PLUMB	ING ABBREVIATIONS	HVAC	C ABBREVIATIONS
BT	BATH	AD	ACCESS DOOR
BFP	BACKFLOW PREVENTER	AP	ACCESS PANEL
СВ	CATCH BASIN	В	BASEBOARD HEATER
CO	CLEAN OUT	BD	BALANCING DAMPER
CD	CONDENSATE DRAIN	BDD	BACKDRAFT DAMPER
CTE	CONNECT TO EXISTING	СС	COOLING COIL
CW	DOMESTIC COLD WATER	CD	CONDENSATE
DF	DRINKING FOUNTAIN	DG	DOOR GRILLE
HR	DOMESTIC HOT WATER RECIRCULATION	EA	EXHAUST AIR
DPAV	DRY PIPE ALARM VALVE	EF	EXHAUST FAN
FD	FLOOR DRAIN	EG	EXHAUST GRILLE
FE	FIRE EXTINGUISHER	ER	EXHAUST REGISTER
FFD	FUNNEL FLOOR DRAIN	ET	EXPANSION TANK
FHC	FIRE HOSE CABINET	OA	OUTSIDE AIR
HW	DOMESTIC HOT WATER	FCU	FAN COIL UNIT
НВ	HOSE BIBB	FD	FIRE DAMPER
HD	HUB DRAIN	FFH	FORCE FLOW HEATER
HWH	DOMESTIC WATER HEATER	FSD	FIRE & SMOKE DAMPER
LAV	LAVATORY	FSF	FIRE STOP FLAP
WM	WATER METER	MD	MOTORIZED DAMPER
МН	MANHOLE	NC	NORMALLY CLOSED
NFHB	NON FREEZE HOSE BIB	NO	NORMALLY OPEN
NFWH	NON FREEZE WALL HYDRANT	P	PUMP
RD	ROOF DRAIN	RA	RETURN AIR
RIO	ROUGH-IN ONLY	RF	RETURN FAN
R.O.	REVERSE OSMOSIS	RG	RETURN GRILLE
RWL	RAIN WATER LEADER	SA	SUPPLY AIR
S	SINK	SD	SPLITTER DAMPER
SH	SHOWER	SF	SUPPLY FAN
UR	URINAL	SD	SPLITTER DAMPER
V	VENT	SG	SUPPLY GRILLE
VB	VACUUM BREAKER	SMD	SMOKE DAMPER
WC	WATER CLOSET	SR	SUPPLY REGISTER
WPAV	WET PIPE ALARM VALVE	UC	UNDER CUT DOOR
DN	DOWN	UH	UNIT HEATER
		WB	VARIABLE VOLUME BOX
		VD	VOLUME DAMPER
		WF	WALL FIN
		MAU	MAKE UP AIR UNIT
		TAD	TRANSFER DUCT
		SAD	SUPPLY AIR DUCT
		EAD	EXHAUST AIR DUCT

— ST — ST — — — — — — — — — — — — — — —	EXISTING BUILDING NEW BUILDING SITE BOUNDARY STORM PIPING WATERMAIN FIRE WATERMAIN SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE GAS METER
— · · · · · · · · · · · · · · · · · · ·	SITE BOUNDARY STORM PIPING WATERMAIN FIRE WATERMAIN SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE
— · · · · · · · · · · · · · · · · · · ·	STORM PIPING WATERMAIN FIRE WATERMAIN SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE
— · · · · · · · · · · · · · · · · · · ·	WATERMAIN FIRE WATERMAIN SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE
M III O G PIPING/PLUMBING — — —	FIRE WATERMAIN SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE
M III O G PIPING/PLUMBING ————	SANITARY SEWER GAS LINE WATER METER CATCH BASIN MANHOLE
M III O G PIPING/PLUMBING ————	GAS LINE WATER METER CATCH BASIN MANHOLE
M III O G PIPING/PLUMBING — — —	WATER METER CATCH BASIN MANHOLE
© PIPING/PLUMBING	CATCH BASIN MANHOLE
PIPING/PLUMBING	MANHOLE
PIPING/PLUMBING	
PIPING/PLUMBING	GAS METER
	SANITARY LINE UNDER GROUND
	SANITARY LINE ABOVE FLOOR
	MAKEUP AIR UNIT CONDENSATE LINE
	NATURAL GAS LINE
	DOMESTIC COLD WATER (CW)
	DOMESTIC HOT WATER (HW)
	DOMESTIC HOT WATER RECIRCULATION (HR)
TM	DOMESTIC TEMPERED WATER (TW)
ST	RAIN WATER PIPING UNDER GROUND
ST ST	RAIN WATER PIPING ABOVE GRADE
— F — F —	FIRE/SPRINKLER PIPING
HWS	HYDRONIC HEATING WATER SUPPLY (HWS)
HWR	HYDRONIC HEATING WATER RETURN (HWR)
× × × × ×	HYDRONIC HEATING WATER LINE TO BE REMO
	PIPE UP
<u></u>	PIPE DOWN
co	CLEAN OUT
^	PIPE HEAT TRACING
<u>KS-1</u>	PLUMBING FIXTURE TAG
∅ FD	FLOOR DRAIN
(Ĉ) RD	ROOF DRAIN
⊚ HD	HUB DRAIN
∏ wha	WATER HAMMER ARRESTOR
23	PLUG OR CAP
RG	REFRIGERANT GAS PIPES
—— RL ——	REFRIGERANT LIQUID PIPES

M E	ECHANICAL LEGEND
HVAC	
	NEW DUCTWORK
	EXISTING DUCTWORK TO BE
	REMOVED EXISTING DUCTWORK TO
	REMAIN INTERNAL ACOUSTICAL DUCT
	LINING TRANSITION RECTANGULAR TO
	ROUND
(Control of the control of the contr	TURNING VANES
	SPLITTER DAMPER
	DUCT REDUCER / ENLARGER
	SUPPLY DUCT UP
	RETURN OR EXHAUST UP
	SUPPLY TURNING DOWN
	RETURN OR EXHAUST DOWN
-w	FLEXIBLE DUCT
	DIFFUSER
	RETURN AIR GRILLE
SL S	DUCT SILENCER
BD BD	BALANCING DAMPER
FD	FIRE DAMPER
①	THERMOSTAT
\$	TEMPERATURE SENSOR
CO2	CO2 SENSOR
(E-1)	HVAC EQUIPMENT TAG
A 100 1	1-SIZE IN mm; A-TYPE; 100-CAPACITY (CF)
	GATE VALVE
	MOTORIZED VALVE
CBV	CIRCUIT BALANCING VALVE
	CONVECTOR RADIATOR
	CABINET UNIT HEATER
ED	EXISTING TO BE DEMOLISHED
ER	EXISTING TO BE RELOCATED
EX	EXISTING TO REMAIN
N	NEW TO MATCH EXISTING
REL	EXISTING AT RELOCATED LOCATION
c/w	DENOTES COMPLETE WITH
CTE	
	DENOTES CONNECT TO EXISTING
NTS	DENOTES NOT TO SCALE
TYP	DENOTES TYPICAL
	52.70725 77776

	DRAWING LIST
M1.1	MECHANICAL LEGEND AND DRAWING LIST
M1.2	GROUND FLOOR KEY PLAN
M1.3	SECOND FLOOR KEY PLAN
M1.4	MECHANICAL EQUIPMENT SCHEDULES
M1.5	MECHANICAL EQUIPMENT SCHEDULES & DETAILS
M2.1	PART GROUND FLOOR PLAN - PLUMBING LAYOUT
M3.1	PART GROUND FLOOR H.V.A.C. DEMOLITION LAYOUT PLAN
M3.2	PART GROUND/SECOND/THIRID FLOOR H.V.A.C. NEW LAYOUT PLAN
М3.3	PART GROUND & THIRD FLOOR H.V.A.C. NEW LAYOUT PLAN
M3.4	MECHANICAL EQUIPMENT ROOF PLAN

Client
Halton District School Board 2050 Guelph Line Burlington, Ontario

BURLINGTON CENTRAL H.S. RENOVATIONS

PHASE I 1433F Baldwin Street Burlington, ON

Architect



Consultants



Key Plan N.T.S.





No.	Revisions	Date
4	ISSUED FOR CONSTRUCTION	2021-06-04
3	ISSUED FOR TENDER	2021-04-19
2	ISSUED FOR PERMIT	2021-01-2
1	ISSUED FOR COORDINATION	2020-08-25
No.	Issue	Date

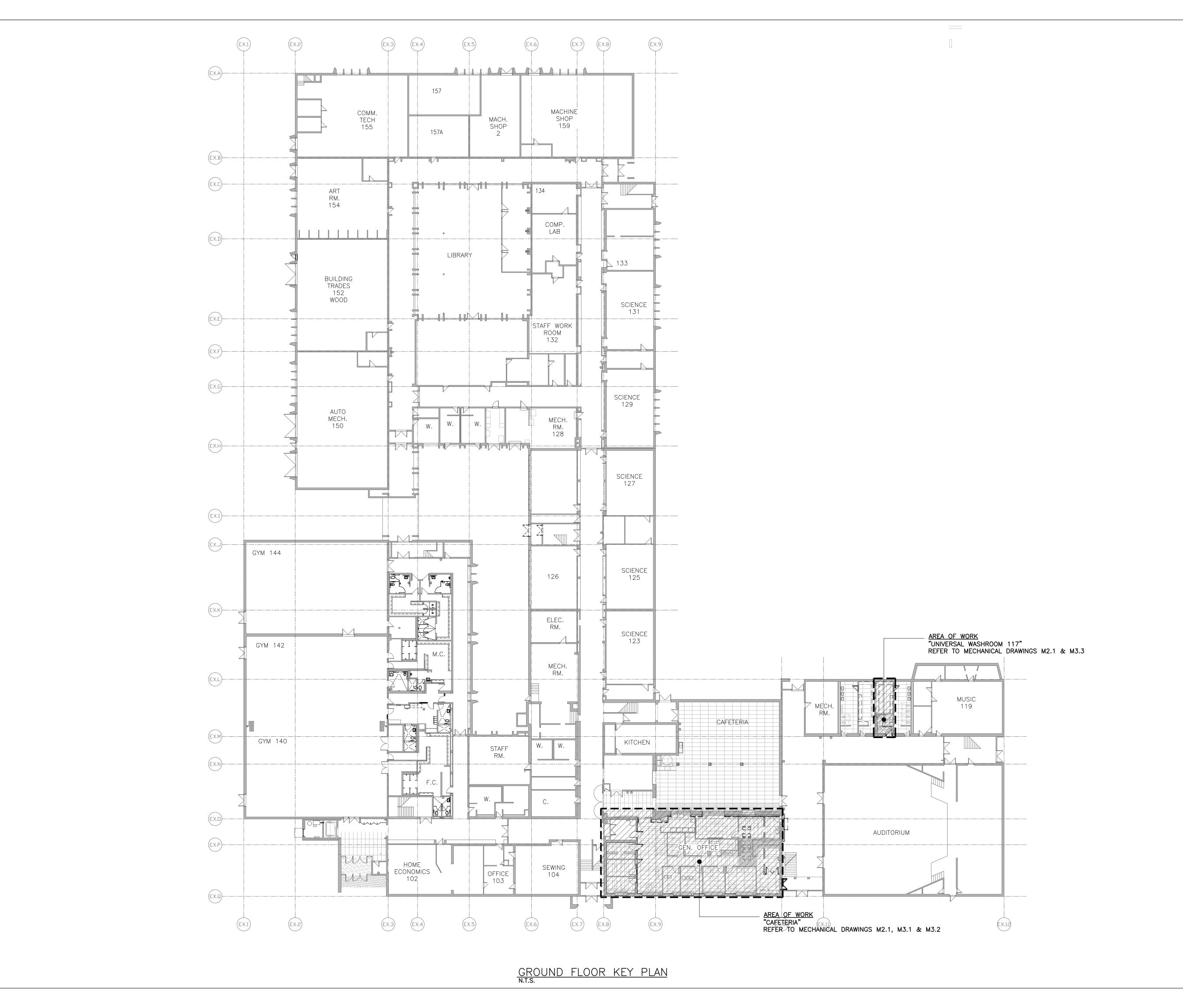
Drawing Title:

MECHANICAL

LEGEND & DRAWING

APR 2020 DH Checked by: CK

20009



Client

Halton District School Board

2050 Guelph Line
Burlington, Ontario

BURLINGTON CENTRAL

H.S. RENOVATIONS

PHASE I

1433F Baldwin Street

Architect

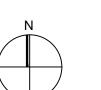


Burlington, ON

Consultants



Key Plan N.T.S.





Drawing Title: GROUND FLOOR KEY PLAN

2000	9	Ŋ	M1.2
Job No.		Drawing No.	
Drawn by:	DH	Checked by:	CK
Scale:	N.T.S.	Date:	APR 2020



Client **Halton District School Board**2050 Guelph Line

Burlington, Ontario

BURLINGTON CENTRAL H.S. RENOVATIONS

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No.	Revisions	Date
4	ISSUED FOR CONSTRUCTION	2021-0
3	ISSUED FOR TENDER	2021-0
2	ISSUED FOR PERMIT	2021-0
1	ISSUED FOR COORDINATION	2020-0
No.	Issue	Date

SECOND FLOOR
KEY PLAN

200	009	ľ	M1.3
Job No.		Drawing No.	
Drawn by:	DH	Checked by:	СК
Scale:	N.T.S.	Date:	APR 2020

PLUMBING FIXTURE SCHEDULE	
EXTRA HEAVY DUTY TOILET SEAT, SOLID PLASTIC, OPEN FRONT WITH COVER. CHECK HINGES AND CHROMATED STEEL	P
EET CODE REQUIREMENTS FOR BARRIER FREE ACCESS.	
1-1.28YG "REGAL" FACTORY SET, OR TECK #81T201-5, EXTERNAL ADJ. EXPOSED MANUAL FLUSHOMETER FOR TOP	S
T ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER. CENTRE SEAT BUMPER ON VALVE, PRESSURE LOSS CHECK AND	
ATERIAL AS THE CONNECTING PIPE DRAIN) WITH ALL BRASS BOLTS AND WITH RUBBER CASKET	

	.	,							
TAG	TYPE	SPECIFICATION	ACCESSORIES	CW	HW	WASTE	VENT	POWER	REMARKS
<u>WC-1</u> (<u>BF)</u>	TOILET	AMERICAN STANDARD #3461.001.020, 'MADERA FLOWISE RIGHT HEIGHT ELONGATED', 419 MM HIGH TOILET, VITREOUS CHINA, FLOOR MOUNTED, OPERATES IN THE RANGE OF 4.2 L TO 6 L (1.1 US GAL TO 1.6 US GAL) PER FLUSH, ELONGATED BOWL, SIPHON JET FLUSH ACTION, CONDENSATE CHANNEL.	CENTOCO #820STS.001, EXTRA HEAVY DUTY TOILET SEAT, SOLID PLASTIC, OPEN FRONT WITH COVER. CHECK HINGES AND CHROMATED STEEL POSTS, WASHERS AND NUTS.INSTALLATION: TO MEET CODE REQUIREMENTS FOR BARRIER FREE ACCESS. SLOAN #REGAL SLOAN 111-1.28YG "REGAL" FACTORY SET, OR TECK #81T201-5, EXTERNAL ADJ. EXPOSED MANUAL FLUSHOMETER FOR TOP SPUD TOILET, 4.8 L (1.28 US GAL) FACTORY SET FLOW. QUIET ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER. CENTRE SEAT BUMPER ON VALVE, PRESSURE LOSS CHECK AND NON-HOLD OPEN FEATURE.PROVIDE FLOOR FLANGE, (SAME MATERIAL AS THE CONNECTING PIPE DRAIN), WITH ALL BRASS BOLTS AND WITH RUBBER GASKET.	1"	_	3"	1 1/2"	NO	
<u>4V-1</u> 3F)	BASIN	LAVATORY — WALL HUNG BARRIER FREE: AMERICAN STANDARD "MURRO", VITREOUS CHINA WALL HUNG LAVATORY, DRILLED TO ACCOMMODATE CONCEALED ARM SUPPORTS, AND WITH #0059.0200 SEMI—CHINA PEDESTAL.	SLOAN ETF-600-A-VPB-MIX60-A "OPTIMA" ELECTRONIC HARDWIRED "NO-TOUCH" FAUCET WITH SS BOX, MIXING VALVE, MCGUIRE #155A CP 32 MM (1.¼") CAST PLUG WITH OPEN GRID STRAINER TRAP, MCGUIRE #8872C CP 32MM (1.¼") CAST "P" TRAP WITH CLEANOUT. SUPPLIES: MCGUIRE H165LKN3RB CP SHORT RIGID ANGLE BASIN SUPPLY WITH OFFSET BRAIDED FLEX, RISER LOCKSHIELD STOP, ESCUTCHEON. CARRIER: ZURN ZX-1231 CONCEALED FIXTURE CARRIER WITH ARMS.NOTE: INSTALLATION SHALL MEET THE O.B.C. REQUIREMENTS FOR BARRIER FREE ACCESS. INSULATE SUPPLIES AND DRAIN AS REQUIRED BY CODE.		1/2"	1 1/4"	1 1/4"	YES	
<u>-1</u>		FRANKE SINGLE COMPARTMENT STAINLESS STEEL SINK WITH BACK LEDGE, MODEL No. LBS4607-1 c/w 3 HOLES, 8" CENTER	AMERICAN STANDARD COLONY PRO SINGLE CONTROL KITCHEN FAUCET 7074.000.002 (1.5 GPM) c/w CAST BRASS TRAP, CLEANOUT, UNION ESCUTCHEON, ANGLE STOPS, CPVC RISERS, STAINLESS STEEL CRUMB CUP STRAINER	1/2"	1/2"	1 1/2"	1 1/4"		
2	HUB DRAIN	ZURN ZN-211-S-P CAST IRON HUB DRAIN AND 1/2" TRAP PRIMER CONNECTION OR EQU							
<u>)</u>	FLOOR DRAIN	ZURN ZN-211-B-P, CAST IRON FLOOR DRAIN WITH 5" ROUND NICKEL BRONZE STRAINER, EQUIVALENT EQUAL.	MIFAB MI-GARD, AND 1/2" TRAP PRIMER CONNECTION OR	_	_	3"	1 1/2"		
<u>CO</u>	CLEANOUT	 ZURN Z-1400-HD (FOR UNFINISHED FLOORS) ZURN ZN-1400-HD (FOR FINISHED FLOORS) ZURN ZN-1400-X (FOR LINOLEUM OR ASPHALT TILE FLOORS) 	· ZURN ZN-1400-Z (FOR TERRAZZO FLOORS) · ZURN ZN-1400-T (FOR CERAMIC TILE FLOORS) · ZURN ZN-1400-CM (FOR CARPETED FLOORS)	-	_	_	_		

NOTES:

1. EACH PLUMBING FIXTURE SHALL BE LOW WATER CONSUMPTION IN ACCORDANCE TO ONTARIO BUILDING CODE.

1. EACH PLUMBING FIXTURE SHALL BE LOW WATER CONSUMPTION IN ACCORDANCE TO ONTARIO BUILDING CODE. 2. PROVIDE ALL REQUIRED FITTINGS, TRAPS, VALVES, FAUCETS AND ESCUTCHEONS TO COMPLETE EACH FIXTURE INSTALLATION.

3. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BEFORE ORDERING ANY FIXTURE.

4. ALL ANGLE STOPS TO BE DAHL 1/4 TURN MINI BALL VALVE.

- CONTRACTOR'S RESPONSIBILITIES TO VERIFY ALL EQUIPMENTS AND ITEM QUANTITY.
- GENERAL CONTRACTOR TO PROVIDE, INSTALL & HOOK-UP EQUIPMENTS. CONTRACTOR TO CONFIRM ALL EQUIPMENT SPECS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY ALL OUTLET LOCATIONS WITH OWNER.
- 9. PROVIDE ISOLATING VALVE ON, HOT AND COLD WATER LINES TO EACH PIECE OF PLUMBING FIXTURE. (TYPICAL UNLESS NOTED OTHERWISE)
- 10. WRAP ALL EXPOSED HOT WATER AND DRAIN PIPING AT HANDICAPPED LAVATORY WITH INSULATION.

	FAN SCHEDULE													
			MODEL	AIR	STATIC	MOTOR		ELECTRICAL			MOUNTING ARRANGEMENT	NTING WEIGHT		
TAG	SERVICE	MANUFACTURER	No.	QUANTITY (CFM)	PRESS. (in.wg.)	MOTOR RPM	POWER (HP)	V/PH/HZ	FLA (A)	STARTER		(LBS)	REMARKS	
EF-1	UNIVERSAL WASHROOM 117	GREENHECK	CSP-A125	100	0.25	980	_	120/1/60	0.18	OCCUPANCY SENSOR	CEILING MTD	12	SEE NOTES 3,4,5, STANDARD WHITE POLYSTYRENE GRILLE	

- 1. c/w 450mm ROOF CURB, BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH,
- 3. INLINE FANS C/W BACK DRAFT DAMPER, ROUND DUCT CONNECTION, MOUNTING BRACKETS, VIBRATION ISOLATORS
- 4. FAN DUCTWORK TO BE LINED WITH 1" INSULATION FOR MIN. 10'-0" FROM EXTERIOR
- 5. ACCEPTABLE EQUIVALENT: COOK

	INDOOR ERV UNIT SCHEDULE												
				AIR F	LOW	EXCHANGER	EFFICIENCY %	El	LECTRIC <i>A</i>	AL			
TAG	SERVICE	MANUFACTURER	MODEL	CFM	EX. SP. (INCH)	ENTHALPHY HEATING	ENTHALPHY COOLING	V/PH/H Z	MCA	МОСР	WEIGHT (LBS)	DUCT HEATER TAG	REMARKS
ERV-1	GRD FLR OFFICES	LOSSNAY	LGH-F470RX5-E	470	0.40	66	53	208/1/6	3.1	15	119	DH-1	c/w DUCT HEATER, REFER TO DUCT HEATER SCHEDULE

- 1. UNITS TO BE MOUNTED WIHTIN CEILING SPACE c/w HANGING RODS AND VIBRATION ISOLATORS.
- 2. UNITS TO OPERATE THROUGH CO2 SENSOR 3. ERV UNIT TO BE INTERLOCKED WITH MOTIRIZED DAMPERS IN SUPPLY AND EXHAUST LOUVERS
- 4. ACCEPTABLE EQUIVALENT: ALDES, VENTACITY

	DUCT HEATER SCHEDULE													
TAG	SERVES	MANUFACTURER	MODEL	AIR FLOW		ELECT	RICAL	REMARKS						
17.0	SLIVES	WINTOTACTORER	WOBEL	(CFM)	(Kw)	V/PH/HZ	AMPS	TALIVIA INCO						
DH-1	ERV-1	THERMOLEC	SLIP-IN TYPE	470	5.0	208/1/60		SEE NOTES BELOW, S.C.R BY THERMOLEC, STAT 0-10VDC (CTH291) + DS600						

- 1. INSTALL UNIT TO MANUFACTURER'S RECOMMENDATION.
- 2. EACH UNIT IS INTERLOCKED WITH THE RELATED UNIT
- 3. C/W AUTOMATIC RESET THERMAL CUT-OUT, AIR FLOW SENSOR, MANUAL RESET THERMAL CUT-OUT, SCR CONTROL 4. TEMPERATURE SENSOR, OPEN COIL ELEMENT, CORROSION RESISTANCE ENCLOSURE

5. BUILT IN ELECTRONIC TEMP. AND SENSOR AND COLLARS.

	LOUVRE SCHEDULE													
TAG	SYSTEM	MANUFACTURER	MODEL NO.	TYPE	SIZE (WxH)	FREE AREA (SQ FT)	VELOCITY (fpm)	WATER PENETRATION S.F.	ACCESSORIES/REMARKS					
L-1	ERV INTAKE	VENTEX	2435	4" DEEP LOUVER	SEE PLANS	_	_	_	c/w BIRDSCREEN, COLOR BY ARCHITECT					
L-2	ERV EXHAUST	VENTEX	2415	4" DEEP LOUVER	SEE PLANS	_	_	-	c/w BIRDSCREEN, COLOR BY ARCHITECT					
WB-1	WASHROOM EXHAUST	REVERSOMATIC	SWBW-8	SINGLE WALL BOX	9"x9"	_	-	_	c/w BACKDRAFT DAMPER, EXTRUDED ALUMINUM GRILLES, COLOUR BY ARCHITECT, FIELD PAINTED					

NOTES:
1. ACCEPTABLE EQUIVALENT: EH PRICE

	GRILLE AND DIFFUSER SCHEDULE												
TAG	MANUFACTURER	MODEL	TYPE	FINISH	SIZE	NECK SIZE	MOUNTING	REMARKS	REMARKS				
SA1	E.H. PRICE	SDGE	SUPPLY	B12	AS NOTED		DUCT	YES	DOUBLE DEFLECTION SPIRAL DUCT GRILLE EXTRUDES C/W AIR SCOOP				
SA2	E.H. PRICE	SCD	DIFFUSER	B12	600x600	AS NOTED	T-BAR	YES					
SA3	E.H. PRICE	SCD	DIFFUSER	B12	300x300	AS NOTED	T-BAR	YES					
RA1	E.H. PRICE	80D	EGG CRATE	B12	AS NOTED		DUCT						
RA2	E.H. PRICE	630	LOUVERED FACE EXHAUST	B12	AS NOTED		DRYWALL/T-BAR	YES					
EX	EXISTING DIFFUSE	R/GRILLE											

NOTE:

1. ACCEPTABLE EQUIVALENT: KRUEGER, NAILOR, METALAIRE

Halton District School Board 2050 Guelph Line Burlington, Ontario

BURLINGTON CENTRAL H.S. RENOVATIONS

PHASE I 1433F Baldwin Street Burlington, ON

Architect





Key Plan N.T.S.





Proje	ct North	True No
No.	Revisions	Date
5	ISSUED FOR CONSTRUCTION	2021-06-
4	ISSUED FOR ADDENDUM No.1	2021-05-
3	ISSUED FOR TENDER	2021-04-
2	ISSUED FOR PERMIT	2021-01-
1	ISSUED FOR COORDINATION	2020-08-
No.	Issue	Date

Drawing Title:

MECHANICAL **EQUIPMENT SCHEDULES**

N.T.S. Date: APR 2020 DH Checked by: CK

20009

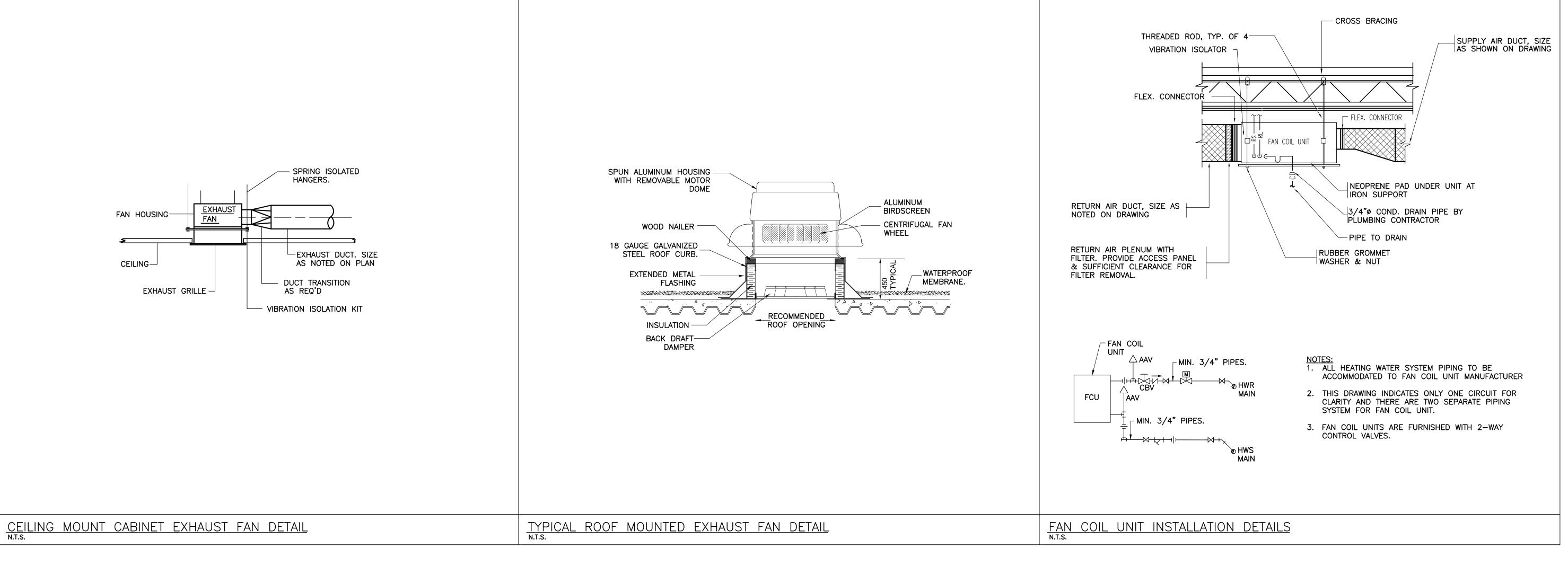
FAN COIL (DX COOLING/HOT WATER HEATING)/CONDENSER UNIT SCHEDULE

FAN COIL UNIT										cc	NDENSING U	INIT								
			AIR	FLOW	HOT W	ATER HE	ATING COIL	ELEC	CTRICAL		WEIGHT			MAIZE	COOLING	ELE	CTRICAL		WEIGHT	
TAG	SERVICE	MAKE/MODEL	CFM	EX.SP IN	CAPACITY (MBH)	FLOW (GPM)	EWT/LWT	V/PH/HZ	MCA	МОСР	(LBS)		TAG	AG MAKE MODEL	CAPACITY (MBH)	V/PH/HZ	MCA	моср	(LBS)	REMARKS
FC-1	AS PER DWG #M3.4	TRANE BCHD054E1-L0A11A4Z	1,600	0.5	30.0	1.02	30.0/47.29	208/3/60	5.75	15	208.4	NOTE 1	CU-3	TRANE ATTA4048A3	48.0	208/3/60	18.0	30	190	NOTE 2
FC-2	AS PER DWG #M3.4	TRANE BCHD054E1-L0A11A4Z	1,600	0.5	40.0	1.36	30.0/53.05	208/3/60	5.75	15	208.4	NOTE 1	CU-4	TRANE ATTA4048A3	48.0	208/3/60	18.0	30	190	NOTE 2

- NOTES:

 1. UNIT TO BE c/w ULTRA QUIET CONSTRUCTION, NON-FUSED DISCONNECT SWITCH, INTEGRAL MIX BOX WITH RA/OA DAMPER, 2" MERV8 FILTER, FREEZESTAT. DX COIL TO BE SUPPLIED WITH HARD SHUT-OFF TXV.
- 2. UNIT TO BE c/w IN BUILT CONTROLLER AND LOW VOLTAGE TRANSFORMER.
- 3. CONDENSING UNIT TO BE c/w CRANK CASE HEATER, HIGH & LOW PRESSURE SWITCHES, HARD START KIT AND TIME GUARD SHORT CYCLE PROTECTION. REFRIGERANT LINES MUST HAVE LONG RADIUS ELBOWS.

4. UNIT TO BE c/w CONDENSATE PUMP, LITTLE GIANT VMPMP15, 230V/1/60, 0.6/0.5 AMPS, 75 WATTS 5. BASIS OF DESIGN: TRANE; ACCEPTABLE EQUIVALENT: MITSUBISHI, DAIKIN



Halton District School Board 2050 Guelph Line Burlington, Ontario

BURLINGTON CENTRAL H.S. RENOVATIONS

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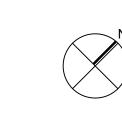


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Key Plan N.T.S.

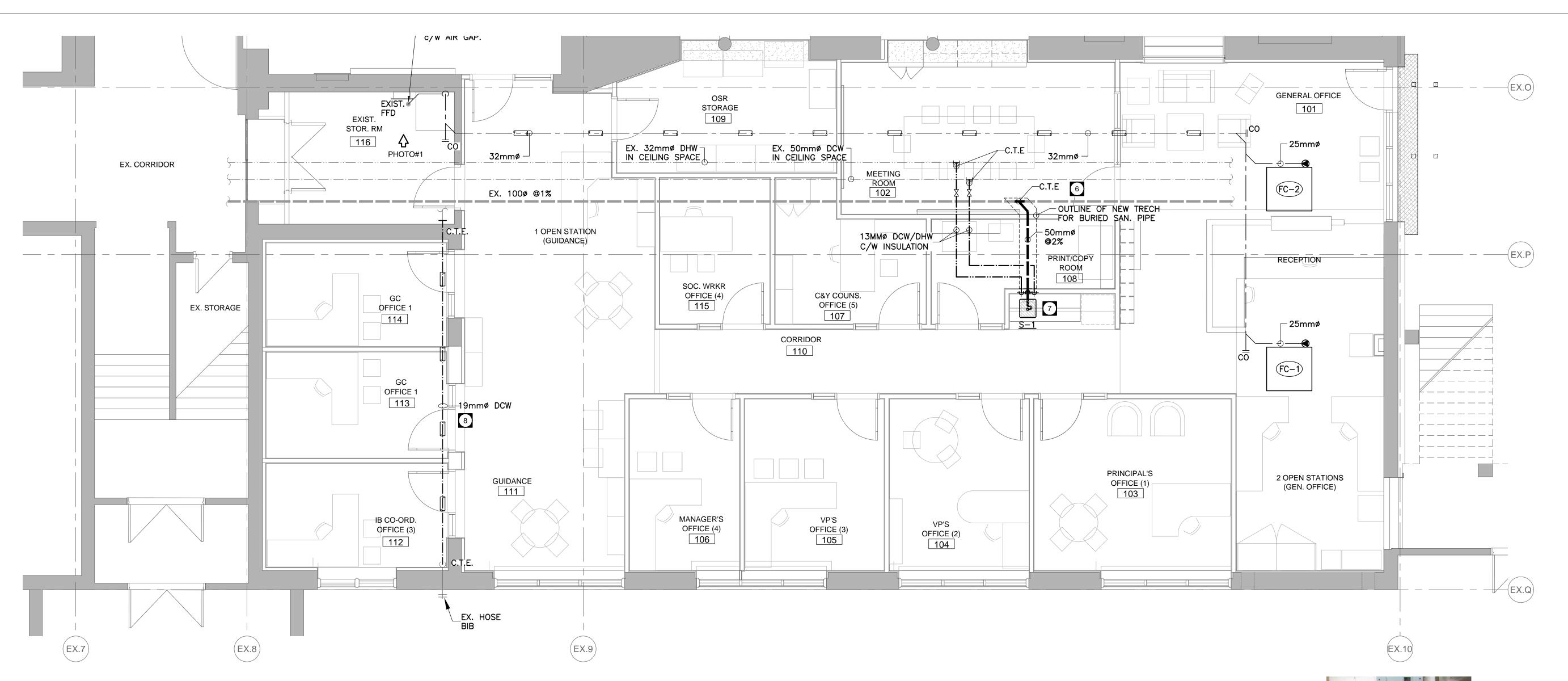




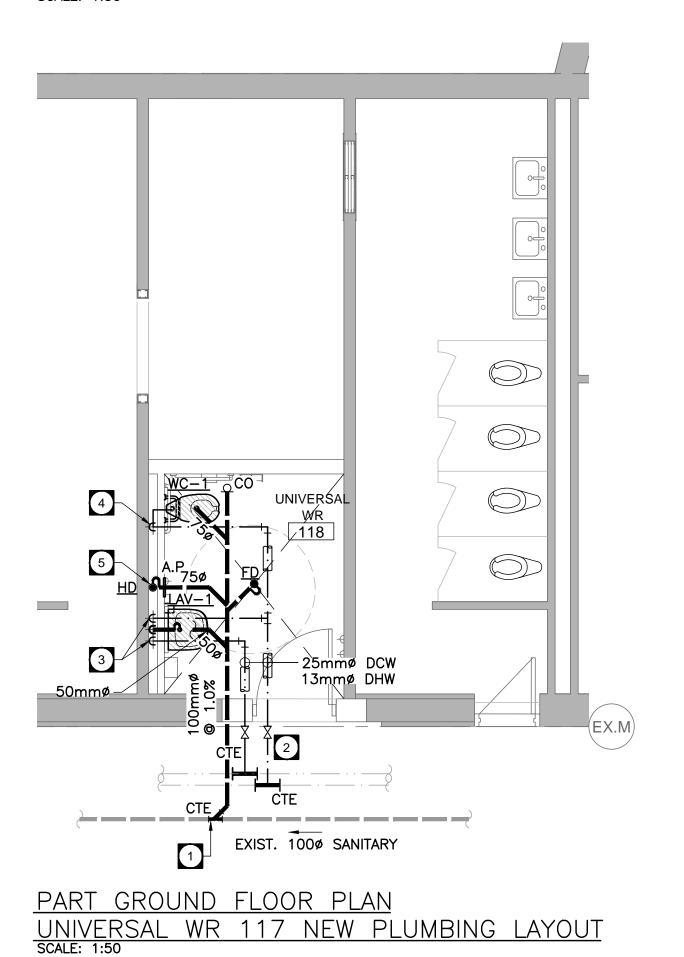
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10.	TOVIOIONO	Date
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2	ISSUED FOR PERMIT	2021-01-21
1	ISSUED FOR COORDINATION	2020-08-25
No.	Issue	Date

Drawing Title: MECHANICAL **EQUIPMENT SCHEDULES** & DETAILS

200	09	M1.5		
Job No.		Drawing No.		
Drawn by:	DH	Checked by:	CK	
Scale:	N.T.S.	Date:	APR 2020	



PART GROUND FLOOR PLAN — NEW PLUMBING LAYOUT SCALE: 1:50



GENERAL NOTES:

- 1. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM AS-BUILT DRAWINGS. THIS INFORMATION MUST NOT ASSUMED TO BE COMPLETE OR UP-TO-DATE. THIS MECHANICAL CONTRACTOR SHALL CARRYOUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE, LOCATION, DIRECTION OF FLOW AND INVERTS OF THESE SERVICES, BEFORE THE COMMENCEMENT OF ANY WORK. REPORT ANY DISCREPANCIES TO THE PROJECT MANAGER.
- 2. THIS CONTRACTOR TO CARRY AN ALLOWANCE IN TENDER FOR PROBABLE MINIMUM 30 METERS (100'-0") DISTANCE FOR NEW SERVICES CONNECTION TO SUITABLE EXISTING SERVICES.
- 3. CONTRACTOR SHALL SCAN FLOOR FOR EXACT LOCATION OF SANITARY PIPING AND FOR ANY INTERFERENCE BEFORE CORE DRILLING THE FLOOR. NO EXTRAS WILL BE ALLOWED FOR ANY NEGLIGENCE. COORDINATE WITH GENERAL CONTRACTOR FOR CUTTING AND PATCHING OF WALLS AND FLOORS.
- 4. TEMPORARILY REMOVE AND/OR RELOCATE ALL EXISTING BUILDING SERVICES THAT ARE IN THE WAY OF MECHANICAL WORK BEING PERFORMED AND REINSTATE EXISTING SERVICES ONCE MECHANICAL WORK HAS BEEN COMPLETED.
- 5. ALL PLUMBING WORK TO CONFORM TO ONTARIO BUILDING CODE, PROVIDE COMPLETE VENT SYSTEM TO MEET SECTION 7 OF ONTARIO BUILDING
- 6. SANITARY DRAINAGE AND VENT PIPING ABOVE GRADE SHALL BE CERTIFIED TO CAN/CSA-B181.2 "PVC DRAIN, WASTE, AND VENT PIPE AND PIPE FITTINGS". DOMESTIC HOT AND COLD WATER PIPING SHALL BE TYPE "L" HARD COPPER TUBING WITH SOLDERED FITTINGS.
- 7. IPEX SYSTEM XFR 15-50 PIPE AND FITTINGS C/W APPROVED FIRE STOPS IN AREA WHERE THE CEILING SPACE IS IS UTILIZED AS RETURN AIR PLENUM.

- 8. COORDINATE PIPES WITH HVAC DUCTWORK, ELECTRICAL AND STRUCTURAL, OFFSET AS REQUIRED.
- 9. PROVIDE FIRE STOPS TO APPROVED STANDARDS FOR ALL PIPING PENETRATIONS AT RATED WALLS.
- 10. REVISE ANY 3"0 TO 4"0 @ 1.0% SLOPE IF THERE IS A PROBLEM FOR INVERT OF SANITARY PIPE.
- 11. ALL EQUIPMENT WITH WATER CONNECTIONS TO BE INSTALLED WITH SILICONE SEAL BETWEEN EQUIPMENT AND WALL AND/OR FLOOR. ALL SILICONE SEALS TO BE BY GENERAL CONTRACTOR AFTER EQUIPMENT IN FINAL LOCATION.
- 12. PROVIDE ISOLATION VALVES TO DOMESTIC HOT & COLD WATER LINES TO ALL NEW PLUMBING FIXTURES. PROVIDE BACKFLOW PREVENTION DEVICES ON ALL APPLICABLE PLUMBING FIXTURES AS PER APPROPRIATE CODES AND STANDARDS.
- 13. RUN ALL WATER LINES IN CEILING SPACE UNLESS OTHERWISE NOTED. DO NOT RUN WATER PIPES IN EXTERIOR WALLS.
- 14. INSULATE ALL NEW AND EXISTING DOMESTIC HOT/COLD WATER PIPES WITH MINIMUM 12mm THICK INSULATION EXCEPT PIPING PERIMETER WALL WHICH REQUIRES 25mm COVER EXPOSED PIPES WITH PVC JACKETS. INSULATE CONDENSATE DRAIN PIPE WITH MINIMUM 12mm THICK INSULATION.
- 15. ALL MECHANICAL EQUIPMENT AND FIXTURES SHALL BE INSTALLED WITH THE MINIMUM REQUIRED CLEARANCES FOR SAFETY, ACCESS, AND MAINTENANCE AS PER THE MOST STRINGENT OF: 1- MANUFACTURER'S RECOMMENDATIONS, AND 2- DIMENSIONED DESIGN DRAWINGS
- 16. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING PIPES FOR CONNECTION TO EXISTING SYSTEM.

- EXISTING FUNNEL FLOOR DRAIN TO REMAIN

SITE REFERENCE -PHOTO #1

DRAWING NOTES:

- APPROXIMATE LOCATION OF EXISTING 100mmø SANITARY DRAIN LINE, CONNECT NEW DRAIN LINE TO EXISTING. EXACT POINT OF CONNECTION, LOCATION, SIZE, INVERT AND DIRECTION OF FLOW TO BE DETERMINED ON SITE BEFORE ANY PLUMBING IS STARTED.
- APPROXIMATE LOCATION OF EXISTING DOMESTIC HOT & COLD WATER LINE(S) IN CEILING
 SPACE CONNECT NEW LINE(S) TO EXISTING OF MEM ISOLATION VALVES AND MAKE COLD SPACE, CONNECT NEW LINE(S) TO EXISTING c/w NEW ISOLATION VALVES AND MAKE GOOD. INSULATE PIPING AS PER MECHANICAL SPECIFICATIONS. ALLOW FOR FREEZING OF PIPES. EXACT LOCATION OF EXISTING LINE(S) TO BE DETERMINED ON SITE PRIOR TO COMMENCING WITH THE WORK.
- 3 13mmø HOT AND COLD WATER LINES DOWN TO SERVE LAVATORY
- 25mmø COLD WATER LINES DOWN TO SERVE WATER CLOSET.
- HUB DRAIN INSIDE CHASE c/w WALL ACCESS PANEL FOR CONDENSATE DRAIN FROM FUTURE UNIT VENTILATOR(S) ABOVE.
- APPROXIMATE LOCATION OF EXISTING SANITARY PIPE; CONTRACTOR SHALL X-RAY AND SITE VERIFY THE EXACT LOCATION PRIOR TO ANY CHANGES TO EXISTING SLAB. CONTRACTOR MUST CARRY ALLOWANCE FOR ADDITIONAL PIPING (MIN. 10FT.) MATERIAL TO MAKE CONNECTIONS AS REQUIRED.
- SUPPLY AND INSTALL NEW SINK c/w FAUCET AT LOCATION SHOWN, EXTEND 13mmø DCW/DHW PIPING FROM NEAREST EXISTING AS SHOWN c/w NEW ISOLATION VALVES. CONTRACTOR TO ALLOW FOR FREEZING OF PIPING AND ALLOW ADDITIONAL (10FT) OF PIPING FOR EACH DCW/DHW.
- APPROXIMATE LOCATION OF EXISTING 19mmø DCW LINE ABOVE EXISTING CEILING SPACE. CONTRACTOR TO DEMOLISH EXISTING HORIZONTAL PIPING AT HIGH LEVEL, RUN NEW 19mmø PIPING ABOVE NEW CEILING AND CONNECT TO EXISTING PIPING.

Halton District School Board 2050 Guelph Line Burlington, Ontario

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Key Plan N.T.S.



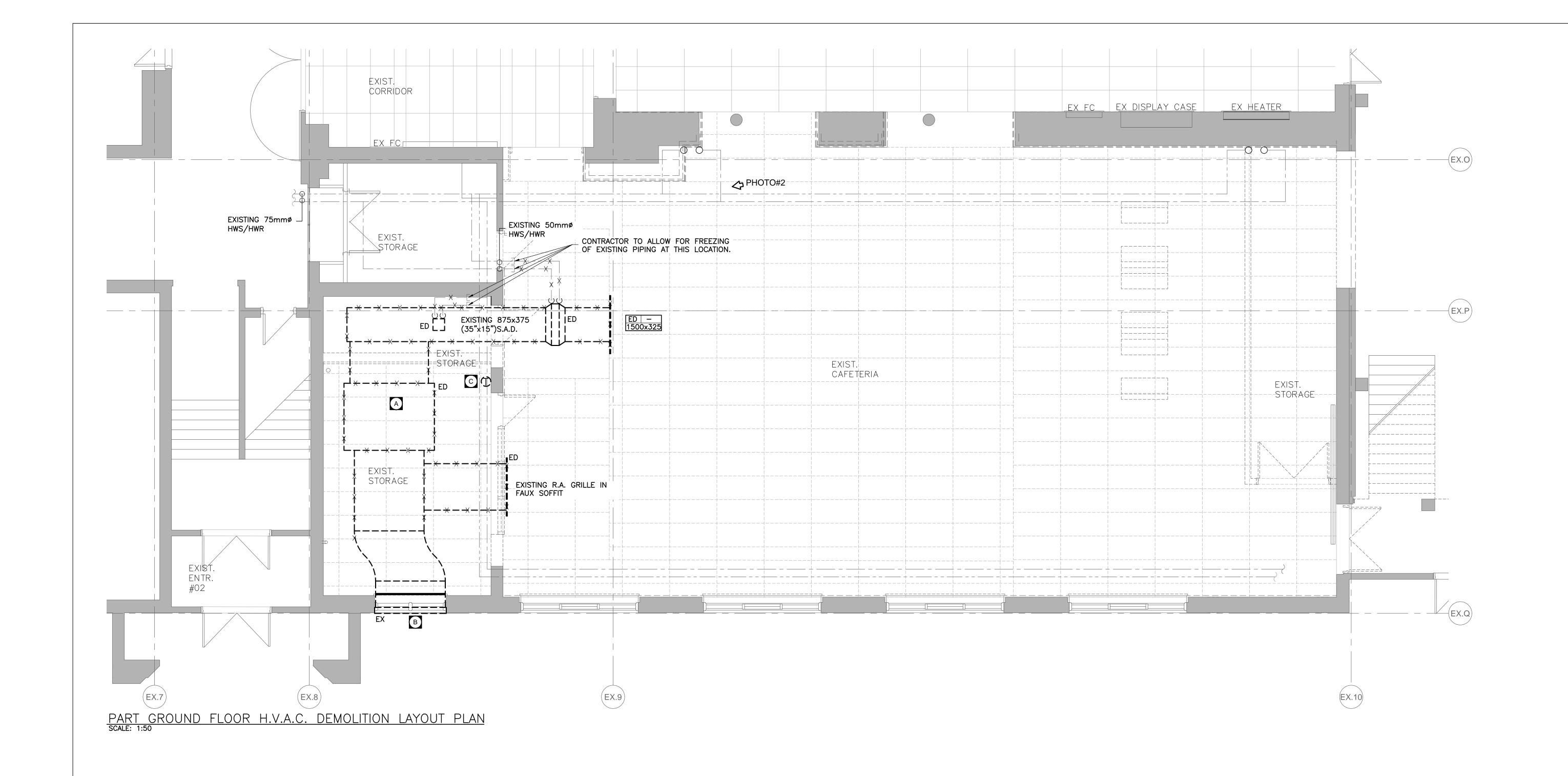


Project North True North No. Revisions 5 | ISSUED FOR CONSTRUCTION | 2021-06-04 ISSUED FOR ADDENDUM No.1 2021-05-05 ISSUED FOR TENDER 2021-04-19 2021-01-21 ISSUED FOR PERMIT ISSUED FOR COORDINATION 2020-08-25 General Contractor shall check and verify all dimensions and report all errors and omissions to the Architect. Do not scale the drawings.

Drawings shall not be used for construction purposes until issued by the

PART GROUND FLOOR PLAN - PLUMBING LAYOUT

AS SHOWN Date: APR 2020 DH | Checked by: CK Drawn by: Drawing No. 20009 M2.1



DEMOLITION DRAWING NOTES:

- DISCONNECT AND REMOVE EXISTING CEILING MOUNTED UNIT VENTILATOR INCLUDING OBSOLETE DUCTWORK, GRILLE(S) & DUCT HEATER(S). ISOLATE, DISCONNECT HWS/HWR AND CAP, TO BE REWORKED IN REVISED LAYOUT, REFER TO MECHANICAL DRAWING M3.2. COORDINATE WITH ELECTRICAL CONTRACTOR TO DISCONNECT POWER.
- DEMOLISH AND REMOVE EXISTING INTAKE GRILLE ABOVE WINDOW.

 CAP/SEAL, WEATHER PROOF AND INSULATE EXISTING OPENING, NEW WINDOW AND GLAZING AS PER ARCHITECTURAL DRAWINGS.
- DEMOLISH EXISTING WALL MOUNTED PNEUMATIC THERMOSTAT c/w ALL ASSOCIATED ACCESSORIES. INSTALL BLANK COVER PLATE. (BY CONTROLS CONTRACTOR)

GENERAL DEMOLITION NOTES:

- 1. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL AS—BUILT DRAWINGS. THIS INFORMATION MUST NOT ASSUMED TO BE COMPLETE OR UP—TO—DATE. THIS MECHANICAL CONTRACTOR SHALL CARRYOUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES, BEFORE THE COMMENCEMENT OF ANY WORK.
- 2. REMOVE ALL EQUIPMENT, PIPING, STEEL SUPPORTS, CONTROLS, PLUMBING MATERIAL, HOUSE KEEPING PAD, SHOWN APPROXIMATELY WITH HEAVY BROKEN LINES THROUGHOUT (UNLESS OTHERWISE INDICATED)
- 3. THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED PIPING, DUCTS, PLUMBING AND EQUIPMENT TO BE REMOVED. CONTRACTOR SHALL VISIT THE SITE AND MAKE THEIR OWN EVALUATION AND ESTIMATE OF THE EXTEND AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING PROPOSAL.
- 4. COORDINATE WITH GENERAL CONTRACTOR FOR PATCHING FLOORS, WALL, AND CEILINGS CAUSED BY THE VERTICAL UNIT VENTILATOR REPLACEMENT THAT IS CARRIED OUT BY THIS CONTRACT. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
- 5. CONTRACTOR TO ALLOW FOR FREEZING OF ALL HWS/HWR BRANCH PIPING, REMOVAL AND REPLACEMENT OF EXISTING ISOLATION VALVES.



SITE REFERENCE -PHOTO #2

Halton District School Board
2050 Guelph Line
Burlington, Ontario

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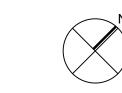
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Key Plan N.T.S.





Project North

No. Revisions

Date

4 ISSUED FOR CONSTRUCTION 2021-06-04

3 ISSUED FOR TENDER 2021-04-19

2 ISSUED FOR PERMIT 2021-01-21

1 ISSUED FOR COORDINATION 2020-08-25

No. Issue

Date

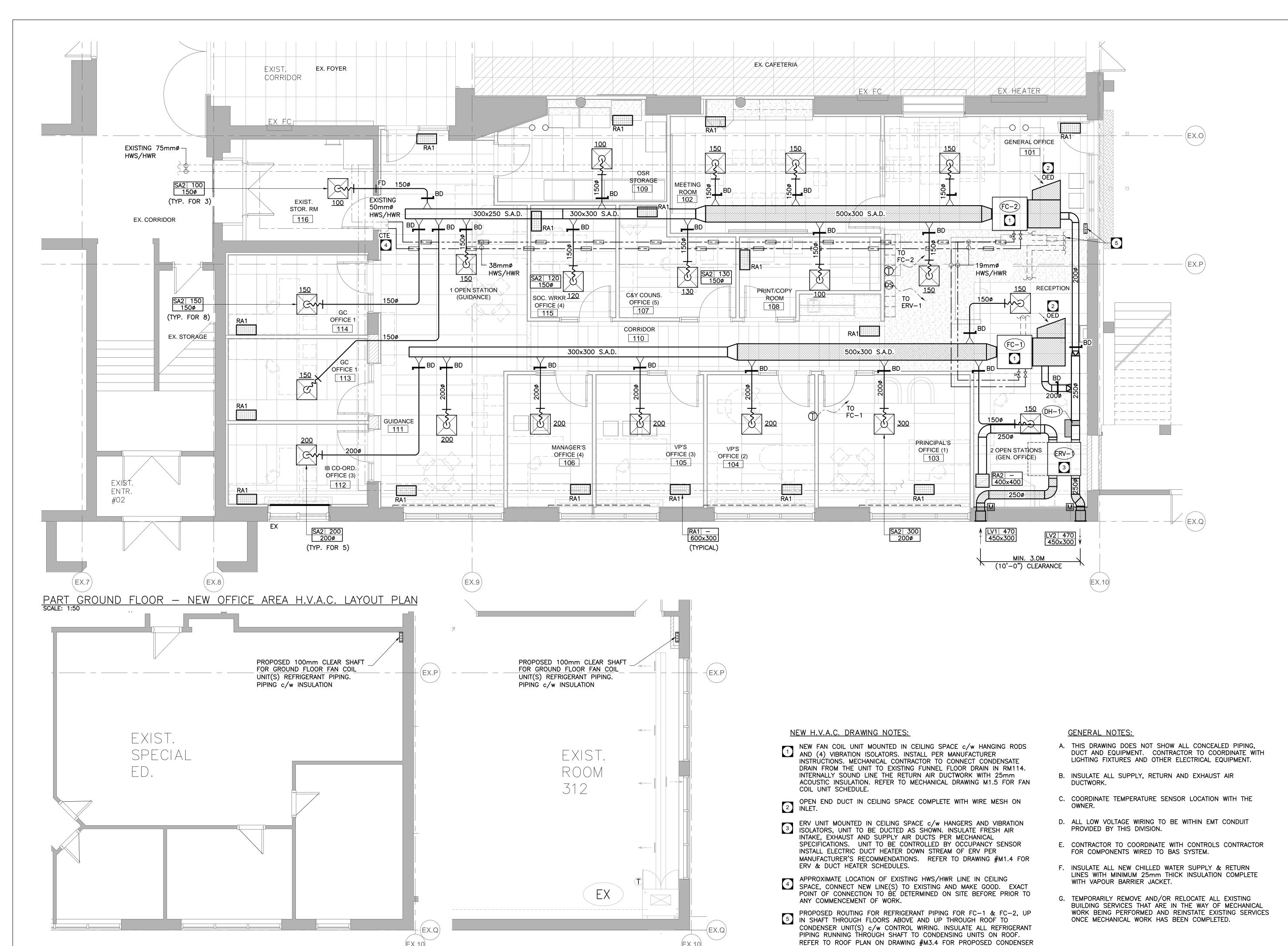
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PART GROUND FLOOR
H.V.A.C. DEMOLITION
LAYOUT PLAN

 Scale:
 AS SHOWN
 Date:
 APR 2020

 Drawn by:
 DH
 Checked by:
 CK

 Job No.
 Drawing No.
 M3.1



PART THIRD FLOOR H.V.A.C. NEW LAYOUT PLAN SCALE: 1:100

UNIT(S) LOCATION.

(EX.10)

PART SECOND FLOOR H.V.A.C. NEW LAYOUT PLAN SCALE: 1:100

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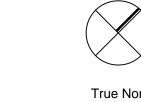
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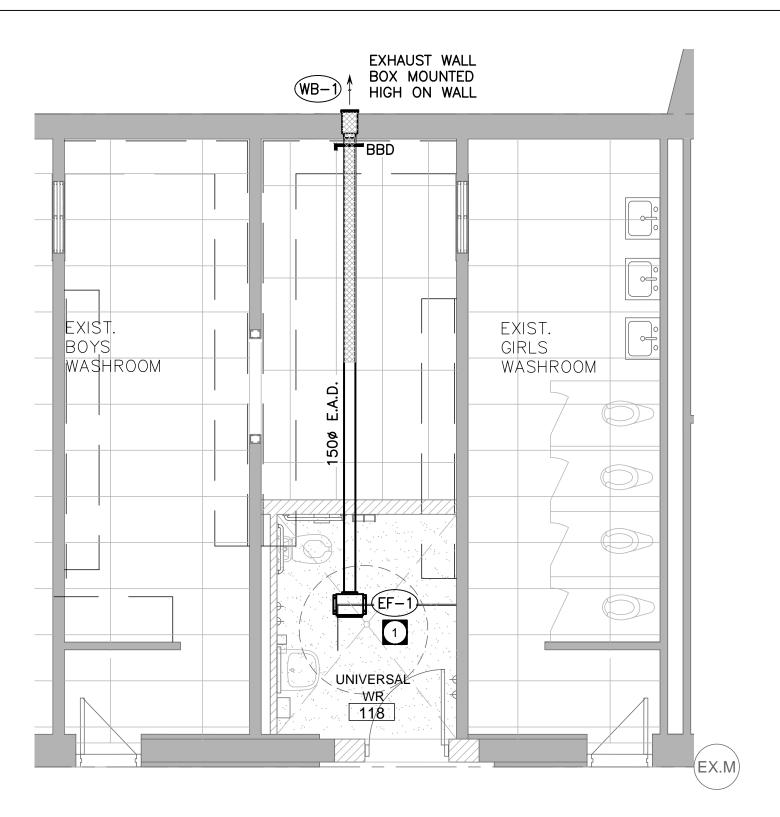


True North No. Revisions 5 ISSUED FOR CONSTRUCTION 2021-06-04 ISSUED FOR ADDENDUM No.1 2021-05-05 3 | ISSUED FOR TENDER 2021-04-19 2 ISSUED FOR PERMIT 2021-01-21 ISSUED FOR COORDINATION 2020-08-25

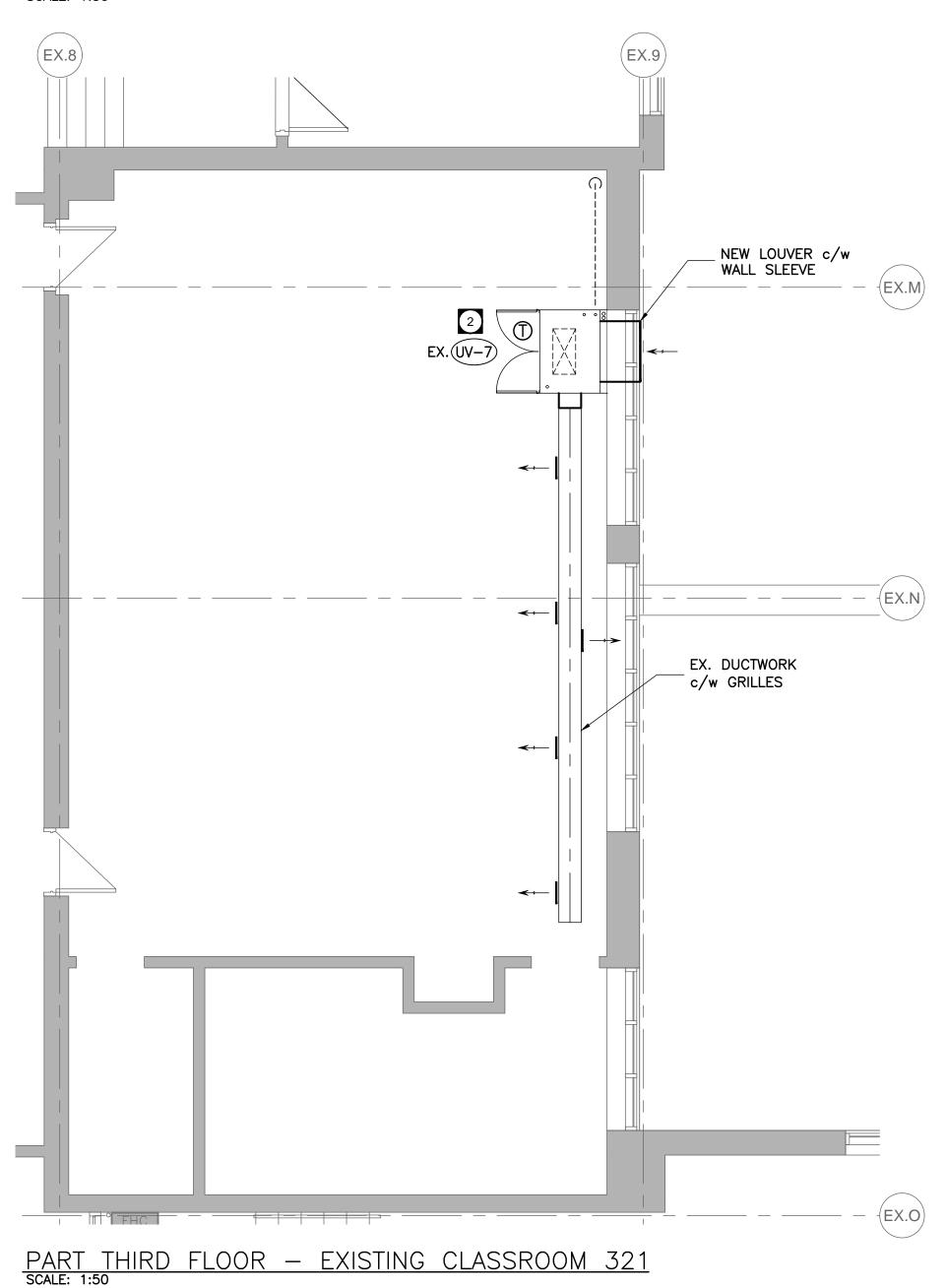
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PART GRD/2ND/3RD NEW H.V.A.C. I AYOUT PLAN

LAIC		NI N	
Scale:	AS SHOWN	Date:	APR 202
Drawn by:	DH	Checked by:	Cl
Job No.		Drawing No.	
20	009	ľ	M3.2



PART GROUND FLOOR PLAN UNIVERSAL WR 117 NEW H.V.A.C. LAYOUT SCALE: 1:50



NEW H.V.A.C. DRAWING NOTES:

- NEW CEILING MOUNTED INLINE EXHAUST FAN, REFER TO DRAWING M1.4 FOR FAN SCHEDULE (FAN TO OPERATE THROUGH OCCUPANCY SENSOR). EXTERNALLY INSULATE THE FIRST 3.0m OF EXHAUST DUCTWORK FROM THE PERIMETER WALL.
- EXISTING UNIT VENTILATOR TO BE TEMPORARILY DISCONNECTED FROM HWS/HWR PIPING, CONDENSATE DRAIN PIPE CONNECTIONS, DUCTWORK AND REMOVED TO ALLOW REMOVAL OF EXISTING WINDOW AND INSTALLATION OF NEW WINDOW. INSTALL NEW LOUVER c/w SLEEVE AND SIDE FILLER PANELS CONNECTED TO EXISTING UNIT VENTILATOR. LOUVER c/w WALL SLEEVE SHALL BE PROVIDED BY THE SCHOOL BOARD RETAINED FROM THE PREVIOUS INSTALLATION PHASE. RECONNECT TO EX. HWS/HWR PIPING, CONDENSATE DRAIN CONNECTIONS AND EX. DUCTWORK.

GENERAL NOTES:

- A. THIS DRAWING DOES NOT SHOW ALL CONCEALED PIPING, DUCT AND EQUIPMENT. CONTRACTOR TO COORDINATE WITH LIGHTING FIXTURES AND OTHER ELECTRICAL EQUIPMENT.
- B. INSULATE ALL SUPPLY, RETURN AND EXHAUST AIR
- C. COORDINATE TEMPERATURE SENSOR LOCATION WITH THE
- D. ALL LOW VOLTAGE WIRING TO BE WITHIN EMT CONDUIT PROVIDED BY THIS DIVISION.
- E. CONTRACTOR TO COORDINATE WITH CONTROLS CONTRACTOR FOR COMPONENTS WIRED TO BAS SYSTEM.
- F. INSULATE ALL NEW CHILLED WATER SUPPLY & RETURN LINES WITH MINIMUM 25mm THICK INSULATION COMPLETE WITH VAPOUR BARRIER JACKET.
- G. TEMPORARILY REMOVE AND/OR RELOCATE ALL EXISTING BUILDING SERVICES THAT ARE IN THE WAY OF MECHANICAL WORK BEING PERFORMED AND REINSTATE EXISTING SERVICES ONCE MECHANICAL WORK HAS BEEN COMPLETED.
- H. FOR ALL EXHAUST FAN REFER TO EXHAUST FAN INSTALLATION DETAIL ON MECHANICAL DRAWING M1.5.

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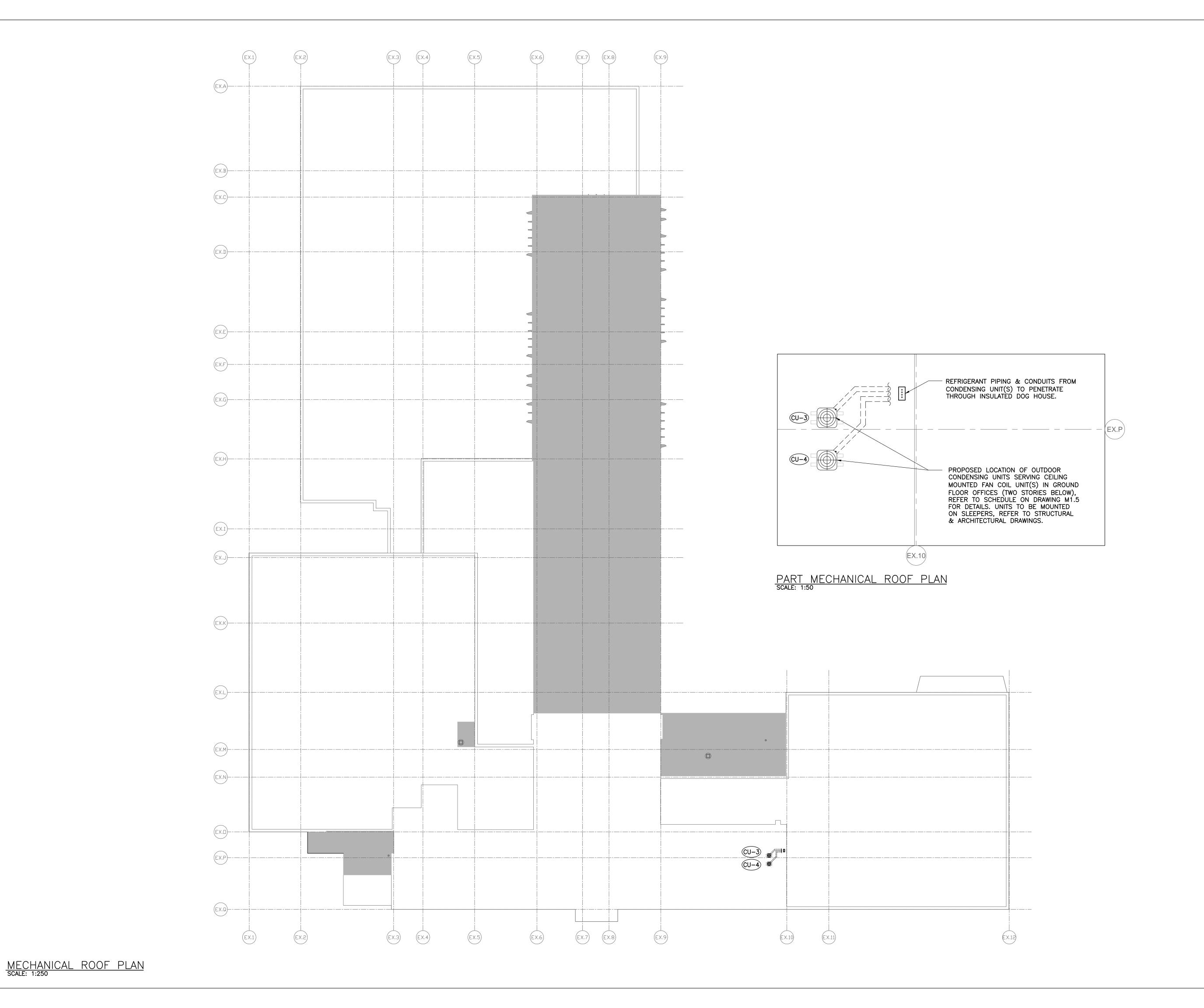
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PART GRD & 3RD FLOOR
NEW H.V.A.C.
LAYOUT PLAN

 Scale:
 AS SHOWN
 Date:
 APR 2020

 Drawn by:
 DH
 Checked by:
 CK

 Job No.
 Drawing No.
 M3.3



Halton District School Board
2050 Guelph Line
Burlington, Ontario

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3	ISSUED FOR TENDER	2021-04-19
2	ISSUED FOR PERMIT	2021-01-2
1	ISSUED FOR COORDINATION	2020-08-2
No.	Issue	Date

Drawing Title:

MECHANICAL ROOF PLAN

20	009	M3.4				
Job No.		Drawing No.				
Drawn by:	DH	Checked by:	CK			
Scale:	AS SHOWN	Date:	APR 2020			