MECHANICAL CONTRACTOR SHALL SUBMIT PRICE FOR THE COST OF SUPPLY AND INSTALLATION OF EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE AND OPERATING MECHANICAL PACKAGE. MECHANICAL PACKAGE TO CONSIST OF EQUIPMENT AND MATERIALS AS DESCRIBED IN THIS OUTLINE SPECIFICATION. REFER TO MECHANICAL PLANS FOR ACTUAL REQUIREMENTS OF EQUIPMENT.

### A. <u>GENERAL CONDITIONS</u>

- 1. PROVIDE ALL LABOUR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN ON ALL MECHANICAL DRAWINGS INCLUSIVE AND AS SPECIFIED HEREIN.
- 2. ALL NECESSARY PERMITS SHALL BE OBTAINED AND ALL FEES SHALL BE PAID TO CARRY OUT THE SPECIFIED WORK. PROVIDE ALL REQUIRED LOCAL PROVINCIAL ENGINEERING SEALS FOR DRAWINGS AND DESIGNS TO OBTAIN BUILDING CONSTRUCTION PERMITS, ETC.
- 3. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF COMPLETED WORK ACCEPTANCE BY THE ARCHITECT. SUBMIT DOCUMENTATION IDENTIFYING ADDITIONAL EQUIPMENT WARRANTY COVERAGE AND TIME FRAMES.
- 4. ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL, AND LOCAL BY-LAWS AND CODES, WHICH SHALL BE CONSIDERED PART OF THIS SPECIFICATION.
- 5. ALL CUTTING, PATCHING, FLASHING FOR WORK AS REQUIRED HEREIN SHALL BE BY THE GENERAL CONTRACTOR.
- 6. THE MECHANICAL CONTRACTOR SHALL INSTALL HEATING, VENTILATION, AIR CONDITIONING, AND PLUMBING SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE ASHRAE, NATIONAL WARM AIR STANDARDS, SMACNA LATEST EDITION DUCT STANDARDS, AND LOCAL PLUMBING CODES.
- 7. CO-ORDINATE WORK WITH WORK OF OTHER TRADES TO AVOID CONFLICT.
- 8. ALTER THE LOCATION OF DUCTS OR PIPES AT THE DIRECTION OF THE ENGINEER WITHOUT CHARGE TO THE OWNER, PROVIDED THE CHANGE IS MADE BEFORE INSTALLATION AND DOES NOT NECESSITATE ADDITIONAL MATERIALS.
- 9. TENDER QUOTATIONS SHALL BE BASED ON THE USE OF SPECIFIED MANUFACTURERS, UNLESS APPROVAL FOR THE USE OF EQUAL MANUFACTURERS IS OBTAINED FROM THE ENGINEER PRIOR TO SUBMISSION OF TENDERS. ALTERNATE MANUFACTURERS MAY BE QUOTED AS AN INCREASE OR DECREASE AMOUNT TO THE TENDER PRICE. WITHOUT PRIOR APPROVAL OF THE ENGINEER. THE USE OF AN EQUAL OR ALTERNATE MANUFACTURER SHALL IN NO WAY RELIEVE THE MECHANICAL CONTRACTOR FROM THE RESPONSIBILITY OF PROVIDING ALL WORK THAT MAY BE REQUIRED BY REASON OF DIFFERENT SPACE, WEIGHT, ELECTRICAL, OR OTHER REQUIREMENTS FROM THAT OF THE SPECIFIED MANUFACTURER.
- 10. FURNISH TO THE ENGINEER THREE (3) HARD-COVERED LOOSE-LEAF BINDERS CONTAINING THEREIN ONE (1) COMPLETE SET OF MANUFACTURERS' OPERATING AND MAINTENANCE INSTRUCTIONS SHOWING ALL MAJOR EQUIPMENT, AND APPARATUS REQUIRING MAINTENANCE. INSTRUCTIONS SHALL BE COMPLETE FOR INSTALLATION, OPERATION AND MAINTENANCE AND SHALL INCLUDE PERTINENT INFORMATION SUCH AS DETAILED DRAWINGS AND OPERATION CURVES. SPARE PARTS, SUPPLIER LISTS AND ADDRESSES SHALL BE SUPPLIED. INSTRUCTIONS SHALL BE REQUIRED WITH THE OWNERS' REPRESENTATIVE TO ENSURE A THOROUGH UNDERSTANDING OF THE EQUIPMENT AND ITS OPERATION.
- 11. ALL WIRING AND SUPPLY AND INSTALLATION OF DISCONNECT SWITCHES FOR EQUIPMENT SPECIFIED HEREIN SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- 12. PRIOR TO SUBMITTING TENDER PRICE, CONTRACTOR SHALL EXAMINE THE SITE AND CONDITIONS AFFECTING WORK. METHODS OF CONNECTION AND LOCATION OF ALL SERVICES INVOLVED UNDER THIS CONTRACT. FAILURE TO MAKE THIS VISIT IN NO WAY ALLEVIATES THE MECHANICAL CONTRACTOR FROM RESPONSIBILITY FOR COMPLETING THE MECHANICAL WORK OF THIS CONTRACT IN A WORKMANLIKE MANNER. NO ALLOWANCE WILL BE MADE AFTER CONTRACT AWARD FOR ANY EXPENSE INCURRED THROUGH A FAILURE TO MAKE THIS EXAMINATION AND INVESTIGATION.
- 13. SCHEDULING OF ALL WORK SHALL BE ARRANGED WITH THE OWNER, AND THE OWNER SHALL BE NOTIFIED AND HIS APPROVAL OBTAINED PRIOR TO SHUTTING OFF EXISTING SERVICES FOR PURPOSES OF CONNECTING NEW WORK.
- 14. PROVIDE AN AUTOCAD DISK/ USB COPY OF THE CONTRACT DRAWINGS FOR RECORD 'AS-BUILT' DRAWINGS, REVISED AS REQUIRED TO SHOW ANY DEVIATIONS OF LAYOUTS FROM THAT ORIGINALLY SHOWN.
- 15. PROVIDE ONE SET OF SPECIAL TOOLS REQUIRED TO SERVICE EQUIPMENT AS RECOMMENDED BY MANUFACTURERS.
- 16. PROVIDE DIELECTRIC COUPLINGS WHEREVER PIPES OF DISSIMILAR METALS ARE JOINED.
- 17. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE TEMPORARY HEATING AS REQUIRED FOR THE PROPER AND PROGRESS OF THE WORK.
- 18. THE MECHANICAL CONTRACTOR SHALL PROVIDE SIX (6) SETS OF SHOP DRAWINGS FOR ALL EQUIPMENT FOR REVIEW AND APPROVAL BY ENGINEERS.
- 19. PIPE HANGERS WHERE REQUIRED SHALL BE GRINNELL FIG. 65 FOR STEEL PIPE AND FIG. CP65 FOR COPPER PIPE. ALL WITH FIG. 140 THREADED ROD ATTACHED TO FIG. 117 EXPANSION CASE SET IN HOLES DRILLED IN CONCRETE, OR ATTACHED TO FIG. 225 OR 227 CLAMP ATTACHED TO FLOOR JOIST AND ROOF JOIST. FOR INSULATED PIPING. PROVIDE PROTECTION SADDLES SIZE HANGER TO ACCOMMODATE INSULATION WHERE APPLIED. (NO PERFORATED STRAP HANGERS WILL BE ACCEPTED FOR SUPPORT METHOD.
- B. **SHOP DRAWINGS**
- 1. SHOP DRAWINGS AND DATA SHEETS FOR EQUIPMENT INTENDED FOR INSTALLATION UNDER THIS CONTRACT SHALL BE SUBMITTED FOR REVIEW, AFTER CHECKING AND WHEN REVIEWED, COPIES WILL BE RETURNED TO THE CONTRACTOR.
- C. <u>GUARANTEE</u>
- 1. THE CONTRACTOR SHALL EXECUTE AND DELIVER TO THE OWNER, BEFORE FINAL PAYMENT, A WRITTEN GUARANTEE IN FORM SATISFACTORY TO THE OWNER THAT ALL LABOUR AND MATERIALS FURNISHED AND WORK PERFORMED BY THE CONTRACTOR ARE IN ACCORDANCE WITH THE CONTRACT. CONTRACT DRAWINGS, SPECIFICATIONS AND AUTHORIZED ALTERATIONS AND ADDITIONS THERETO AND, SHOULD ANY DEFECT DEVELOP DURING THE CONTRACT GUARANTEE PERIOD, AS HEREINAFTER DEFINED DUE TO IMPROPER MATERIALS, WORKMANSHIP OR ARRANGEMENT, THE SAME TOGETHER WITH ANY OTHER WORK AFFECTED IN CORRECTING SUCH DEFECT SHALL, UPON WRITTEN NOTICE BE MADE GOOD BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER.
- 2. THE CONTRACTOR'S AFORESAID GUARANTEE SHALL COVER ALL WORK UNDER THE CONTRACT, WHETHER OR NOT ANY PORTION OR TRADE HAS BEEN ASSIGNED OR SUBLET. IN THE EVENT ANY PORTION OF THE WORK IS PERFORMED BY ASSIGNEES AND SUBCONTRACTORS THEIR WRITTEN GUARANTEE TO THE OWNER COVERING THEIR RESPECTIVE PORTIONS OF THE WORK FOR THE PERIODS SPECIFIED AND SHALL DELIVER SAME, TOGETHER WITH HIS OWN GUARANTEE, TO THE OWNER! ASSIGNEES AND SUBCONTRACTORS' GUARANTEES SHALL EXPRESSLY PROVIDE THAT THE SAME SHALL BE ENFORCEABLE DIRECTLY BY THE OWNER AND SHALL RUN CONCURRENTLY WITH THE CONTRACTOR'S GUARANTEE.
- D. <u>CLOSE-OUT DOCUMENTS AND INSTRUCTIONS</u>
- AS—BUILT DRAWINGS
- ALL TEST REPORTS
- WARRANTIES ALL APPROVAL AND VERIFICATION CERTIFICATIES
- THREE (3) COPIES OF MAINTENANCE MANUALS
- COPIES OF PANEL BOARD INDEXES
- INSTRUCT OWNER IN THE OPERATION OF ALL EQUIPMENT AND MAKE FAMILIAR WITH SYSTEM.
- E. COMMISSIONING AND DEMONSTRATION
- 1. THE COMMISSIONING PROCESS REQUIRES THE COMPLETE PROCESS TO TEST, ADJUST AND BALANCE SYSTEMS TO PERFORM IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS AND TO DO ALL OTHER WORK AS SPECIFIED IN THIS SECTION.
- 2. THE MECHANICAL CONTRACTOR SHALL ACT AS THE COMMISSIONING AGENT FOR THIS PROJECT.
- 3. TO ADJUST AND REGULATE EQUIPMENT AND SYSTEMS SO AS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS AND TO ACHIEVE SPECIFIED INTERACTION WITH ALL OTHER RELATED SYSTEMS UNDER ALL NORMAL AND EMERGENCY LOADS AND OPERATING CONDITIONS.
- 4. BALANCE SYSTEMS AND EQUIPMENT TO REGULATE FLOW RATES TO MATCH LOAD REQUIREMENTS OVER FULL OPERATING RANGES.
- F. <u>PLUMBING</u>
- 1. PROVIDE COMPLETE FUNCTIONAL PLUMBING SYSTEM COMPRISED OF DOMESTIC WATER PIPING, VENT PIPING, SANITARY DRAINAGE PIPING, ETC.
- 2. SANITARY DRAINAGE AND VENT PIPING MATERIAL SHALL BE CAST IRON OR PVC DRAIN, WASTE, AND VENT PIPE AND PIPE FITTINGS CERTIFIED TO CAN/CSA-B181.2.

3. PROVIDE IPEX SYSTEM XFR PIPE AND FITTINGS C/W APPROVED FIRE STOPS TO CAN/ULC-S115 IN AREA WHERE THE CEILING SPACE IS UTILIZED AS RETURN AIR PLENUM OR WHEN INSTALLED IN A BUILDING CLASSIFIED AS A HIGH BUILDING.

MECHANICAL SPECIFICATIONS

- 4. DOMESTIC HOT AND COLD WATER PIPING SHALL BE TYPE "L" HARD COPPER TUBING WITH SOLDERED FITTINGS OR CROSS-LINKED POLYETHYLENE PIPE AND FITTINGS CERTIFIED TO CAN/SCA-B137.5.
- 5. DRAINS AND VENT PIPING ABOVE GROUND INSIDE BUILDING SHALL BE DWV COPPER, CAST IRON CLASS 4000 OR PLASTIC PIPE WHERE APPLICABLE OR APPROVED BY LOCAL AUTHORITIES. JOINTS SHALL BE SOLDERED FOR COPPER, MECHANICAL JOINT FOR CAST IRON PIPE, AND SOLVENT CEMENT FOR PLASTIC PIPE.
- 6. MECHANICAL CONTRACTOR SHALL VERIFY ON SITE ALL CONNECTION POINTS TO EXISTING SERVICES. EXTEND ALL SERVICES INSIDE BUILDING AS SHOWN ON DRAWINGS. CONNECT SEWER AND WATER SERVICES TO EXTERIOR BUILDING SERVICES. CONFIRM AND VERIFY EXACT LOCATIONS AND INVERTS OF BUILDING SERVICES WITH SITE CONDITIONS. ALL CONNECTIONS TO BE MADE IN ACCORDANCE WITH LOCAL PROVINCIAL CODE REQUIREMENTS.
- 7. USE 95.5 TIN ANTINONY BRAZING SOLDER ON ALL HOT AND COLD WATER PIPING. USE NON-CORROSIVE NON-LEADED
- 8. ALL VALVES TO BE BY ONE MANUFACTURER.
- 9. MECHANICAL CONTRACTOR SHALL ALLOW FOR IN TENDER QUOTATION ANY ADDITIONAL LABOUR, MATERIALS, ETC. DEEMED NECESSARY DUE TO EXACT SITE CONDITIONS WHICH HAVE NOT BEEN REFLECTED ON MECHANICAL DRAWING OR IN MECHANICAL SPECIFICATION.
- 10. MECHANICAL CONTRACTOR SHALL CONNECT DOMESTIC WATER LINES, VENT LINES, SANITARY DRAIN SERVICES AS SHOWN FOR ALL PLUMBING FIXTURE INSTALLATIONS.
- 11. PROVIDE ACCESS DOORS, CLEANOUT COVERS, ETC FOR ALL EQUIPMENT REQUIRING ACCESS FOR SERVICING OR OPERATING PURPOSES. ACCESS DOORS TO BE PROVIDED BY DIVISION 15 FOR INSTALLATION BY SUB-TRADE PROVIDING WALL, CEILING, FLOORING, ETC.
- 12. PROVIDE SHUT-OFF VALVES ON BOTH DOMESTIC WATER LINES SERVING EACH PIECE OF EQUIPMENT, PLUMBING FIXTURE,
- 13. PROVIDE ESCUTCHEON PLATE COVERS OVER ANY DOMESTIC WATER LINES, DRAIN LINES, ETC PENETRATING WALLS.
- 14. PROVIDE TRAP PRIMERS AS PER LOCAL CODE REQUIREMENTS, Per Div. B, 7.4.5.5.
- G. PIPING AND EQUIPMENT IDENTIFICATION
- IDENTIFY ALL PIPING SYSTEMS. INDICATE PIPE SIZE, SERVICE AND DIRECTION OF FLOW.
- THE LETTERING SHALL BE PROPORTIONAL TO THE OUTSIDE DIAMETER OF THE PIPE OR COVERING RANGING FROM 13MM HIGH TO 20MM O.D., PIPE OR COVERING UP TO 100MM HIGH ON 300MM O.D. PIPE OR COVERING. BRADEY PIPE TAG SHALL BE THE STANDARD OF LABELS. PIPES SMALLER THAN 20MM O.D. PIPE OR COVERING MAY BE BANDED WITH COLOURED PLASTIC TAPE IN LIEU OF PAINT AND THE CONTENTS IDENTIFIED BY MEANS OF "DYMO" EMBOSSED PLASTIC LABELS. STENCIL A DIRECTION-OF-FLOW ARROW ON EACH COLOUR BAND. PIPE IDENTIFICATION SHALL BE APPLIED AT EACH HORIZONTAL OR VERTICAL CHANGE IN DIRECTION AND A MAXIMUM OF 12 METER APART
- H. <u>PIPING INSULATION</u>
- 1. ALL WATER LINES LISTED BELOW SHALL BE INSULATED WITH 25MM THICK DUAL TEMPERATURE GLASS FIBRE PIPE INSULATION. INSULATION SHALL BE MANUFACTURED BY FIBREGLASS OF CANADA.
- 2. THIS INSULATION SHALL BE SUPPLIED COMPLETE WITH FLAME RETARDANT VAPOUR BARRIER JACKET CONSISTING OF GLASS FIBRE. REINFORCED LAMINATE OF ALUMINUM FOIL AND KRAFT PAPER. LONGITUDINAL SEAMS OF THE VAPOUR BARRIER JACKET SHALL BE SEALED WITH VAPOUR-PROOF ADHESIVE, FLINTKOTE TYPE 32. INSULATE AND TAPE ALL VALVES AND FITTINGS. EXPOSED PIPING INSULATION TO BE FINISHED WITH 8 OZ. FATTAL U.L.C. LISTED CANVAS AND CHILDERS LAGGING. NON-U.L.C. LISTED CANVAS WILL NOT BE ACCEPTED.
- 3. INSULATE ALL PIPING INSIDE MECHANICAL ROOM COMPLETE WITH POLYVINYL COVERING.
  - INSULATE THE FOLLOWING PIPING:
  - DOMESTIC COLD WATER
  - DOMESTIC HOT WATER AND RECIRCULATION HEATING WATER SUPPLY AND RETURN
  - CONDENSATE DRAIN PIPING
- Combustible duct insulation, coverings and adhesives shall have **DUCT INSULATION** a flame spread rating of 25 except as permitted in Div. B, 6.2.3.4.
- CONCEALED SUPPLY AIR, OUTSIDE AIR AND EXHAUST AIR DUCTS: 25 MM THICK GLASS FIBRE 12 KG/M3 DENSITY FLEXIBLE DUCT INSULATION WITH REINFORCED FOIL FACED FLAME RESISTANT KRAFT VAPOUR BARRIER.
- 2. EXTERIOR SUPPLY AND RETURN AIR DUCTS ON ROOF TO BE INSULATED WITH 3" (75MM) THICK FOIL FACED RIGID FIBREGLASS INSULATION (MIN. R15) WITH WEATHERPROOF ALL AROUND TAR COVER.
- 3. EXPOSED RECTANGULAR SUPPLY AIR DUCTWORK: 1" (25 MM) THICK GLASS FIBRE 72 KG/M3 DENSITY RIGID INSULATING BOARD WITH REINFORCED FOIL FACED FLAME RESISTANT KRAFT VAPOUR BARRIER. INSULATION SHALL HAVE 0.03 PERM RATING MINIMUM.
- J. HEATING, VENTILATION & AIR CONDITIONING
- PROVIDE SUPPLY AIR, RETURN AIR, AND EXHAUST AIR DUCT SYSTEMS, DIFFUSERS, GRILLES AS SHOWN.
- 2. ALL DUCTWORK INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH SMACNA LATEST EDITION DUCT STANDARDS.
- 3. THIS CONTRACTOR SHALL SUPPLY AND INSTALL ALL DUCTWORK INCLUDING APPURTENANCES, HANGERS, DAMPERS, ETC.
- 4. ALL EXPOSED ROUND DUCTWORK SHALL BE ROUND SPIRAL CONDUIT CONSTRUCTED OF ZINC COATED STEEL: ACCEPTABLE PRODUCT: UNITED SHEET METAL CO. SHOP FABRICATED DUCTWORK AND FITTINGS CONSTRUCTED IN A MANNER SIMILAR TO THE FACTORY TYPE SPECIFIED WILL BE ACCEPTED.
- CONDUIT SIZE GAUGE OF METAL 8" AND SMALLER 9" TO 22" 24 24" TO 36"
- 6. RECTANGULAR DUCTWORK SHALL BE CONSTRUCTED FROM GALVANIZED SHEET METAL OF THE FOLLOWING U.S. STANDARD
- DUCTS UP TO 12" ON LONGEST DIMENSION 26 GA. DUCTS 13" TO 28" ON LONGEST DIMENSION 24 GA.

DUCTS 29" TO 48" ON LONGEST DIMENSION 22 GA.

- 7. BALANCING DAMPERS SHALL BE CONSTRUCTED FROM GALVANIZED STEEL 2 GAUGES HEAVIER THAN THE DUCTWORK IN WHICH THEY ARE INSTALLED C/W LOCKING QUADRANT AND INDICATING DEVICE.
- 8. PROVIDE FIRE DAMPERS WHICH CONFORM TO NFPA REGULATIONS, BEAR ULC LABEL, AND HAVE APPROVAL OF DFC. DAMPERS TO BE TYPE 'B' AND INSTALLED IN DUCTWORK AT FIRE SEPARATIONS WHETHER SHOWN OR NOT.
- 9. ALL DUCTWORK SHALL BE SEALED USING DURO-DYNE S-2 DUCT SEALER THROUGHOUT ALL SEAMS AND JOINTS.
- 10. PROVIDE ACCESS DOORS WHERE REQUIRED FOR SERVICING OR OPERATING OF MECHANICAL EQUIPMENT.
- 11. PROVIDE 4" FLEXIBLE DUCT CONNECTIONS ON BOTH INLET AND OUTLET DISCHARGE SIDES OF EACH FAN. AIR HANDLING ROOFTOP UNIT, ETC.
- 12. DUCTWORK SHOWN CROSS HATCHED SHALL BE ACOUSTICALLY LINED WITH 1" THICK RIGID FIBERGLASS COVERED WITH BLACK PLASTIC COATED MAT FACING. SEAL ENDS. STANDARD OF ACCEPTANCE JOHNS-MANVILLE LINACOUSTIC OR APPROVED EQUAL.
- K. AIR TESTING AND BALANCING
- BALANCE AND ADJUST EACH FAN. SYSTEM VOLUMES SHALL BE WITHIN 5% OF REQUIREMENTS SHOWN. ADJUST AND SET BALANCE DAMPERS, FANS AND DRIVES TO GIVE THE SPECIFIED VOLUMES AT ALL OUTLETS. THE BALANCING OF AIR SYSTEMS IS TO BE DONE BY A BALANCING FIRM SPECIALIZING IN THIS WORK. CLEAN DUCT SYSTEMS, FILTERS, ETC., BEFORE TESTING IS DONE.
- 2. PROVIDE TWO BOUND COPIES OF THE AIR BALANCING REPORT. 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.
- 3. UPON COMPLETION OF THE AIR BALANCE TEST, SUBMIT THE AIR BALANCE 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 REBALANCE THE SYSTEM UNTIL REQUIREMENTS ARE ACHIEVED AND ACCEPTED BY THE CONSULTANT.
- 4. TEST PLUMBING SYSTEMS IN ACCORDANCE WITH APPLICABLE PLUMBING CODES.
- SYSTEMS NOT COVERED BY CODES NOTED ABOVE SHALL BE TESTED AND PROVEN TIGHT OVER A PERIOD OF 24 HOURS BY A HYDROSTATIC TEST. REMOVE VENTS AND GAUGES AND TEMPORARILY PLUG CONNECTIONS.
- 6. TEST PRESSURE FOR WATER SYSTEMS SHALL BE: 1½ TIMES THE SYSTEM WORKING PRESSURE BUT NOT LESS THAN 125 PSIG OR THE MAXIMUM WORKING PRESSURE OF EXPANSION JOINTS, VIBRATION ISOLATORS OR OTHER LIMITING SYSTEM COMPONENTS.
- 7. REPAIR ANY LEAKS OR DEFECTS AND THE TESTS SHALL BE REPEATED TO THE SATISFACTION OF THE ENGINEER.

### L. <u>HYDRONIC HEATING</u>

1.1. ALL MECHANICAL WORK SHALL BE GOVERNED BY AND SUBJECT TO THE PROVISIONS OF THIS SECTION, AND ALL SECTIONS OF THE PROJECT SPECIFICATION.

1.2. THIS SPECIFICATION DESCRIBES THE MINIMUM PERFORMANCE AND BASIC REQUIREMENTS.

# 2. PIPING— THREADED/WELDED

- 2.1. HOT WATER PIPING SHALL BE ELECTRIC RESISTANCE OR SEAMLESS TUBING, SCHEDULE 40, CONFORMING TO ASTM DESIGNATION A-53.
- PIPING AND FITTINGS UP TO AND INCLUDING 2" (50MM) SHALL HAVE SCREWED ENDS WITH COUPLING.
- PIPING AND FITTINGS 2-1/2" (65MM) AND LARGER SHALL HAVE WELDED JOINTS AND SHALL BE SUPPLIED WITH ENDS BEVELED AT AN ANGLE.

# 3. PIPING— GROOVED

- 3.1. HOT WATER HEATING GROOVED PIPING  $2-\frac{1}{2}$ " and larger and fittings may be used in Lieu of Welding or Flanged methods for hot water
- PIPING IN MECHANICAL ROOMS AND AS SPECIFIED BY THE ENGINEER. ALL GROOVED COUPLINGS SHALL BE DESIGNED WITH ANGLE BOLT PADS TO PROVIDE A RIGID JOINT, UNLESS OTHERWISE NOTED. VICTAULIC STYLE 07 ZERO-FLEX OR EQUIVALENT.
- FLANGES DUCTILE IRON ASTM A-536 FOR SIZES 2" (50MM) TO 24" (600MM). VICTAULIC STYLE 741 OR EQUIVALENT
- GASKETS SHALL BE THE APPROPRIATE GRADE FOR THE TYPE AND TEMPERATURE OF FLUID FLOWING THROUGH THE PIPE GROOVED PRODUCTS SHALL BE MANUFACTURED BY VICTAULIC OR GRUVLOC. ALL PRODUCTS SHALL BE BY ONE MANUFACTURER.
- SHOP DRAWING SUBMITTAL TO INCLUDE GASKETS AND COUPLINGS.

BALANCING, DRAINING OF THE SYSTEM AND PERFECT WORKING OF THE SYSTEM.

- 4. ISOLATION VALVES (WATER SYSTEMS) 4.1. VALVES SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED TO ENSURE SPECIFIED ISOLATION, CONTROL,
- 4.2. BALL VALVES FOR LINES 2" AND UNDER SHALL BE FULL PORT BRONZE BODY 150 LB W.O.G. CRANE NO. 9302 OR EQUAL 4.3. BUTTERFLY VALVES FOR LINES 2-½" AND OVER SHALL BE CLASS 150 FULL LUG TYPE CAST IRON BODY, BRONZE DISC, ALLOY OR STAINLESS STEEL SHAFT. EDPM SEAT, WITH NOTCHED TOP PLATE AND LEVER LOCKED HANDLE FOR VALVES UP TO 6". AND WORM GEAR OPERATOR WITH HAND WHEEL FOR VALVES 8" AND LARGER. LUGS TO BE TAPPED. MANUFACTURERS: CRANE, JENKINS, CENTERLINE, BRAY
- 5. BALANCING VALVES (CS/CBV)
- 5.1. PROVIDE ON EACH HOT WATER COIL AND AS SHOWN ON DRAWINGS, A CALIBRATED BRONZE BALANCE VALVE WITH PROVISIONS FOR CONNECTING A PORTABLE DIFFERENTIAL PRESSURE METER. METER CONNECTIONS TO HAVE BUILT IN CHECK VALVES. AN INTEGRAL POINTER SHALL REGISTER DEGREE OF VALVE OPENING. EACH BALANCE VALVE TO BE CONSTRUCTED WITH INTERNAL SEALS TO PREVENT LEAKAGE AROUND ROTATING ELEMENT. A CALIBRATED CURVE SHALL ACCOMPANY THE BALANCE VALVE AND MAY BE USED TO DETERMINE THE FLOW RATE BY MEANS OF PRESSURE DROP AND VALVE SETTING. EACH BALANCE VALVE SHALL BE CONSTRUCTED FOR 125 PSIG WORKING PRESSURE AT 250°F AND SUPPLIED WITH PREFORMED POLYURETHANE INSULATION. SUITABLE FOR USE ON HEATING AND COOLING SYSTEMS. 5.2. ACCEPTABLE PRODUCT: ARMSTRONG CBV SERIES, BELL & GOSSETT CB, WATTS TDV AND CSM SERIES..
- 6. CHECK VALVE

OR ANVIL.

- CHECK VALVES SHALL BE 150 LB SWING CHECK, NON-SLAM SPRING LOADED DISC RATED FOR THE SYSTEM AND/OR 200 PSI. CRANE NO. 34, OR 373, JENKINS OR ANVIL OR BRAY.
- 7. STRAINERS (WATER SYSTEMS)
- 7.1. FOR EACH PUMP SUPPLIED, SUPPLY AND INSTALL A STRAINER IN THE SUCTION LINE AS LOCATED ON THE DRAWINGS.
- 7.2. STRAINER 1/8" TO 2" SIZE: SPIRAX SARCO MODEL BT. BRONZE STRAINER WITH TYPE 304 S.S. SCREEN.
- 7.3. ACCEPTABLE PRODUCT: SPIRAX SARCO, CRANE, ARMSTRONG.
- 8. AIR VENTS
- 8.1. SUPPLY AND INSTALL AT ALL HIGH POINTS OF THE SYSTEM WHERE AIR MAY ACCUMULATE. 8.2. INSTALL AUTOMATIC AIR VENTS IN EXPOSED AREAS WHERE THEY CAN BE SEEN. INSTALL MANUAL AIR VENTS IN AREAS THAT ARE
- CONCEALED. INSTALL ACCESS DOOR WHERE REQUIRED. 8.3. ON PIPING 3" AND LARGER, INSTALL FLOAT OPERATED TYPE AUTOMATIC AIR VENTS. ACCEPTABLE PRODUCT: SARCO NO. 13W WITH OPERATING PRESSURE OF 150 PSIG AND OPERATING TEMPERATURE OF 350°F COMPLETE WITH ISOLATING BALL VALVE BETWEEN MAIN AND VENT TO ALLOW SERVICING OF VENT WITHOUT EMPTYING SYSTEM.
- 8.4. VENT DRAINS SHALL BE PIPED WITH RIGID COPPER TO 6" ABOVE FINISHED FLOOR (AFF).
- 8.5. ON PIPING 2-1/2" AND SMALLER, ALL RADIATION, FAN COIL UNITS, AND UNIT HEATERS SHALL INCLUDE AUTOMATIC AIR VENTS INSTALLED AT EACH HIGH POINT. ACCEPTABLE PRODUCT: HONEYWELL BRAUKMAN EA122A AUTOMATIC AIR VENT WITH MAXIMUM OPERATING PRESSURE OF 150 PSI, MAXIMUM OPERATING TEMPERATURE OF 230°F COMPLETE WITH REMOVABLE FLOAT/VALVE AND MATERIALS FOR USE WITH WATER, GLYCOL, MINERAL OIL OR PETROLEUM OILS.
- 9. HOT WATER HEATING PIPING
- 9.1. THOROUGHLY REAM ALL CUT PIPE ENDS. ANY PIPING WHICH IS FOUND TO BE INSTALLED WITHOUT BEING FULLY REAMED SHALL BE SUFFICIENT REASON FOR COMPLETE REMOVAL OF ALL JOINTS FOR INSPECTION AT THE SUBCONTRACTOR'S EXPENSE. 9.2. TAKE OFF UP FEED RUN OUTS OFF THE TOP OF THE MAIN AT AN ANGLE OF 90° OR 45° TO THE HORIZONTAL; DOWN FEEDS SHALL
- BE TAKEN OFF THE SIDE IN A SIMILAR MANNER. SEE DETAIL ON DRAWINGS. 9.3. INSTALL ECCENTRIC REDUCERS AT CHANGES IN PIPE DIAMETER SO THAT AIR CANNOT COLLECT AT HIGH POCKETS IN THE PIPING.
- 10. PRESSURE PIPING TEST
- 10.1. SPECIALTY FITTINGS, EQUIPMENT, SIMILAR ITEMS AND INTERNAL PARTS THEREOF WHICH ARE COMPONENTS OF THE LINE OR LINES TO BE TESTED AND WHICH ARE NOT DESIGNED TO WITHSTAND THE SPECIFIED TEST PRESSURE SHALL BE REMOVED, DISCONNECTED OR BYPASSED AS APPLICABLE DURING THE TEST. DURING THE TEST PERIOD THE WATER PRESSURE PUMP OR OTHER SOURCE OF TEST PRESSURE SHALL BE DISCONNECTED FROM THE PIPING SYSTEM.
- 10.2. PRESSURE TESTS SHALL BE MADE WITH COLD WATER, AND, IN ADDITION TO THE FOREGOING, SHALL BE MADE IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. 10.3. WHERE IT IS NOT PRACTICAL TO TEST EACH SYSTEM AS A WHOLE, IT MAY BE TESTED IN SECTIONS. LEAKS SHALL BE MADE TIGHT WHILE EACH SYSTEM IS UNDER PRESSURE IF POSSIBLE. WHERE THIS IS NOT PRACTICABLE, PIPING AND FITTINGS SHALL BE REMOVED AND
- REFITTED AND THAT PORTION OF THE SYSTEM RETESTED. 10.4. WATER SYSTEMS SHALL BE TESTED AT 125 PSIG FOR 24 HOURS.
- 11. SETTING OF EQUIPMENT AND PIPING
- 11.1. SETTING AND ALIGNMENT OF ALL EQUIPMENT WITH ROTATING ELEMENTS MUST BE CARRIED OUT BY CERTIFIED TRADESMEN OR BY 11.2. INSTALL PIPING SO AS TO BE FREE FROM STRAIN AND DISTORTION DUE TO EXPANSION AND CONTRACTION.
- м. <u>CONTROLS</u>
- 1. FOLLOWING LIST OF NEW MECHANICAL EQUIPMENTS SHALL TIED INTO THE BASE BUILDING BAS SYSTEM. FOLLOW BASE BID BAS SPECIFICATIONS FOR REQUIREMENTS.
- 1.1. EXHAUST FAN (EF-1). 1.2. HYDRONIC RADIATOR (CH-1 & CH-2)
- 1.3. ENERGY RECOVERY UNIT (ERV-1)

UILDING DEPARTMEN **ALL CONSTRUCTION TO** MEET ONTARIO BUILDIN

**RECEIVED** 

JUNE 16 2023

CITY OF BURLINGTO

**CODE REQUIREMENTS** 

CITY OF BURLINGTON **BUILDING SERVICES** REVIEWED FOR PERMIT ISSUANCE

December 21, 2023 MIT NUMBER 23-011806

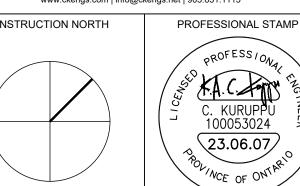
**Halton District School Board** 2050 Guelph Line Burlington, Ontario

ARCHITECT

260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca

Snyder Architects Inc.





GENERAL NOTE:
DRAWINGS, SPECIFICATIONS AND SCHEDULES ARE COMPLEMENTARY EACH TO THE DTAWINGS, SPECIFICATIONS AND SCHEDULES ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE TO BE BINDING AS IF CALLED FOR BY ALL. SHOULD ANY DISCREPANCY APPEAR BETWEEN DOCUMENTS WHICH LEAVES DOUBT A O THE INTENT OF MEANING. ABIDE BY PRECEDENCE OF DOCUMENT OR OBTAIN DRAWINGS.
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1.	ISSUED FOR PROGRESS	23.04.28
NO.	DESCRIPTION	DATE

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**BURLINGTON CENTRAL** H.S. RENOVATIONS

1433 Baldwin Street Burlington, ON

DRAWN	PROJECT NO
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

DRAWING

MECHANICAL **SPECIFICATIONS** 

M1 COB - Building Department Page 1 of 12

# COB - Building Department

OB - Building Department age 2 of 12	
PLUMBI	NG ABBREVIATIONS
CO	CLEAN OUT
CTE	CONNECT TO EXISTING
CW	DOMESTIC COLD WATER
HR	DOMESTIC HOT WATER RECIRCULATION
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
HW	DOMESTIC HOT WATER
LAV	LAVATORY
WM	WATER METER
МН	MANHOLE
NFHB	NON FREEZE HOSE BIB
NFWH	NON FREEZE WALL HYDRANT
RIO	ROUGH-IN ONLY
S	SINK
UR	URINAL
٧	VENT
WC	WATER CLOSET
DN	DOWN

HVAC	ABBREVIATIONS							
AD	ACCESS DOOR							
AP	ACCESS PANEL							
В	BASEBOARD HEATER							
BD	BALANCING DAMPER							
BDD	BACKDRAFT DAMPER							
EA	EXHAUST AIR							
EF	EXHAUST FAN							
EG	EXHAUST GRILLE							
OA	OUTSIDE AIR							
FFH	FORCE FLOW HEATER							
RA	RETURN AIR							
RG	RETURN GRILLE							
SA	SUPPLY AIR							
SD	SPLITTER DAMPER							
SG	SUPPLY GRILLE							
UC	UNDER CUT DOOR							
SAD	SUPPLY AIR DUCT							
EAD	EXHAUST AIR DUCT							

		7						
ME	CHANICAL LEGEND							
PIPING/PLUMBING								
	SANITARY LINE UNDER GROUND							
—— <b>—</b> —	SANITARY LINE ABOVE FLOOR							
	MAKEUP AIR UNIT CONDENSATE LINE							
·	DOMESTIC COLD WATER (CW)							
··	DOMESTIC HOT WATER (HW)							
	DOMESTIC HOT WATER RECIRCULATION	(+						
——тм ——	DOMESTIC TEMPERED WATER (TW)							
o	PIPE UP							
———э	PIPE DOWN							
IIco	CLEAN OUT							
<u>KS-1</u>	PLUMBING FIXTURE TAG							
0	FLOOR DRAIN							
2	PLUG OR CAP							
СН	CABINET HEATER - HYDRONIC							
CV	CONVECTOR - HYDRONIC							
UH	UNIT HEATER — HYDRONIC							
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							
		1						

г		
	ME	CHANICAL LEGEND
	HVAC	
		NEW DUCTWORK
		EXISTING DUCTWORK TO BE REMOVED
		EXISTING DUCTWORK TO REMAIN
		INTERNAL ACOUSTICAL DUCT
		TRANSITION RECTANGULAR TO ROUND
HR)	CCCCCC	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
	<b>—</b> BD	BALANCING DAMPER
	FD	FIRE DAMPER
	Ф	THERMOSTAT
	<b>S</b>	TEMPERATURE SENSOR
	CO2	CO2 SENSOR
	E-1)	HVAC EQUIPMENT TAG
	A 100 1	1-SIZE IN mm; A-TYPE; 100-CAPACITY (CFM)
	<b>────</b>	GATE VALVE
		MOTORIZED VALVE
	СВУ	CIRCUIT BALANCING VALVE

···	DOMESTIC HOT WATER RECIRCULATION	(HR)	(CCCC	TURNING VANES
——тм ——	DOMESTIC TEMPERED WATER (TW)			SPLITTER DAMPER
	PIPE UP			DUCT REDUCER / ENLARGER
———э	PIPE DOWN			SUPPLY DUCT UP
co	CLEAN OUT			RETURN OR EXHAUST UP
<u>KS-1</u>	PLUMBING FIXTURE TAG			SUPPLY TURNING DOWN
0	FLOOR DRAIN			RETURN OR EXHAUST DOWN
2——	PLUG OR CAP		-w-	FLEXIBLE DUCT
СН	CABINET HEATER — HYDRONIC			DIFFUSER
CV	CONVECTOR - HYDRONIC			RETURN AIR GRILLE
UH	UNIT HEATER — HYDRONIC		<b>—</b> BD	BALANCING DAMPER
ED	EXISTING TO BE DEMOLISHED		FD	FIRE DAMPER
ER	EXISTING TO BE RELOCATED		•	THERMOSTAT
EX	EXISTING TO REMAIN		<b>S</b>	TEMPERATURE SENSOR
N	NEW TO MATCH EXISTING		CO2	CO2 SENSOR
REL	EXISTING AT RELOCATED LOCATION		E-1	HVAC EQUIPMENT TAG
c/w	DENOTES COMPLETE WITH		A 100 1	1-SIZE IN mm; A-TYPE; 100-CAPACITY (CFM)
CTE	DENOTES CONNECT TO EXISTING		<b>────</b>	GATE VALVE
NTS	DENOTES NOT TO SCALE			MOTORIZED VALVE
TYP	DENOTES TYPICAL		СВУ	CIRCUIT BALANCING VALVE
		J L		
	 RAWING LIST			
	CDEOISIO A TIONIC			

		DENOTES NOT TO SOALE
	TYP	DENOTES TYPICAL
	D	RAWING LIST
M1.1	MECHANICAL	SPECIFICATIONS
M1.2	MECHANICAL	SCHEDULE, LEGEND AND DRAWING LIST
M1.3	MECHANICAL	SCHEDULES
M1.4	MECHANICAL	DETAILS & SCHEDULES
M2.1	FIRST FLOOR	PLUMBING DEMOLITION LAYOUT
M2.2	SECOND & TI	HIRD FLOOR PLUMBING DEMOLITION LAYOUT
M2.3	FIRST FLOOR	PLUMBING NEW LAYOUT
M2.4	SECOND & TI	HIRD FLOOR PLUMBING NEW LAYOUT
М3.1	FIRST FLOOR	HVAC DEMOLITION LAYOUT
М3.2	SECOND & TI	HIRD FLOOR HVAC DEMOLITION LAYOUT
м3.3	FIRST FLOOR	HVAC NEW LAYOUT
М3.4	SECOND & TI	HIRD FLOOR HVAC NEW LAYOUT

	PLUMBING FIXTURE SCHEDULE				
TYPE	SPECIFICATION	CW	HW	WASTE	VENT REMARKS
WC-1	WATER CLOSET BOWL: AMERICAN STANDARD "MADERA" ELONGATED # 3451.128 VITREOUS CHINA FLOOR MOUNTED ELONGATED SYPHON JET ACTION BOWL, 1-½" (38MM) TOP SPUD, BOLT CAPS. FLUSH VALVE: SLOAN 111-1.28-YO "REGAL" FACTORY SET, INTERNAL ADJ. 1.28 GAL (4.8L) FLUSH, C.P. QUIET ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER, SEAT BUMPER ON ANGLE STOP, PRESSURE LOSS CHECK AND NON-HOLD OPEN FEATURE. SEAT:CENTOCO #500STSCC, ELONGATED HEAVY DUTY SOLID PLASTIC OPEN FRONT LESS COVER WITH CHECK HINGES AND CHROMATED STEEL POSTS, WASHERS AND NUTS	1"	-	3"	1-1/2"
WC-2	WATER CLOSET: (BARRIER FREE) BOWL:AMERICAN STANDARD "MADERA" ELONGATED # 3461-128, 16.½" HIGH VITREOUS CHINA FLOOR MOUNTED ELONGATED SYPHON JET ACTION BOWL, 1-½" (38MM) TOP SPUD, BOLT CAPS.FLUSH VALVE: SLOAN 111-1.28YG "REGAL" FACTORY SET, OR TECK #81T201-5, EXTERNAL ADJ. 1.28 GAL (4.8 L) C.P. QUIET ACTION DIAPHRAGM TYPE WITH VACUUM BREAKER, CENTRE SEAT BUMPER ON VALVE, PRESSURE LOSS CHECK AND NON-HOLD OPEN FEATURE.SEAT:CENTOCO #820STS, ELONGATED HEAVY DUTY SOLID PLASTIC OPEN FRONT WITH COVER, CHECK HINGES AND CHROMATED STEEL POSTS, WASHERS AND NUTS.	1"	_	3"	1-1/2" INSTALLATION SHALL MEET THE O.B.C. REQUIREMENTS FOR BARRIER FREE ACCESS.
LAV-1	AMERICAN STANDARD #0355.012.020 'LUCERNE' BASIN, WHITE FINISH. 4"(102MM) CENTRES, 20-½" X 18-½"X 8-1/8" (521MM X 464MM X 206MM) DEEP VITREOUS CHINA, FRONT OVERFLOW, WALL HUNG, DRILLED TO ACCOMMODATE CONCEALED ARM SUPPORTS. SLOAN ETF-600-A-VPB-MIX60-A "OPTIMA" ELECTRONIC "NO-TOUCH" FAUCET WITH SS BOX, MIXING VALVE AND EL-154 120/24 VOLT TRANSFORMER, MCGUIRE #155A CP 32 MM (1.½") CAST PLUG WITH OPEN GRID STRAINER TRAP, MCGUIRE #8872C CP 32MM (1.½") CAST "P" TRAP WITH CLEANOUT ESCUTCHEON, MCGUIRE H165LKN5 SUPPLIES. CARRIER: ZURN ZX-1231 CONCEALED FIXTURE CARRIER WITH ARMS.	1/2"	1/2"	1-1/2"	1-1/4" REQUIRES POWER CONNECTION.
LAV-2	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, c/w KNEE CONTACT GUARD. 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.	1/2"	1/2"	1-1/2"	REQUIRES POWER CONNECTION.  INSTALLATION SHALL MEET THE O.B.C. REQUIREMENTS FOR BARRIER FREE ACCESS. INSULATE SUPPLIES AND DRAIN AS REQUIRED BY CODE.
UR-1 & UR-2	AMERICAN STANDARD "WASHBROOK" #6590.001 VITREOUS CHINA, FLUSHING ACTION, INTEGRAL FLUSHING RIM, INTEGRAL TRAP 3/4" (19MM) TOP SPUD AND #047068 STAINLESS STEEL STRAINER. OPERATES IN THE RANGE OF 0.5 L TO 3.8 L (0.125 US GAL TO 1.0 US GAL) PER FLUSH, WALL HUNG. ZURN HARDWIRED AUTOMATIC SENSOR FLUSH VALVE MODEL: ZEMS6003AV-IS C/W ACCESSORIES. URINAL CLEANOUT: ZURN ZX-1446 WITH ROUND STAINLESS STEEL WALL ACCESS PLATE. CA-321 FIXTURE CARRIER.	3/4"	_	2"	REQUIRES POWER CONNECTION.  1-1/4" UR-1 INSTALLATION SHALL MEET THE O.B.C. REQUIREMENTS FOR BARRIER FREE ACCESS.
WF-1	WASHFOUNTAIN (BARRIER FREE): 3 STATION "TRI-FOUNT WASHFOUNTAIN", INFRARED CONTROL, 36" X 26" (900MM X 660MM X 864MM) FACTORY PREASSEMBLED WITH INDIVIDUAL SECTIONAL CONTROL.BOWL TO BE POLYESTER RESIN CONSTRUCTION AND FINISHED WITH A CLEAR EPOXY COATING. PEDESTAL TO HAVE A FRONT PANEL OF HEAVY GAUGE STAINLESS STEEL ACCESS PLATE, ALL EXPOSED FASTENERS TO BE VANDAL—RESISTANT. SPRAY NOZZLES TO BE VANDAL—RESISTANT WITH 0.5 GPM (2.3L) FLOW CONTROLS. FIXTURE WITH SPLASHBACK ANCHORED TO WALL AND HOUSING FRAMEWORK ANCHORED TO FLOOR. THERMOSTATIC MIXING VALVE WITH CHECK STOPS AND STRAINERS IN ½" (12.7MM) HOT AND COLD WATER SUPPLIES AND FIELD SET WATER TEMPERATURE AT 105 DEGREES F. SENSOR OPERATED NON—HOLD OPEN INDIVIDUAL METERING VALVES, TIMING CYCLE SHALL BE FIELD SET FOR APPROXIMATELY 10 SECONDS AND COMPLETE WITH LIQUID SOAP DISPENSER. SUPPLIES AND DRAIN FROM WALL. "P" TRAP CAST BRASS, 1.½" (38MM). UNIT SHALL BE ELECTRONIC "NO—TOUCH" SENSOR OPERATED WITH 110/24 VAC TRANSFORMER, 12 AMP.NOTE: COLOUR TO BE SELECTED BY OWNER. BRADLEY WF2933 TEREON TRI— FOUNT WASH FOUNTAIN.	3/4"	_	2"	Min. 1-1/2 in. vent pipe  REQUIRES POWER CONNECTION.  1-1/4" INSTALLATION SHALL MEET THE O.B.C. REQUIREMENTS FOR BARRIER FREE ACCESS.
FD	ZURN ZN-211-B-P, CAST IRON FLOOR DRAIN WITH 5" ROUND NICKEL BRONZE STRAINER, P-TRAP AND 1/2" TRAP PRIMER CONNECTION OR EQUAL.	_	_	3"	1-1/2"
HD	ZURN ZN-211-S-P, CAST IRON HUB DRAIN WITH P-TRAP AND 1/2" TRAP PRIMER CONNECTION OR EQUAL.	_	_	3"	1-1/2"
	ZURN Z-1400-HD (FOR UNFINISHED FLOORS)				
	ZURN ZN-1400-HD (FOR FINISHED FLOORS)				
22	ZURN ZN-1400-X (FOR LINOLEUM OR ASPHALT TILE FLOORS)				
CO	ZURN ZN-1400-Z (FOR TERRAZZO FLOORS)	_	_	_	_
	ZURN ZN-1400-T (FOR CERAMIC TILE FLOORS)				
	ZURN ZN-1400-CM (FOR CARPETED FLOORS)	1			

J.	CUNTRACTOR TO CONFIRM ALL EQUIPMENT SPECS PRIOR TO CONSTRUCTION.
4.	CONTRACTOR TO VERIFY ALL OUTLET LOCATIONS WITH OWNER.
5.	PROVIDE ISOLATING VALVE ON, HOT AND COLD WATER LINES TO EACH PIECE OF PLUMBING FIXTURE. (TYPICAL UNLESS NOTED OTHERWISE)
6.	WRAP ALL EXPOSED HOT WATER AND DRAIN PIPING AT HANDICAPPED LAVATORY WITH INSULATION.

MECHANICAL CONTRACTOR TO PROVIDE, INSTALL & HOOK-UP EQUIPMENTS.

UNITS SHALL BE C/W TRANSFORMERS. REFER TO ELECTRICAL DRAWINGS FOR TRANSFORMER AND CONNECTION LOCATIONS.

						EXISTII	NG COO	LING ONL	Y AHU (FOR REFE	ERENCE ONLY)	)						
	AIR HANDLER UNIT												CONDENSING	UNIT			
MAKE /	MAKE /	AIR FLOW		HEATING	COOLING	E	LECTRICA	\L	AHU DEMARKS			MAKE/		ELECTRICAL			
TAG	MAKE/ MODEL NO.	CFM	EX.SP WC IN	CAPACITY (BTU/HR)	CAPACITY (BTU/HR)	V/PH/HZ	FLA	HP	CONFIGURATION	REMARKS	TAG	MODEL NO.	MODEL	V/PH/HZ	FLA	МОСР	REMARKS
EX. AHU	ADP/ BCRMA7124S001	800	0.2	NO HEAT	24,000	240- 208/1/60	1.8	1/3	HORIZONTAL	EXISTING UNIT	EX.CU	_	_	_	_	_	EXISTING UNIT

	FAN SCHEDULE													
TAG SERV	SERVICE	MANUF.	MODEL MC	MOUNTING	AIR TYPE	AIR FLOW (CFM)	STATIC PRESS. (IN WG)	FAN RPM	ELECTRICAL			WEIGHT	DIMENSIONS	DEMARKS
	SERVICE	MANUF.		MOUNTING				FAN RPM	V/PH/HZ	HP	FLA	(LBS)	(LxWxH) (IN)	REMARKS
EF-1	WASHROOMS	GREENHECK	G-090-G	ROOF	EXHAUST AIR	300	0.4	1300	115/1/60	1/25	_	29	22x22x27	SEE NOTES BELOW

1. FAN TO BE C/W ECM MOTOR, BACKDRAFT DAMPER, ALUMINUM BIRDSCREEN.

2. C/W 600mm (24") ROOF CURB.

3. FAN DUCTWORK TO BE LINED WITH 1" INSULATION FOR MIN. 10'-0" FROM EXTERIOR
4. FAN SHALL BE INTEGRATED WITH BASE BUILDING BAS SYSTEM (STARTER BY ELECTRICAL).
5. ACCEPTABLE ALTERNATES: COOK, GREENHECK

							CAE	BINET HE	ATER S	CHEDULE							
TAC	MANUICACTURER	MODEL NO	DDODLICT CODE	WORKING	HEIGHT	LENGTH	WIDTH	AIRFLOW	NO. OF	TVDE		ELECTRICAL		HEATING	FLOW	PRESSURE	DEMARKS
TAG	MANUFACTURER	MODEL NO.	PRODUCT CODE	FLUID	(INCH)	(INCH)	(INCH)	(CFM)	FANS	TYPE	V/PH/HZ	HP	FLA	(BTU/HR)	(USGPM)	DROP (FT)	REMARKS
CH-1 & CH-2	ENGINEERED AIR	CUH SERIES	CUH-6	WATER	9.5	28	38	600	2	HIGH STATIC	120/1/60	1/6	3.7	20,000	2.16	1.6	SEE NOTES BELOW

1. C/W HANGING ACCESSORIES, VIBRATION ISOLATORS, REMOTE THERMOSTAT WITH SET POINT, CONTROLS TO MATCH BASE BUILDING STANDARD, BALL VALVES & STRAINER WITH BLOWDOWN.
2. CONTRACTOR SHALL ENSURE TO INCLUDE ALL REQUIRED ACCESSORIES AND FITTING FOR A FULLY FUNCTIONAL SYSTEM.

3. ASSUMED HOT WATER SUPPLY/ RETURN TEMPERATURE: 140F/120F; CONTRACTOR TO SITE VERIFY EXISTING HYDRONIC SYSTEM TEMPERATURES. UNIT SHALL BE INTEGRATED WITH BASE BUILDING BAS SYSTEM. 4. CONTRACTOR TO COORDINATE, INLET & OUTLET ORIENTATION ON SITE WITH EXISTING SYSTEM. COORDINATE COLOR WITH ARCH.

5. COORDINATE UNIT DIMENSIONS WITH EXISTING SPACE PRIOR TO SHOP DRAWING SUBMISSION.

# **RECEIVED**

JUNE 16 2023 CITY OF BURLINGTON BUILDING DEPARTMENT

**ALL CONSTRUCTION TO MEET ONTARIO BUILDING** CODE REQUIREMENTS

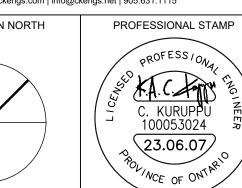
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ARCHITECT

**Snyder Architects Inc.** 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca



CONSTRUCTION NORTH



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# **BURLINGTON CENTRAL** H.S. RENOVATIONS

1433 Baldwin Street Burlington, ON

DRAWN	PROJECT NO
S.V.	2005
CHECKED D.H.	ENG PROJECT NO. 23008
SCALE SCALE	23000
AS NOTED	

DRAWING

**MECHANICAL** SCHEDULES, LEGENDS & DRAWING LIST

COB - Building Department
Page 3 of 12

				COMBINA	ATION SMOKE	FIRE DAMPE	R SCHEDULE						
FI 00P	TAO	MANUEACTURER	MODEL		DUCT SIZE	TVDF	VERTICAL /	120V .	ACTUATOR	CLOSURE	TEST CONTROL	120V SMOKE	REMARKS
FLOOR	TAG	MANUFACTURER	MODEL	LEAKAGE	(MM)	TYPE	HORIZONTÁL	END SWITCH	OPERATION	DEVICE	BOX W/LIGHTS	DETECTOR	INLIMARIAS
LEVEL-1	SFD-100A	UNITED ENERTECH	FS-3V-I	CLASS I	300×150	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-1	SFD-100B	UNITED ENERTECH	FS-3V-I	CLASS I	300x150	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-1	SFD-100C	UNITED ENERTECH	FS-3V-I	CLASS I	300×150	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-1	SFD-100D	UNITED ENERTECH	FS-3V-I	CLASS I	300x300	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-1	SFD-100E	UNITED ENERTECH	FS-3V-I	CLASS I	300x150	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-1	SFD-100F	UNITED ENERTECH	FS-3V-I	CLASS I	300x200	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-2	SFD-200A	UNITED ENERTECH	FS-3V-I	CLASS I	350×200	SQUARE	HORIZONTAL	YES		ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE
LEVEL-2	SFD-200B	UNITED ENERTECH	FS-3V-I	CLASS I	300x200	SQUARE	HORIZONTAL	YES	POWERED OPEN / FAIL CLOSED	ECTRIC FUSE LINK 165 F	YES	FACTORY MOUNT PHOTOELECTRIC	SEE NOTES BELOW FOR REQUIRED OPTIONS     CONTRACTOR TO FIELD VERIFY THE DUCT SIZE

1. INSTALL UNIT TO MANUFACTURER'S INSTRUCTIONS.

2. EACH DAMPER TO HAVE FACTORY MOUNT MICRO SWITCH PACKAGE TO TEST DAMPER OPERATION WITH INDICATOR LIGHTS

3. EACH DAMPER TO HAVE FACTORY MOUNT ACTUATOR BELIMO FSLF-102 RATED UL555 AND UL555S 350 DEG.F FOR 30 MIN, 15 SEC CYCLY TIME, SPRING RETURN

4. EACH DAMPER TO HAVE FACTORY MOUNT DUCT SMOKE DETECTOR AIR PRODUCTS AND CONTROLS SL-2000-P, 4 WIRE 5. EACH DAMPER TO C/W MOMENTARY TEST SWITCH F/S-MTS SHIPPED LOOSE.

6. REFER TO SMOKE FIRE DAMPER INSTALLATION DETAIL ON DWG #M1.4

				DIFFU	SER AND	GRILLE	SCHEDULE		
TAG	MANUFACTURER	MODEL No.	TYPE	SIZE (mm x mm)	NECK SIZE (mm)	FINISH	MOUNTING	DAMPER	REMARKS
EX.SA	PRICE	SCD	SUPPLY	AS NOTED	_	B12	T-BAR	YES	EXISTING
EX.RA	PRICE	80	RETURN	AS NOTED		B12	T-BAR	YES	EXISTING
SA1	PRICE	520D	SUPPLY	AS NOTED	AS NOTED	B12	T-BAR	YES	NOTE 2
EA1	PRICE	535	EXHAUST	AS NOTED		B12	T-BAR	YES	<b>\</b>

ACCEPTABLE EQUIVALENT: KRUEGER, NAILOR, METALAIRE

2. DOUBLE DEFLECTION, IN-BUILT BALANCING DAMPER.

				DU	CT HEA	TER SCHE	EDULE		
TAG	SERVES	MANUF.	MODEL	AIR FLOW	CAPACITY	ELEC	TRICAL		REMARKS
170	JLITTL	IVIAINOT .	WODEL	(CFM)	(kW)	V/PH/HZ	MCA	MOPD	NLIMANNO
DH-1	ERV-1	THERMOLEC	SLIP-IN TYPE	75	1.0	208/1/60	_	_	SEE NOTES BELOW, S.C.R BY THERMOLEC, STAT 0-10VDC (CTH291) + DS600

- INSTALL UNIT TO MANUFACTURER'S RECOMMENDATION. . 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. . BUILT IN ELECTRONIC TEMP. AND SENSOR AND COLLARS.

							CAE	BINET HE	TATER S	CHEDULE							
TAG	MANUFACTURER	MODEL NO	PRODUCT CODE	WORKING FLUID	HEIGHT	LENGTH (INCH)	WIDTH	AIRFLOW (CFM)	NO. OF	TYPE		ELECTRICAL		HEATING	FLOW	PRESSURE DROP	REMARKS
TAG	MANOFACTORER	MODEL NO.	FRODUCT CODE	FLUID	(INCH)	(INCH)	(INCH)	(CFM)	FANS		V/PH/HZ	HP	FLA	(BTU/HR)	(USGPM)	(FT)	NEWANNS
CH-1 & CH-2	ENGINEERED AIR	CUH SERIES	CUH-6	WATER	9.5	28	38	600	2	HIGH STATIC	120/1/60	1/6	3.7	20,000	2.16	1.6	SEE NOTES BELOW

. C/W HANGING ACCESSORIES, VIBRATION ISOLATORS, REMOTE THERMOSTAT WITH SET POINT, CONTROLS TO MATCH BASE BUILDING STANDARD, BALL VALVES & STRAINER WITH BLOWDOWN.

- . CONTRACTOR SHALL ENSURE TO INCLUDE ALL REQUIRED ACCESSORIES AND FITTING FOR A FULLY FUNCTIONAL SYSTEM.
- 3. ASSUMED HOT WATER SUPPLY/ RETURN TEMPERATURE: 140F/120F; CONTRACTOR TO SITE VERIFY EXISTING HYDRONIC SYSTEM TEMPERATURES. UNIT SHALL BE INTEGRATED WITH BASE BUILDING BAS SYSTEM.
  -. CONTRACTOR TO COORDINATE, INLET & OUTLET ORIENTATION ON SITE WITH EXISTING SYSTEM. COORDINATE COLOR WITH ARCH.
- . COORDINATE UNIT DIMENSIONS WITH EXISTING SPACE PRIOR TO SHOP DRAWING SUBMISSION.

								AC SP	LIT / MUL	TI-SPLIT UNIT SC	CHEDULE							
			OUTDOOR										INDOOF	2				
TAG	MANUFACTURER	MODEL	COOLING CALACITI	HEATING CAPACITY	ELE	CTRICAL		WEIGHT	TAG	SERVICE	MODEL	TYPE	MAX. AIRFLOW	COOLING CAPACITY	HEATING CAPACITY	ELECTR	RICAL	WEIGH
IAG	MANOFACTORER	MODEL	(BTU/HR) @95°F	(BTU/HR) @ 5°F	V/PH/HZ	МСА	MOCP	(LBS)	TAG	SERVICE	MODEL	IIFE	(CFM)	(BTU/HR) @95°F	(BTU/HR) @ 5°F	V/PH/HZ	MCA	(LBS
CU-1	MITSUBISHI	MUZ-FS18NAH	18,000	23,000	208/1/60	18	20	118	AC-1	NEW SEMINAR RM	MSZ-FS18NA-U1	WALL MOUNTED	467	18,000	23,000	208/1/60	1	3

- 1. C/W DISCONNECT SWITCH, WIRED WALL MOUNTED PROGRAMMABLE CONTROLLER. 2. CU-1: LOW AMBIENT COOLING OPERATION DOWN TO  $-4^{\circ}$ F w/ WIND BAFFLE.
- 3. BOTH REFRIGERANT LINES SHOULD BE INSULATED SEPARATELY.
- 4. ACCEPTABLE EQUIVALENT— DAIKIN
- 5. OUTDOOR UNIT FEEDS POWER BACK TO INDOOR UNIT. LINE VOLTAGE WIRING BY ELECTRICAL DIVISION. ALL LOW VOLTAGE CONTROLS WIRING BY MECHANICAL CONTRACTOR. 6. CONDENSATE PUMP DELTAPACK SAUERMANN 208V POWERED FROM A/C TERMINAL BLOCK.
- 7. PROVIDE LINESET COVERS, ECO-FOOT STAND FOR CONDENSER, PATIÓ STONES, ANCHORS AND BOLTS

**RECEIVED** 

DEC 15 2023 CITY OF BURLINGTON BUILDING DEPARTMEN

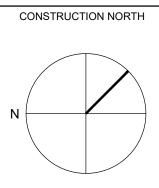
**ALL CONSTRUCTION TO MEET ONTARIO BUILDING** CODE REQUIREMENTS

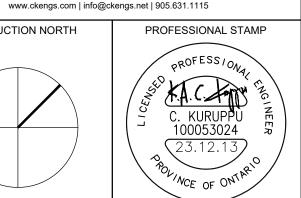
**Halton District School Board** 2050 Guelph Line Burlington, Ontario

www.snyderarchitects.ca

Snyder Architects Inc. 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443







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OTHER AND WHAT IS CALLED FOR BY ONE TO BE BINDING AS IF CALLED FOR BY ALL.
SHOULD ANY DISCREPANCY APPEAR BETWEEN DOCUMENTS WHICH LEAVES DOUBT AS
TO THE INTENT OF MEANING, ABIDE BY PRECEDENCE OF DOCUMENT OR OBTAIN
DIRECTION FROM THE CONSULTANT. REFER TO COVER SHEET A-000 FOR FULL LIST OF
DRAWINGS DIRECTION FROM THE CONSULTANT. REFER TO COVER SHEET A-000 FOR FOLL LIST OF DRAWINGS.

EXAMINE ALL DISCIPLINE DRAWINGS, SPECIFICATIONS AND SCHEDULES AND RELATED WORK TO ENSURE THAT WORK CAN BE SATISFACTORILY EXECUTED. CONFLICTS OR ADDITIONAL WORK BEYOND WORK DESCRIBED TO BE BROUGHT TO ATTENTION OF CONSULTANT.

NO.	DESCRIPTION	DATE
1.	ISSUED FOR PROGRESS	23.04.28
2.	ISSUED FOR PERMIT/ CCO#7	23.06.07
3.	RE-ISSUED FOR PERMIT	23.10.13
4.	RE-ISSUED FOR PERMIT	23.12.13

REVISION SCHEDULE

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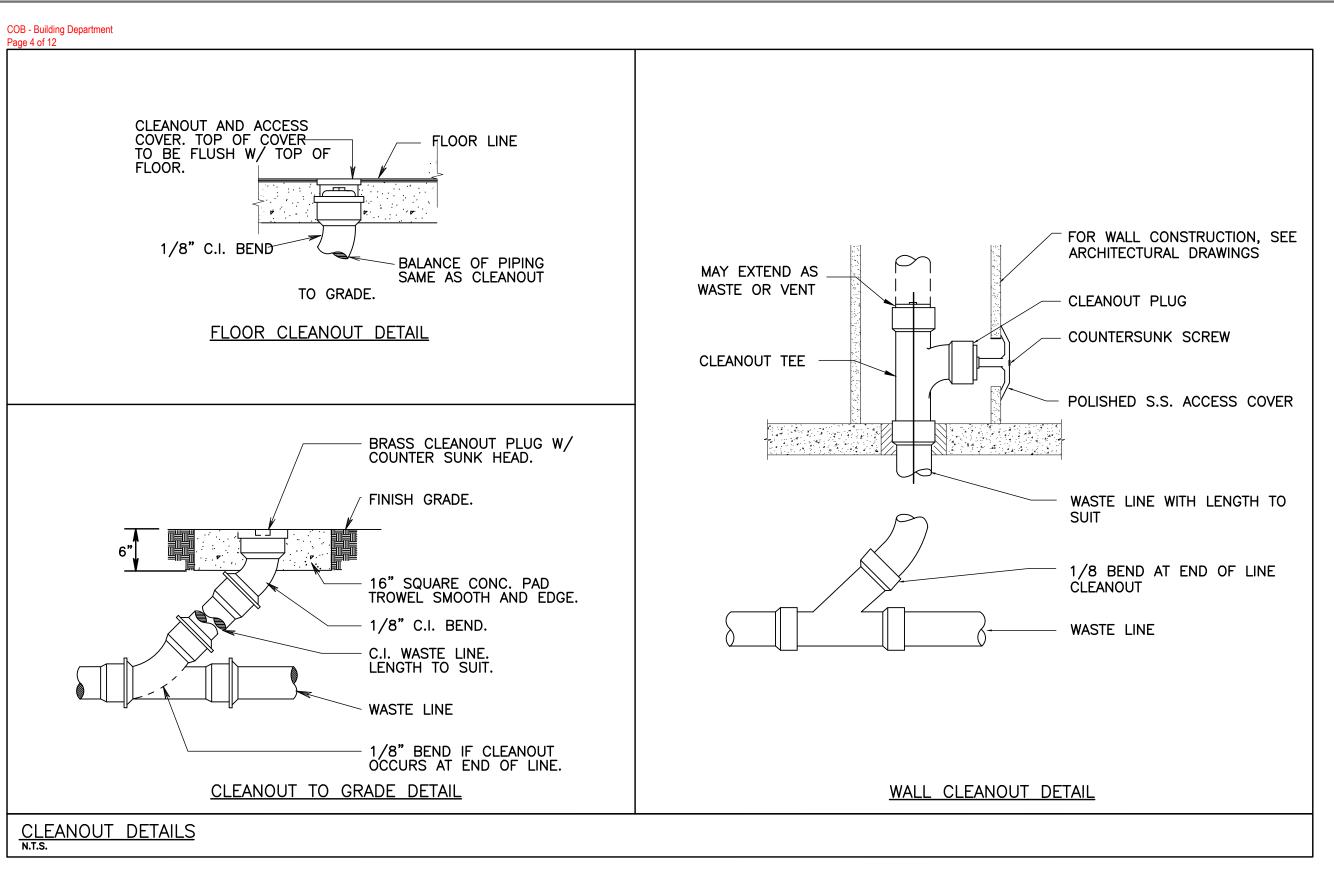
**BURLINGTON CENTRAL** H.S. RENOVATIONS

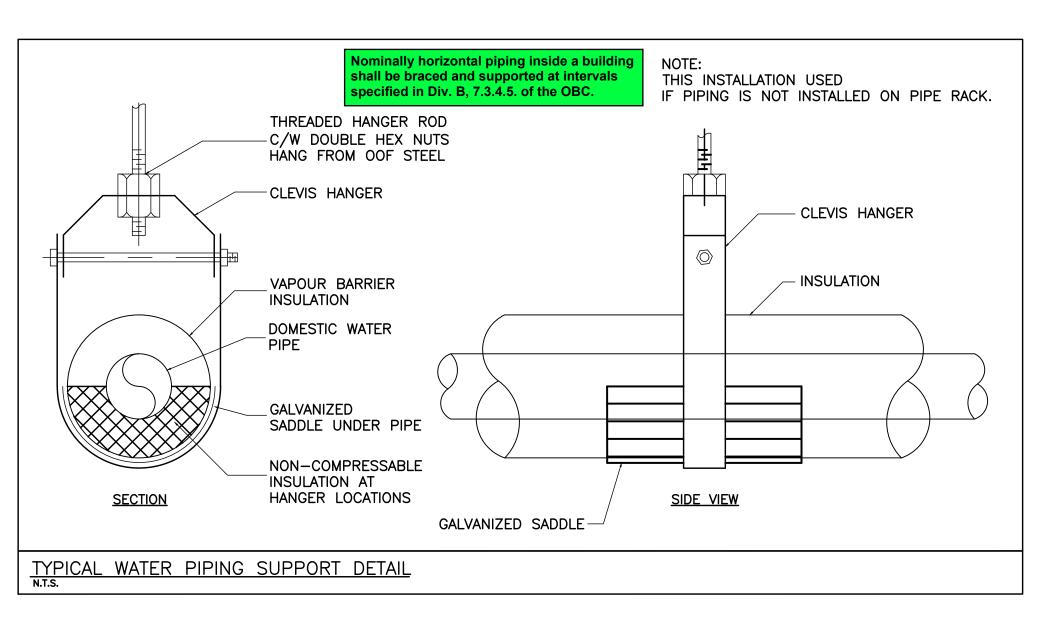
1433 Baldwin Street Burlington, ON

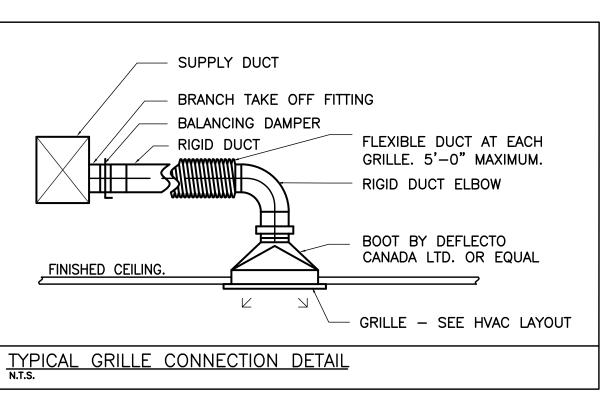
DRAWN	PROJECT NO
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

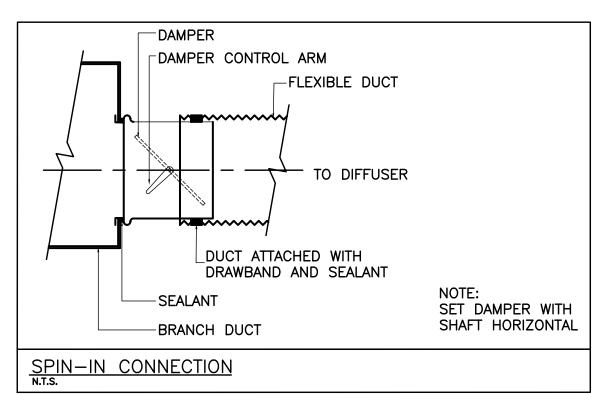
DRAWING

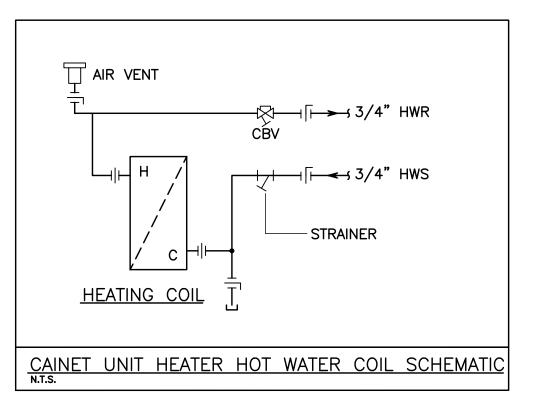
**MECHANICAL** SCHEDULES

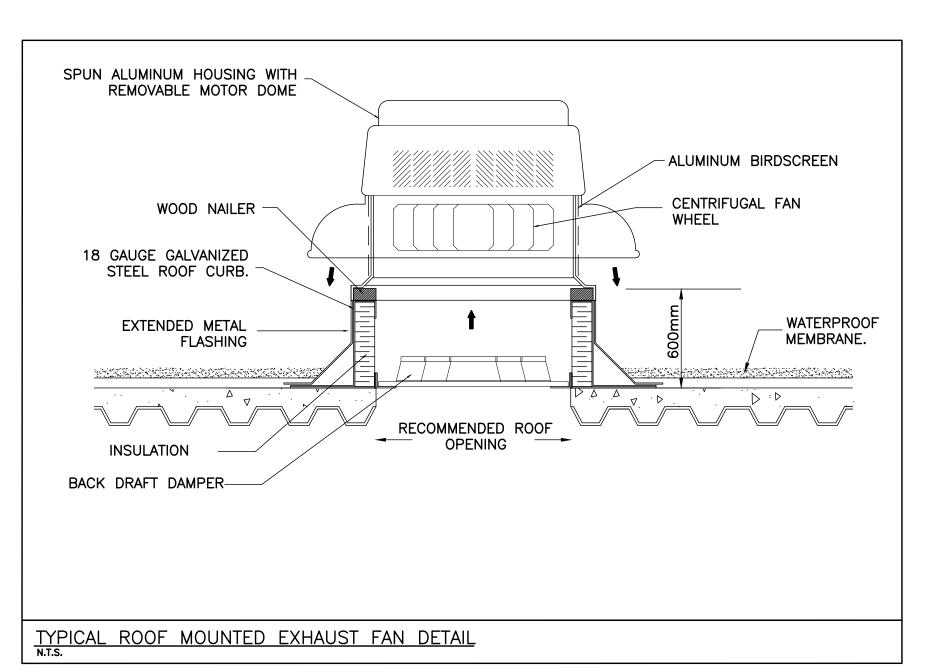


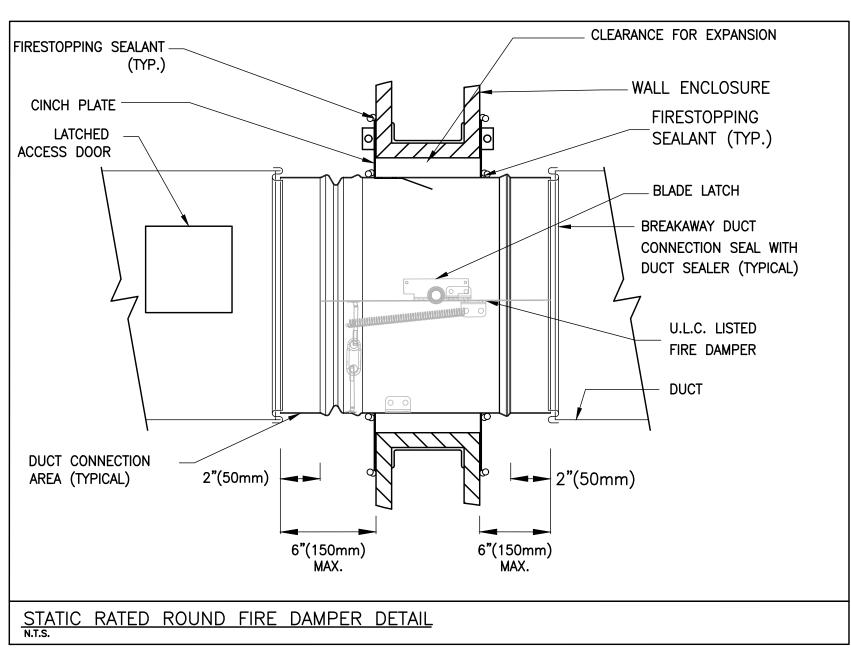






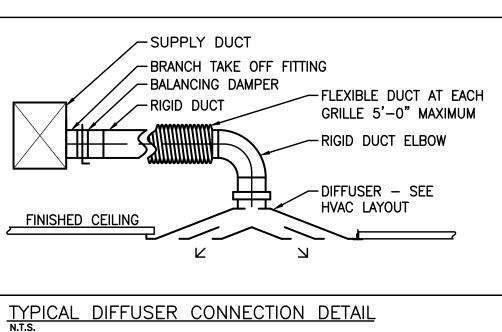






				DUCT	FRESH A	IR FLOW		TOTAL EFF %	ELECTRIC	AL		WEIGHTS	
TAG	MANUF.	MODEL	SERVICE	HEATER	CFM	ESP	SENS EFF %	WINTER/SUMMER	V/PH/HZ	FLA	MCA	(LBS)	REMARKS
ERV-1	RENEWAIRE	EV PREMIUM M	NEW SEMINAR ROOM	DH-1	75	0.5	69	67/49	120V/ 1/ 60	1.22	10	36	SEE NOTES BELOW

2. ERV SHALL BE OPERATED THROUGH OCCUPANCY SENSOR, OCCUPANCY SENSOR BY ELECTRICAL. SHALL BE INTEGRATED WITH BASE BUILDING BAS SYSTEM. 3. ACCEPTABLE EQUIVALENT: ALDES

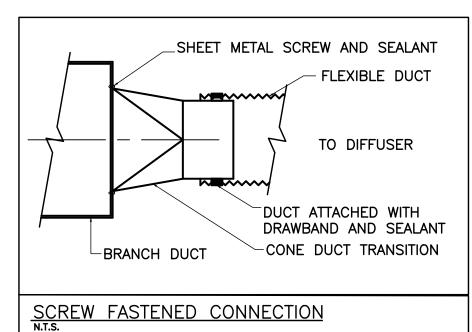


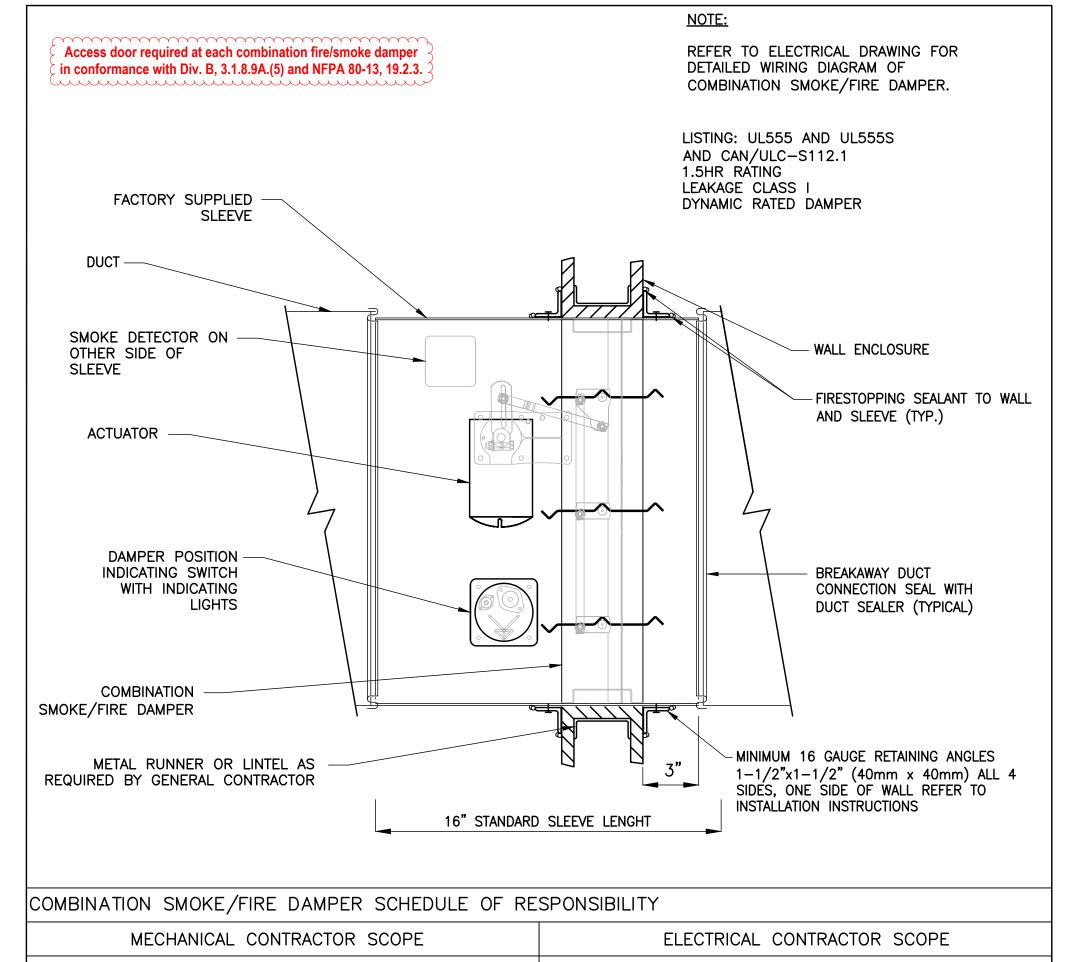
SMOKE AND FIRE DAMPER UNIT HAS FACTORY MOUNTED DUCT

SMOKE DETECTOR, ELECTRIC RESETTABLE FUSE LINK, ACTUATOR, DAMPER TEST SWITCH WITH INDICATING LIGHTS FOR DAMPER

COMBINATION SMOKE/FIRE DAMPER DETAIL N.T.S.

OPEN/CLOSE POSITIONS





SUPPLY AND INSTALL SMOKE AND FIRE DAMPER WITH DUCT SLEEVE WIRE DUCT SMOKE DETECTOR TO FIRE ALARM PANEL WIRE SMOKE

FIRE DAMPER AT SINGLE POINT

1. **NO**. DRAWING **RECEIVED** JUNE 16 2023 CITY OF BURLINGTON

**ALL CONSTRUCTION TO** MEET ONTARIO BUILDING **CODE REQUIREMENTS** 

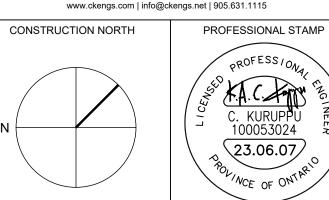
**BUILDING DEPARTMEN** 

**Halton District School Board** 2050 Guelph Line Burlington, Ontario

ARCHITECT

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•	DESCRIPTION	DATE
	ISSUED FOR PROGRESS	23.04.28
	ISSUED FOR PERMIT/ CCO#7	23.06.07

**REVISION SCHEDULE** 

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**BURLINGTON CENTRAL** H.S. RENOVATIONS

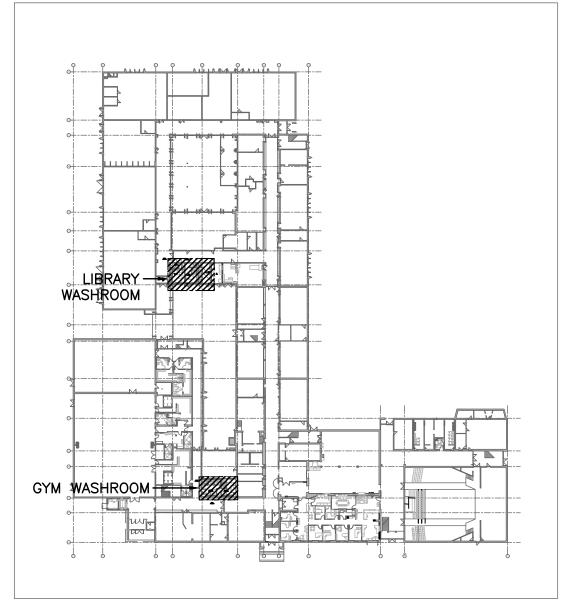
1433 Baldwin Street Burlington, ON

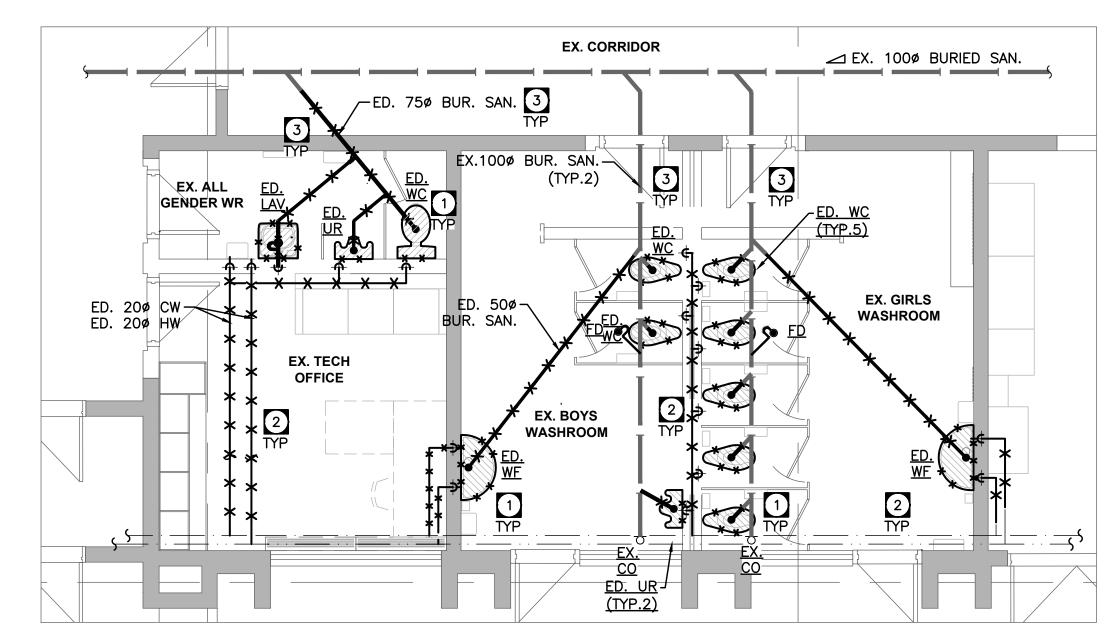
DRAWN S.V.	PROJECT NO 2005
CHECKED D.H.	ENG PROJECT NO. 23008
SCALE AS NOTED	

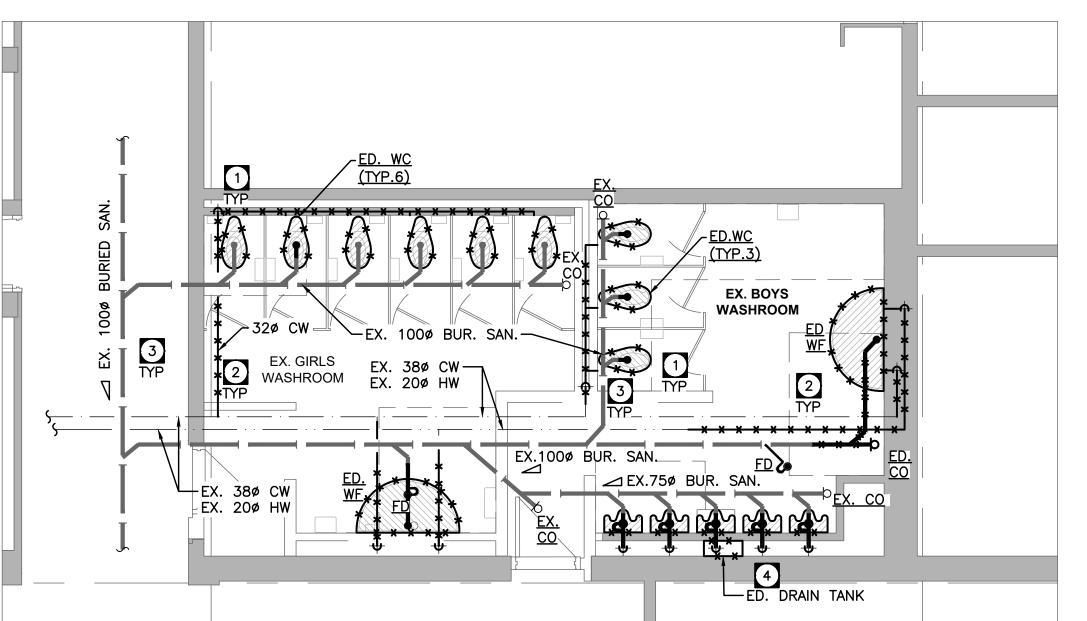
**MECHANICAL DETAILS & SCHEDULES** 

M1 \_COB - Building Department Page 4 of 12









KEY PLAN SCALE: 1:1000

LIBRARY WASHROOMS
SCALE: 1:50

GYM WASHROOMS
SCALE: 1:50

# **GENERAL NOTES:**

- A. 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.
- B. 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.
- C. THIS CONTRACTOR TO CARRY AN ALLOWANCE IN TENDER FOR PROBABLE MINIMUM 30 METERS (100'-0") DISTANCE FOR NEW SERVICES CONNECTION TO SUITABLE EXISTING SERVICES.
- D. 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.
- E. 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.
- F. ALL PLUMBING WORK TO CONFORM TO ONTARIO BUILDING CODE, PROVIDE COMPLETE VENT SYSTEM TO MEET SECTION 7 OF ONTARIO BUILDING CODE.
- G. REVISE ANY 3"Ø TO 4"Ø @ 1.0% SLOPE IF THERE IS A PROBLEM FOR INVERT OF SANITARY PIPE.
- H. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING PIPES FOR CONNECTION TO EXISTING SYSTEM. REVIEW DRAWINGS BEFORE COMMENCING WITH DEMOLITION WORK
- J. REMOVE ALL EQUIPMENT, PIPING, STEEL SUPPORTS, CONTROLS, PLUMBING MATERIAL, HOUSE KEEPING PAD. SHOWN APPROXIMATELY WITH HEAVY 'X' MARKED LINES THROUGHOUT (UNLESS OTHERWISE INDICATED)
- K. REFER TO ARCHITECTURAL DRAWINGS FOR WALL REPAIR DETAIL UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING LINES AS REQUIRED TO COMPLETE THE NEW SCOPE OF WORK. PIPE FREEZING SHALL BE COORDINATED WITH SCHOOL BOARD TO AVOID INTERRUPTION TO EXISTING SERVICES.
- M. REPAIR ANY DAMAGE CAUSED BY THIS WORK AND MAKE GOOD.
- N. REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

# **DRAWING NOTES:**

- DEMOLISH PLUMBING FIXTURE c/w FAUCETS, ALL ASSOCIATED PIPING & ACCESSORIES; CAP BURIED SERVICES BELOW FLOOR AND ABOVE GROUND SERVICES (HW, CW & VENT) AT CEILING LEVEL. COORDINATE FLOOR FINISH WITH ARCH.
- APPROXIMATE LOCATION OF EXISTING DOMESTIC HOT & COLD WATER LINE(S) IN CEILING SPACE. EXACT LOCATION & SIZE OF EXISTING LINE(S) TO BE DETERMINED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- APPROXIMATE LOCATION OF EXISTING SANITARY PIPE, MECHANICAL CONTRACTOR SHALL X-RAY EXISTING FLOOR TO DETERMINE THE EXACT LOCATION, SIZE AND DIRECTION OF FLOW PRIOR TO ANY CHANGES TO EXISTING SLAB. CONTRACTOR MUST CARRY ALLOWANCE FOR ADDITIONAL PIPING (MIN. 10FT.) MATERIAL TO MAKE CONNECTIONS AS REQUIRED.
- DEMOLISH DRAIN TANK AT H/L c/w ALL ASSOCIATED ACCESSORIES AND CONTROLS; DEMOLISH CONNECTED PIPING BACK TO MAIN AND CAP.

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

**RECEIVED** 

JUNE 16 2023

CITY OF BURLINGTON

**UILDING DEPARTMEN** 

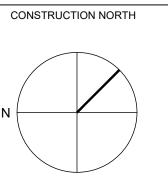
**ALL CONSTRUCTION TO MEET ONTARIO BUILDING** 

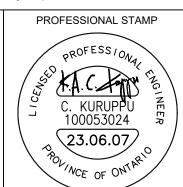
CODE REQUIREMENTS

Burlington, Ontario ARCHITECT

Snyder Architects Inc. 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca







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NO.	DESCRIPTION	DATE
1.	ISSUED FOR PROGRESS	23.04.28
2.	ISSUED FOR PERMIT/ CCO#7	23.06.07
·		

REVISION SCHEDULE

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**BURLINGTON CENTRAL** H.S. RENOVATIONS

1433 Baldwin Street Burlington, ON

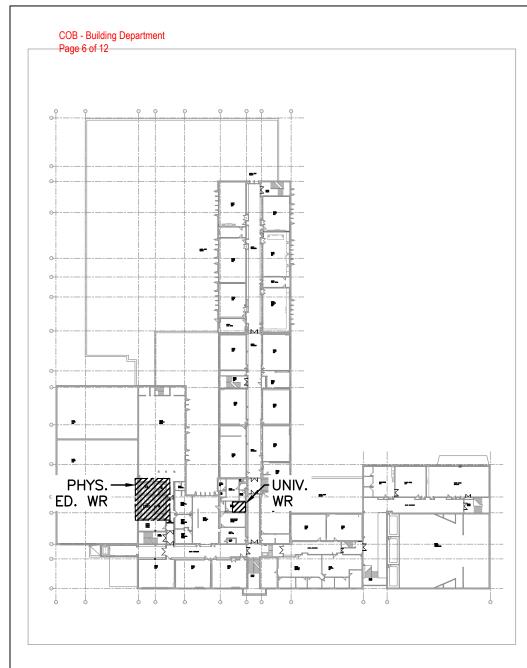
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

DRAWING

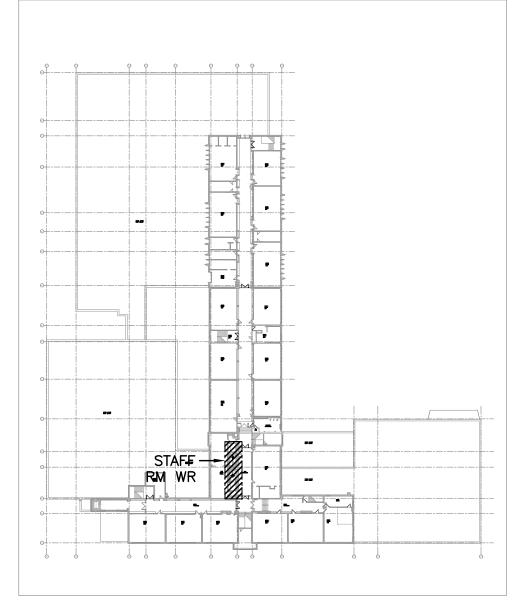
FIRST FLOOR- PLUMBING DEMOLITION LAYOUT

PROJECT NO

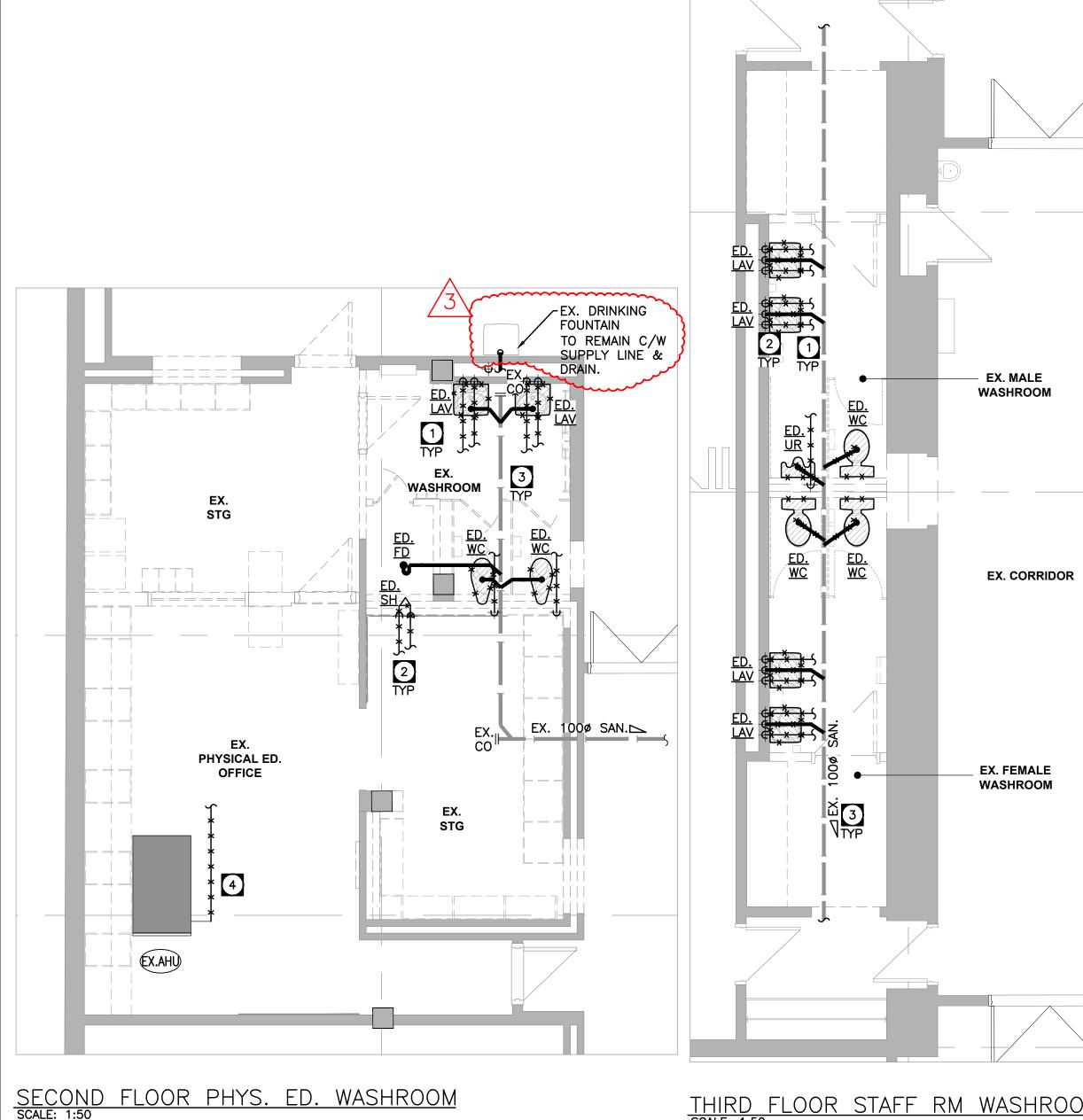
M2 cdB - Building Department Page 5 of 12



SECOND FLOOR KEY PLAN
SCALE: 1:1000



THIRD FLOOR KEY PLAN



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- B. 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.
- C. THIS CONTRACTOR TO CARRY AN ALLOWANCE IN TENDER FOR PROBABLE MINIMUM 30 METERS (100'-0") DISTANCE FOR NEW SERVICES CONNECTION TO SUITABLE EXISTING SERVICES.
- D. 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.
- E. 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.
- F. ALL PLUMBING WORK TO CONFORM TO ONTARIO BUILDING CODE, PROVIDE COMPLETE VENT SYSTEM TO MEET SECTION 7 OF ONTARIO BUILDING CODE.
- G. REVISE ANY 3"Ø TO 4"Ø @ 1.0% SLOPE IF THERE IS A PROBLEM FOR INVERT OF SANITARY PIPE.
- H. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING PIPES FOR CONNECTION TO EXISTING SYSTEM. REVIEW DRAWINGS BEFORE COMMENCING WITH DEMOLITION WORK
- J. REMOVE ALL EQUIPMENT, PIPING, STEEL SUPPORTS, CONTROLS, PLUMBING MATERIAL, HOUSE KEEPING PAD, SHOWN APPROXIMATELY WITH HEAVY 'X' MARKED LINES THROUGHOUT (UNLESS OTHERWISE INDICATED)
- K. REFER TO ARCHITECTURAL DRAWINGS FOR WALL REPAIR DETAIL UNLESS NOTED OTHERWISE.
- L. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING LINES AS REQUIRED TO COMPLETE THE NEW SCOPE OF WORK. PIPE FREEZING SHALL BE COORDINATED WITH SCHOOL BOARD TO AVOID INTERRUPTION TO EXISTING SERVICES.
- M. REPAIR ANY DAMAGE CAUSED BY THIS WORK AND MAKE GOOD.
- N. REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

**DRAWING NOTES:** 

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- APPROXIMATE LOCATION OF EXISTING DOMESTIC HOT & COLD WATER LINE(S) IN CEILING SPACE. EXACT LOCATION OF EXISTING LINE(S) TO BE DETERMINED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- APPROXIMATE LOCATION OF EXISTING SANITARY PIPE BELOW FLOOR SLAB, EXACT LOCATION, APPROXIMATE LOCATION OF EXISTING SANITARY PIPE BELOW FLOOR SLAB, EXACT LOCATION, SIZE AND DIRECTION OF FLOW TO BE DETERMINED ON SITE PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR MUST CARRY ALLOWANCE FOR ADDITIONAL PIPING (MIN. 10FT.) MATERIAL TO MAKE CONNECTIONS AS REQUIRED.
- DEMOLISH CONDENSATE LINE FROM EXISTING AHU TO TERMINATION POINT (SHOWER) c/w ALL SUPPORTS AND ACCESSORIES.

**RECEIVED** AUG 11 2023

CITY OF BURLINGTON BUILDING DEPARTMEN

**ALL CONSTRUCTION TO** 

**MEET ONTARIO BUILDING** 

CODE REQUIREMENTS

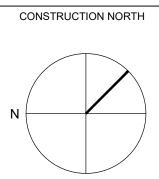
**Halton District School Board** 2050 Guelph Line Burlington, Ontario

ARCHITECT

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www.ckengs.com | info@ckengs.net | 905.631.1115



PROFESSIONAL STAMP . KURUPP 100053024 (23.08.08)

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RE-ISSUED FOR PERMIT	23.08.08
ISSUED FOR PERMIT/ CCO#7	23.06.07
ISSUED FOR PROGRESS	23.04.28
DESCRIPTION	DATE
	ISSUED FOR PERMIT/ CCO#7 ISSUED FOR PROGRESS

REVISION SCHEDULE

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PROJECT

**BURLINGTON CENTRAL** H.S. RENOVATIONS

1433 Baldwin Street Burlington, ON

DIVIVII	11100201110
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

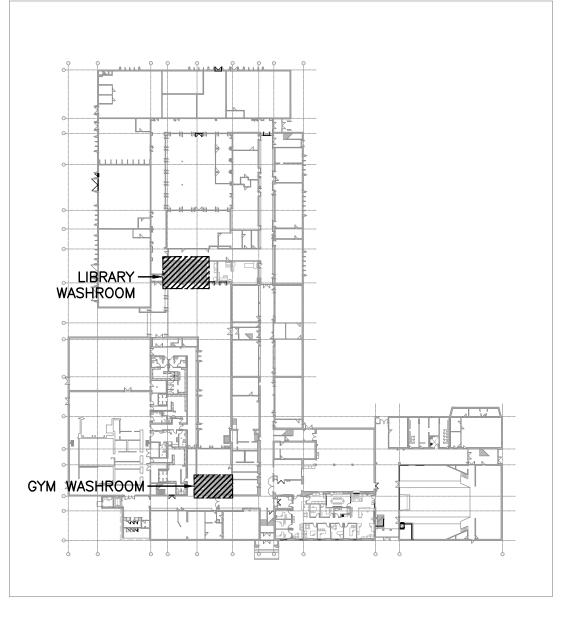
DRAWING

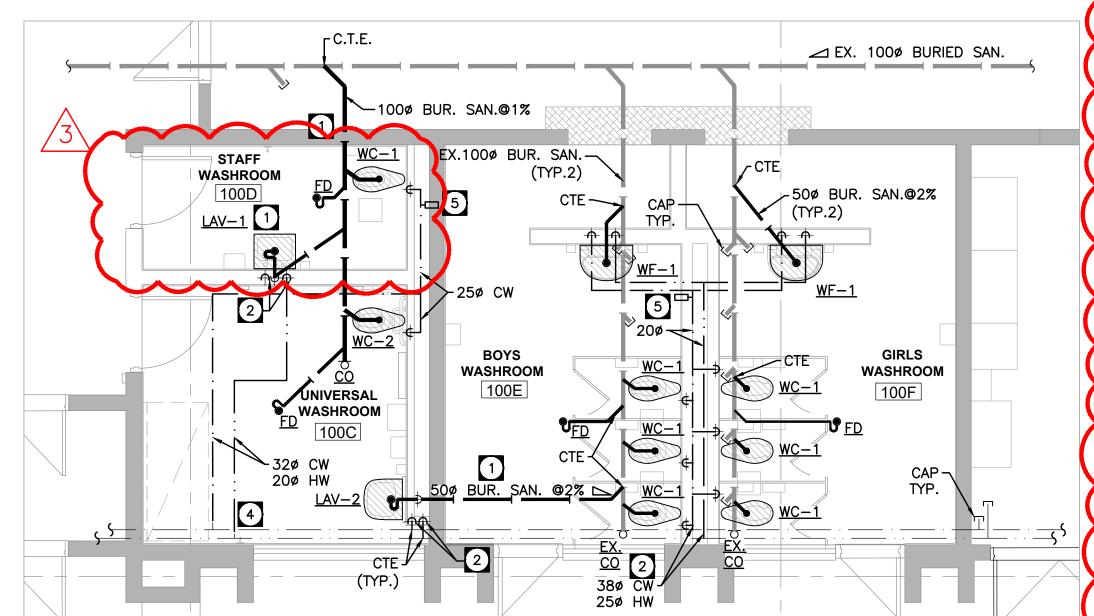
**SECOND & THIRD** FLOOR- PLUMBING **DEMOLITION LAYOUT** 

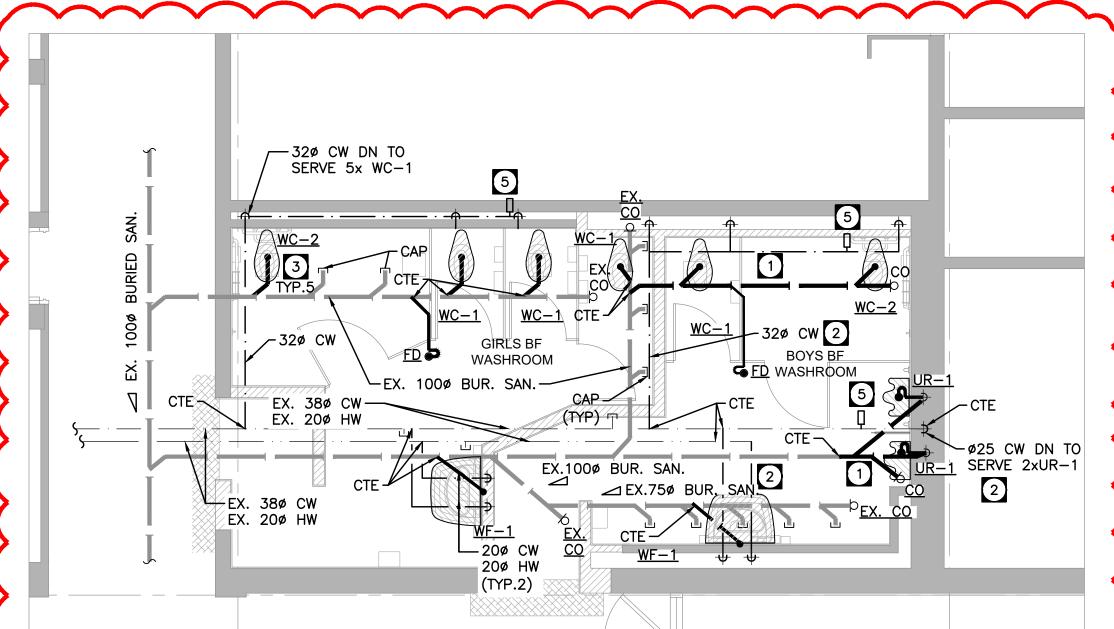
M2.2B - Building Department
Page 6 of 12

THIRD FLOOR STAFF RM WASHROOM SCALE: 1:50









LIBRARY WASHROOMS
SCALE: 1:50

### **GENERAL NOTES:**

- 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 CODE. Div. B, 7.5.
- 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.

CEILING SPACE IS IS UTILIZED AS RETURN AIR PLENUM.

- 7. IPEX SYSTEM XFR 15-50 PIPE AND FITTINGS c/w APPROVED FIRE STOPS IN AREA WHERE THE
- 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"Ø TO 4"Ø @ 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.

# **DRAWING NOTES:**

- PROVIDE BURIED SANITARY LINE TO SERVE NEW PLUMBING FIXTURE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO RUN NEW SANITARY LINE PROVIDE BURIED SANITARY LINE TO SERVE NEW PLUMBING FIXTURE. MECHANICAL AND PROVIDE CONNECTION TO EXISTING. COORDINATE LOCATION WITH ARCH. PLANS. PROVIDE

GYM WASHROOMS
SCALE: 1:50

VENTING AS PER OBC.

PROVIDE INSULATED HW & CW PIPING FROM EXISTING SERVICES AT CEILING LEVEL TO SERVE NEW PLUMBING FIXTURES. PROVIDE ISOLATION VALVES, SUPPORTS AND RUN PIPING CONCEALED WITHIN THE WALL.

- RECONNECT EXISTING SANITARY AND DOMESTIC COLD WATER LINES TO SERVE NEW WATER CLOSET.
- EXTEND NEW INSULATED 380 CW & 200 HW TO SUITABLE EXISTING LINE. SITE VERIFY EXACT TIE-IN LOCATION.
- 5 PROVIDE WATER HAMMER ARRESTER IN COLD WATER LINE AND INSTALL AS PER MANUFACTURER WRITTEN INSTRUCTION.

AUG 11 2023 CITY OF BURLINGTON BUILDING DEPARTMEN

**RECEIVED** 

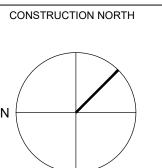
**ALL CONSTRUCTION TO MEET ONTARIO BUILDING CODE REQUIREMENTS** 

**Halton District School Board** 2050 Guelph Line Burlington, Ontario

ARCHITECT

Snyder Architects Inc. 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca





100053024 (23.08.08)

PROFESSIONAL STAMP

KURUPP

GENERAL NOTE:
DRAWINGS. SPECIFICATIONS AND SCHEDULES ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE TO BE BINDING AS IF CALLED FOR BY ALL.

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TO THE INTENT OF MEANING, ABIDE BY PRECEDENCE OF DOCUMENT OR OBTAIN DIRECTION FROM THE CONSULTANT. REFER TO COVER SHEET A-000 FOR FULL LIST OF EXAMINE ALL DISCIPLINE DRAWINGS, SPECIFICATIONS AND SCHEDULES AND RELATED WORK TO ENSURE THAT WORK CAN BE SATISFACTORILY EXECUTED. CONFLICTS OR ADDITIONAL WORK BEYOND WORK DESCRIBED TO BE BROUGHT TO ATTENTION OF CONSULTANT.

RE-ISSUED FOR PERMIT	23.08.08
ISSUED FOR PERMIT/ CCO#7	23.06.07
ISSUED FOR PROGRESS	23.04.28
DESCRIPTION	DATE

**REVISION SCHEDULE** 

PROJECT AND TO REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. DRAWINGS ARE NOT TO BE SCALED. CONTRACT DOCUMENTS REMAIN THE PROPERTY OF THE CONSULTANTS AND SHALL BE RETURNED UPON COMPLETION OF THE PROJECT

1. **NO.** 

**BURLINGTON CENTRAL** H.S. RENOVATIONS

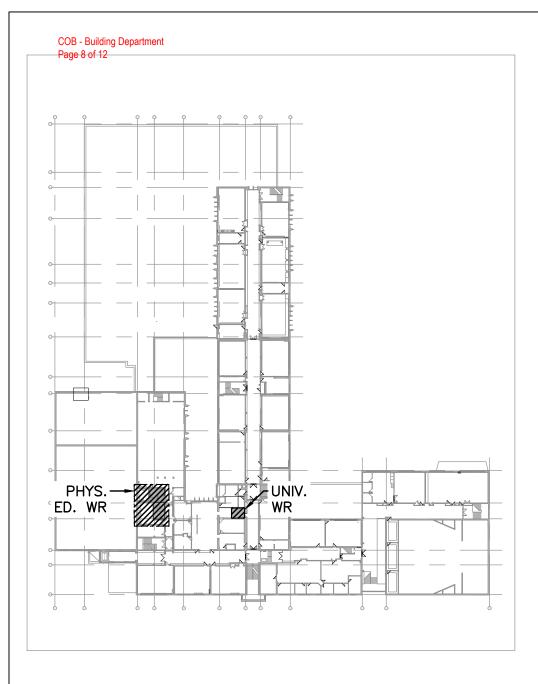
1433 Baldwin Street Burlington, ON

DRAWN S.V.	PROJECT NO <b>2005</b>
CHECKED D.H.	ENG PROJECT NO. 23008
SCALE AS NOTED	

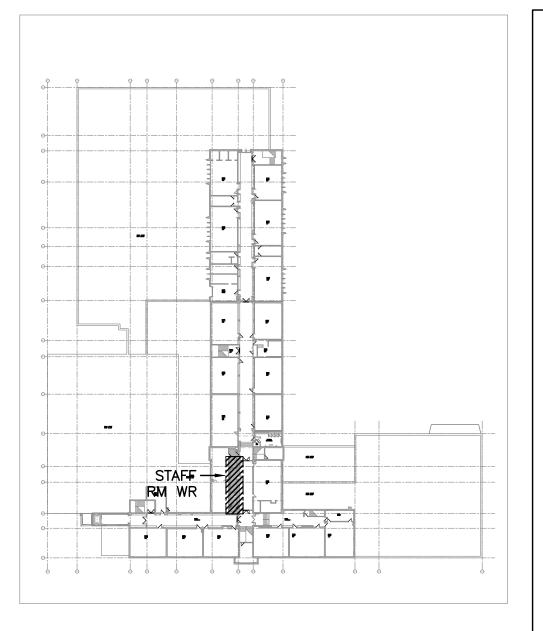
DRAWING

FIRST FLOOR- PLUMBING **NEW LAYOUT** 

M2.3 - Building Department Page 7 of 12



SECOND FLOOR KEY PLAN

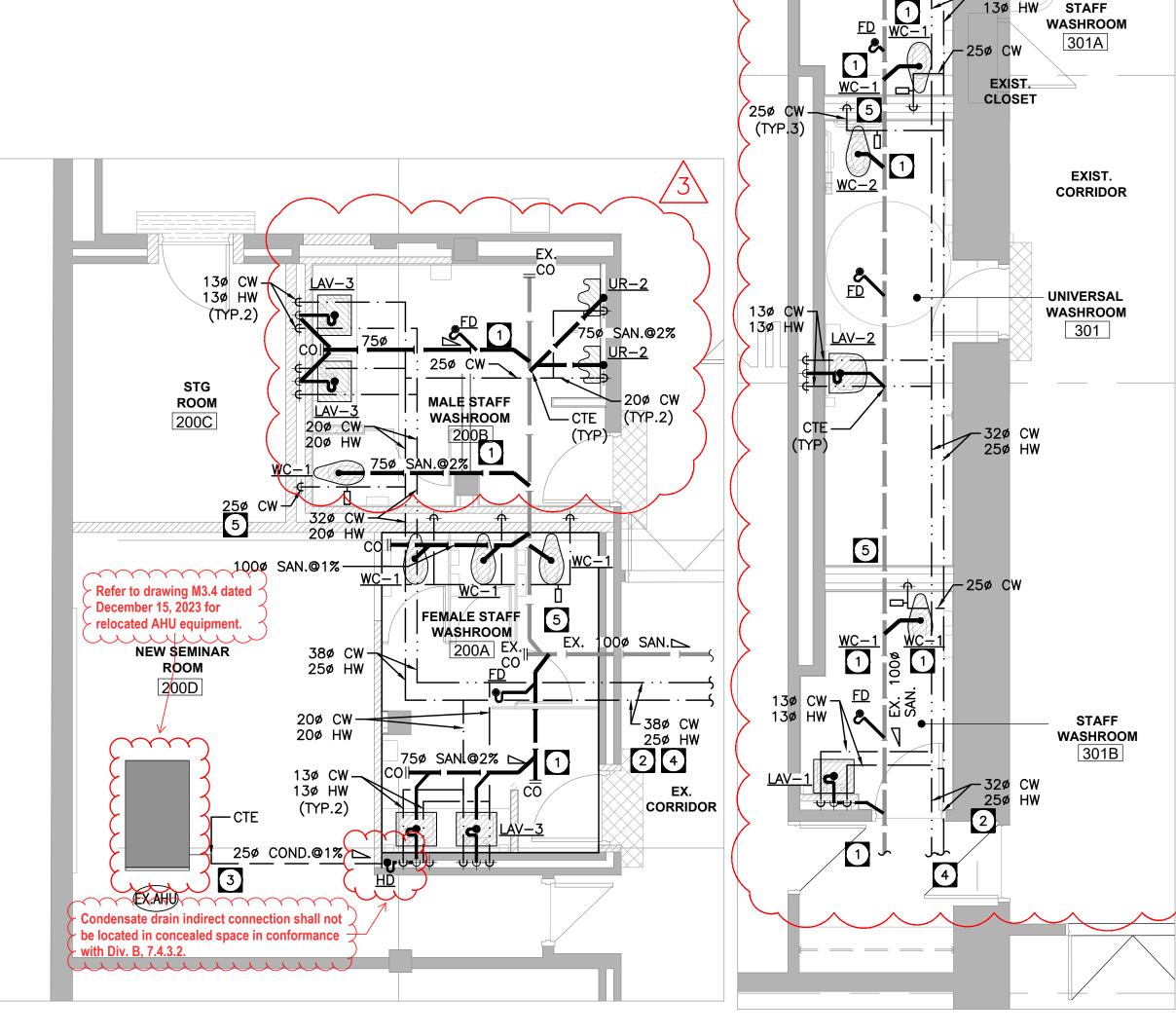


EXIST.

**FQYER** 

300A

THIRD FLOOR KEY PLAN



SECOND FLOOR PHYS. ED. WASHROOM SCALE: 1:50 THIRD FLOOR STAFF RM WASHROOM SCALE: 1:50

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- 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
- 8. COORDINATE PIPES WITH HVAC DUCTWORK, ELECTRICAL AND STRUCTURAL, OFFSET AS REQUIRED.

CEILING SPACE IS IS UTILIZED AS RETURN AIR PLENUM.

- 9. PROVIDE FIRE STOPS TO APPROVED STANDARDS FOR ALL PIPING PENETRATIONS AT RATED WALLS.
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- 16. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING PIPES FOR CONNECTION TO EXISTING SYSTEM.

### **DRAWING NOTES:**

- PROVIDE SANITARY LINE BELOW FLOOR SLAB TO SERVE NEW PLUMBING FIXTURE.

  MECHANICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO RUN NEW SANITARY LINE AND PROVIDE CONNECTION TO EXISTING. COORDINATE LOCATION WITH ARCH. PLANS. PROVIDE VENTING AS PER OBC.
- PROVIDE INSULATED HW & CW PIPING FROM EXISTING SUITABLE SERVICES AT CEILING LEVEL TO SERVE NEW PLUMBING FIXTURES. PROVIDE ISOLATION VALVES, SUPPORTS AND RUN PIPING CONCEALED WITHIN THE WALL.
- PROVIDE CONDENSATE LINE WITHIN CEILING SPACE c/w INSULATION AND INDIRECTLY TERMINATE OVER NEW HUB DRAIN AS SHOWN.
- EXTEND NEW INSULATED 380 CW & 200 HW TO SUITABLE EXISTING LINE. SITE VERIFY EXACT TIE-IN LOCATION.
- PROVIDE WATER HAMMER ARRESTER IN COLD WATER LINE AND INSTALL AS PER MANUFACTURER WRITTEN INSTRUCTION.

**Halton District School Board** 2050 Guelph Line Burlington, Ontario

**RECEIVED** 

SEP 08 2023

CITY OF BURLINGTON BUILDING DEPARTMEN

**ALL CONSTRUCTION TO** 

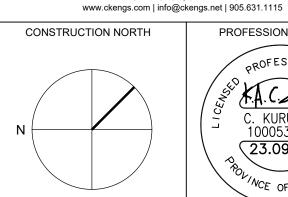
**MEET ONTARIO BUILDING** 

**CODE REQUIREMENTS** 

ARCHITECT

Snyder Architects Inc. 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca





PROFESSIONAL STAMP KURUPP 100053024 (23.09.05)

GENERAL NOTE:
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SHOULD ANY DISCREPANCY APPEAR BETWEEN DOCUMENTS WHICH LEAVES DOUBT AS O THE INTENT OF MEANING, ABIDE BY PRECEDENCE OF DOCUMENT OR OBTAIN RECTION FROM THE CONSULTANT. REFER TO COVER SHEET A-000 FOR FULL LIST OF EXAMINE ALL DISCIPLINE DRAWINGS, SPECIFICATIONS AND SCHEDULES AND RELATED ADDITIONAL WORK BEYOND WORK DESCRIBED TO BE BROUGHT TO ATTENTION OF CONSULTANT.

	RE-ISSUED FOR PERMIT	23.09.05
	ISSUED FOR PERMIT/ CCO#7	23.06.07
	ISSUED FOR PROGRESS	23.04.28
).	DESCRIPTION	DATE

REVISION SCHEDULE

CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND TO REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. DRAWINGS ARE NOT TO BE SCALED. CONTRACT DOCUMENTS REMAIN THE PROPERTY OF THE CONSULTANTS AND SHALL BE RETURNED UPON COMPLETION OF THE PROJECT

PROJECT

**BURLINGTON CENTRAL** H.S. RENOVATIONS

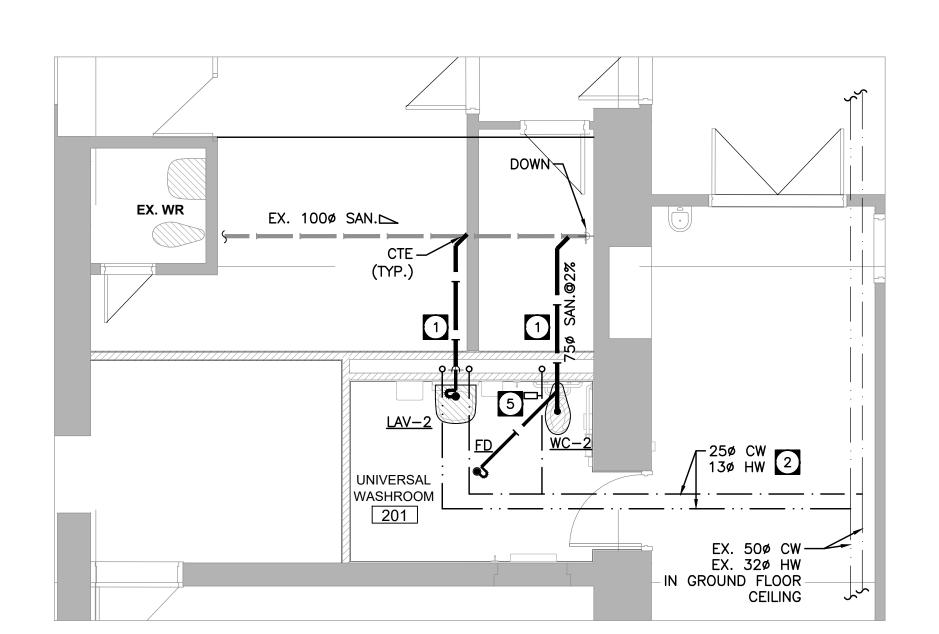
1433 Baldwin Street Burlington, ON

DRAWN	PROJECT NO
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

DRAWING

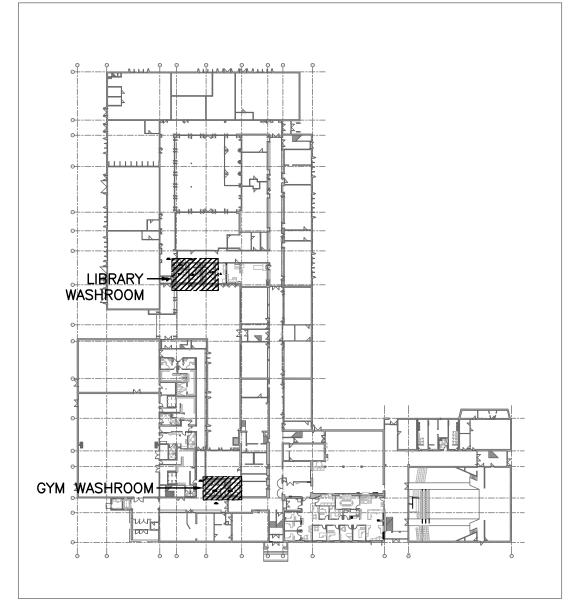
**SECOND & THIRD** FLOOR- PLUMBING NEW LAYOUT

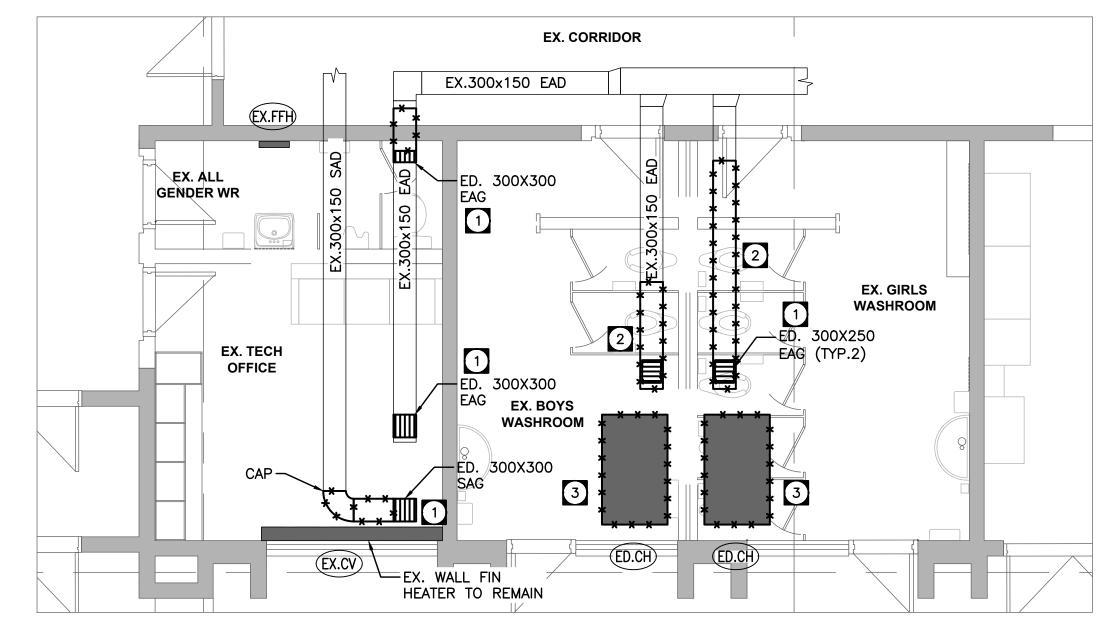
M2.4 COB - Building Department Page 8 of 12

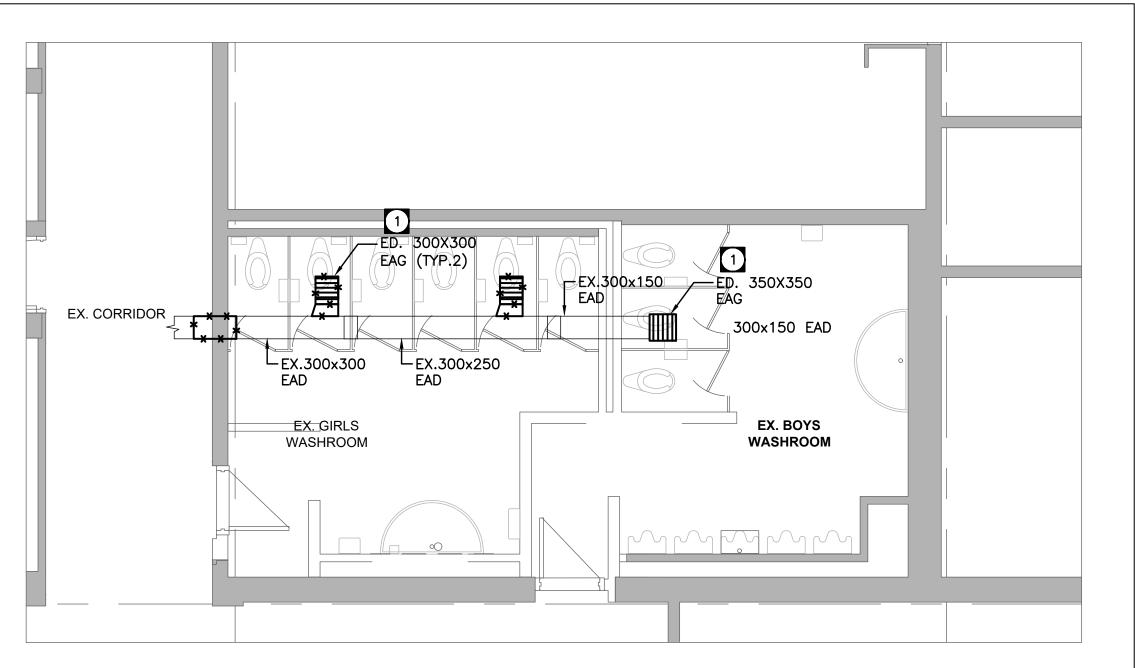


SECOND FLOOR UNIVERSAL WASHROOM SCALE: 1:50









KEY PLAN

LIBRARY WASHROOMS
SCALE: 1:50

GYM WASHROOMS
SCALE: 1:50

# **GENERAL NOTES:** DRAWING NOTES: DEMOLISH RETURN AIR GRILLE c/w DUCTWORK AND CAP OPENING. A. REVIEW DRAWINGS BEFORE COMMENCING WITH DEMOLITION WORK DEMOLISH DUCTWORK WITHIN CEILING c/w INSULATION, ALL ASSOCIATED ACCESSORIES, SUPPORTS AND CONTROLS. CONTRACTOR SHALL REPAIR AND MAKE GOOD OF ANY EXISTING B. REMOVE ALL EQUIPMENT, PIPING, STEEL SUPPORTS, CONTROLS, PLUMBING MATERIAL, HOUSE KEEPING PAD, SHOWN APPROXIMATELY WITH HEAVY 'X' MARKED LINES THROUGHOUT (UNLESS SERVICES AFFECTED AS A RESULT OF THIS DEMOLITIONS WORK. (TYP.) OTHERWISE INDICATED) DEMOLISH CEILING HUNG CABINET HEATER c/w ASSOCIATED SUPPORTS, ACCESSORIES AND CONTROLS. MODIFY CONNECTED HWS & HWR PIPING FOR NEW CABINET UNIT HEATER C. 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 INSTALLATION. EVALUATION AND ESTIMATE OF THE EXTEND AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING PROPOSAL. D. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL MECHANICAL DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL CONTRACTOR SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES, BEFORE THE COMMENCEMENT OF ANY WORK. E. REFER TO ARCHITECTURAL DRAWINGS FOR WALL REPAIR DETAIL UNLESS NOTED OTHERWISE. F. 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. G. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING LINES AS REQUIRED TO COMPLETE THE NEW SCOPE OF WORK. PIPE FREEZING SHALL BE COORDINATED WITH SCHOOL BOARD TO AVOID INTERRUPTION TO EXISTING SERVICES. H. REPAIR ANY DAMAGE CAUSED BY THIS WORK AND MAKE GOOD. I. REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

(

# Halton District School Board 2050 Guelph Line

**RECEIVED** 

JUNE 16 2023

CITY OF BURLINGTON

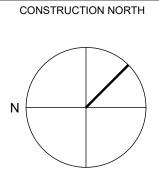
MEET ONTARIO BUILDING CODE REQUIREMENTS

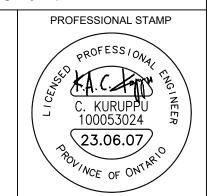
BUILDING DEPARTMEN

Burlington, Ontario

**Snyder Architects Inc.** 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca







GENERAL NOTE:
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EXAMINE ALL DISCIPLINE DRAWINGS, SPECIFICATIONS AND SCHEDULES AND RELATED WORK TO ENSURE THAT WORK CAN BE SATISFACTORILY EXECUTED. CONFLICTS OR ADDITIONAL WORK BEYOND WORK DESCRIBED TO BE BROUGHT TO ATTENTION OF CONSULTANT.

<b>NO</b> .	DESCRIPTION	DATE
1.	ISSUED FOR PROGRESS	23.04.28
2.	ISSUED FOR PERMIT/ CCO#7	23.06.07

REVISION SCHEDULE

CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND TO REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. DRAWINGS ARE NOT TO BE SCALED. CONTRACT DOCUMENTS REMAIN THE PROPERTY OF THE CONSULTANTS AND SHALL BE RETURNED UPON COMPLETION OF THE PROJECT

PROJECT

BURLINGTON CENTRAL H.S. RENOVATIONS

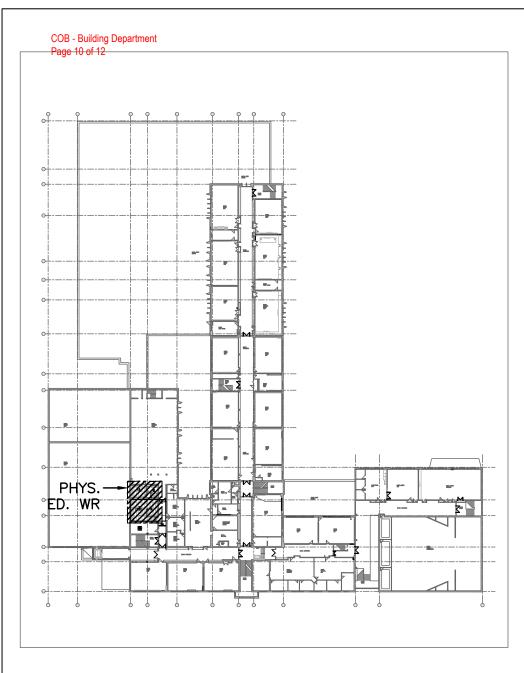
1433 Baldwin Street Burlington, ON

DRAWN S.V.	PROJECT NO 2005
CHECKED D.H.	ENG PROJECT NO. 23008
SCALE AS NOTED	

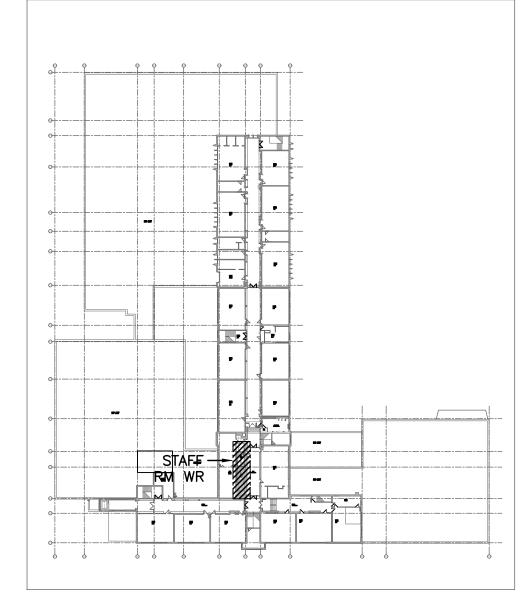
DRAWING

FIRST FLOOR- HVAC DEMOLITION LAYOUT

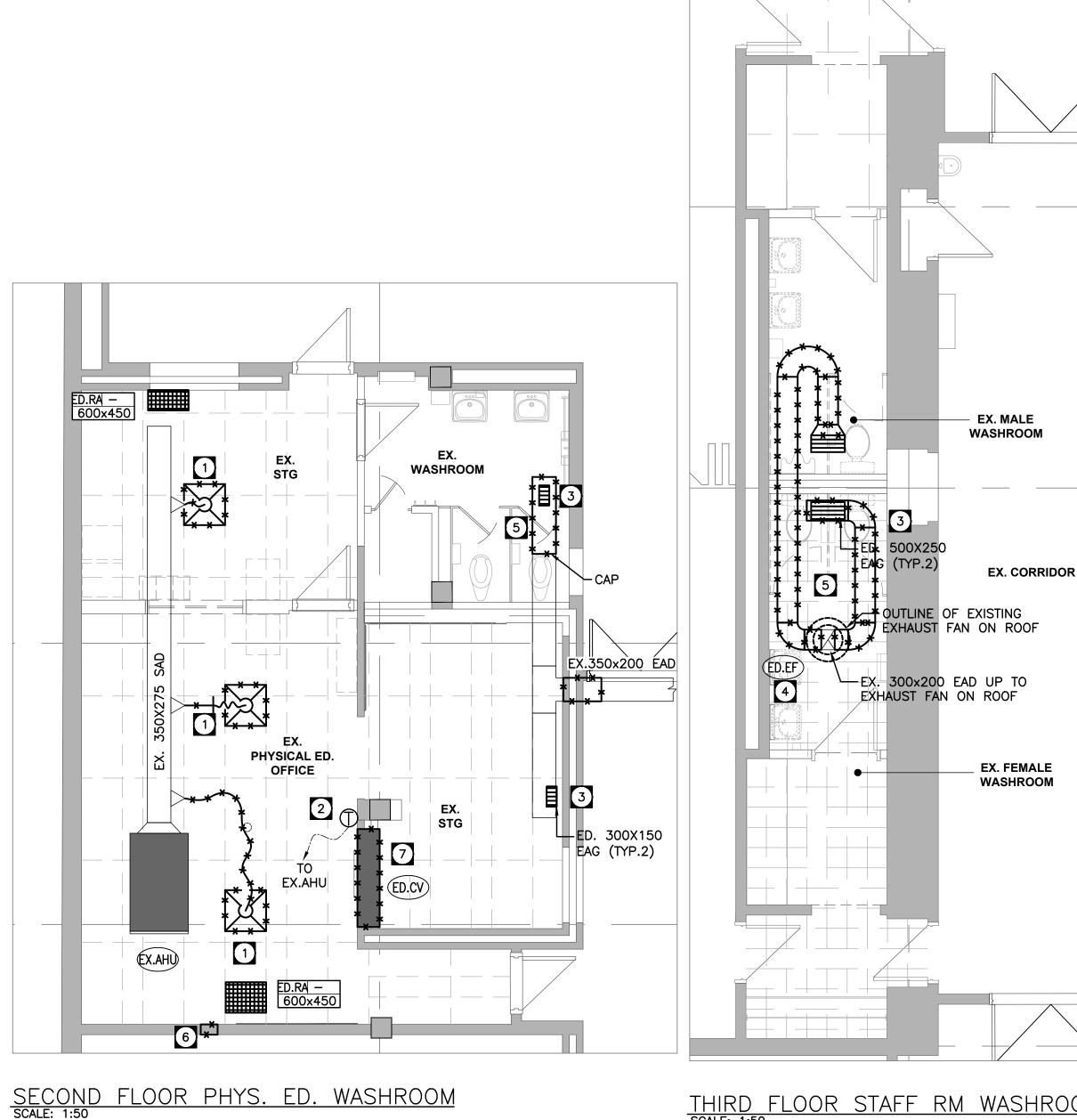
M3 COB - Building Department Page 9 of 12



SECOND FLOOR KEY PLAN



THIRD FLOOR KEY PLAN



**GENERAL NOTES:** 

- A. REVIEW DRAWINGS BEFORE COMMENCING WITH DEMOLITION WORK
- B. REMOVE ALL EQUIPMENT, PIPING, STEEL SUPPORTS, CONTROLS, PLUMBING MATERIAL, HOUSE KEEPING PAD, SHOWN APPROXIMATELY WITH HEAVY 'X' MARKED LINES THROUGHOUT (UNLESS OTHERWISE INDICATED)
- C. 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.
- D. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL MECHANICAL DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL CONTRACTOR SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES, BEFORE THE COMMENCEMENT OF ANY WORK.
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- H. REPAIR ANY DAMAGE CAUSED BY THIS WORK AND MAKE GOOD.
- I. REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

- **DRAWING NOTES:**
- RELOCATE EXISTING DIFFUSER AND MODIFY CONNECTED SUPPLY AIR DUCTWORK AS REQUIRED TO SUIT NEW DIFFUSER LAYOUT. REFER TO MECH. DWG. M3.4 FOR NEW LOCATION OF DIFFUSERS AND GRILLES.
- RELOCATE EXISTING THERMOSTAT c/w ASSOCIATED ACCESSORIES AND WIRING AS REQUIRED TO SUIT THE NEW LAYOUT. REFER TO MECH. DWG. M3.4 FOR NEW LOCATION OF
- 3 DEMOLISH RETURN AIR GRILLE c/w DUCTWORK AND CAP OPENING.
- DEMOLISH ROOF MOUNTED EXHAUST FAN c/w ROOF CURB, ASSOCIATED ACCESSORIES AND CONTROLS. MODIFY EXISTING DUCT RISER AND ROOF OPENING AS REQUIRED TO ACCOMMODATE NEW EXHAUST FAN INSTALLATION.
- DEMOLISH DUCTWORK WITHIN CEILING c/w INSULATION, ALL ASSOCIATED ACCESSORIES, SUPPORTS AND CONTROLS. CONTRACTOR SHALL REPAIR AND MAKE GOOD OF ANY EXISTING SERVICES AFFECTED AS A RESULT OF THIS DEMOLITIONS WORK. (TYP.)
- 6 COORDINATE WITH ARCHITECT TO INFILL EXISTING 250x100 WALL OPENING. WORK BY OTHERS.
- DEMOLISH RECESSED CONVECTOR HEATER c/w ASSOCIATED ACCESSORIES AND CONTROLS. DEMOLISH CONNECTED HWS & HWR PIPING BACK TO MAIN AND CAP c/w ISOLATION VALVES.

**RECEIVED** JUNE 16 2023 **CITY OF BURLINGTON** 

BUILDING DEPARTMENT

**ALL CONSTRUCTION TO MEET ONTARIO BUILDING** CODE REQUIREMENTS

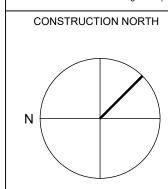
**Halton District School Board** 2050 Guelph Line

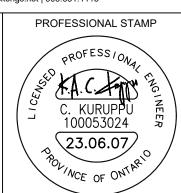
Burlington, Ontario

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PROJECT

**BURLINGTON CENTRAL** H.S. RENOVATIONS

1433 Baldwin Street Burlington, ON

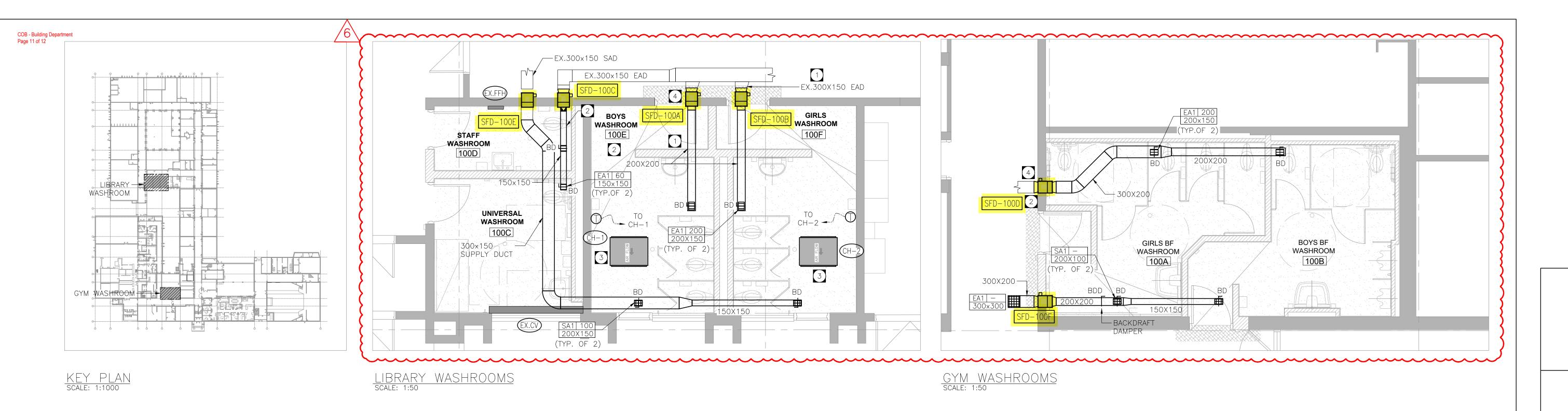
DRAWN	PROJECT NO
S.V.	2005
CHECKED	ENG PROJECT NO.
D.H.	23008
SCALE	
AS NOTED	

**SECOND & THIRD** FLOOR- HVAC **DEMOLITION LAYOUT** 

M3.2<sub>B - Building Department</sub>
Page 10 of 12

THIRD FLOOR STAFF RM WASHROOM SCALE: 1:50

DRAWING



# GENERAL NOTES:

- A. THIS DRAWING DOES NOT SHOW ALL CONCEALED PIPING, DUCT AND EQUIPMENT. CONTRACTOR TO COORDINATE WITH LIGHTING FIXTURES AND OTHER ELECTRICAL EQUIPMENT. CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS INCLUDING DUCTWORK SIZES AND EQUIPMENT.
- B. INSULATE ALL SUPPLY, RETURN AND EXHAUST AIR DUCTWORK.
- C. DUCTWORK WITH INTERNALLY LINED ACOUSTIC INSULATION TO MAINTAIN CLEAR INSIDE DIMENSION AS SHOWN.
- D. COORDINATE TEMPERATURE SENSOR LOCATION WITH THE OWNER.
- E. ALL LOW VOLTAGE WIRING TO BE WITHIN EMT CONDUIT PROVIDED BY THIS DIVISION.
- F. CONTRACTOR TO COORDINATE WITH CONTROLS CONTRACTOR FOR COMPONENTS WIRED TO BAS
- G. INSULATE ALL NEW HEATING WATER SUPPLY & RETURN LINES WITH MINIMUM 25MM THICK
- H. 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.
- I. CONTRACTOR SHALL INCLUDE FREEZING OF EXISTING LINES AS REQUIRED TO COMPLETE THE NEW SCOPE OF WORK. PIPE FREEZING SHALL BE COORDINATED WITH SCHOOL BOARD TO AVOID INTERRUPTION TO EXISTING SERVICES.
- J. FIRESTOP AND SEAL ALL DUCTWORK AND PIPING WALL/CEILING/FLOOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- K. REPAIR ANY DAMAGE CAUSED BY THIS WORK AND MAKE GOOD.
- L. REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.
- M. UNDERCUT WASHROOM DOORS BY 20MM FOR TRANSFER AIR.

# <u>Drawing notes:</u>

- 1 MODIFY EXISTING DUCTWORK AS REQUIRED TO SUIT NEW HVAC LAYOUT.
- PROVIDE NEW EXHAUST AND SUPPLY DUCTS AND CONNECT TO EXISTING SERVICES IN THE 2 CORRIDOR AS INDICATED. (TYP.)
- PROVIDE HYDRONIC CABINET UNIT HEATER BELOW CEILING (HUNG FROM SLAB) c/w
  ASSOCIATED ACCESSORIES AND CONTROLS INSTALL AS PER MANUFACTURER'S WRITTE ASSOCIATED ACCESSORIES AND CONTROLS. INSTALL AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS. REFER TO MECHANICAL DRAWING M1.2 FOR HEATER SCHEDULE. EXTEND NEW INSULATED HYDRONIC PIPING (HWS & HWR) TO EXISTING MAINS. CONTRACTOR SHALL
- PROVIDE COMBINATION SMOKE & FIRE DAMPERS C/W REQUIRED CLEARANCES, FIRE RATED ACCESS PANELS AT INDICATED LOCATIONS. (TYP.)

INCLUDE ALL ASSOCIATED WORKS (FREEZING OF EXISTING LINE, ETC.) AS REQUIRED TO

COMPLETE THIS WORK. COORDINATE INSTALLTION WITH EXISTING SERVICES IN THE CEILING

PROVIDE DUCT MOUNTED EXHAUST AND SUPPLY REGISTERS OR GRILLES AS INDICATED.

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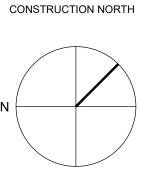
**ALL CONSTRUCTION TO** MEET ONTARIO BUILDING **CODE REQUIREMENTS** 

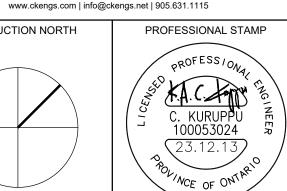
Halton District School Board 2050 Guelph Line Burlington, Ontario

ARCHITECT

**Snyder Architects Inc.** 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca







GENERAL NOTE:
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OTHER AND WHAT IS CALLED FOR BY ONE TO BE BINDING AS IF CALLED FOR BY ALL.
SHOULD ANY DISCREPANCY APPEAR BETWEEN DOCUMENTS WHICH LEAVES DOUBT AS
TO THE INTENT OF MEANING, ABIDE BY PRECEDENCE OF DOCUMENT OR OBTAIN
DIRECTION FROM THE CONSULTANT. REFER TO COVER SHEET A-000 FOR FULL LIST OF
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EXAMINE ALL DISCIPLINE DRAWINGS, SPECIFICATIONS AND SCHEDULES AND RELATED WORK TO ENSURE THAT WORK CAN BE SATISFACTORILY EXECUTED. CONFLICTS OR ADDITIONAL WORK BEYOND WORK DESCRIBED TO BE BROUGHT TO ATTENTION OF CONSULTANT.

RE-ISSUED FOR PERMIT	23.12.13
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ISSUED FOR PROGRESS	23.04.28
DESCRIPTION	DATE
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REVISION SCHEDULE

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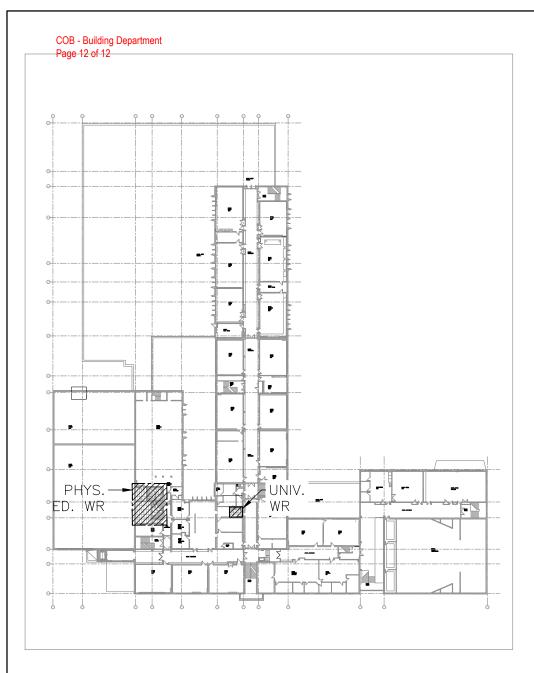
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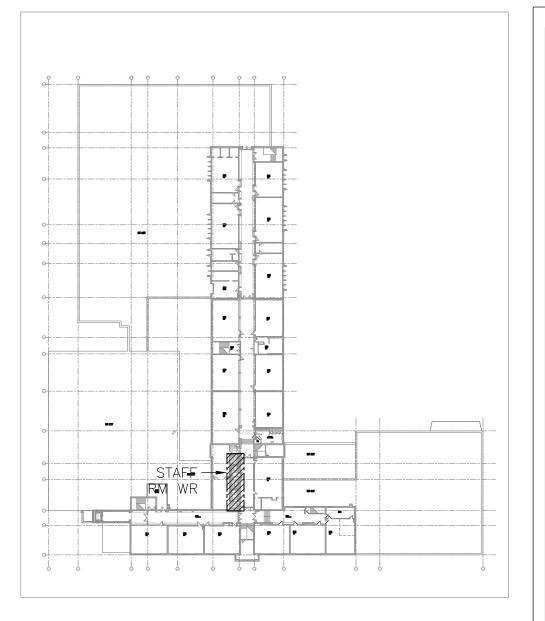
FIRST FLOOR- HVAC NEW LAYOUT

M3.3<sub>B - Building Department</sub>
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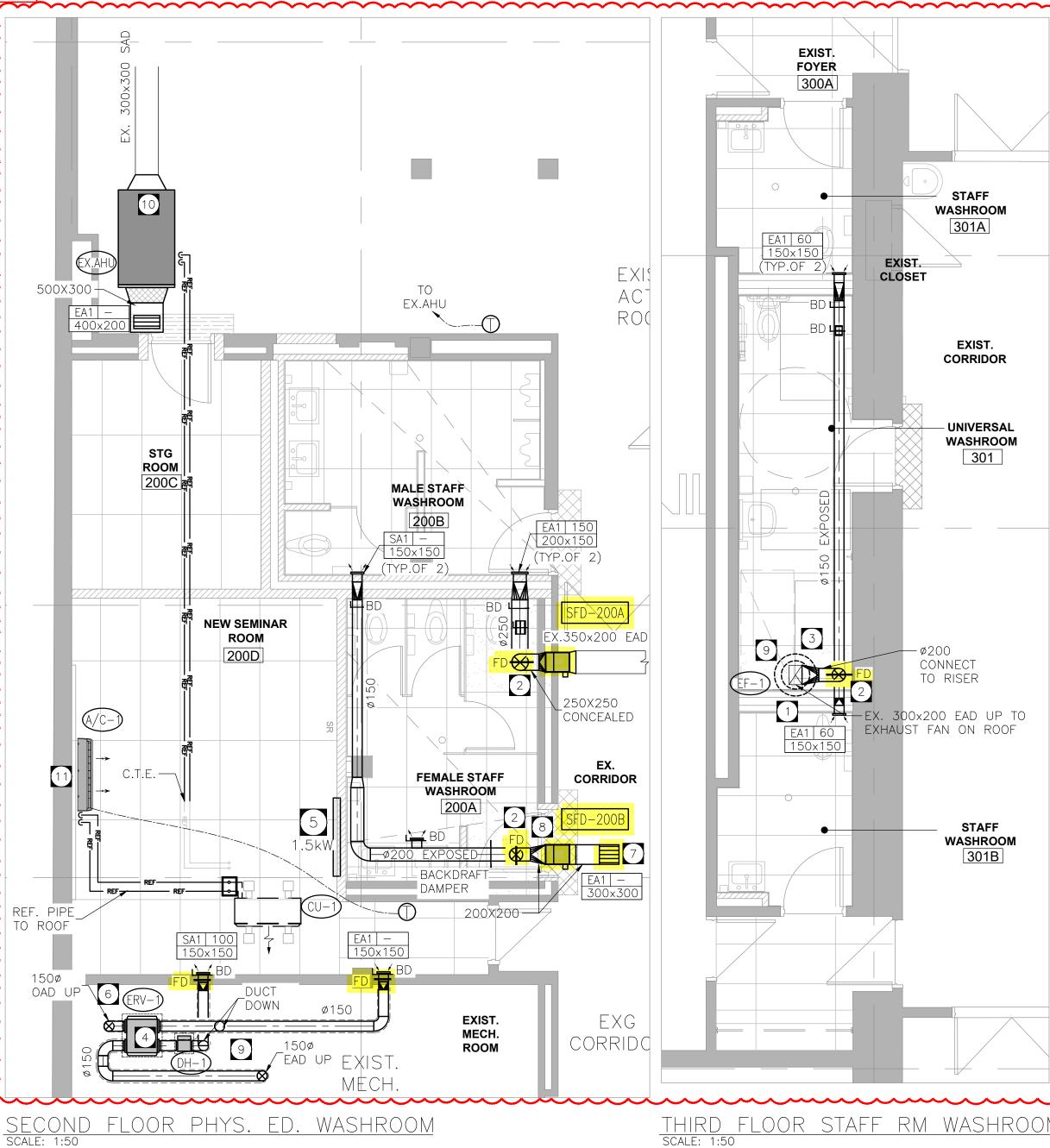
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SECOND FLOOR KEY PLAN SCALE: 1:1000



THIRD FLOOR KEY PLAN
SCALE: 1:1000



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# DRAWING NOTES:

- 1 MODIFY EXISTING DUCTWORK AS REQUIRED TO SUIT NEW DIFFUSER LAYOUT.
- PROVIDE DUCT VERTICAL PENETRATION THROUGH FIRE—RATED BULKHEAD C/W FIRE DAMPER AND DUCT ACCESS PANEL. DUCT SHALL BE EXPOSED SPIRAL DUCT AND CONTINUE UNDER THE CEILING AS INDICATED. (TYP.)
- PROVIDE ROOF MOUNTED EXHAUST FAN c/w ROOF CURB, DUCTWORK, ALL ASSOCIATED ACCESSORIES AND CONTROLS.
- PROVIDE ENERGY RECOVERY VENTILATOR IN MECH. ROOM c/w ELECTRIC DUCT HEATER (SET AT 70°F), HANGERS AND VIBRATION ISOLATORS. INSULATE FRESH AIR INTAKE, EXHAUST AND SUPPLY AIR DUCTS PER MECHANICAL SPECIFICATIONS (15080). REFER TO SCHEDULE DRAWING FOR ERV & DUCT HEATER SCHEDULE.
- WALL MOUNTED ELECTRIC BASEBOARD HEATER c/w TAMPERPROOF IN-BUILT THERMOSTAT SUPPLIED AND INSTALLED BY ELECTRICAL DIVISION. THE HEATING SET POINT SHALL BE 21°C (70°F)REFER TO ELECTRICAL DRAWINGS FOR SPECS. (TYP.)
- PROVIDE 1500 OUTSIDE/ EXHAUST AIR DUCTWORK TO ROOF AND TERMINATE AT 3 FT. ABOVE ROOF LEVEL c/w BIRD SCREEN AND GOOSE NECK. LOCATE FRESH AIR ROOF PENETRATION TO MAINTAIN 10 FEET SEPARATION FROM ANY EXHAUST.
- PROVIDE ACOUSTICALLY INSULATED TRANSFER AIR DUCT WITHIN CEILING SPACE C/W FIRE DAMPER. SIZE INDICATED IS CLEAR INSIDE DIMENSIONS.
- OVIDE COMBINATION SMOKE & FIRE DAMPERS C/W REQUIRED CLEARANCES, FIRE RATED ACCESS PANELS AT INDICATED LOCATIONS. (TYP.)
- PROVIDE MINIMUM 10 FEET LENGTH OF DUCT INSULATION FOR OUTSIDE AIR AND EXHAUST AIR DUCTS FROM POINT OF EXTERIOR PENETRATION AS PER MECHANICAL SPECIFICATIONS.
- INSTALL RELOCATED EX.AHU C/W NEW SUPPLY, RETURN DUCT CONNECTIONS AND CONNECT TO ACTIVITY ROOM SUPPLY DUCTWORK WITH ACOUSTICAL LINING, INSULATION, VIBRATION

ISOLATORS, BRANCHES, ACCESS PANEL. RELOCATE AND INSTALL THERMOSTAT WITH NEW

- CONTROLS WIRING. EXTEND REFRIGERANT PIPING W/ NEW FITTINGS AND INSULATION. RELOCATE CONDENSATE PUMP AND LINE TO NEW LOCATION.
- PROVIDE NEW WALL MOUNTED DUCTLESS A/C HEAT PUMP UNIT C/W CONTROLS WIRING, ROOF CONDENSING UNIT, REFRIGERANT PIPING W/ INSULATION, ROOF PITCH POCKET, CONDENSATE PUMP, LINESET COVER.

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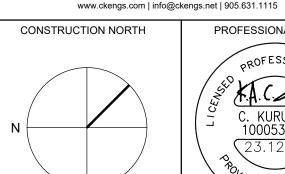
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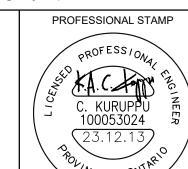
**Halton District School Board** 2050 Guelph Line Burlington, Ontario

ARCHITECT

Snyder Architects Inc. 260 King St. E, Unit A101, Toronto, ON M5A 4L5 tel. 416.966.5444 fax. 416.966.4443 www.snyderarchitects.ca







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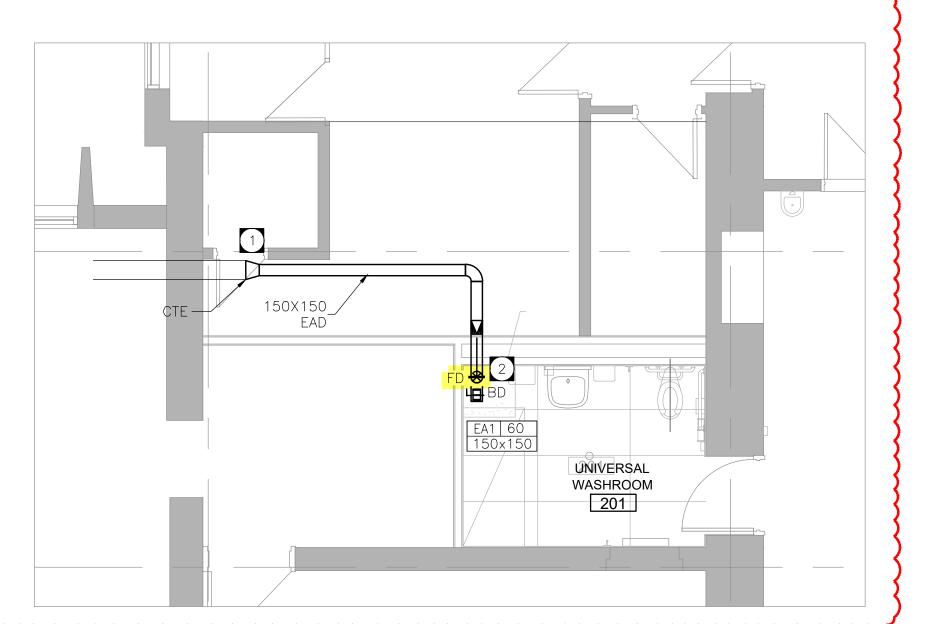
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DRAWING

SECOND & THIRD FLOOR- HVAC NEW LAYOUT



SECOND FLOOR UNIVERSAL WASHROOM
SCALE: 1:50

THIRD FLOOR STAFF RM WASHROOM SCALE: 1:50