVICES SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.

5. THE EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CURRENT PROVISIONS OF THE FOLLOWING STANDARDS:

CANADIAN ELECTRICAL CODE. NFPA 72 NATIONAL FIRE ALARM CODE NFPA 70 NATIONAL ELECTRIC CODE NFPA 101 LIFE SAFETY CODE ONTARIO BUILDING CODE LOCAL AUTHORITIES HAVING JURISDICTION. UNDERWRITERS LABORATORIES CANADA INC. (ULC) THE FOLLOWING LATEST STANDARDS AS APPLICABLE: CAN/ULC-S527 CONTROL UNITS FOR FIRE PROTECTIVE SIGNALING CAN/ULC-S529 SMOKE DETECTORS FOR FIRE PROTECTIVE SIGNALING CAN/ULC-S529 SMOKE DETECTORS FOR DUCT APPLICATIONS. CAN/ULC-S531 SMOKE ALARMS. CAN/ULC-S530 HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING

CAN/ULC-S525 AUDIBLE SIGNALING APPLIANCES. CAN/ULC-S526 VISUAL SIGNALING APPLIANCES

CAN/ULC-S528 MANUALLY ACTIVATED SIGNALING BOXES.

CAN/ULC-S548 WATER FLOW INDICATORS FOR FIRE PROTECTIVE SIGNALING

CAN/ULC-S541 SPEAKERS FOR FIRE PROTECTIVE SIGNALING SYSTEMS

6. THE CONTRACTOR SHALL SUBMIT DIGITAL SET OF SHOP DRAWINGS. THE DOCUMENTATION SHALL INDICATE THE TYPE, SIZE, RATING, STYLE, CATALOG NUMBER, MANUFACTURERS NAMES, PHOTOS, AND/OR CATALOG DATA SHEETS FOR ALL ITEMS TO ENSURE COMPLIANCE WITH THESE SPECIFICATIONS.

7. UPON COMPLETE OF SYSTEM INSTALLATION, PERFORM TESTING AND VERIFICATION OF THE SYSTEM. SUBMIT TESTING AND VERIFICATION REPORT INCLUDING THE FOLLOWING:

A. INSTALLATION AND PROGRAMMING MANUALS COVERING THE INSTALLED SYSTEM.

B. POINT-TO-POINT DIAGRAMS OF THE ENTIRE SYSTEM AS INSTALLED. NUMBER ALL CONDUCTORS AND SHOW ALL TERMINATION'S AND SPLICES. C. THE APPLICATION PROGRAM LISTING FOR THE SYSTEM AS INSTALLED AT THE TIME OF ACCEPTANCE. D. NAME, ADDRESS AND TELEPHONE OF THE AUTHORIZED FACTORY TRAINED

E. PROOF OF LIABILITY INSURANCE FOR INSPECTION

8. AUTOMATIC THERMAL DETECTORS: CONSTRUCTED AS PER CAN/ULC-S530-E) 1778. EDWARDS 281A RATED AT 58°C (135°F) FIXED TEMPERATURE NON-RESTORABLE AND 8°C DEGREE PER MINUTE RATE-OF-RISE. USE WHERE NORMAL TEMPERATURES DO NOT EXCEED 38° C (100° F).

9. FIRE ALARM HORN/STROBE DEVICES: SIMPLEX OR EQUAL AS PER ULC-S525.

10. IONIZATION TYPE SMOKE DETECTORS: SIMPLES DETECTOR AND 6250C-001 BASE OR E) 6250–002 RELAY BASE.

11. INSTALLATION OF FIRE ALARM DEVICES SHALL BE PER NFPA 72 AND MANUFACTURER WRITTEN INSTRUCTIONS. MAINTAIN MINIMUM 914 mm SPACING BETWEEN SMOKE/HEAT DETECTOR AND ANY SUPPLY AIR/RETURN AIR GRILLE.

12. ALL WIRES SHALL BE ON COLOUR CODED CONDUITS. USE COLOUR CODED JUNCTION BOXES. PROVIDE ALL REQUIRED LABELS.

13. TEST AND VERIFY ALL NEW AND EXISTING INPUT/OUTPUT DEVICES IN THE RENOVATION AREAS, INCLUDING DEVICES OUTSIDE THE RENOVATION AREAS THAT ARE CONNECTED TO THE SAME FIRE ALARM ZONES. SUBMIT A DETAILED TESTING AND VERIFICATION REPORT.

14. APPROVED FIRE ALARM CONTRACTOR: MICHAEL FLEET, HAMILTON FIRE CONTROL, 445 WENTWORTH STREET NORTH, HAMILTON, TEL: 905-527-7042 FAX: 905-527-7044

NOT TO SCALE

- LIGHT TO NEW BATTERY UNIT. ALL WIRES SHALL BE IN EMT CONDUITS.

TAG	MAKE, MODEL AND DESCRIPTION
LF-1	LED LIGHT FIXTURE SIZE 2'x4', FLAT PANEL, RECESSED IN DRYWALL TILE CEILING. LITHONIA MODEL CPX-2X4-ALO8-SWW7, DRIVER, 10kV SURGE PROTECTION, IC/NO RATED, TESTED TO TM21 STANDARDS, MOUNTING KIT, FRAME BOX, DLC, CSA AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVE (MINIMUM DIMMING 1%) AND ALL REQUIRED ACCESSORIES TO INSTALL IN PLACE. REFER TO NOTES BELOW.
LF-2	LED LIGHT FIXTURE SIZE 2'x4', FLAT PANEL, RECESSED IN LAY-IN TILE CEILING. LITHONIA MODEL CPX-2X4-ALO8-SWW7, DRIVER, 10kV SURGE PROTECTION, IC/NON, RATED, TESTED TO TM21 STANDARDS, CEILING MOUNTING KIT, FRAME BOX, DLC, CSA AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMII DRIVER (MINIMUM DIMMING 1%) AND ALL REQUIRED ACCESSORIES TO INSTALL IN PLACE. REFER TO NOTES BELOW.
LF-3	LED LIGHT FIXTURE SIZE 1'X4' FLAT PANEL, RECESSED IN DRYWALL CEILING. LITHONIA EPANL LED FIXTURE, DAMP LOCATION LISTED, BUILT-IN (INTEGRAL) DUAL TECH AUTOMATIC OCCUPANCY SENSOR, MOUNTING KIT, FRAME BOX, 583 LUMENS, DRIVER, 10KV SURGE PROTECTION, IC/NON/C RATED, TESTED TO TM21 STANDARDS, CSA ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVER (MINIMUM DIMMING 1%) AND AIRCRAFT SAFETY CABLE HANGING KIT.
LF-4	LED LIGHT FIXTURE SIZE 1'X4' FLAT PANEL, RECESSED IN DRYWALL CEILING. LITHONIA MODEL CPX-1X4-ALO7-SWW7, BUILT-IN (INTEGRAL PIR) OCCUPANCY SENSOR, MOUNTING KIT, FRAME BOX, 583 LUMENS, DRIVER, 10KV SURGE PROTECTION, IC/NON/C RATED, TESTED TO TM21 STANDARDS, SURFACE MOUNT KIT, CSA AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVER (MINIMUM DIMMING 1%) AND AIRCRAFT SAFETY CABLE HANGING KIT.
LF-5	LED LIGHT FIXTURE SIZE 1'X4' FLAT PANEL, RECESSED IN DRYWALL CEILING. LITHONIA MODEL CPX-1X4-ALO7-SWW7, 583 LUMENS, DRIVER, 10KV SURGE PROTECTIO IC/NON/C RATED, TESTED TO TM21 STANDARDS, MOUNTING KIT, FRAME BOX, CSA AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVER (MINIMUM DIMMING 1%) AND AIRCRAFT SAFETY CABLE HANGING KIT. NOTE: SUSPENDED IN EXISTING GYM STORAGE 2022 ROOM (NO DROP CEILING).
LF-6	EMERGENCY LED LIGHT FIXTURE: VEROBOARD (MEDGAR LIGHTING, ANCASTER) OR EQUAL LED-1-S6W-3KWH-12V, 6W, 2" LAMP DIAMETER, 3000K, 480 LUMENS, 40° BEAM ANGLE, IP20 DAMP LOCATION RATED, MOUNTING PLATE AND CSA APPROVED. THE LIGHT FIXTURE MUST BE COMPATIBLE WITH AIMLITE EMERGENCY BATTERY UNIT WIRE EACH LIGHT FIXTURE TO THE NEAREST BATTERY UNIT. NOTES: T-BAR DROP CEILINGS IN ROOMS 2024A AND 0004E.
LF-7	LED LIGHT FIXTURE SIZE 1'X4' FLAT PANEL, SURFACE MOUNTED AT CEILING. LITHONIA MODEL CPX-1X4-ALO7-SWW7, 583 LUMENS, DRIVER, 10KV SURGE PROTECTION IC/NON/C RATED, TESTED TO TM21 STANDARDS, SURFACE MOUNT KIT, FRAM BOX, SURFACE MOUNT FRAME, CSA AND ULC APPROVED. EACH FIXTURE SHALL BE COMPLETE WITH 0-10VDC DIMMING DRIVER (MINIMUM DIMMING 1%) AND AIRCRAFT SAFETY CABLE HANGING KIT.
LIGHT	FIXTURES NOTES:
1. RI 2. Al 3. PI 4. RI 5. PI 6. W	EFER TO REFLECTED CEILING PLANS FOR LAYOUT AND NUMBER OF FIXTURES. L LIGHT FIXTURES SHALL BE CSA, ULC AND DLC APPROVED. ROVIDE 0—10VDC DIMMER DRIVER (MINIMUM DIMMING 1%) FOR EACH FIXTURE NOTED TO HAVE DIMMING FEATURE. EFER TO LATEST DESIGN REFLECTED CEILING PLAN (ARCHITECTURAL DRAWINGS) FOR COORDINATION OF LIGHTING LAYOUT AND CEILINGS TYPES. ROVIDE SAFETY CHAINS OR APPROVED SAFETY CABLES FOR EACH CEILING MOUNTED LIGHT FIXTURE. RE LIGHT FIXTURES TO POWER CIRCUITS AND CONTROLS.
4. Rf 5. Pf 6. W 7. Ll	EFER TO LATEST DESIGN REFLECTED CEILING PLAN (ARCHITECTURAL DRAWINGS) FOR COORDINATION OF LIGHTING LAYOUT AND CEILINGS ROVIDE SAFETY CHAINS OR APPROVED SAFETY CABLES FOR EACH CEILING MOUNTED LIGHT FIXTURE. RE LIGHT FIXTURES TO POWER CIRCUITS AND CONTROLS. GHT FIXTURES SHALL HAVE 10 YEAR WARRANTY.

<u>LEGEND</u> EMERGENCY LIGHTING WALL MOUNTED TWO LED LAMPHEADS, 12V. AIMLITE OR EQUAL. EMERGENCY LIGHTING WALL MOUNTED SINGLE LED LAMPHEAD, 12V. AIMLITE OR EQUAL. EMERGENCY LIGHTING CEILING MOUNTED DOUBLE LED LAMPHEAD, 12V. AIMLITE OR EQUAL. EXIT EXIT SIGN AT CEILING WITH DIRECTIONAL ARROW. AIMLITE OR APPROVED EQUAL (RUNNING MAN) MODEL RPTE EDGELIT 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. EXIT COMBINATION EXIT SIGN (RUNNING MAN) AND BATTERY UN AIMLITE OR EQUAL BATTERY UNIT, DURABLE 18 GAUGE STE 120V, 144W, 12 VDC SLIM PROFILE, MOMENTARY PUSH BUTTON TEST SWITCH, PILOT LED, CURRENT LIMITED CHAR AND SEALED LEAD ACID BATTERY. UNIT SHALL BE CSA APPROVED. WIRE EACH UNIT TO DEDICATED BREAKER IN NEAREST POWER PANEL. BU 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. RECESSED REMOTE EMERGENCY LIGHT FIXTURE. REFER TO LIGHT FIXTURES SCHEDULE. PROVIDE SPECIFICATION GRADE RECEPTACLE LEVITON DUPLE 120V, 15A. PROVIDE BACK BOX RECESSED IN WALL, STAIN STEEL COVER PLATE, CONDUITS AND WIRING TO POWER PA LABEL EACH RECEPTACLE (BLACK ON TRANSPARENT LABEL TAPE) INDICATING POWER PANEL AND CIRCUIT BREAKER NUMBER. ALL WIRING SHALL BE IN 3/4" EMT CONDUITS, 'HL' DENOTES RECEPTACLE AT HIGH LEVEL FOR EMERGEN LIGHTING UNIT / TV / MONITOR. 'AC' DENOTES ABOVE COUNTER (COORDINATE WITH ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS.) 'GFI' GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE. 120 VOLT, 15A SPECIFICATION GRADE SINGLE SWITCH COMPLETE WITH RECESSED BACKBOX AND STAINLESS STEE COVER PLATE. WIRE TO LIGHT FIXTURES AS SHOWN. ALL WIRING SHALL BE IN EMT CONDUITS. '3' DENOTES THREE WAY LIGHT SWITCH 'D' DENOTES DIMMER SWITCH 'OS' DENOTES SWITCH WITH OCCUPANCY SENSOR General 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 RECEPTACL (BLACK ON TRANSPARENT LABEL TAPE) INDICATING POWER PANEL AND CIRCUIT BREAKER NUMBER. ALL WIRING SHALL BE IN 3/4" EMT CONDUITS EMERGENCY LIGHTING POWER AND TESTING NOTE: ELECTRICAL CONTRACTOR SHALL PROVIDE A DEDICATED CIRCU EMERGENCY LIGHTS AND PROVIDE A LETTER CERTIFYING THAT MINUTES TIMED AFTER CIRCUIT BREAKER IS TURNED OFF. PRO ABBREVIATIONS E EXISTING TO REMAIN. N PROVIDE NEW UNIT/DEVICE. D DISCONNECT AND REMOVE. GENERAL DEMOLITION NOTES DISCONNECT AND RELOCATE EXISTING EQUIPMENT, DISCONNECTS NOTED AND REQUIRED. REMOVE ALL REDUNDANT CONDUITS AND 2. ALL MATERIALS AND ITEMS THAT ARE NOT BEING RE-USED SHA 3. CONTRACTOR SHALL REVIEW THE CONSTRUCTION SCHEDULE AND TO BE REMOVED OR SHUT DOWN SYSTEMS WITHOUT PRIOR SCH

- 4. ALL FIXTURES, EQUIPMENT, SYSTEMS THAT ARE EXISTING TO RE
- 5. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE WORK
- 6. ELECTRICAL DEMOLITION SHALL BE DONE SUCH THAT NO DAMAG
- 7. EXISTING SYSTEMS AND FACILITIES SHALL NOT BE USED UNLESS
- 8. SEAL ALL FLOOR AND WALL OPENINGS RESULTED FROM REMOVA
- 9. PROVIDE ALL REQUIRED CORE DRILLING AND OPENINGS FOR NE COMMENCING WORK.

AND		S SPECIFICATIONS			
	EF.	POWER WIRING TO PANEL AND TOGGLE ON/OFF SWITCH (IF REQUIRED) SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.			
		HARD WIRED POWER CONNECTION TO EQUIPMENT COMPLETE WITH MANUAL DISCONNECT SWITCH RATED PER EQUIPMENT			
	-	WP - DENOTES WEATHER PROOF HARDWARE			
	\bigcirc	AND COORDINATE WITH OTHER TRADES FOR EQUIPMENT SPECIFICATION.			
		WALL MOUNTED HORN / STROBE COMBINATION UNIT. SPECTREALERT 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.			
		WALL MOUNTED HORN UNIT. SPECTREALERT 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.			
		WALL MOUNTED FIRE ALARM PULL STATION (MANUAL INITIATION DEVICE)			
IIT. EEL, GER	HB	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.			
-	SD	CEILING MOUNTED SMOKE ALERT DETECTOR, SIMPLEX IONIZATION TYPE BASE SMOKE DETECTOR SERIES 4098 AND/OR RELAY BASE (PHOTO ELECTRIC). PROVIDE BACK BOX AND SUPPORT BRIDGE.			
T	HD	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.		PROFE	SSIONAL FIL
	(OS)	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.	NOTES:	28 FEL PROLINCE	3502 32025 OF ONTARIO
.EX NLESS ANEL. -	HS	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.	ALL DRAWINGS AND SPECIF INSTRUMENT OF SERVICE A PROPERTY OF DESIGNER AI THE COPYRIGHT ACT. THE REPRODUCED, DISTRIBUTED PROJECT WITHOUT WRITTEN DESIGNER.	TICATIONS IS AN ND REMAIN THE ND ARE PROTECT Y MAY NOT BE , ALTERED FOR A PERMISSION OF	EXCLUSIVE ED UNDER NY OTHER THE
NCY	H	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.	PRECEDENT OVER SCALE. CONTRACTOR TO CHECK AN DIMENSIONS ON DRAWINGS ANY DISCREPANCIES TO TH CLARIFICATION PRIOR TO C WORK.	ND VERIFY ALL LE AND ON SITE AN E DESIGNER AND OMMENCING WITH	EVELS AND ND REPORT OBTAIN THE
ĒL	PS	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 EXITING PUBLIC ANNUNCIATION SYSTEM.	THE CONTRACTOR ACCEPTS WORKING WITH DRAWINGS, CONSTRUCTION" AND FOR DRAWINGS WITHOUT THE EX SHELLARD BUILDING SYSTEI ALL WORK TO CONFORM TO AND BY-LAWS.	ALL RESPONSIB NOT MARKED "IS ANY CHANGES TC (PRESS APPROVA MS LTD. O ALL GOVERNING	ILITY FOR SUED FOR THE OF G CODES
	DS	HUBBELL DAY LIGHT PHOTOCELL SENSOR CEILING MOUNTED. WIRE TO	THE CONTRACTOR SHALL CHECK AND V DUCTS, DIFFUSERS, CONDUITS, LIGHT FI EQUIPMENT AND COORDINATE WITH OTH INTERFERENCE. THE CONTRACTOR IS RE THE DRAWINGS WITHOUT THE WRITTEN V	ERIFY LOCATION OF ALL IXTURES, STRUCTURAL AN ER TRADES ON SITE TO SPONSIBLE FOR ANY CH. APPROVAL OF THE DESIG	PIPES, ID PREVENT ANGES TO NFR
٧,	\bigtriangledown	DATA OUTLET. PROVIDE BACK BOX WITH $\frac{3}{4}$ " MANUAL SWITCHES. STRING UP TO CEILING SPACE. WIRING BY THE INFORMATION	THE DRAWINGS SHALL NOT BE USED FI THE TITLE BLOCKS AS 'ISSUED FOR CC THE INFORMATION CONTAINED WITHIN TH DESIGN AND BASIC CONSTRUCTION DET/	OR CONSTRUCTION UNLES INSTRUCTION' HE DRAWINGS IS INTENDE AILING. IT IS THE CONTRA	SS NOTED ON D TO PROVIDE ACTOR'S
LE ⁻ S,	▼	TELEPHONE OUTLET. PROVIDE BACK BOX WITH $\frac{3}{4}$ ° EMT CONDUIT WITH	RESPONSIBILITY TO APPLY DETAILS AND QUALITY ASSURANCE AND FULLY FUNCT	PRACTICES WHICH WILL IONING SYSTEMS.	RESULT IN A
	PA	PUEL STRING OP TO CEILING SPACE. PUBLIC ANNUNCIATER		WENTW	ON- ORTH
		SPEAKER – PUBLIC ANNUNCIATER		DISTRIC SCHOOI BOARD	Т -
UIT BR T ALL ROVIDE	EAKER FO EMERGEN TEST CEI	OR THE EMERGENCY LIGHTS AND EXIST SIGNS. TEST ALL CY LAMPS WERE ON 100% FOR A DURATION OF 30 RTIFICATE.	5.		
R	RFI 00	CATE FXISTING UNIT/DEVICE.	4. 3. FOR TENDER 2 FOR PERMIT		28 FEB 20
CT	E CONN	IECT TO EXISTING	1. REVIEW AND COORDIN	ATION	6 JAN 20
RE	: REPLA	ACE EXISTING UNIT/DEVICE			DING
			1684 SHELLARD SID	E ROAD	EMS LTE
S, POW D WIRII	/ER PANEL NG BACK	L, SWITCHES, CONDUITS, JUNCTION BOXES, DEVICES AND SYSTEMS AS TO SOURCE. MAKE SAFE ALL EXISTING POWER CIRCUITS.	Cambridge, ont. N1R 587	ARIO	
ALL BE	REMOVE	D FROM SITE.	shellard@consultant.c 226 606 6542	om	
D COO HEDUL	RDINATE F ING AND /	REMOVAL OF ITEMS ACCORDINGLY. DO NOT DISCONNECT EQUIPMENT NOTED APPROVAL.	WESTDALE SE	ECONDAR	Y
EMAIN	SHALL BE	PROTECTED FROM DAMAGE DURING CONSTRUCTION.	SCHOOL Hamilton – Wi	ENTWORTH	
AREA (GF TO)N DAILY	BASIS. COORDINATE WITH GENERAL CONTRACTOR FOR USE OF WASTE BINS.	DISTRICT SCHOO	DL BOARD WEST	
S ARR	ANGED FC	DR AND APPROVED BY OWNER.	HAMILION, ONTARIO		
/AL OF	CONDUITS	S USING APPROVAL FIRE RESISTANT RATING SEALANT.	DETAILS ELECTRICAL		
EW CO	NDUITS AN	ND WIRES. COORDINATE ON SITE AND OBTAIN APPROVAL BEFORE	D.A.	CHECKED BY:	
			DATE:	JOB No.:	
			NUVEMBER 2024	24-107 SHEET No.:	
			NOT TO SCALE	E3.0 ²	1

GENERAL CONDITIONS

- 1. SUPPLY AND INSTALL A COMPLETE MECHANICAL SYSTEM AS SHOWN AND/OR SPECIFIED HEREIN.
- 2. VISIT JOB SITE AND EXAMINE ALL EXISTING CONDITIONS WHICH AFFECT THE WORK.
- 3. PAY AND OBTAIN ALL REQUIRED PERMITS, FEES, LICENSES, CERTIFICATE OF INSPECTIONS, ETC. PROVIDE AND SUBMIT DRAWINGS TO THE AUTHORITIES IF REQUIRED.
- 4. CONFORM WITH BUILDING CODE AND STANDARDS, LOCAL BY-LAWS 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 SUPPLIED EQUIPMENT AND MATERIALS SHALL BE NEW, UNUSED, AND FREE FROM DEFECTS, CONFORMING TO ALL REQUIRED QUALITY APPROVALS. THIS INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, CERTIFICATIONS FROM CSA, ULC, AND COMPLIANCE WITH ALL APPLICABLE STANDARDS AND REGULATIONS.
- 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 AND OBTAIN APPROVAL BEFORE PROCEEDING. ALL OPENINGS REQUIRED TO COMPLETE SYSTEMS INSTALLATION SHALL BE CARRIED BY THIS DIVISION.
- 15. WHERE THE TERM 'PROVIDE' IS USED, IT MEANS SUPPLY AND INSTALL.

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 (DRYWALL 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. EACH ELECTRIC BASEBOARD HEATER SHALL BE COMPLETE WITH BUILT-IN THERMOSTAT. EACH ELECTRIC FORCE FLOW HEATER SHALL BE COMPLETE WITH ON/OFF SWITCH AND BUILT-IN THERMOSTAT UNLESS OTHERWISE NOTED.
- 6. FIRE DAMPERS AND FIRE STOP FLAPS TO BE INSTALLED WHERE REQUIRED, FIRE DAMPERS SHALL BE HINGED FUSIBLE LINK TYPE WITH CHANNEL FRAMES, ETC., IN ACCORDANCE WITH REQUIREMENTS.
- 7. ALL ELECTRIC HEATERS SHALL BE BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED ON MECHANICAL DRAWINGS. PROVIDE SURFACE MOUNTING BOXES AS REQUIRED. EACH THERMOSTAT AND SENSOR THAT CONTROL SPACE TEMPERATURE SHALL BE CONNECTED TO BUILDING AUTOMATION SYSTEM (BAS) OR AS NOTED. ALL THERMOSTATS TO BE MOUNTED AT 1.2 M A.F.F. (UNLESS NOTED OTHERWISE).
- 8. ALL EXHAUST DUCTS TO BE KEPT AT LEAST 4.5 M AWAY FROM ANY FRESH AIR INTAKES.
- 9. ALL HEATING, VENTILATING AND AIR CONDITIONING UNITS SHALL BE C.S.A. APPROVED AND THE INSTALLATION SHALL MEET C.S.A. STANDARDS.

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. PACK 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. ANY REQUEST FOR ALTERATION OR RELOCATION WILL BE COMMUNICATED IN WRITING TO THE CONSTRUCTION TEAM SUPERVISOR.
- 2. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES TO AVOID ANY INTERFERENCES, CONFLICTS OR DISRUPTIONS IN THE CONSTRUCTION SCHEDULE.

UNITS AND EQUIPMENT

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

- 2. FAN EQUIPMENT (WHERE APPLICABLE): A. PROVIDE FANS WHERE SHOWN AND NOTED ON DRAWINGS. REFER TO SCHEDULE ON DRAWINGS FOR DETAILS.
- EACH FAN SHALL BE CSA APPROVED AND COMPLETE WITH ROOF CURB (FOR ROOF MOUNTED UNITS), BACK DRAFT DAMPER, SCREEN, DISCONNECT, STARTER AND ACCESSORIES AS NOTED ON FAN SCHEDULE. COORDINATE LOCATION OF EACH FAN ON SITE AND INSTALL IN ACCORDANCE TO MANUFACTURER WRITTEN INSTRUCTIONS INSTALL CEILING SUSPENDED FANS USING VIBRATION ISOLATION SPRINGS AND DUCT FLEXIBLE CONNECTORS.
- 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.
- 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 E.H. PRICE LIMITED OR APPROVED EQUAL GRILLES, REGISTERS AND DIFFUSERS PROVIDE WHERE SHOWN AND NOTED. EACH UNIT SHALL BE FACTORY PRE-PAINTED AND COMPLETE WITH INTEGRAL BALANCING DAMPER. GRILLES AND REGISTERS SHALL BE OF ALUMINUM CONSTRUCTION (EXCEPT WHERE NOTED) WITH BAKED WHITE ENAMEL FINISH, EXCEPT IN WALLS WHERE PRIMED COATED FINISH SHALL BE SUPPLIED. CHECK LATEST ROOM FINISH SCHEDULES PRIOR TO SUBMITTING SHOP DRAWINGS. CEILING DIFFUSERS SHALL BE COMPLETE WITH VOLUME CONTROL DAMPER. ALL DIFFUSERS, REGISTERS AND GRILLES SHALL HAVE GENERATED NOISE LEVELS EQUAL TO OR LOWER THAN UNITS SHOWN ON SCHEDULE, AND SHALL HAVE STANDARD FINISH WITH COLOURS AS SELECTED BY THE ARCHITECT. PROVIDE EACH EXHAUST AND RETURN AIR GRILLE C/W BALANCING DAMPER. COORDINATE EXACT LOCATION OF EACH GRILLE, REGISTER AND DIFFUSER ON SITE WITH LIGHTING AND REFLECTED CEILING PLAN, CUTTING AND PATCHING FOR GRILLES AND REGISTERS SHALL BE DONE BY THIS DIVISION.
- 6. PROVIDE FLEXIBLE AIR DUCT (FC) AT EACH CONNECTION TO MECHANICAL UNIT.
- 7. 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).
- 8. 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 WALLS AND/OR FLOORS.
- 7. THE EQUIPMENT AND SYSTEMS SHALL NOT BE USED DURING CONSTRUCTION EXCEPT FOR TESTING.

INSULATION AND PIPE 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. PROVIDE OVER EXPOSED PIPE INSULATION WHITE PVC JACKETING AND SEAL JOINTS TO APPROVAL. OVERLAP THE PVC JACKETING AND PROVIDE 2" PVC TAPE AT EACH JOINT. SEAL ALL JOINTS TO APPROVAL.
- 5. VALVES AND FITTINGS SHALL HAVE MOLDED INSULATION AND PVC JACKETING.
- 6. PROVIDE GALVANIZED SADDLES FOR EACH PIPE HANGER.

RECORD DRAWINGS

1. REFER TO THE FRONT END SPECIFICATIONS FOR THIS PROJECT FOR DETAILS ABOUT AS-BUILT DRAWINGS PREPARATION AND SUBMITTAL. PREPARE AND SUBMIT AS-BUILT DRAWINGS AS NOTED AND SPECIFIED.

FLOOR DRAIN (FD)

- 1. SUPPLY AND INSTALL WATTS#FD-102-L, 6x6, FLOOR DRAIN EPOXY COATED, CAST IRON BODY, REVERSIBLE FLASHING CLAMP WITH PRIMARY AND SECONDARY PEEPHOLES, TRAP PRIMER CONNECTION WITH PLUG, VANDAL PROOF, 3" (76 MM), NO HUB OUTLET. WATTS 6"x6" (150 mm x 150 mm) POLISHED BRONZE, HEAVY DUTY, SQUARE STRAINER.
- 2. COORDINATE WITH GENERAL CONTRACTOR THE LOCATION AND ELEVATION OF EACH FLOOR DRAIN

CLEANOUT (CO)

- 1. SUPPLY AND INSTALL WATTS CO-204-RX-4, 4" DIAMETER, ADJUSTABLE DUCTILE IRON TOP, EPOXY COATED, CAST IRON BODY, REMOVABLE TOP, GAS TIGHT, GASKETED BRASS CLEANOUT PLUG, 4" DIAMETER OUTLET, EXTRA HEAVY DUTY AND CASKETED BRASS PLUG.
- 2. COORDINATE WITH GENERAL CONTRACTOR THE LOCATION AND ELEVATION OF EACH FLOOR CLEANOUT AND INSTALL FLUSH WITH FINISHED FLOOR. CORE DRILLING IN FLOOR BY THIS CONTRACTOR. PROVIDE FIRE RATED SEAL AT FLOOR.

NAMEPLATES

- 1. PROVIDE FOR EACH MECHANICAL UNIT LAMACOID NAMEPLATE SECURED MECHANICALLY TO THE UNIT CASING.
- 2. 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.

MECHANICAL NOTES AND SPECIFICATIONS

SCOPE OF WORK

7. LABEL ALL PIPES AND PROVIDE ARROWS INDICATING FLOW DIRECTION.

- 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 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 FIXTURES AND ALL REQUIRED PIPES, VALVES, FITTINGS...ETC.
 - FIRE SEAL AT RATED WALLS AND FLOORS.
 - 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.
- 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 THUS 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:
- EXISTING ENGINEERED AIR SUPPLY AIR SYSTEM IN THE BASEMENT MECHANICAL ROOM SERVING THE THREE FLOOR LEVELS AND BASEMENT LEVEL
- EXISTING EXHAUST FANS IN THE THIRD FLOOR MECHANICAL ROOM BEHIND MUSIC CLASSROOM (XF-7 & XF-8)
- NEW EXHAUST AIR FANS (EF–A)
- FAN COIL UNITS (TWO HEAT PUMP FAN COIL UNITS)
- WATER FLOW TO THE NEW HOT WATER HEATING UNITS (ALL RADIATION PANELS AND CONVECTORS).
- 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.
- 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:

- ISSUED OR CONSTRUCTION.
- AND DIMENSIONS.
- DEADLINE.
- 5. CONTRACTOR TO FIELD VERIFY WORK SITE CONDITIONS.

REQUIRED.

- OBTAINED.
- DIGITAL TRACK CAMERA.
- COMMENCING WORK.
- ANY FIXTURE.

PLUMBING SYSTEM PIPES

- SECTION 7.2.5.10:
- REPROCESSED-RECYCLED CONTENT.

AND CSA B181.2

- CSA B181.2 AND ULC S102.2

GENERAL DEMOLITION NOTES

1. REFER TO GENERAL NOTES AND SPECIFICATIONS ON LATEST ARCHITECTURAL DRAWINGS

2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF PLUMBING FIXTURES, HEIGHTS,

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

4. WHERE THE TERM 'PROVIDE' IS NOTED ON DRAWINGS. IT MEANS SUPPLY AND INSTALL.

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

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

9. CONTRACTOR SHALL INCLUDE PRICE TO LOCATE EXISTING BURIED SANITARY PIPES USING

10. COORDINATE WITH OTHER TRADES AND REVIEW ARCHITECTURAL DRAWINGS BEFORE

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

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.

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

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

3. ABS SANITARY AND VENT PIPES MATERIAL SHALL BE PER ONTARIO BUILDING CODE 7.2.5.12

4. PLASTIC PIPES INSTALLED IN CEILING PLENUM SHALL BE SYSTEM XFR DWV CERTIFIED TO

5. HOT WATER HEATING SUPPLY AND RETURN PIPES 2" AND UNDER SHALL BE COPPER TYPE

6. HOT WATER HEATING PIPES SHALL BE BLACK STEEL SCHEDULE 40. PIPE SIZES UP TO $2\frac{1}{2}$ " 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 THE PIPING SYSTEMS BEFORE INSULATION IS APPLIED.

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.

	PROF K.S. 28 F PROF	ESS/0N4C FUE SALAMÉ EB 2025
	SUINCE	OF ONTA
NOTES:		
ALL DRAWINGS AND SPECI INSTRUMENT OF SERVICE / PROPERTY OF DESIGNER / THE COPYRIGHT ACT. THI REPRODUCED, DISTRIBUTED PROJECT WITHOUT WRITTEN DESIGNER.	FICATIONS IS AN AND REMAIN THE AND ARE PROTEC EY MAY NOT BE D, ALTERED FOR N PERMISSION O	E EXCLUSIVE CTED UNDER ANY OTHER F THE
DO NOT SCALE DRAWINGS, PRECEDENT OVER SCALE.	DIMENSIONS TO) TAKE
CONTRACTOR TO CHECK A DIMENSIONS ON DRAWINGS ANY DISCREPANCIES TO TH CLARIFICATION PRIOR TO C WORK.	ND VERIFY ALL AND ON SITE A HE DESIGNER AN COMMENCING WIT	LEVELS AND AND REPORT ND OBTAIN 'H THE
THE CONTRACTOR ACCEPT: WORKING WITH DRAWINGS, CONSTRUCTION" AND FOR DRAWINGS WITHOUT THE E SHELLARD BUILDING SYSTE	S ALL RESPONSI NOT MARKED " ANY CHANGES " XPRESS APPROV MS LTD.	BILITY FOR ISSUED FOR TO THE YAL OF
ALL WORK TO CONFORM T AND BY-LAWS.	FO ALL GOVERNI	NG CODES
NOTE BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CHECK AND DUCTS, DIFFUSERS, CONDUITS, LIGHT EQUIPMENT AND COORDINATE WITH OTI INTERFERENCE. THE CONTRACTOR IS R THE DRAWINGS WITHOUT THE WRITTEN	VERIFY LOCATION OF AL FIXTURES, STRUCTURAL HER TRADES ON SITE T ESPONSIBLE FOR ANY O APPROVAL OF THE DES	l PIPES, AND O PREVENT CHANGES TO JIGNER.
THE DRAWINGS SHALL NOT BE USED I THE TITLE BLOCKS AS 'ISSUED FOR C THE INFORMATION CONTAINED WITHIN 1	FOR CONSTRUCTION UN CONSTRUCTION' THE DRAWINGS IS INTEN TAILING. IT IS THE CON D PRACTICES WHICH WII TIONING SYSTEMS.	LESS NOTED ON DED TO PROVIDE IRACTOR'S LL RESULT IN A
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS ANI QUALITY ASSURANCE AND FULLY FUNC	HAMILI WENTV DISTRIC	T ON- VORTH CT
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILI WENTV DISTRIC SCHOC BOARD	FON- VORTH CT OL
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILI WENTV DISTRIC SCHOC BOARD	28 FEB 2025 31 JAN 2025 6 JAN 2025
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILI WENTV DISTRIC SCHOC BOARD	CT DL 28 FEB 2025 31 JAN 2025 6 JAN 2025 DATE
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILI WENTY DISTRIC SCHOC BOARD BOARD	CT DL 28 FEB 2025 31 JAN 2025 6 JAN 2025 DATE
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILT WENTY DISTRIC SCHOC BOARD	CT DL 28 FEB 2025 31 JAN 2025 6 JAN 2025 DATE DING TEMS LTD.
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILT WENTY DISTRIC SCHOC BOARD HATION ECONDA COM ECONDA CONTWORTH OL BOARD WEST	RY
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILT WENTY DISTRIC SCHOC BOARD BOARD ARIO BUIL SYS DE ROAD ARIO COM ECONDAL C	RY AS
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILT WENTY DISTRIC SCHOC BOARD BOARD IATION ECONDA COM ECONDA CONTWORTH OL BOARD WEST CIFICATION	RY RY RY RS
DESIGN AND BASIC CONSTRUCTION DE RESPONSIBILITY TO APPLY DETAILS AN QUALITY ASSURANCE AND FULLY FUNC	HAMILT WENTY DISTRIC SCHOC BOARD BOARD INTION ECONDA COM ECONDA CONTWORTHOL BOARD WEST CIFICATION CHECKED BY: N.S.	SALE STATE

M0.01

NOT TO SCALE

<u>Drawi</u>	NG NOTES:
$\langle 1 \rangle$	DISCONNECT AND REMOVE THE EXISTING FLOOR DRAIN, ALONG WITH ASSOCIATED PIPES, FROM THE CEI REMOVE PIPES BACK TO THEIR SOURCE AND CAP THEM TO APPROVAL. CAP THE FLOOR OPENING AS S AND SEAL DETAIL ON M1.01. REMOVE ALL EXISTING SANITARY PIPES IN THE BASEMENT CEILING SPACE ENSURE THAT THE DEMOLITION DOES NOT AFFECT EXISTING LIVE PIPE RISERS THAT ARE TO REMAIN.
$\langle 2 \rangle$	DISCONNECT AND REMOVE EXISTING LAVATORY AND WATER CLOSET. REMOVE SANITARY PIPES IN CEILING AND CAP EXISTING LIVE MAINS TO APPROVAL. CAP FLOOR OPENING. REMOVE DOMESTIC HOT AND COLD AND CAP TO APPROVAL.
	REMOVE ALL EXISTING SANITARY PIPES IN THE BASEMENT BACK TO LIVE MAINS. REMOVE DOMESTIC WAT FIRST FLOOR BACK TO MAINS. CAP DOMESTIC WATER PIPES WITHIN 1 METER FROM EXISTING LIVE MAIN
	THE CONTRACTOR SHALL INCLUDE ALL THE COSTS REQUIRED TO PERFORM PIPE FREEZING ON THE EXAS REQUIRED TO FACILITATE THE DEMOLITION AND THE MAKING NEW CONNECTIONS. REFER TO PIPE FR
$\langle 3 \rangle$	DISCONNECT AND REMOVE SANITARY PIPE BELOW THE EXISTING DRINKING FOUNTAIN. REMOVE SANITARY SPACE BELOW BACK TO SOURCE AND CAP EXISTING LIVE MAINS TO APPROVAL. CAP FLOOR OPENING. FUP TO CEILING SPACE AND CAP WITHIN 1 M FROM LIVE MAIN.
	REMOVE ALL EXISTING SANITARY PIPES SERVING THE DRINKING FOUNTAIN IN THE BASEMENT BACK TO L
	THE CONTRACTOR SHALL INCLUDE ALL THE COSTS REQUIRED TO PERFORM PIPE FREEZING ON THE EXA AS REQUIRED TO FACILITATE THE DEMOLITION AND THE REMOVAL OF DOMESTIC COLD WATER PIPE.
$\langle 4 \rangle$	DISCONNECT AND REMOVE EXISTING SANITARY PIPE IN THE BASEMENT CEILING SPACE BELOW BACK TO MAINS TO APPROVAL. CAP FLOOR OPENING.
$\langle 5 \rangle$	PROVIDE SANITARY PIPING IN BASEMENT CEILING SPACE COMPLETE WITH PIPES THRU FLOOR FOR FUTU DRAWING M1.03 FOR PROPOSED FUTURE LAYOUT.

PARTIAL FIRST FLOOR PLAN - PLUMBING DEMOLITION SCALE: 1/4" = 1' - 0"

CEILING OF THE BASEMENT FLOOR. S SHOWN AND NOTED IN THE CAP ACE BELOW THE SHOWER AREAS.				
ING SPACE BELOW BACK TO SOURCE DLD WATER PIPES BACK TO LIVE MAINS				
WATER PIPES ND VENT PIPE IN THE				
EXISTING PIPE MAINS AND BRANCHES				
RY PIPES IN THE BASEMENT CEILING G. REMOVE DOMESTIC COLD WATER PIPE				
O LIVE MAIN.				
EXISTING PIPE MAINS AND BRANCHES			┙┙┙┇ ╶╴┨ ╶╴┨ ╶╴╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴ ╴	
TO SOURCE AND CAP EXISTING LIVE				•
JTURE PLUMBING FIXTURES. REFER TO				
		KEY PLAN - FIRST FLOOR	PROFESSION	
			K.S. SALAMÉ	ENGINEE
		NOTIFIC A RECIPCION	28 FEB 2025 POL MCE OF ON A	10
SAN. RISER TO REMAIN		NOTES:		
		ALL DRAWINGS AND SPECIFIC INSTRUMENT OF SERVICE AN PROPERTY OF DESIGNER AN THE COPYRIGHT ACT. THEY REPRODUCED, DISTRIBUTED,	CATIONS IS AN D REMAIN THE EXCLUSI D ARE PROTECTED UNDI MAY NOT BE ALTERED FOR ANY OTHI	IVE ER ER
		DO NOT SCALE DRAWINGS, I PRECEDENT OVER SCALE.	DIMENSION OF THE	
EXISTING CORRIDOR		CONTRACTOR TO CHECK AND DIMENSIONS ON DRAWINGS A ANY DISCREPANCIES TO THE CLARIFICATION PRIOR TO CO WORK.) VERIFY ALL LEVELS AN AND ON SITE AND REPO DESIGNER AND OBTAIN MMENCING WITH THE	ND DRT I
		THE CONTRACTOR ACCEPTS WORKING WITH DRAWINGS, N CONSTRUCTION" AND FOR AI DRAWINGS WITHOUT THE EXF	ALL RESPONSIBILITY FOI OT MARKED "ISSUED FO NY CHANGES TO THE PRESS APPROVAL OF	R DR
EXISTING STAIR		SHELLARD BUILDING SYSTEM ALL WORK TO CONFORM TO AND BY-LAWS.	S LTD. ALL GOVERNING CODES	6
		NOTE BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CHECK AND VER DUCTS, DIFFUSERS, CONDUITS, LIGHT FIX EQUIPMENT AND COORDINATE WITH OTHER	RIFY LOCATION OF ALL PIPES, URES, STRUCTURAL AND TRADES ON SITE TO PREVENT	
		THE DRAWINGS WITHOUT THE WRITTEN AP THE DRAWINGS SHALL NOT BE USED FOR THE DRAWINGS SHALL NOT BE USED FOR THE TITLE BLOCKS AS 'ISSUED FOR CON	20NSIBLE FOR ANY CHANGES TO PROVAL OF THE DESIGNER. 2 CONSTRUCTION UNLESS NOTED O STRUCTION'	DN
		THE INFORMATION CONTAINED WITHIN THE DESIGN AND BASIC CONSTRUCTION DETAIL RESPONSIBILITY TO APPLY DETAILS AND F QUALITY ASSURANCE AND FULLY FUNCTIO	DRAWINGS IS INTENDED TO PROVI ING. IT IS THE CONTRACTOR'S 'RACTICES WHICH WILL RESULT IN NING SYSTEMS.	IDE A
			HAMILTON- WENTWORT	ſH
			SCHOOL	
		5. 4. 3. FOR TENDER	28 FE	EB 2025
		 FOR PERMIT REVIEW AND COORDINATION 	31 JA TION 6 JA DATE	AN 2025 AN 2025
		SHELLAR	D BUILDING SYSTEMS L	_TD.
		1684 SHELLARD SIDE CAMBRIDGE, ONTA	ROAD RIO	
		shellard@consultant.co 226 606 6542	m	
		WESTDALE SE	CONDARY	
		HAMILTON – WE DISTRICT SCHOO	NTWORTH L BOARD	
		700 MAIN STREET W HAMILTON, ONTARIO Drawn name:	'EST	
		PARTIAL FIRST FL MECHANICAL – E	OOR PLAN EMOLITION	
		D.A.	N.S. Job No.:	
0 1'2'4' 8'	16'	NOVEMBER 2024	24-107 Sheet No.:	
		1/ 4" = 1' - 0"	M1.02	

- TOOLS.

REY PLAN - FIRST FLOOR NOT TO SCALE
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, DIVERSE COMMENCING WORK: THE CONTRACTOR SHALL CHECK AND VERIFY LOCATION OF ALL PIPES, DIVERSE COMMENCING WORK:
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. HAMILTON- WENTWORTH DISTRICT SCHOOL BOARD
5.
CAMBRIDGE, ONTARIO N1R 5S7 shellard@consultant.com 226 606 6542 WESTDALE SECONDARY SCHOOL HAMILTON – WENTWORTH DISTRICT SCHOOL BOARD 700 MAIN STREET WEST HAMILTON, ONTARIO
DRAWN NAME: PARTIAL FIRST FLOOR PLAN MECHANICAL - PLUMBING DRAWN BY: D.A. D.A. DATE: NOVEMBER 2024 SCALE: 1/ 4" = 1' - 0" CHECKED BY: N.S. JOB No.: 24-107 SCALE: 1/ 4" = 1' - 0" M1.05

		PIPE	S	ZING (CHART	
MBH	GPM	PIP INC	E H	SIZE MM.	CAPACITY KW.	L/S
13.8	1.38	1/	2	13	0-4.0	0.09
30	3.0	3/	4	19	4.1-8.8	0.19
58	5.8	1		25	8.9-17.0	0.37
118	11.8	1 1,	/4	32	17-34	0.74
180	18	1 1	/2	38	35-52	1.13
350	35	2		50	53-102	2.20
570	57	2 1	/2	63	103-167	3.59
1040	104	3		75	168-304	6.55
1500	150	31,	/2	88	305-439	9.45
2150	215	4		100	440-630	13.50
4000	400	5		125	631-1173	25.20
6700	670	6		150	1174-1964	42.20

ROOF PLAN SCALE: 1/16" = 1' - 0"

	<section-header> JOUTLINE OF HP CONDENSING UNIT ON ROOF. PROVIDE ARAISED STATIONARY GALVANIZED STEEL STRUCTURE PLATFORM AS FOLLOWS: A. THE RAISED GALVANIZED STEEL PLATFORM SHALL BE SIZED TO SUIT THE BASE OF THE HEAT PUMP CONDENSING UNIT AND MINIMUM 18" ABOVE ROOF LEVEL. B. THE PLATFORM SHALL BE CONSTRUCTED USING WELDED 2" X 2" X 3/16" (.188" WALL) GALVANIZED STEEL TUBING WELDED TO APPROVAL PROVIDE PIN HOLES FOR CONDENSATE WATER DRAIN. C. PRIME PAINT THE STEEL BASE AND APPLY FINISH COAT OF PAINT. D. SET AND SECURE THE GALVANIZED STEEL STAND PLATFORM OVER 2" THICK CONCRETE SLAB AND 2" THICK RIGD INSULATION. E. SECURE THE PLATFORM TO THE CONCRETE BASE USING STAINLESS STEEL BOLTS. F. SET THE CONDENSING UNIT OVER THE RAISED STEEL PLATFORM AND SECURE USING MANUFACTURER APPROVED BOLTS. CORE DRILL THRU EXISTING ROOF FOR 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 BOLTS. DROVIDE REFRIGERANT PIPES FROM EACH FAN COIL UNIT TO THE CONDENSING UNIT INSULATE ALL PIPES AND PROVIDE PIPE SUPPORTS. COORDINATE OUNIT ACTOR. DROVIDE REFRIGERANT PIPES MOR EACH 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.</section-header>		NOTES:	PROFESS	AME DOLAR ONTARIO
	LEGEND Image: Constant in the stand in	A HI FF FF C C C A A C V T V C C S A A N T D D EINT T T T D R O	ALL DRAWINGS AND SPECIFI NSTRUMENT OF SERVICE AN PROPERTY OF DESIGNER AN PROPERTY OF DESIGNER AN HE COPYRIGHT ACT. THEY REPRODUCED, DISTRIBUTED, PROJECT WITHOUT WRITTEN DESIGNER. DO NOT SCALE DRAWINGS, PRECEDENT OVER SCALE. CONTRACTOR TO CHECK AN DIMENSIONS ON DRAWINGS NY DISCREPANCIES TO THE CLARIFICATION PRIOR TO CO VORK. THE CONTRACTOR ACCEPTS VORKING WITH DRAWINGS, IN CONSTRUCTION" AND FOR A DRAWINGS WITHOUT THE EX SHELLARD BUILDING SYSTEM ALL WORK TO CONFORM TO ND BY-LAWS. TO BEFORE COMMENCING WORK: HE CONTRACTOR SHALL CHECK AND VE UCTS, DIFFUSERS, CONDUITS, LIGHT FIX QUIPMENT AND COORDINATE WITH OTHE ITERFERENCE. THE CONTRACTOR IS RES HE DRAWINGS SHALL NOT BE USED FO NE DIFORMATION CONTAINED WITHIN TH ESIGN AND BASIC CONSTRUCTION DETAL ESIGN AND DAPLY DETAILS AND UNITY ASSURANCE AND FULLY FUNCTION	CATIONS IS AN ND REMAIN THE EX ID ARE PROTECTED 'MAY NOT BE ALTERED FOR ANY PERMISSION OF TH DIMENSIONS TO TA D VERIFY ALL LEVE AND ON SITE AND E DESIGNER AND C DMMENCING WITH T ALL RESPONSIBILIT NOT MARKED 'ISSU NY CHANGES TO T PRESS APPROVAL (S LTD.) ALL GOVERNING (CALL GOVERNING (CALL GOVERNING (CALL GOVERNING (CALL FOR ANY CHANG PROVAL OF THE DESIGNER R CONSTRUCTION UNLESS IN ING SYSTEMS.	CLUSIVE UNDER OTHER HE KE ELS AND REPORT DETAIN HE TY FOR ED FOR ED FOR HE OF CODES ES, WENT ES TO NOTED ON TO PROVIDE RS SULT IN A
	THE WORK ON THE ROOF SHALL BE RESTRICTED TO THE NOTED AREA. THE EXISTING ROOF DRAINS, PLUMBING STACKSETC. ARE NOTED FOR INFORMATION. WORKING ON THE ROOF NOTES: A. ACCESS TO THE ROOF SHALL BE ARRANGED WITH THE SCHOOL BOARD.	5. 4. 3. 2.	FOR TENDER FOR PERMIT	HAMILTO WENTWC DISTRICT SCHOOL BOARD	N- DRTH - 28 FEB 2025 31 JAN 2025
o	 B. 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. C. REVIEW SAFETY TRAINING AND COMPLY WITH ANY REQUIRED SAFE WORK PRACTICE TRAINING. 	1. No.	REVIEW AND COORDINA DESCRIPTION SHELLARD SIDU CAMBRIDGE, ONTA N1R 5S7 shellard@consultant.cc 226 606 6542	TION BUILDIN SYSTEN E ROAD ARIO	6 JAN 2025 DATE
		DRA	WESTDALE SE SCHOOL HAMILTON – WE DISTRICT SCHOO 700 MAIN STREET V HAMILTON, ONTARIO WN NAME: ROOF PLAN	CONDARY	,
		DATI	D.A. E: NOVEMBER 2024 LE: 1/ 16" = 1' - 0"	N.S. JOB No.: 24-107 SHEET No.: M1.08	

Pl	UMBING	FIXTURES	S 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	3/4"	-	1-1/2"	DISHWASHER
FD, FFD	_	3/8"	3"	FLOOR & FUNNEL FLOOR DRAINS
SH	3/4"	3/4"	2"	SHOWER
WC-1	_	1"	3"	FLUSH VALVE
LAV-1	1/2"	1/2"	1 1/2"	LAVATORY
WC-2	-	1"	3"	FLUSH VALVE – BARRIER FREE
LAV-2	1/2"	1/2"	1 1/2"	LAVATORY
WF	3/4"	3/4"	2"	WASH FOUNTAIN
DF	1/2"	_	1 1/2"	DRINKING FOUNTAIN
UR	_	3/4"	2"	URINAL
1				

NOTES:

. 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 FLU 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 FIX 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 PR01-500 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 PRESSU 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).

NOTES:

PROVIDE ALUMINUM DAMPER FOR EACH ALUMINUM GRILLE AND DIFFUSER.

DIFFUSERS NECK SIZES CRITERIA: UP TO 100 CFM = 6"Ø NECK; 101 CFM to 250 CFM = 8"Ø; 251 CFM to 380 CFM = 10"Ø NECK; 381 CFM to 550 CFM = 12"Ø NECK. ALL DIFFUSERS AND GRILLES RATED AT NC30 OR LESS. PROVIDE WELDED LINKS SAFETY CHAIN AS NOTED.

EACH GRILLE AND DIFFUSER SHALL HAVE BALANCING DAMPER AND MOUNTING FRAME PER CEILING CONSTRUCTION TYPE.
 GRILLES AND DIFFUSERS COLOURS SHALL BE REVIEWED AND APPROVED BY THE DESIGN CONSULTANT OR OWNER.

Image: Control	TYPE							
a_{1}^{1} a_{1}^{1} a_{2}^{1} a_{2}^{1	W(1 - 1)	SPECIFICATION	TRIM, FAUCET AND ACCESSORIES	DCW	DHW	WASTE	VENT	
$ \frac{1}{2} = \frac{1}{2} + 1$		WATER CLOSET – FLUSH VALVE AMERICAN STANDARD MADERA FLOWISE 15" HEIGHT, 1.28 GPF, FLUSHOMETER TOILET SYSTEM WITH EVERCLEAN, MODEL 3451.001, VITREOUS CHINA, FLOOR MOUNT ELONGATED BOWL, FLUSHOMETER VALVE. EACH TOILET SHALL HAVE EVERCLEAN ANTIMICROBIAL SURFACE, $(4.2-6.0)$ L PER FLUSH, $1\frac{1}{2}$ " TOP SPUD.	PROVIDE EACH UNIT COMPLETE WITH ELONGATED, WHITE HEAVY DUTY, TOILET SEAT WITH ANTIMICROBIAL EVERCLEAN PROTECTION AND LID COVER. SUPPLY AND INSTALL FOR EACH UNIT FLUSH VALVE, DELTA MODEL 81T201, 1.5" TOP SPUD, DIAPHRAGM RETAINER, RENEWABLE SEAT, VACUUM BREAKER, COPPER SWEAT INLET ADAPTOR, PROTECTING CAP, ADJUSTABLE INLET/VALVE OUTLET CENTERS, STAINLESS STEEL WALL FLANGE, 6 LPF, (FILED ADJUSTABLE TO 4.8 LPF), APPROVED FOR MINIMUM 125 Pg (20 PSI) WATER SUPPLY PRESSURE, ASME AND CSA APPROVED.	(1")	_	(3")	2")	PROVIDE EACH UNIT COMPLETE WITH ELONGATED, V HEAVY DUTY TOILET SEAT WITH ANTIMICROBIAL PROTECTION AND TOILET LID COVER.
Part Performance	WC-2	WATER CLOSET – FLUSH VALVE, BARRIER FREE AMERICAN STANDARD MADERA FLOWISE BARRIER FREE, 3043.001, $16\frac{1}{2}$ " HEIGHT, 1.28 GPF, FLUSHOMETER TOILET SYSTEM WITH EVERCLEAN, MODEL 3043.001, VITREOUS CHINA, FLOOR MOUNT ELONGATED BOWL, FLUSHOMETER VALVE. EACH TOILET SHALL HAVE EVERCLEAN ANTIMICROBIAL SURFACE, (4.2–6.0)L PER FLUSH, $1\frac{1}{2}$ " TOP SPUD.	PROVIDE EACH UNIT COMPLETE WITH ELONGATED, WHITE HEAVY DUTY TOILET OPEN FRONT SEAT #5901 110 WITH ANTIMICROBIAL EVERCLEAN PROTECTION AND LID COVER. SUPPLY AND INSTALL FOR EACH UNIT FLUSH VALVE, DELTA MODEL 81T201, 1.5" TOP SPUD, DIAPHRAGM RETAINER, RENEWABLE SEAT, VACUUM BREAKER, COPPER SWEAT INLET ADAPTOR, PROTECTING CAP, ADJUSTABLE INLET/VALVE OUTLET CENTERS, STAINLESS STEEL WALL FLANGE, 6 LPF, (FILED ADJUSTABLE TO 4.8 LPF), APPROVED FOR MINIMUM 125 Pg (20 PSI) WATER SUPPLY PRESSURE, ASME AND CSA APPROVED.	25 (1")		75 (3")	50 (2")	PROVIDE EACH UNIT COMPLETE WITH ELONGATED, WHEAVY DUTY, OPEN FRONT TOILET SEAT #5901 11 WITH ANTIMICROBIAL PROTECTION AND TOILET LID C
Image: Second	LAV-1	LAVATORY AMERICAN STANDARD MODEL MURRO UNIVERSAL DESIGN, 0955.001EC, WALL HUNG LAVATORY, 520, x 540 x 127 mm, BARRIER FREE, CENTER HOLE, VITREOUS CHINA, SELF RIMMING, OVERFLOW, TRAP, STRAINER, VITREOUS CHINA SHROUD/KNEE CONTACT GUARD 0059.020EC, CONCEALED IN WALL STEEL CARRIER, WHITE AND RECESSED STEEL CARRIER.	PROVIDE MOEN SINGLE-HANDLE METERING LAVATORY FAUCET MODEL 8884 (CHROME), SINGLE HOLE (7/8"¢ DIAMETER), CHROME PLATED SOLID BRASS CONSTRUCTION, VANDAL RESISTANT, LEVER STYLE HANDLE, ADJUSTABLE TIME FROM 5 TO 60 SECONDS INDEPENDENT FROM WATER PRESSURE, OPERATES WITH WATER SUPPLY LINE PRESSURES OF 20 TO 125 PSI, 0.5 GPM MAX (1.9 L/MIN) VANDAL-RESISTANT MULTI-STREAM, LAMINAR FLOW LIMITS WATER DISCHARGE TO A MAXIMUM OF 0.25 GPC (0.95 L/CYCLE) AT 30 SECONDS OR 0.20GPC (0.76 L/CYCLE) AT 24 SECONDS CARTRIDGE 52100 BRASS SHELL CARTRIDGE, SELF CONTAINED METERING MECHANISM, ASME A112.18.1/CSA B125.1 APPROVED.	13 (1/2")	13 (1/2")	38 (1 1/2"	38) (1 1/2")	PROVIDE WATTS OR EQUAL HYDROGUARD SERIES LI LEAD FREE THERMOSTATIC TEMPERING VALVE UNDE EACH LAVATORY. THE TEMPERING VALVE SHALL BE AND ULC APPROVED. PROVIDE C-1065 WITH OPEN STRAINER, 32 TAIL PIECE CH-8053 AND 32 mm OFFSET WASTE. PROVIDE DRAIN TRAP AND ISOLATIN VALVES BELOW EACH LAVATORY. INSTALL STEEL CA RECESSED IN WALL. COORDINATE WITH GENERAL CONTRACTOR.
 Provide and the second of the s	LAV-2	LAVATORY AMERICAN STANDARD MODEL MURRO UNIVERSAL DESIGN, 0955.001EC, WALL HUNG LAVATORY, 520, x 540 x 127 mm, BARRIER FREE, CENTER HOLE, VITREOUS CHINA, SELF RIMMING, OVERFLOW, TRAP, STRAINER, VITREOUS CHINA SHROUD/KNEE CONTACT GUARD 0059.020EC, CONCEALED IN WALL STEEL CARRIER, WHITE AND RECESSED STEEL CARRIER.	PROVIDE DELTA ELECTRONIC LAVATORY FAUCET 591-TF HDF SERIES, SINGLE HOLE, HARD WIRED, HANDS FREE ON/OFF ACTIVATION, ALL METAL FAUCET CONSTRUCTION, FAUCET HOSE, 1.9 L/MIN (0.5 GPM), SERVICEABLE FILTER SCREEN, MAXIMUM 125 PSI WATER STATIC PRESSURE, BRUSHED NICKEL FINISH, AERATOR, VANDAL RESISTANT, ASME A112.18.1/CSA B125.1 APPROVED.	13 (1/2")	13 (1/2")	38 (1 1/2"	38) (1 1/2")	PROVIDE WATTS OR EQUAL HYDROGUARD SERIES LI LEAD FREE THERMOSTATIC TEMPERING VALVE UNDE EACH LAVATORY. THE TEMPERING VALVE SHALL BE AND ULC APPROVED. PROVIDE C-1065 WITH OPEN STRAINER, 32 TAIL PIECE CH-8053 AND 32 mm OFFSET WASTE. PROVIDE DRAIN TRAP AND ISOLATIN VALVES BELOW EACH LAVATORY. INSTALL STEEL CA RECESSED IN WALL. COORDINATE WITH GENERAL CONTRACTOR.
H-T Prove Hash Network (Not and Law), a state of the control of t	WF	WASH FOUNTAIN BRADLEY TERREON WALL HUNG QUADRA-FOUNT WASH FOUNTAIN MODEL MF2949, TERREON CONSTRUCTION, ONTARIO BUILDING CODE HEIGHTS, INFRARED ACTIVATION TYPE, HARD WIRED, 120V/1/60, TRANSFORMER, NEMA-15P, SOLENOID VALVE, LEAD FREE THERMOSTATIC MIXING VALVE, VANDAL RESISTANT SPRAY HEADS, ADA COMPLIANCE, 1.9 L/MIN, UP TO 4 USERS AT A TIME, HIGHLY VANDAL RESISTANT, ULTRA HIGH EFFICIENCY, WIRED INFRARED SENSOR AND NAVIGATOR THERMOSTATIC MIXING ASSEMBLY. PROVIDE UNIT COMPLETE WITH ALL ASSOCIATED PARTS AND REQUIRED HARDWARE TO COMPLETE INSTALLATION. COORDINATE WITH GENERAL CONTRACTOR FOR COLOR SELECTION. THE UNIT SHALL BE CSA, ULC, ASME AND ADA APPROVED.	PROVIDE EACH UNIT COMPLETE WITH ALL REQUIRED ACCESSORIES INCLUDING SOLENOID VALVE, TUBE FITTINGS, LEAD FREE THERMOSTATIC MIXING VALVE ASSEMBLY, CONTROL SENSORS, CONTROLLER, TRANSFORMER, PIPES COVER SHROUD, RECESSED IN WALL STEEL CARRIER AND TEMPLATE FOR PIPING ROUGH—IN.	19 (3/4")	19 (3/4")	38 (1 1/2"	50) (2")	ALL PIPES AND WIRES SHALL FIT BEHIND UNIT SH AND NO EXPOSED PIPES BELOW THE SHROUD. INS STEEL CARRIER RECESSED IN WALL AND SECURED PLACE TO APPROVAL. INSULATE ALL PIPES BELOW LAVATORY USING PRE-FORMED INSULATION FITTING.
SH-2 SHOULS	SH-1	SHOWER PROVIDE DELTA SHOWER TECK COMMERCIAL MODEL 860T1, RECESSED METAL MOUNTING BOX WITH STAINLESS STEEL COVER (INSTALL IN CEILING SPACE), SLOW CLOSING SOLENOID VALVE, INTEGRAL STOP, MIXING VALVE, 4" METAL CONTROL BOX WITH STAINLESS STEEL COVER AND PUSH BUTTON (INSTALL RECESSED IN WALL), HARDWIRE MIXING VALVE CONTROLLER (DRIVER BOARD) WITH ADJUSTABLE TIMER, VANDAL RESISTANT CAST WALL MOUNT SHOWER HEAD (5.7 L/min),	PROVIDE HARD WIRED REMOTE PUSH BUTTON SHOWER VALVE. INSTALL EACH PUSH BUTTON DEVICE BELOW SHOWER HEAD FLUSH WITH FINISHED WALL. THE SHOWER SHALL HAVE TWO CHECK VALVES FOR BACKFLOW PROTECTION SYSTEM TESTED WITH ASME A112.18.3, ASME A112.18.1 AND CSA B125.1 STANDARDS. SUPPLY 300x300 mm (12x12) METAL SERVICE ACCESS PANEL WITH MOUNTING FRAME FOR INSTALLATION AT CEILING BELOW MIXING VALVE BOX. INSTALLATION AND PAINTING BY GENERAL CONTRACTOR.	19 (3/4")	19 (3/4")	50 (2")	38 (1 1/2")	LOCATE SHOWER PUSH BUTTON AS SHOWN ON ARCHITECTURAL ELEVATION DRAWINGS COMPLETE W BACK BOX AND STAINLESS STEEL COVER PLATE. PROVIDE ALL REQUIRED CONTROL WIRING AND CONTROLLER. PROVIDE ALL REQUIRED PIPING, WIRE AND ACCESSORIES TO COMPLETE INSTALLATION.
SHOWER - BARRER FREE PROVIDE HARD WIRED REMOTE PUSH BUTTON SHOWER VALVE WITH TEMPERATURE 19 19 13 11/2"	SH-2	SHOWER PROVIDE DELTA SHOWER TECK COMMERCIAL 10" PRESSURE BALANCING MIXING VALVE ASSEMBLED CONTROL BOX MODEL 860T1, HARDWIRE, RECESSED METAL MOUNTING BOX WITH STAINLESS STEEL COVER FOR INSTALLATION RECESSED IN WALL, SLOW CLOSING SOLENOID VALVE, INTEGRAL STOP, MIXING VALVE, FLOW CONTROL HANDLE, STAINLESS STEEL COVER, HARDWIRE MIXING VALVE CONTROLLER WITH ADJUSTABLE TIMER, PERSONAL HAND HELD SHOWER MODEL 55021, 3 SPRAY SETTINGS, 1.5 M STRETCHABLE METAL HOSE, WALL BRACKET AND DUAL CHECK VALVE.	INSTALL EACH SHOWER VALVVE BOX RECESSED IN WALL AT 1.2 m FROM FINISHED FLOOR LEVEL. THE SHOWER SHALL HAVE TWO CHECK VALVES FOR BACKFLOW PROTECTION SYSTEM TESTED WITH ASME A112.18.3, ASME A112.18.1 AND CSA B125.1 STANDARDS.	19 (3/4")	19 (3/4")	50 (2")	38 (1 1/2")	LOCATE SHOWER VALVE BOX AT ELEVATION AS SHO ON ARCHITECTURAL ELEVATION DRAWINGS COMPLET WITH STAINLESS STEEL COVER PLATE. PROVIDE ALL REQUIRED CONTROL WIRING AND CONTROLLER. PRO ALL REQUIRED PIPING, WIRES AND ACCESSORIES T COMPLETE INSTALLATION.
FDWATTS MODEL WATTS-FD-102-L, && 6, EPOXY COATED CAST IRON WITH ANCHOR FLANCE, REVERSIBLE MEMBRANE CLAMP WITH PRIMARY AND SECONDARY WEEP HOLES, 1/2" THICK REINFORCED SQUARE STAINLESS STEEL STRAINER, 1/2" TRAP PRIMER AND 3"PROVIDE TRAP AND TRAP SEAL PRIMER COMPLETE WITH ALL frequired pipes and water flow controls. Prove brass strainer/funnel floor drain.10 (3/8")75 (3")50 (2")COORDINATE WITH GENERAL CONTRACT TO DETERMINE EACH FLOOR DRAIN LOCATION BASED ON FLOOR DRAIN LOCATION BASED ON FLOOR DRAIN.TDTRENCH DRAIN PROVIDE SCHLUTER - KERDI LINE SHOWER TRENCH DRAIN INTEGRATED FOR ELENGTH OF EACH DRAIN. EXACT LENGTHS SHALL BE WASTER TIGHT, BONDED WATER PROOF MEMBRANE BONDED TO MORTAR BED, PREFABRICATED STALL DE MEASURED ON SITE. EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH DRAIN. EXACT LENGTH SHALL BE MEASURED ON SITE. EACH DRAIN. EXACT LENGTH SHALL BE MEASURED ON SITE. EACH DRAIN. EACORDANS.PROVIDE KLVZSF HAIR CATCHER STRAINER STRAINER AND SANITARY DRAIN TRAP.50 (2")38 (12")EACH TRENCH DRAIN LENGTH SHALL BE VERIFIE SITE BY THE MECHANICAL CONTRACT PRIOR EVEL.TDTRENCH DRAIN PROVIDE SCHLUTER - KERDI LINE SHOWER TRENCH DRAIN INTEGRATED FOR EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH DRAIN STRAINER FLOOR DRAIN.S00/10 K KLVZSF HAIR CATCHER STRAINER STRAINER AND SANITARY DRAIN TRAP.50 (2")38 (12")EACH TRENCH DRAIN LENGTH SHALL BE VERIFIE SITE BY THE MECHANICAL CONTRACTOR PRIOR LENGTH OF EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH TRANF AND TRAP SAND TRAP SAND TRAP.50 (2")38 (2")EACH TRENCH DRAIN LENGTH CONTRACTOR PRIOR (2")	SH-3	SHOWER – BARRIER FREE PROVIDE DELTA SHOWER TECK COMMERCIAL 10" PRESSURE BALANCING MIXING VALVE ASSEMBLED CONTROL BOX MODEL 860T1, HARDWIRE, RECESSED METAL MOUNTING BOX WITH STAINLESS STEEL COVER FOR INSTALLATION RECESSED IN WALL, SLOW CLOSING SOLENOID VALVE, INTEGRAL STOP, MIXING VALVE, FLOW CONTROL HANDLE, STAINLESS STEEL COVER, HARDWIRE MIXING VALVE CONTROLLER, HAND HELD SHOWER MODEL 57051, 1.5 M STRETCHABLE METAL HOSE AND 24" WALL BAR WITH ADJUSTABLE SLIDE.	PROVIDE HARD WIRED REMOTE PUSH BUTTON SHOWER VALVE WITH TEMPERATURE CONTROL HANDLE. INSTALL EACH SHOWER VALVE BOX RECESSED IN WALL AT 1.2 m FROM FINISHED FLOOR LEVEL (ADA COMPLIANCE). THE SHOWER SHALL HAVE TWO CHECK VALVES FOR BACKFLOW PROTECTION SYSTEM TESTED WITH ASME A112.18.3, ASME A112.18.1 AND CSA B125.1 STANDARDS.	19 (3/4")	19 (3/4")	50 (2")	38 (1 1/2")	LOCATE SHOWER PUSH BUTTON AS SHOWN ON ARCHITECTURAL ELEVATION DRAWINGS COMPLETE W BACK BOX AND STAINLESS STEEL COVER PLATE. PROVIDE ALL REQUIRED CONTROL WIRING AND CONTROLLER. PROVIDE ALL REQUIRED PIPING, WIRE AND ACCESSORIES TO COMPLETE INSTALLATION.
TD TRENCH DRAIN PROVIDE SCHLUTER - KERDI LINE SHOWER TRENCH DRAIN INTEGRATED FOR CERAMIC/TILED SHOWER FLOORS. REFER TO FLOOR PLAN FOR NOMINAL LENGTH OF EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH UNIT SHALL BE WATER TIGHT, BONDED WATER PROOF MEMBRANE BONDED TO MORTAR BED, PREFABRICATED SEALS, 3/4" FRAME HEIGHT, TAMPER RESISTANT, BRUSHED STAINLESS STEEL LINEAR DRAIN MODEL KLIBL19EB, CENTER OUTLET, SQUARE GRATE C/W LOCKING MECHANISM.	FD	WATTS MODEL WATTS-FD-102-L, 6x6, EPOXY COATED CAST IRON WITH ANCHOR FLANGE, REVERSIBLE MEMBRANE CLAMP WITH PRIMARY AND SECONDARY WEEP HOLES, 1/2" THICK REINFORCED SQUARE STAINLESS STEEL STRAINER, 1/2" TRAP PRIMER AND 3" PIPE OUTLET.	PROVIDE TRAP AND TRAP SEAL PRIMER COMPLETE WITH ALL REQUIRED PIPES AND WATER FLOW CONTROLS. PROVE BRASS STRAINER/FUNNEL FOR FUNNEL FLOOR DRAIN.	10 (3/8")		75 (3")	50 (2")	COORDINATE WITH GENERAL CONTRACTOR TO DETERMINE EACH FLOOR DRAIN LOCATION BASED ON FLOOR SLOPE, FLO FINISH AND EXISTING CONDITIONS. INSTAI EACH DRAIN STRAINER FLUSH WITH FINISHED FLOOR LEVEL.
	TD	TRENCH DRAIN PROVIDE SCHLUTER – KERDI LINE SHOWER TRENCH DRAIN INTEGRATED FOR CERAMIC/TILED SHOWER FLOORS. REFER TO FLOOR PLAN FOR NOMINAL LENGTH OF EACH DRAIN. EXACT LENGTHS SHALL BE MEASURED ON SITE. EACH UNIT SHALL BE WATER TIGHT, BONDED WATER PROOF MEMBRANE BONDED TO MORTAR BED, PREFABRICATED SEALS, 3/4" FRAME HEIGHT, TAMPER RESISTANT, BRUSHED STAINLESS STEEL LINEAR DRAIN MODEL KLIBL19EB, CENTER OUTLET, SQUARE GRATE C/W LOCKING MECHANISM.	PROVIDE KLVZSF HAIR CATCHER STRAINER STRAINER AND SANITARY DRAIN TRAP.			50 (2")	38 (1 <u>1</u> ")	EACH TRENCH DRAIN LENGTH SHALL BE VERIFIED SITE BY THE MECHANICAL CONTRACTOR PRIOR TO PLACING THE ORDER FOR THE UNITS. SET EACH D LEVEL IN ACCORDANCE TO MANUFACTURER WRITTEN INSTRUCTIONS. COORDINATE WITH FLOORING CONTRACTOR. PROVIDE FROM EACH SHOWER DRAIN SANITARY DRAIN TRAP AND TRAP SEAL PRIMER.

	ROFESS	5/04				
	K.S. SAL 404135 28 FEB 2 PROVINCE OF	AMÉ 02 0025 0NTAR				
NOTES: ALL DRAWINGS AND SPECIFIC INSTRUMENT OF SERVICE AN PROPERTY OF DESIGNER ANI THE COPYRIGHT ACT. THEY REPRODUCED, DISTRIBUTED, PROJECT WITHOUT WRITTEN I	CATIONS IS AN D REMAIN THE EX O ARE PROTECTED MAY NOT BE ALTERED FOR AN PERMISSION OF TH	CLUSIVE UNDER / OTHER HE				
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.						
	HAMILTO WENTWO DISTRICT SCHOOL BOARD	N- DRTH				
5.						
3. FOR TENDER 2. FOR PERMIT		28 FEB 2025 31 JAN 2025				
1. REVIEW AND COORDINAT	ION	6 JAN 2025 Date				
SHELLARD BUILDING						
1684 SHELLARD SIDE ROAD CAMBRIDGE, ONTARIO N1R 5S7						
shellard@consultant.com 226 606 6542						
WESTDALE SECONDARY SCHOOL HAMILTON – WENTWORTH DISTRICT SCHOOL BOARD 700 MAIN STREET WEST HAMILTON, ONTARIO						
DRAWN NAME: SCHEDULES AND MECHANICAL	DETAILS					
D.A.	CHECKED BY:					
DATE: NOVEMBER 2024	JOB No.: 24-107					
SCALE: NOT TO SCALE	SHEET No.: M3.01					

SPIN-IN ANGLED COLLAR DETAIL

MECHANICAL SYSTEMS AND CONTROLS SPECIFICATIONS

HOT WATER CEILING RADIANT PANELS

- PROVIDE SIGMA OR APPROVED EQUAL RADIANT CEILING PANELS WHERE SHOWN AND AS NOTED. EACH PANEL SHALL BE MANUFACTURED TO SUITE THE NOTED DIMENSIONS AND PIPES PASSES. PROVIDE EACH PANEL COMPLETE WITH ALL REQUIRED ACCESSORIES, VALVES, SUPPORTS AND CONTROLS.
- 2. EACH RADIATION PANEL SHALL BE COMPLETE WITH ISOLATING VALVES, CIRCUIT BALANCING VALVE, UNIONS, MODULATING CONTROL VALVE, ACTUATOR, REMOTE ROOM THERMOSTAT, ALL REQUIRED BRACES, ALUMINUM EXTRUDED FRAME FOR SUSPENDED CEILING, INTEGRAL PIPE SADDLES, WHITE FINISH, 1" THICK FOIL FACED INSULATION ON TOP OF PANEL, AND SECONDARY WELDED LINKS CHAINS FOR EMERGENCY SUPPORT. THE PANELS SIZES SHALL BE AS FOLLOWS:

RADIANT CEILING PANEL (RCP-A): EACH UNIT SHALL BE 30" x 96", 10 PASSES, 1.57 KW HEATING OUTPUT AT 71°C EWT, 0.05 L/S WATER FLOW, ALUMINUM FRAME FOR DRYWALL SUSPENDED CEILING.

RADIANT CEILING PANEL (RCP-B): EACH UNIT SHALL BE 24" x 96", 8 PASSES, 1.23 KW HEATING OUTPUT AT 71°C EWT, 0.04 L/S WATER FLOW, ALUMINUM FRAME FOR T-BAR SUSPENDED CEILING.

- INSTALL EACH PANEL WHERE SHOWN AND CONNECT TO HEATING PIPING SYSTEM COMPLETE WITH AIR VENTS AND ALL REQUIRED FITTINGS. INSULATE ALL PIPES. CONNECT THERMOSTAT AND MODULATING VALVE TO EXISTING BUILDING AUTOMATION SYSTEM. INSULATE ALL NEW AND EXISTING PIPES. WIRE CONTROL VALVE TO A REMOTE TEMPERATURE SENSOR AND EXISTING BUILDING AUTOMATION SYSTEM. COORDINATE WITH SCHOOL BOARD FACILITIES (THRU GENERAL CONTRACTOR) TO COMPLETE THE CONNECTION TO EXISTING BUILDING AUTOMATION SYSTEM. PROVIDE FOR EACH TEMPERATURE SENSOR A HEAVY DUTY VANDAL PROOF LOCKABLE ENCLOSURE.
- SECURE EACH RADIANT PANEL TO EXISTING STRUCTURE USING APPROVED SUPPORT FRAME AND ADDITIONAL WELDED CHAINS FOR EMERGENCY SUPPORT SUCH THAT IT IS SUPPORTED WITHOUT THE CEILING FRAME (THE WELDED LINKS CHAINS SHALL HOLD PANEL IN PLACE AND SHALL NOT FALL DOWN BELOW THE CEILING).
- PROVIDE HOT WATER HEATING SUPPLY AND RETURN PIPES TO EACH RADIANT CEILING PANEL COMPLETE WITH UNIONS. CIRCUIT BALANCING VALVE, ISOLATING VALVES, CONTROL VALVE AND STRAINER. COORDINATE WITH OWNER FOR ZONE PIPING SHUT DOWN BEFORE COMMENCING WORK. INSULATE ALL NEW AND EXISTING PIPES. LABEL PIPES AND FLOW DIRECTION OVER THE NEW INSULATION.

HOT WATER CONVECTORS

1. PROVIDE MODINE OR APPROVED EQUAL HOT WATER HEATING CONVECTOR UNITS FOR INSTALLATION RECESSED IN WALLS. EACH CONVECTOR SHALL BE HAVE 18 GAUGE FRONT PANEL, 20 GAUGE SIDES AND BACK PANEL, EPOXY POWDER COATED, 1/2" COPPER TUBE, 0.3" ALUMINUM FINS, BUILT IN ISOLATING VALVES, CIRCUIT BALANCING VALVE, UNIONS, MODULATING VALVE, ACTUATOR, AND BUILT-IN DIGITAL THERMOSTAT. THE CONVECTORS SIZES SHALL BE AS FOLLOWS:

CONVECTOR - 1: EACH CONVECTOR SHALL BE MAXIMUM 4" DEPTH, 28" LENGTH, 26" HEIGHT, 1.0 KW HEATING OUTPUT AT 82°C ENTERING WATER TEMPERATURE AND 0.06L/S.

CONVECTOR – 2: EACH CONVECTOR SHALL BE MAXIMUM 4" DEPTH, 36" LENGTH, 26" HEIGHT, 1.2 KW HEATING OUTPUT AT 82°C ENTERING WATER TEMPERATURE AND 0.41 L/S.

2. INSTALL EACH CONVECTOR WHERE SHOWN AND CONNECT TO HEATING PIPING SYSTEM COMPLETE WITH AIR VENTS AND ALL REQUIRED FITTINGS. INSULATE ALL PIPES. CONNECT EACH THERMOSTAT AND MODULATING VALVE TO EXISTING BUILDING AUTOMATION SYSTEM. COORDINATE WITH SCHOOL BOARD FACILITIES (THRU GENERAL CONTRACTOR) TO COMPLETE THE CONNECTION TO EXISTING BUILDING AUTOMATION SYSTEM. PROVIDE FOR EACH REMOTE TEMPERATURE SENSOR A HEAVY DUTY VANDAL PROOF LOCKABLE ENCLOSURE. COORDINATE WITH OWNER FOR ZONE PIPING SHUT DOWN BEFORE COMMENCING WORK. INSULATE ALL PIPES.

REFRIGERANT PIPING

- 1. THE INSTALLING CONTRACTOR SHALL BE TSSA CERTIFIED AND SHALL HAVE A CANADIAN REGISTRATION NUMBER OR CSA CERTIFICATION ACCEPTABLE TO TSSA.
- 2. ALL SYSTEMS SHALL DISPLAY APPROPRIATE OZONE DEPLETION PREVENTION (ODP) TAGS PRIOR TO COMMISSIONING. MANUFACTURER SHALL NOT COMMISSION ANY SYSTEM NOT DISPLAYING PROPER ODP TAG.
- 3. THERE SHALL BE MINIMAL USE OF REFRIGERATION SPECIALTIES (FILTER DRIERS, ACCUMULATORS, RECEIVERS, CHECK VALVES, ETC.) IN THE PIPING SYSTEM.
- 4. ALL INDOOR REFRIGERANT LINES SHALL BE INSULATED WITH MINIMUM 15 MM (1/2") WALL DIAMETER ARMAFLEX WITH APPROVED FIRE RESITANT 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.
- 7. 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.
- 9. BRAZING RODS FOR ALL JOINTS SHALL BE 15% LUCAS MILHAUPT "SIL-FOS".
- 10. 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 BRAZED 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.
- 11. REFRIGERANT ACCESS VALVES AND HOSE CONNECTIONS SHALL BE IN ACCORDANCE WITH ARI 720.
- 12. PROVIDE ALL REQUIRED FITTINGS, VALVES AND FILTERS TO COMPLETE EACH SYSTEM INSTALLATION.
- 13. 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

BUILDING AUTOMATION SYSTEM (BAS)

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 WIRES SHALL BE IN EMT CONDUITS

UPDATE SYSTEM GRAPHICS AND ALARMS. 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.

CONVECTORS AND RADIANT CEILING PANELS

- NIGHT SET-BACK.
- UPDATE BAS GRAPHICS AND ALARMS.
- 1

CONNECT EACH EXHAUST FAN TO THE BAS FOR START/STOP, STATUS AND ALARM. UPDATE BAS INTERFACE GRAPHICS. THE ELECTRICAL CONTRACTOR WILL INTERLOCK EACH FAN TO START FOR OCCUPANCY SENSOR IN THE WASHROOM.

HEAT PUMP (HP) SYSTEM

- COMPRESSOR TO MAINTAIN ROOM TEMPERATURE.
- (ADJUSTABLE).
- G. UPDATE BAS GRAPHICS AND ALARMS.
- H. COMMISSION SYSTEM AND PROVIDE REQUIRED TRAINING.

- PUMP AS SECOND STAGE (ADJUSTABLE)

- CONTROL.

BAS INPUT/OUTPUT

PROVIDE FOR EACH SYSTEM THE FOLLOWING INPUT/OUTPUT AT THE INTERFACE:

- HEAT PUMP SYSTEM STATUS - HEAT PUMP SYSTEM ENABLE/DISABLE – EXHAUST FAN STATUS – NIGHT SET BACK SCHEDULING - OCCUPANCY SENSOR OVERRIDE STATUS
- ROOM TEMPERATURE – ALARMS
- GRAPHICS

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.

A. PROVIDE GREYSTONE TE200 STYLE OR SIEMENS APPROVED TEMPERATURE SENSOR AND TWO WAY DIRECT DIGITAL MODULATING CONTROL VALVE (0-10V) FOR EACH RADIANT PANEL AND CONVECTOR. INSTALL WHERE SHOWN TO MONITOR ZONE TEMPERATURE SENSOR AND CONTROL RADIANT PANEL MODULATING CONTROL VALVE. PROVIDE HEAVY DUTY TRANSPARENT AND LOCKABLE GUARD FOR EACH ROOM TEMPERATURE SENSOR CONNECT EACH RADIANT PANEL AND CONVECTOR CONTROL VALVE TO EXISTING BUILDING AUTOMATION SYSTEM. D. PROVIDE OCCUPANCY SENSOR AT CEILING IN EACH ROOM AND WIRE CONVECTORS/RADIANT PANELS TO OVERRIDE

E. PROVIDE ALL REQUIRED WIRING, CONDUITS AND DEVICES TO COMPLETE INSTALLATION. PROVIDE FIRE SEAL AROUND EACH CONDUIT AT RATED WALLS AND FLOOR.

G. COMMISSION SYSTEM AND PROVIDE REQUIRED TRAINING.

H. THE CONTROLS VIA EXISTING BUILDING AUTOMATION SYSTEM (BAS) SHALL INCLUDE THREE (3) MODES OF OPERATION FOR CONTROL OF THE CONVECTORS AND THE RADIANT HEATING PANELS:

OCCUPIED MODE = IF TIME-OF-DAY SCHEDULE IS IN "OCCUPIED MODE" AND LOCAL OCCUPANCY IS SENSED, ZONE WILL BE CONTROLLED TO "OCCUPIED HEATING SETPOINT". SET TO 21°C STANDBY MODE = IF (TIME-OF-DAY SCHEDULE IS IN "OCCUPIED MODE" AND OCCUPANCY IS NOT SENSED) OR (TIME-OF-DAY SCHEDULE IS IN "UNOCCUPIED MODE" AND OCCUPANCY IS SENSED), ZONE WILL BE

CONTROLLED TO "STANDBY HEATING SETPOINT", SET TO 19°C 3. UNOCCUPIED MODE = IF TIME-OF-DAY SCHEDULE IS IN "UNOCCUPIED MODE" AND OCCUPANCY IS NOT SENSED, ZONE WILL BE CONTROLLED TO "UNOCCUPIED HEATING SETPOINT", SET TO 17°C.

WASHROOM EXHAUST FANS (NEW AND EXISTING)

A. PROVIDE GREYSTONE TE200 STYLE OR EQUAL TEMPERATURE SENSOR AND TWO WAY DIRECT DIGITAL MODULATING CONTROL VALVE (0-10V) FOR EACH RADIANT PANEL AND CONVECTOR. INSTALL WHERE SHOWN TO MONITOR ZONE TEMPERATURE SENSOR AND CONTROL RADIANT PANEL MODULATING CONTROL VALVE.

B. PROVIDE HEAVY DUTY TRANSPARENT AND LOCKABLE GUARD FOR EACH ROOM TEMPERATURE SENSOR. C. THE BAS SHALL ENABLE AND DISABLE THE HEAT PUMP SYSTEM TO MAINTAIN ROOM TEMPERATURE. THE HP VENDOR SHALL PROVIDE CONTROLLER TO CONTROL THE OUTDOOR UNIT AND FAN COIL UNIT AND MODULATE THE

THE RADIATION PANELS IN THE BASEMENT OFFICE SPACE SHALL BE CONTROLLED AS A SECOND STAGE HEATING. PROVIDE OCCUPANCY SENSOR AT CEILING IN GYM OFFICE 0004E AND WIRE TO OVERRIDE HEATING/COOLING IN THE ROOM (HP AND RADIANT PANELS) TO OCCUPIED WHEN SYSTEM IS IN NIGHT SETBACK. THE HEATING AND COOLING IN THE GYM OFFICE SHALL BE SET TO NIGH SETBACK WHEN NO MOTION IN THE ROOM FOR OVER 45 MINUTES

F. PROVIDE ALL REQUIRED WIRING, SENSORS, ACTUATORS, CONDUITS AND DEVICES TO COMPLETE THE BUILDING AUTOMATION SYSTEM INSTALLATION. PROVIDE FIRE SEAL AROUND EACH CONDUIT AT RATED WALLS AND FLOOR.

I. THE CONTROLS VIA EXISTING BUILDING AUTOMATION SYSTEM (BAS) SHALL INCLUDE THREE (3) MODES OF OPERATION FOR CONTROL OF THE CONVECTORS AND THE RADIANT HEATING PANELS:

1. OCCUPIED MODE = IF TIME-OF-DAY SCHEDULE IS IN "OCCUPIED MODE" AND LOCAL OCCUPANCY IS SENSED, ZONE WILL BE CONTROLLED TO "OCCUPIED HEATING SETPOINT", SET TO 21°C

2. STANDBY MODE = IF (TIME-OF-DAY SCHEDULE IS IN "OCCUPIED MODE" AND OCCUPANCY IS NOT SENSED) OR (TIME-OF-DAY SCHEDULE IS IN "UNOCCUPIED MODE" AND OCCUPANCY IS SENSED), ZONE WILL BE CONTROLLED TO "STANDBY HEATING SETPOINT", SET TO 19°C

3. UNOCCUPIED MODE = IF TIME-OF-DAY SCHEDULE IS IN "UNOCCUPIED MODE" AND OCCUPANCY IS NOT SENSED, ZONE WILL BE CONTROLLED TO "UNOCCUPIED HEATING SETPOINT", SET TO 17°C.

J. COORDINATE ON SITE THE LOCATION OF EACH TEMPERATURE SENSOR BEFORE COMMENCING WORK. ALL WIRES SHALL BE IN CONDUITS AND SHALL BE CONCEALED IN WALLS/FLOORS. WHERE SENSOR WILL BE INSTALLED ON CONCRETE WALL, USE LEGRAND OR EQUAL STEEL 500/700 SERIES SMALL RACEWAY (WIREMOLD). COORDINATE WITH THE GENERAL CONTRACTOR BEFORE CORE DRILLING AND/OR CUTTING. PATCHING BY GENERAL CONTRACTOR.

K. THE HOT WATER HEATING RADIATION PANELS SHALL BE PROGRAMMED AS FIRST STAGE HEATING AND THE HEAT

L. ALL DEVICES AND EQUIPMENT SHALL BE CSA AND ULC APPROVED.

M. SUBMIT SHOP DRAWINGS INDICATING CONTROLS SYSTEM SCHEMATICS, LIST OF DEVICES AND SEQUENCE OF

- RADIANT PANELS/CONVECTORS VALVES ENABLE/DISABLE

	05555					
	ROFESS Roy Action K.S. SAL 404135 28 FEB 2 ROL NCE OF	AMÉ 02 025 00 00 00 00 00 00 00 00 00 0				
NOTES:						
ALL DRAWINGS AND SPECIFI INSTRUMENT OF SERVICE AN PROPERTY OF DESIGNER AN THE COPYRIGHT ACT. THEY REPRODUCED, DISTRIBUTED, PROJECT WITHOUT WRITTEN DESIGNER.	CATIONS IS AN ID REMAIN THE EX D ARE PROTECTED MAY NOT BE ALTERED FOR ANY PERMISSION OF TH	CLUSIVE UNDER OTHER HE				
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 AND BY-LAWS. NOTE BEFORE COMMENCING WORK:	ALL GOVERNING (CODES				
THE CONTRACTOR SHALL CHECK AND VE DUCTS, DIFFUSERS, CONDUITS, LIGHT FIX EQUIPMENT AND COORDINATE WITH OTHEI INTERFERENCE. THE CONTRACTOR IS RES THE DRAWINGS WITHOUT THE WRITTEN AF	RIFY LOCATION OF ALL PIP TURES, STRUCTURAL AND R TRADES ON SITE TO PRE PONSIBLE FOR ANY CHANG PPROVAL OF THE DESIGNER	es, Vent es to				
THE DRAWINGS SHALL NOT BE USED FO THE TITLE BLOCKS AS 'ISSUED FOR CON THE INFORMATION CONTAINED WITHIN THE DESIGN AND BASIC CONSTRUCTION DETAI RESPONSIBILITY TO APPLY DETAILS AND QUALITY ASSURANCE AND FULLY FUNCTION	R CONSTRUCTION UNLESS I ISTRUCTION' E DRAWINGS IS INTENDED T LING. IT IS THE CONTRACTO PRACTICES WHICH WILL RES INING SYSTEMS.	NOTED ON 10 provide)R'S SULT IN A				
	HAMILTO WENTWC	N- DRTH				
	DISTRICT SCHOOL					
	BOARD					
5. 4.						
 FOR TENDER FOR PERMIT REVIEW AND COORDINA 	TION	28 FEB 2025 31 JAN 2025 6 JAN 2025				
	BUILDI	date NG				
SHELLARD SYSTEMS LTD. 1684 SHELLARD SIDE ROAD CAMBRIDGE, ONTARIO						
N1R 5S7 shellard@consultant.com 226 606 6542						
WESTDALE SECONDARY						
SCHOOL HAMILTON – WE DISTRICT SCHOO 700 MAIN STREET V HAMILTON, ONTARIO	INTWORTH IL BOARD VEST					
DRAWN NAME: SPECIFICATIONS A MECHANICAL	AND DETAILS	6				
D.A.	CHECKED BY: N.S.					
DATE: NOVEMBER 2024	JOB No.: 24-107					
SCALE.	SHEET No.:					

M3.02

NOT TO SCALE

					POWER INF	PUT HEATING CA	PACITY					PIP	ING DIAN	IETER	
UNIT No	. SERVICE	INDOOR	MAKE & MODEL	COOLING CAPACI (BTU/H)	TY COOLING (KW)	AT -15 (BTU/	5°C H)	MCA (A)	ELECTRICAL	NET WEIGHT (LBs)	AIRFLOW RATE (CFM)	LIQUID (IN.)	GAS (IN.)	DRAIN PIPE (IN.)	REMARKS
CU-1	GYM OFFICE 004E	OUTDOOR CONDENSING HP UNIT	MITSUBISHI MXZ-2C20NA3	20,000	2.25	11,10	0	17.2	208/1/60	150	_	1/4"	1/2"	-	BEFORE COMMENCING WORK, REVIEW REFRIGERANT PIPES SIZES AND REVISE AS
CU-2	GYM OFFICE 2024A	OUTDOOR A CONDENSING HP UNIT	MITSUBISHI MXZ-2C20NA3	30,000	2.25	11,10	0	17.2	208/1/60	150	_	1/4"	1/4" 1/2" – NECESSARY TO SUIT THE DETE LENGTHS. REFER TO NOTES AND SPECIEL		NECESSARY TO SUIT THE DETERMINED ACTUAL LENGTHS.
NOTES 1. P U A T C 2. IN R W 3. P IN 4. P W	ROVIDE INDOOR FAN C NIT (MITSUBISHI SERIE: ND 220V/1/60. PROV IERMOSTAT SHALL HAN DIL. STALL THE INDOOR F/ EQUIRED BY EQUIPMEN ORK. ROVIDE REFRIGERANT I SULATION. PIPE COND ROVIDE DDC CONTROL ITH SCHOOL BUILDING	COIL UNIT COMPLE S MXZ HEAT PUN IDE TWO STAGE E VE WIFI CONNECTI AN COIL UNIT ANE NT MANUFACTUREF PIPES FOR THE H VENSATE DRAIN FR LER FOR THE HP AUTOMATION SYS	ETE WITH A HIGH EI MP) RATED TO OPER ELECTRONIC PROGRA ON. STAGE TWO HE O OUTDOOR CONDEN R. COORDINATE LOC MP SYSTEM AND INS ROM THE HP UNIT T SYSTEM. THE CONT STEM.	FFICIENCY HYPER I RATE AT -22 ⁰ C OL AMMABLE THERMOS CATING SHALL BE T NSING UNIT MAINTA ATION OF THE UNI STALL COMPLETE W TO NEAREST FLOOF TROLLER SHALL HA	HEATING OUTD TDOOR AMBIE TAT AND FILTE HE AUXILIARY INING MINIMU T ON SITE BE ITH ALL REQU 2 DRAIN OR S WE CONTACTS	DOOR CONDENS ENT TEMPERATU ERS. THE ' ELECTRIC HEA IM CLEARANCES EFORE COMMEN UIRED FITTINGS SPILL ON GRAD	SING JRE ATING S AS NCING AND DE. DCK		5. COOR ACCE 6. THE INSTR 7. PROV SERV 8. PROV BE M AIRFL COMF 18" H CONC	2DINATE LOCAT SS. HP SYSTEM IN PUCTIONS. IDE FOR THE ICE CLEARANC IDE OUTDOOR ITSUBISHI OR OW, DX VALVI PLETE INSTALL HIGH GALVANIZ CRETE SLAB	ION OF FAN C ISTALLATION SH INDOOR FAN C E TO REMOVE AIR COOLED H APPROVED EQ E, VARIABLE RE ATION. THE CO ED STEEL STAL AND 2" THICK	OIL UNIT IALL BE II COIL UNIT AND REPI IEAT PUMI UAL HYPE FRIGERAN NDENSING ND. SET / RIGID IN	ON SITE N ACCOI COMPLE LACE FIL P (HP) R HEATI T FLOW, UNIT S AND SE SULATIC	TO MAINTA TO MAINTA RDANCE WIT TE WITH FIL TERS. CONDENSING NG HIGH EF CONTROLLE HALL BE SU CURE THE N. SET THE	AIN REQUIRED CLEARANCES AND SERVICE TH MANUFACTURER WRITTEN LTER BRACKETS AND FILTERS. MAINTAIN G UNIT. THE HP CONDENSING UNIT SHALL FFICIENCY, MINIMUM 19 SEER, HORIZONTAL ER AND ALL REQUIRED DEVICES TO JITABLE FOR THE INDOOR UNIT. PROVIDE STEEL STAND PLATFORM OVER 2" THICK E CONDENSING UNIT OVER THE RAISED
							FAN E	QUIP	MENT SCF						
TAG	SERVICE AND	LABEL MA	KE OF FAN MOI	DEL No. VOL. (Cl	FLOW ESP -M) (IN)	SPEED S R.P.M. F	TP SPEED T.P.M.	SONES	ELECTR	ICAL V	ACCESSO)RIES & F	REMARKS	ò	
EF-A	EXHAUST FAN No. E WASHROOMS EXHAUS	G ST G	REENHECK SP-A	A250 20	0 0.50	900 .	_	4.0	57 W 1	120 /	A, B, F AND H.	COORDINAT	e with	ELECTRICAL T	TRADE TO WIRE FAN TO OCCUPANCY SENSOR.
OPTION) AND ACCESSORIES: ISCONNECT SWITCH BACK DRAFT DAMPER	C	C INSULATED RC WEATHER PRC	DOF CURB DOF DISCONNECT	E F	60 MINUTES T OCCUPANCY S	IMER ENSOR		G SPEI H INLE	ED CONTROL , T GRILLE	AT FAN	I HAN	ND/OFF/	'AUTO STAR ⁻	TER
											BACKFILL TO U	NDERSIDE O	F FIN. FL	00R	

SANITARY PIPES BEDDING DETAIL

	POFESS	5/0.				
	Stanfal	NAL ENG				
	G K.S. SAL 404135	AMÉ E				
	28 FEB 2 Pour	2025				
	TWCE OF	ONT				
NOTES:						
ALL DRAWINGS AND SPECI INSTRUMENT OF SERVICE A PROPERTY OF DESIGNER A	FICATIONS IS AN AND REMAIN THE EX AND ARE PROTECTED	CLUSIVE UNDER				
REPRODUCED, DISTRIBUTED PROJECT WITHOUT WRITTEN DESIGNER.), ALTERED FOR ANY N PERMISSION OF TH	(OTHER HE				
DO NOT SCALE DRAWINGS, PRECEDENT OVER SCALE.	DIMENSIONS TO TA	KE				
CONTRACTOR TO CHECK AND VERIFY ALL LEVELS AND DIMENSIONS ON DRAWINGS AND ON SITE AND REPORT						
CLARIFICATION PRIOR TO C WORK.	COMMENCING WITH T	HE				
THE CONTRACTOR ACCEPTS WORKING WITH DRAWINGS, CONSTRUCTION" AND FOR	S ALL RESPONSIBILI ⁻ NOT MARKED "ISSU ANY CHANGES TO T	TY FOR ED FOR THE				
DRAWINGS WITHOUT THE E SHELLARD BUILDING SYSTE	XPRESS APPROVAL	OF				
ALL WORK TO CONFORM T AND BY-LAWS.	IO ALL GOVERNING	CODES				
NOTE BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CHECK AND	VERIFY LOCATION OF ALL PIP	ES,				
EQUIPMENT AND COORDINATS, LIGHT I EQUIPMENT AND COORDINATE WITH OTH INTERFERENCE. THE CONTRACTOR IS R THE DRAWINGS WITHOUT THE WRITTEN	FIXTURES, STRUCTURAL AND HER TRADES ON SITE TO PRE ESPONSIBLE FOR ANY CHANG APPROVAL OF THE DESIGNER	EVENT IES TO				
THE DRAWINGS SHALL NOT BE USED I	FOR CONSTRUCTION UNLESS	NOTED ON				
THE INFORMATION CONTAINED WITHIN T DESIGN AND BASIC CONSTRUCTION DET DESIGNIONI UNIT TO ADDIVIDUATION DETAILS	THE DRAWINGS IS INTENDED T TAILING. IT IS THE CONTRACTO	TO PROVIDE DR'S				
QUALITY ASSURANCE AND FULLY FUNC	TIONING SYSTEMS.					
		N- NRTH				
	DISTRICT					
	SCHOOL					
	BOARD					
5. 4.						
 FOR TENDER FOR PERMIT 		28 FEB 2025 31 JAN 2025				
1. REVIEW AND COORDIN	IATION	6 JAN 2025				
No. DESCRIPTION						
SHELLAF		MG MS LTD.				
1684 SHELLARD SIE	DE ROAD					
N1R 5S7						
shellard@consultant.c 226 606 6542	com					
WESTDALE S SCHOOL	WESTDALE SECONDARY					
	LUUNDANT					
HAMILTON - W						
HAMILTON – W DISTRICT SCHO 700 MAIN STREET	ECONDART ENTWORTH OL BOARD					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC	ECONDART OL BOARD WEST					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC DRAWN NAME: SCHEDULES ANI MECHANICAL	ECONDART ENTWORTH OL BOARD WEST					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC DRAWN NAME: SCHEDULES ANI MECHANICAL	CONDART ENTWORTH OL BOARD WEST					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC DRAWN NAME: SCHEDULES ANI MECHANICAL DRAWN BY: D.A.	ECONDART ENTWORTH OL BOARD WEST D DETAILS					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC DRAWN NAME: SCHEDULES ANI MECHANICAL DRAWN BY: D.A. DATE: NOVEMBER 2024	CHECKED BY: N.S.					
HAMILTON – W DISTRICT SCHO 700 MAIN STREET HAMILTON, ONTARIC DRAWN NAME: SCHEDULES ANI MECHANICAL DRAWN BY: D.A. DATE: NOVEMBER 2024	CHECKED BY: N.S. JOB No.: 24-107					