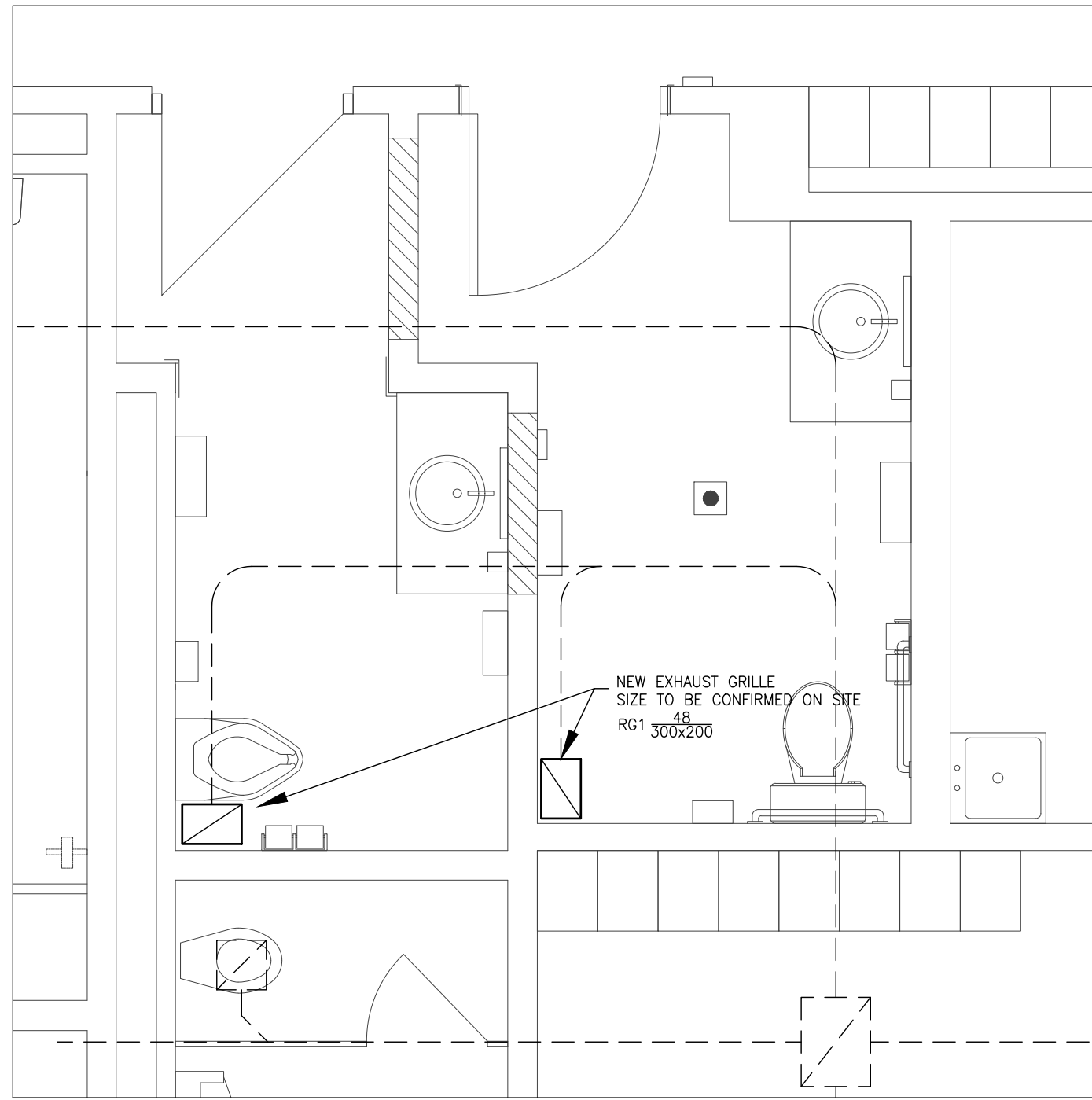
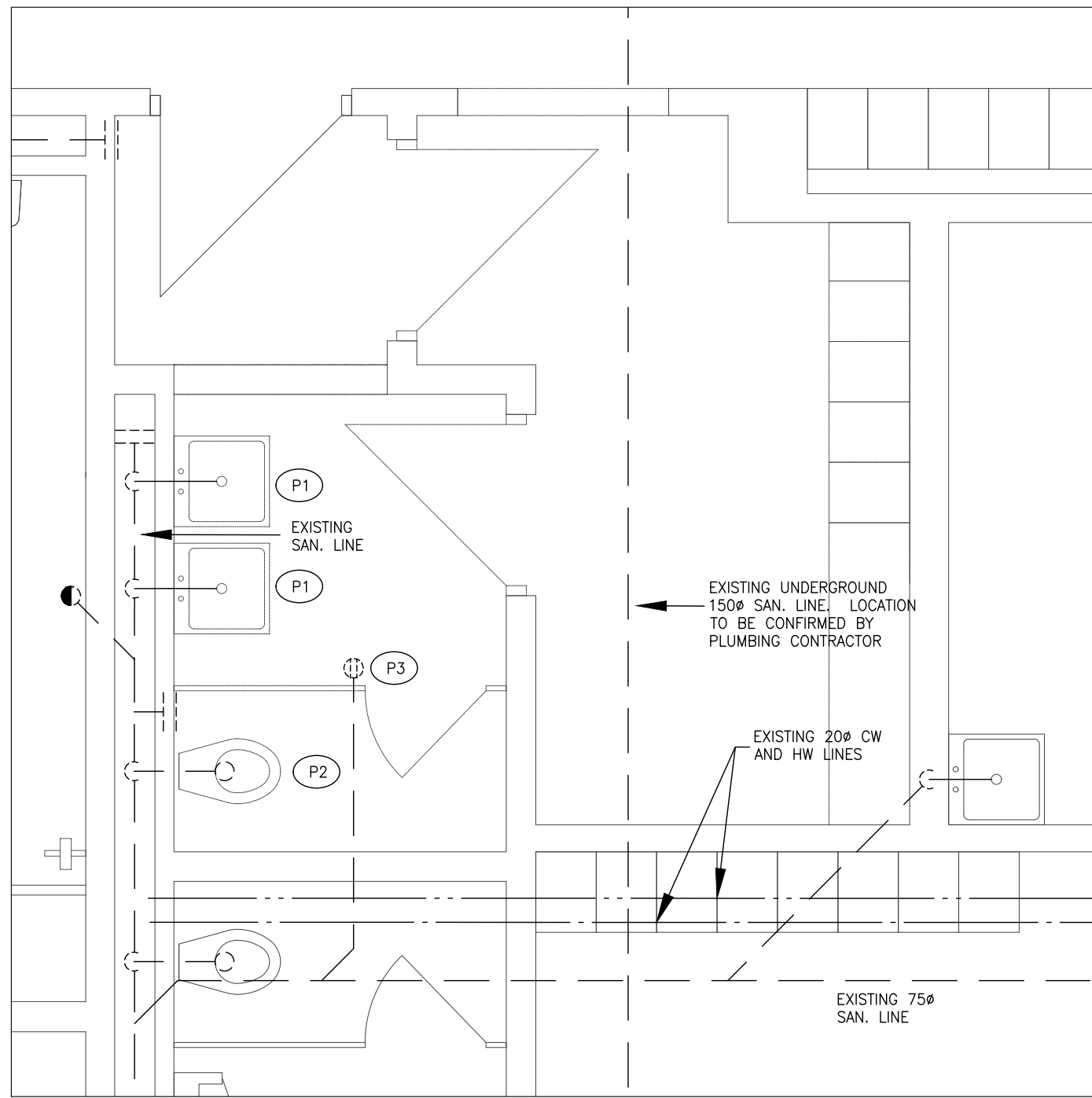


2 PLUMBING RENOVATION-WASHROOMS 1059A & 1059B
M1-1 1:30

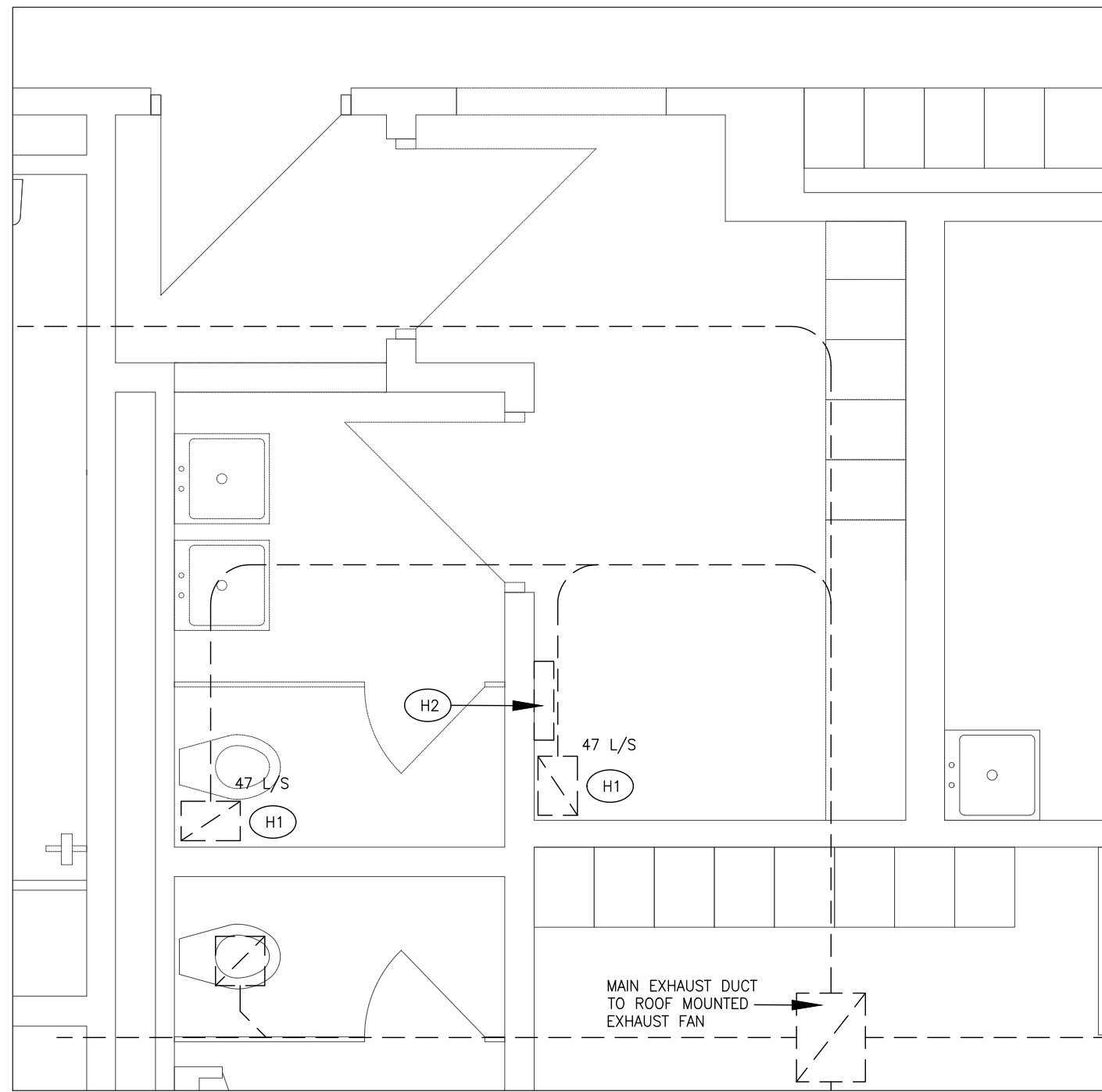


4 HVAC RENOVATION-WASHROOMS 1059A & 1059B
M1-1 1:30

HVAC LEGEND	
SYMBOL	DESCRIPTION
	NEW EQUIPMENT
	EQUIPMENT TO REMAIN
	EQUIPMENT TO BE REMOVED
	EQUIPMENT TO BE RELOCATED
	DUCTING TO BE CAPPED
	SUPPLY DUCT
	EXHAUST/RETURN DUCT
	SUPPLY DIFFUSER
	SUPPLY DIFFUSER WITH BLANK SIDE
	SUPPLY REGISTER (WALL/SIDE DUCT MOUNTED)
	CEILING/FLOOR SUPPLY REGISTER
	ROUND DIFFUSER
	EXHAUST/RETURN GRILLE
	DIFFUSER/GRILLE DATA: A-REF, 2-L/S, 3-MM
	FLEXIBLE DUCT
	VOLUME CONTROL DAMPER
	SPLUTTER DAMPER
	FIRE DAMPER
	SMOKE FIRE DAMPER
	EXHAUST FAN
	THERMOSTAT
	THERMOSTAT COVER
	VARIABLE SPEED CONTROLLER
	OPPOSED BLADE MOTORIZED DAMPER
	ACOUSTIC LINING
	FLEXIBLE CONNECTION
	TRANSFER AIR ELBOW ACOUSTICALLY LINED
	ELECTRIC FAN FORCED HEATER-BY MECHAN. DIV.
	ELECTRIC BASEBOARD HEATER-BY MECHAN. DIV.



1 PLUMBING DEMOLITION-WASHROOMS 1059A & 1059B
M1-1 1:30



3 HVAC DEMOLITION-WASHROOMS 1059A & 1059B
M1-1 1:30

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
	NEW LINES
	EXISTING LINES (THIN LINE)
	EQUIPMENT TO BE REMOVED
	EQUIPMENT TO BE RELOCATED
	EQUIPMENT TO BE REMOVED
	CAPPED LINE
	PIPE RISE
	PIPE DROP
	SANITARY LINE BELOW GRADE
	SANITARY LINE ABOVE GRADE
	STORM LINE BELOW GRADE
	STORM LINE ABOVE GRADE
	COLD WATER CW
	HOT WATER HW
	HOT WATER RECIRCULATION HWR
	TEMPERED HOT WATER
	CONDENSATE LINE
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	FLOOR DRAIN
	HUB DRAIN
	FLOOR CLEANOUT
	LINE CLEANOUT
	GATE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	GLOBE VALVE
	CHECK VALVE
	BACKFLOW PREVENTOR

WASHROOM — PLUMBING DEMOLITION NOTES

- REMOVE WALL MOUNTED LAVATORIES. OBSOLETE PLUMBING LINES SHALL BE CUTBACK AND CAPPED IN WALL.
- REMOVE WALL MOUNTED WATER CLOSET AND EXPOSED FLUSH VALVE. REWORK PLUMBING LINES TO FACILITATE THE INSTALLATION OF A NEW WATER CLOSET AND FLUSH VALVE.
- REMOVE FLOOR DRAIN STRAINER AND INSTALL NEW NICKEL BRONZE TYPE TO SUIT FLOOR DRAIN. REQUISIT STRAINER AS REQUIRED.

WASHROOM — HVAC DEMOLITION NOTES

- REMOVE CEILING MOUNTED EXHAUST GRILLE AND REPLACE WITH NEW. REWORK DUCTING TO ACCOMMODATE INSTALLATION OF NEW GRILLE.
- REMOVE HYDRONIC HEATING CONNECTOR. CUTBACK AND CAP HYDRONIC SUPPLY AND RETURN LINES IN WALL.

2	JAN.24/25	ISSUED FOR TENDER
1	DEC.19/24	ISSUED FOR PERMIT
NO.	DATE	REVISION
DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR DURING THE COURSE OF WORK.		
CoPa ENGINEERING LTD.		
29 ROLLING ACRES DR. KITCHENER, ONTARIO N2A 3W5 TEL. (519) 894-0022		
PROJECT ORCHARD PARK SECONDARY SCHOOL Corridor Ceiling and Accessibility Renovations 200 DEWITT ROAD STONE CREEK ONTARIO		
DRAWING STAFF AND BARRIER-FREE WASHROOM MECHANICAL LAYOUTS		
DRAWN BY: C. P.		SCALE: 1:30
CHECKED BY: C. PASHARTIS		DATE: DECEMBER 19, 2024
PROJECT NO. 24CP059		DRAWING NO. M1-1

GENERAL NOTES:

1. ANY COMBUSTIBLE MATERIALS INSTALLED IN THE CEILING SPACE USED AS A RETURN AIR PLENUM, SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
2. PLUMBING AND HVAC CONTRACTORS SHALL COORDINATE WITH ALL OTHER TRADES.
3. WHERE CEILING SPACE IS TO BE USED AS A RETURN AIR PLENUM, ALL WIRING FOR CONTROL, TELEPHONE, DATA, SECURITY, SPEAKER WIRE, ETC., SHALL BE IT6, CMC, WPP OR PLENUM VERIFIED.
4. THE SPECIFIED MANUFACTURERS MEANS THAT THE ITEM NAMED AND SPECIFIED, FORMS PART OF SPECIFICATION AND SETS STANDARD REGARDING PERFORMANCE, QUALITY OF MATERIAL AND WORKMANSHIP. ALTERNATE MANUFACTURERS WILL BE CONSIDERED AND ACCEPTED AS EQUAL PROVIDED THEY MEET THE STANDARD SPECIFIED.

MECHANICAL GENERAL REQUIREMENTS

1. DESCRIPTION OF WORK
 - 1. THE MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, SUPERVISION AND OTHER SERVICES AS MAY BE REQUIRED TO EXECUTE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS.
2. SITE EXAMINATION
 - 1. BEFORE SUBMITTING TENDERS, CAREFULLY EXAMINE THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS HAVING A BEARING ON THE WORK. VISIT THE EXISTING BUILDING AND THOROUGHLY ASCERTAIN THE EXTENT AND NATURE OF ALL CONDITIONS AFFECTING THE PERFORMANCE OF WORK.
3. CODES AND STANDARDS
 - 1. THE INSTALLATION SHALL COMPLY WITH THE LATEST EDITIONS AND ALL AMENDMENTS OF THE FOLLOWING CODES AND STANDARDS. WHERE CONFLICTS IN REQUIREMENTS OCCUR, THE HIGHER STANDARDS WILL APPLY: ONTARIO BUILDING CODE, ONTARIO FIRE CODE, N.F.P.A., ASHRAE, NATURAL GAS INSTALLATION STANDARD CSA-B149.1 AND LOCAL CODES, STANDARDS AND BY-LAWS.
4. REGULATIONS, PERMITS, FEES, CONNECTION CHARGES AND CERTIFICATES
 - 1. ALL MATERIALS AND WORKMANSHIP SHALL MEET ALL PROVINCIAL BUILDING, MUNICIPAL, N.F.P.A., AND FIRE MARSHALL REGULATIONS, CODES AND BYLAWS IN FORCE IN THE AREA OF THE PROJECT.
 - 2. EACH CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY FOR ALL FEES AND CONNECTION CHARGES PROVIDED BY THIS DIVISION.
5. COOPERATION OF TRADES
 - 1. READ SPECIFICATIONS AND DRAWINGS OF OTHER TRADES AND CONFORM WITH THEIR REQUIREMENTS BEFORE PROCEEDING WITH ANY WORK SPECIFIED IN THIS DIVISION RELATED TO OTHER TRADES.
6. DRAWINGS
 - 1. CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE MECHANICAL SYSTEMS AND WORK INCLUDED IN THE CONTRACT.
 - 2. WHERE THE EXACT LOCATIONS OF FIXTURES AND EQUIPMENT ARE NOT DEFINITELY ESTABLISHED, THE CONTRACTOR SHALL OBTAIN THIS INFORMATION FROM THE OWNER AND ENGINEER.
7. REMOVAL OF EXISTING EQUIPMENT
 - 1. EXAMINE THE EXISTING BUILDING AND INCLUDE IN TENDER PRICE ALL NECESSARY ALLOWANCES TO REMOVE EXISTING EQUIPMENT AS DETAILED ON DRAWINGS AND AS DIRECTED BY THE GENERAL CONTRACTOR.
 - 2. MATERIALS REMOVED BY THIS DIVISION SHALL BECOME CONTRACTOR'S PROPERTY AND BE REMOVED FROM WORK SITE, PROVIDED:
 - 1. THE ITEMS HAVE BEEN INSPECTED BY THE OWNER AND GENERAL CONTRACTOR AND RELEASED FOR REMOVAL.
 - 2. ITEMS HAVE NOT BEEN DESIGNATED FOR REUSE IN OTHER SECTIONS OF SPECIFICATIONS OR DRAWINGS.
8. ALTERATION TO EXISTING SYSTEMS
 - 1. PRIOR TO REMOVAL AND ALTERATION OF THE EXISTING SYSTEMS, THE CONTRACTOR SHALL IDENTIFY TO THE ENGINEER AT WHICH SECTIONS OF THE EXISTING MECHANICAL EQUIPMENT, PIPING AND DUCTWORK SHALL BE CUT BACK AND REMOVED.
 - 2. RELOCATE EXISTING MECHANICAL EQUIPMENT AND APPURTENANCES AS SPECIFICALLY INDICATED ON DRAWINGS OR SPECIFIED AND AS REQUIRED TO SUIT ALTERATION WORK. CLEAN RELOCATED EQUIPMENT AND INSTALL IN NEW LOCATION, IN A NEAT ORDERLY MANNER WITH SAME ATTENTION AS GIVEN TO NEW EQUIPMENT. WHERE EXISTING MATERIAL OR EQUIPMENT IS NO LONGER REQUIRED, SHALL BE CUT BACK AND MAKE GOOD TO SATISFACTION OF THE ENGINEER. WHEN EXISTING MATERIAL OR EQUIPMENT IS DISCONNECTED OR DISASSEMBLED TO FACILITATE RELOCATION, REINSTALL AS ORIGINAL, INCLUDING AUXILIARY WORK, INSULATION, ELECTRICAL WORK ETC.
 - 3. WHERE EXISTING MATERIAL OR EQUIPMENT IS DAMAGED, MAKE GOOD TO THE SATISFACTION OF ENGINEER. IF IT IS FOUND IN AN UNSUITABLE CONDITION, NOTIFY ENGINEER FOR INSTRUCTIONS.
 - 4. OBTAIN WRITTEN AUTHORIZATION FROM ENGINEER FOR ALTERATION WORK THAT IS NOT SPECIFICALLY CALLED FOR OR CLEARLY INDICATED ON DRAWINGS.
9. PROTECTION OF OPENINGS
 - 1. PROTECT EQUIPMENT AND SYSTEMS OPENINGS FROM DIRT, DUST, AND OTHER FOREIGN MATERIALS.
 - 2. THIS CONTRACTOR SHALL PROTECT FINISHED AND UNFINISHED WORK OF HIS OWN AND OTHER SUBCONTRACTORS FROM DAMAGE DUE TO CARRYING OUT HIS WORK. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF ALL MATERIALS AND EQUIPMENT SUPPLIED UNDER THIS CONTRACT OR REMOVED FROM EXISTING BUILDING FOR REUSE AND SHALL PROVIDE ALL NECESSARY PROTECTION FOR SAME. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF THE WORK OF THIS SECTION, UNTIL THE BUILDING HAS BEEN COMPLETED AND ACCEPTED.
10. CUTTING AND PATCHING
 - 1. RESPONSIBILITY FOR CUTTING OF OPENINGS TO WALLS, FLOORS, ROOF AND ANY OTHER SURFACES IN THE STRUCTURE SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN ADDITION, RESPONSIBILITY FOR THE PATCHING AND FINISHING OF THESE SURFACES AND ASSEMBLIES SHALL ALSO BE COORDINATED WITH GENERAL CONTRACTOR. WORK SHALL BE PERFORMED BY THE EXPERT TRADE WHO SPECIALIZE IN THEIR WORK. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
 - 2. BEFORE CUTTING OF OPENINGS IN THE STRUCTURE, THE CONTRACTOR SHALL IDENTIFY TO THE STRUCTURAL ENGINEER AND THE OWNER'S REPRESENTATIVE AT WHICH SECTIONS OF THE BUILDING STRUCTURE ARE TO BE CUT BACK. THE CUTTING, PATCHING AND FINISHING OF THE ASSEMBLIES RESTRICTED BY THE WORK OF THIS DIVISION SHALL BE PERFORMED BY THE AFFECTED/EXPERT TRADE.
 - 3. UNDER NO CIRCUMSTANCES SHALL ANY CUTTING OR BURNING OF THE STRUCTURE BE UNDERTAKEN WITHOUT THE WRITTEN AUTHORITY OF THE ENGINEER.
11. EXCAVATING, BACKFILLING, COMPACTING AND FLOOR CEMENTING
 - 1. RESPONSIBILITY FOR EXCAVATING, BACKFILLING AND COMPACTING FOR PLUMBING PIPES AND DRAINS PROVIDED BY THIS DIVISION SHALL BE COORDINATED WITH GENERAL CONTRACTOR. ALL BACKFILLING SHALL BE NEW CLEAN GRANULAR FILL BROUGHT IN SPECIFICALLY FOR THE PURPOSE OF BACKFILLING. ALL BACKFILLING SHALL BE COMPACTED AT INTERVALS OF NOT MORE THAN 4" LAYERS TO THE SATISFACTION OF THE ENGINEER. RESPONSIBILITY FOR FLOOR CEMENTING SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
12. EQUIPMENT INSTALLATION
 - 1. ALL EQUIPMENT, FIXTURES, PIPES, INSULATION AND ASSOCIATED APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - 2. SPACE FOR SERVICE AND DISASSEMBLY REMOVE AS RECOMMENDED BY MANUFACTURER OR AS INDICATED.
 - 3. CONTROL PANELS, ELECTRICAL PANELS AND WIRING TERMINATION POINTS PROVIDE MINIMUM 40" CLEARANCE.
 - 4. EQUIPMENT DRAINS: PIPE TO FLOOR DRAINS.
13. ROOF CONES AND PIPES
 - 1. ROOF CONES FOR PIPES AND ROUND DUCTS PENETRATING ROOF SHALL BE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR.
 - 2. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO SEE THAT ACCEPTABLE FLASHING ARE INSTALLED WHERE NECESSARY FOR THE WORK OF HIS TRADE. COUNTER FLASHING IS BY ROOFING CONTRACTOR AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.
14. SLEEVES
 - 1. THIS CONTRACTOR SHALL SUPPLY AND INSTALL SUITABLE SLEEVES FOR PIPING AND DUCTWORK PENETRATIONS TO THE BUILDING STRUCTURE.
 - 2. PIPE SLEEVES: INSTALL AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR U.L.C. FIRE RATED ASSEMBLIES AND AS INDICATED.
 - 3. SCHEDULE 40 STEEL PIPE.
 - 4. SLEEVES WITH ANNUAL FIN CONTINUOUSLY WELDED AT MIDPOINT.
 - 5. SIZES: 1/4" CLEARANCE ALL AROUND, BETWEEN SLEEVE AND NON-INSULATED PIPE OR BETWEEN SLEEVE AND INSULATION.
 - 6. TERMINATE SLEEVES FLUSH WITH SURFACE OF CONCRETE AND MASONRY WALLS AND CONCRETE FLOORS ON GRADE IN FINISHED AREAS.
 - 7. FILL VOIDS AROUND PIPES:
 - 1. WHERE SLEEVES PASS THROUGH WALLS, PROVIDE SPACE FOR FIRE STOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY.
 - 2. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE.
 - 3. FILL FUTURE-USE SLEEVES WITH LINE PLASTER OR OTHER EASILY REMOVABLE FILLER.
 - 4. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT.
15. PREPARATION FOR FIRE STOPPING
 - 1. FIRE STOPPING MATERIALS AND INSTALLATION WITH ANNULAR SPACE BETWEEN PIPES, DUCTS, INSULATION AND ADJACENT FIRE SEPARATION: TO THE APPROVAL OF THE ENGINEER.
 - 2. UNINSULATED UNHEATED PIPES NOT SUBJECT TO MOVEMENT: NO SPECIAL PREPARATION.
 - 3. UNINSULATED HEATED PIPES SUBJECT TO MOVEMENT: WRAP WITH NON-COMBUSTIBLE SMOOTH MATERIAL TO PERMIT PIPE TO MOVE WITHOUT DAMAGING FIRE STOPPING.
 - 4. INSULATED PIPES AND DUCTS: ENSURE INTEGRITY OF INSULATION AND VAPOUR BARRIER AT FIRE SEPARATION.
16. ESCUTCHEONS
 - 1. PROVIDE ON EXPOSED PIPES PASSING THROUGH WALLS, PARTITIONS, FLOORS AND CEILINGS ON FINISHED AREAS.
 - 2. CHROME OR NICKEL PLATED BRASS OR TYPE 302 STAINLESS STEEL, SPLIT PEECE TYPE WITH SET SCREWS.
 - 3. OUTSIDE DIAMETER TO COVER OPENING OR SLEEVE.
 - 4. INSIDE DIAMETER TO FIT AROUND FINISHED PIPE.
 - 5. SECURE TO PIPE OR FINISHED SURFACE BUT NOT INSULATION.
17. TESTS
 - 1. INSULATE OR CONCEAL WORK ONLY AFTER TESTING AND APPROVAL BY ENGINEER.
 - 2. BEAR ALL COSTS IN CONNECTION WITH ALL TESTS, INCLUDING REPAIRING LEAKS RETESTING AND MAKING GOOD.
 - 3. PRIOR TO TESTS, ISOLATE ALL EQUIPMENT AND OTHER PARTS WHICH ARE NOT DESIGNED TO WITHSTAND TEST PRESSURES OR TEST MEDIUM.
 - 4. PROVIDE CERTIFICATES INDICATING RESULTS OF ALL TESTS INCLUDING TEST LOGS.
 - 5. PIPING:
 - 1. PLUMBING LINES SHALL BE TESTED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
18. PIPE FLUSHING AND CLEANING
 - 1. AFTER PRESSURE TESTS ARE COMPLETED AND APPROVED, PRIOR TO START-UP AND PLACING INTO OPERATION, FLUSH AND CLEAN OUT ALL PIPING SYSTEMS.
 - 2. FOR DOMESTIC WATER SYSTEM, CLEAN AS PER ONTARIO BUILDING CODE AND LOCAL REQUIREMENTS.
19. ACCESS DOORS
 - 1. SUPPLY ACCESS DOORS TO CONCEALED MECHANICAL EQUIPMENT FOR OPERATING, INSPECTING, ADJUSTING AND SERVICING.
 - 2. ACCESS DOORS REQUIRED IN LISTED FIRE SEPARATION SHALL BEAR A ULC LABEL TO MATCH WALL CLASSIFICATION.
20. ELECTRIC COUPLINGS
 - 1. PROVIDE WHERE PIPES OF DISSIMILAR METALS ARE JOINED. SHALL BE COMPATIBLE WITH AND TO SUIT PRESSURE RATING OF PIPING SYSTEM.
 - 2. PIPES NPS 2 AND UNDER SHALL BE WITH ISOLATING UNIONS. PIPES NPS 2 1/2 AND OVER SHALL BE ISOLATING FLANGES.
 - 3. PROVIDE FELT OR RUBBER GASKET TO PREVENT DISSIMILAR METALS CONTACT.
21. DRAIN VALVES
 - 1. LOCATE AT LOW POINTS AND AT SECTION ISOLATING VALVES UNLESS OTHERWISE SPECIFIED.
 - 2. MINIMUM NPS 3/4 UNLESS OTHERWISE SPECIFIED; BRONZE, WITH HOSE END MALE THREAD.
22. EQUIPMENT SUPPORTS
 - 1. EQUIPMENT SUPPORTS NOT SUPPLIED BY EQUIPMENT MANUFACTURER SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL.
 - 2. RESPONSIBILITY FOR ROOFING AND REINFORCING OF ROOF FOR MECHANICAL EQUIPMENT SUPPORT SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
23. PIPE HANGERS AND SUPPORTS
 - 1. PROVIDE UPPER ATTACHMENTS, MIDDLE ATTACHMENT ROD, PIPE ATTACHMENT, RISER CLAMPS, SADDLES, SHIELDS AND OTHER DEVICES. RIGID, SWING OR ANY OTHER HANGER SYSTEM SHALL BE SUITABLE FOR THE APPLICATION AND TAKE INTO ACCOUNT ATTACHMENT IN AREAS MADE OF CONCRETE SLAB, STEEL BEAM, WOOD JOISTS AND STEEL JOISTS AND FOR EXPANSION OF PIPING.
 - 2. HANGER SPACING AND MIDDLE ATTACHMENT (ROD) DIAMETER AS PER REGULATORY AUTHORITIES AND MANUFACTURER'S RECOMMENDATIONS.
 - 3. INSTALL HANGER SO THAT ROD IS VERTICAL UNDER OPERATING CONDITIONS. ADJUST HANGERS TO EQUALIZE LOAD. SUPPORT FROM STRUCTURAL MEMBERS. WHERE STRUCTURAL BEARING DOES NOT EXIST OR INSERTS ARE NOT IN SUITABLE LOCATIONS, PROVIDE SUPPLEMENTARY STRUCTURAL STEEL MEMBERS.
 - 4. WHERE SUPPORTING COPPER PIPE, IT SHALL BE ISOLATED FROM ANY NON-COPPER HANGER WITH ELECTROLYTIC ACTION TAPE OR EQUIVALENT.
24. SHOP DRAWINGS AND PRODUCT DATA
 - 1. EQUIPMENT SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
 - 2. SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW:
 - 1. MOUNTING ARRANGEMENTS.
 - 2. OPERATING AND MAINTENANCE CLEARANCES, EG. ACCESS DOOR, SWING SPACES.
 - 3. TYPE, NAME, CATALOGUE NUMBERS, TECHNICAL PERFORMANCE DATA, WIRING DIAGRAMS ETC.
25. PAINTING
 - 1. APPLY AT LEAST ONE COAT OF CORROSION RESISTANT PRIMER PAINT TO FERROUS SUPPORTS AND SITE FABRICATED WORK.
 - 2. PRIME AND TOUCH UP MARKED FINISHED PAINT WORK TO MATCH ORIGINAL.
 - 3. RESTORE TO NEW CONDITION, FINISHES WHICH HAVE BEEN DAMAGED TO EXTENSIVELY TO BE MERELY PRIMED AND TOUCHED UP.
 - 4. AT AREAS WHERE CUTTING AND PATCHING HAS TAKEN PLACE, PAINTING OF THESE AREAS SHALL BE UNDERTAKEN BY THE AFFECTED (EXPERT) TRADE AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.
26. IDENTIFICATION
 - 1. IDENTIFY AND LABEL EQUIPMENT AND PIPEWORK SERVICES ON COMPLETION OF THE PROJECT.
 - 2. DOMESTIC WATER LINES SHALL SHOW SERVICE AND DIRECTION OF FLOW.
 - 3. EQUIPMENT, PANELS AND CABINETS: SYSTEM NAMEPLATES SHALL BE 1/8" THICK LAMINATED PLASTIC WITH LETTERS AND NUMBERS MACHINE ENGRAVED INTO CORE.
27. ELECTRICAL WORK
 - 1. ALL WIRING AND CONDUIT FOR POWER AND CONTROL SHALL BE BY ELECTRICAL DIVISION, EXCEPT FOR WIRING, CONDUIT AND CONNECTIONS BELOW 50V WHICH ARE RELATED TO AUTOMATIC CONTROL SYSTEMS SHALL BE BY MECHANICAL CONTRACTOR.
 - 2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR WRING AND TESTING OF ALL MECHANICAL EQUIPMENT.
28. CLEANING
 - 1. UPON COMPLETION AND IN PREPARATION FOR FINAL ACCEPTANCE, CONTRACTOR SHALL REMOVE PROTECTIVE COVERINGS, CLEAN AND REFURBISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, REPLACE FILTERS, CLEAN STRAINERS AND LEAVE IN OPERATING CONDITION. ALL SURPLUS AND WASTE MATERIAL SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
29. TRIAL USAGE
 - 1. OBTAIN WRITTEN PERMISSION FROM ENGINEER TO START AND TEST PERMANENT EQUIPMENT AND SYSTEMS TO ACCEPTANCE BY OWNER.
 - 2. ENGINEER AND OWNER MAY USE EQUIPMENT AND SYSTEMS FOR TEST PURPOSES PRIOR TO ACCEPTANCE. SUPPLY LABOUR, MATERIAL AND INSTRUMENTS REQUIRED FOR TESTING.
30. TESTING, ADJUSTING AND BALANCING (TAB)
 - 1. THIS OPERATION SHALL BE UNDERTAKEN BY A CONTRACTOR WHOSE PRINCIPAL BUSINESS IS THAT OF TESTING, ADJUSTING AND BALANCING. THIS CONTRACTOR IS TO CONDUCT ACCEPTANCE TESTS TO DEMONSTRATE THAT THE EQUIPMENT AND SYSTEMS ACTUALLY MEET THE SPECIFIED REQUIREMENTS. TESTS MAY BE CONDUCTED AS SOON AS CONDITIONS PERMIT. SUBMIT TAB REPORT TO ENGINEER FOR REVIEW.
 - 2. THE BALANCING CONTRACTOR SHALL BE AFFILIATED WITH ABC OR NEBB.
 - 3. THIS CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL "TAB" DEVICES, EQUIPMENT, ACCESSORIES, MEASUREMENT PORT AND FITTINGS. ALL NECESSARY TEST PORTS FOR HYDRONIC SYSTEM SHALL BE PROVIDED TO THE MECHANICAL CONTRACTOR FOR INSTALLATION. OPERATE SYSTEMS FOR LENGTH OF TIME REQUIRED FOR TAB. SUBMIT "TAB" REPORT TO ENGINEER FOR VERIFICATION. "TAB" SHALL BE CARRIED OUT FOR THE FOLLOWING SYSTEMS:
 - 1. ALL AIRFLWS WHERE INDICATED.
31. DEMONSTRATION, OPERATION AND MAINTENANCE INSTRUCTIONS
 - 1. SUPPLY TOOLS, EQUIPMENT AND PERSONNEL TO DEMONSTRATE AND INSTRUCT CLIENT'S REPRESENTATIVE DURING REGULAR WORK HOURS AND PRIOR TO ACCEPTANCE IN OPERATING, CONTROLLING, AND ADJUSTING OF ALL SYSTEMS AND EQUIPMENT.
32. OPERATION AND MAINTENANCE MANUAL
 - 1. PROVIDE OPERATION AND MAINTENANCE DATA FOR INCORPORATION INTO MANUAL.
 - 2. OPERATION AND MAINTENANCE MANUAL TO BE APPROVED BY AND FINAL COPIES DEPOSITED WITH ENGINEER BEFORE FINAL INSPECTION.
33. RECORD DRAWINGS
 - 1. SITE RECORDS:
 - 1. ON ONE SET OF AUTOCAD MECHANICAL DRAWINGS, MARK ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR.
 - 2. MAKE AVAILABLE FOR REFERENCE PURPOSES AND INSPECTION AT ALL TIMES.
 - 2. AS-BUILT DRAWINGS:
 - 1. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 1/2" HIGH AS FOLLOWS: "AS BUILT DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW MECHANICAL SYSTEMS AS INSTALLED" (SIGNATURE OF CONTRACTOR) (DATE).
 - 2. SUBMIT TO ENGINEER FOR APPROVAL AND MAKE CORRECTIONS AS DIRECTED.
 - 3. SUBMIT COMPLETED REPRODUCIBLE AS-BUILT DRAWINGS WITH OPERATING AND MAINTENANCE MANUALS.
34. GUARANTEE
 - 1. PROVIDE A WRITTEN GUARANTEE TO COVER ALL MATERIALS AND INSTALLATION OF THE COMPLETE MECHANICAL SYSTEMS. THIS GUARANTEE SHALL EXTEND FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
 - 2. SPECIFIC GUARANTEE OF MANUFACTURERS WHOSE WARRANTY NORMALLY EXTENDS OVER LONGER OR SHORTER PERIODS THAN ONE YEAR, SHALL IN NO WAY LIMIT THE GUARANTEE OF THE MECHANICAL WORK.
 - 3. ANY DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD SHALL BE REPAIRED/REPLACED AT NO COST TO THE OWNER.
 - 4. WHERE PERMANENT EQUIPMENT IS USED TO PROVIDE TEMPORARY SERVICES, THE WARRANTY SHALL BE EXTENDED SO THAT THE WARRANTY PERIOD DOES NOT COMMENCE UNTIL THE CERTIFICATE OF SUBSTANTIAL COMPLETION IS ISSUED.

PLUMBING GENERAL NOTES FOR INSTALLATION

1. DOMESTIC WATER PIPING WITHIN THE BUILDING:
 - 1. ABOVE GROUND SHALL BE SEAMLESS COPPER WATER TUBE, TYPE L WITH SOLDERED JOINTS.
 - 2. BELOW GROUND SHALL BE PVC-SDR35 (8 IN. AND SMALLER), PVC-SDR28 (6 IN. AND SMALLER), ABS-DWW OR PVC-DWW WITH SOLVENT WELD FITTINGS.
 - 3. ABOVE GROUND UP TO 2-1/2" DIA. SHALL BE PVC-DWW ULC APPROVED WITH SOLVENT WELD FITTINGS OR COPPER DWV WITH WROUGHT COPPER FITTINGS.
 - 4. ABOVE GROUND FOR 3" AND OVER SHALL BE PVC-DWW, ULC APPROVED WITH SOLVENT WELD FITTINGS OR CAST IRON WITH MECHANICAL JOINTS, NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS AND STAINLESS STEEL CLAMPS.
 - 5. IN A RETURN AIR PLENUM USE FULLY CERTIFIED FIRE-RESISTANT PVC-DWW PIPE SUCH AS IPX SYSTEM XFR 15-50. COORDINATE WITH ARCHITECTURAL AND HVAC DRAWINGS TO CLARIFY AREAS WITH RETURN AIR PLENUM.
 - 6. COMBUSTIBLE PIPE SHALL NOT BE INSTALLED IN A VERTICAL SERVICE SHAFT.
 - 7. WHERE PLASTIC PIPE CROSSES A FIRE SEPARATION IT SHALL BE FITTED WITH APPROVED FIRE STOP DEVICES.
 - 8. INSTALL PLUMBING VENT LINES AS PER OBS PART 7. DISTRIBUTION AND SIZING SHALL BE BY PLUMBING CONTRACTOR.
 - 9. FOR ALL PIPE PENETRATIONS, VOIDS AROUND PIPES SHALL BE SEALED AND CAULKED TO KEEP REQUIRED INTEGRITY.
 - 10. INSTALL PIPE CLEANOUTS FOR SANITARY DRAINAGE LINES.
2. PIPING INSULATION
 - 1. PREFORMED SECTIONAL RIGID FIBREGLASS PIPE INSULATION WITH VAPOUR BARRIER JACKET AND FACING MATERIAL 0-850 DEG.F. SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
 - 1. APPLICATION:
 - 1. DOMESTIC COLD AND HOT WATER, HOT WATER RECIRCULATION LINE SHALL BE INSULATED THROUGHOUT IN ALL LOCATIONS.
 - 2. THICKNESS AND THERMAL CONDUCTIVITY AS PER FOLLOWING: RUNOUTS REFERS TO INDIVIDUAL PLUMBING FIXTURES OR TERMINAL UNITS NOT EXCEEDING 12FT.
 - 3. DOMESTIC COLD AND HOT WATER AND HOT WATER RECIRCULATION LINES:
 - 1. INSULATION THERMAL CONDUCTIVITY 0.24-0.28 BTU/IN.(H.F.T2F) AT 100 DEG. F MEAN TEMP. RATING. NOMINAL PIPE DIAMETER UP TO 2 IN., INSULATION THICKNESS SHALL BE 1 IN. RUNOUTS UP TO 2 IN. NOMINAL PIPE SIZE, THICKNESS SHALL BE 1/2 IN.
 - 2. FASTENINGS:
 - 1. SELF ADHESIVE ALUMINUM TAPE ULC LABELLED.
 - 2. LAP SEAL ADHESIVE, QUICK SETTING FOR JOINTS AND LAP SEALING OF VAPOUR BARRIERS.
 - 3. LAGGING ADHESIVE FIRE RETARDANT COATING.
3. ALL INSULATED EXPOSED PLUMBING PIPES RUNNING INSIDE THE BUILDING SHALL BE ENTIRELY INSTALLED WITH WHITE PVC JACKETING, UV-RESISTANT WITH MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
4. WHERE SUPPORTING COPPER PIPE, IT SHALL BE ISOLATED FROM ANY NON-COPPER HANGER WITH ELECTROLYTIC ACTION TAPE OR EQUIVALENT.
5. INSTALL VALVED SUPPLIES AT ALL PLUMBING FIXTURES.
6. INSTALL TRAP SEAL PRIMER FOR FLOOR DRAINS AND HUB DRAINS ON COLD WATER SUPPLY TO NEAREST FREQUENTLY USED PLUMBING FIXTURE OR TO A TRAP SEAL PRIMER. INSTALL SOFT COPPER TUBING OR FLEX PIPE TO FLOOR DRAIN AND HUB DRAIN.
7. FOR ACCESSIBLE LAVATORY INSULATE SANITARY AND HOT WATER PIPE WITH 1 IN. THICKNESS OF INSULATION. NOT REQUIRED IF KNEE CONTACT GUARD IS INSTALLED.
8. INSTALL WATER HAMMER ARRESTORS ON BRANCH LINES TO EACH FIXTURE OR GROUP OF FIXTURES HAVING A QUICK CLOSING DEVICE OR SOLENOID OR HOSE BIB.
9. INSTALL BACK FLOW PREVENTER WHERE THERE IS A HEALTH HAZARD POTENTIAL FOR POTABLE WATER SYSTEM AND AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT.
10. FOR THE REMOVAL AND REWORKING OF EXISTING DOMESTIC WATER LINES AND HYDRONIC HEATING LINES, THIS SHALL BE CARRIED OUT BY FREEZING EXISTING RESPECTIVE LINES.

HVAC GENERAL NOTES FOR INSTALLATION

1. UNLESS OTHERWISE NOTED ALL DUCTWORK AND DUCTWORK ACCESSORIES SHALL BE GALVANIZED STEEL LOW PRESSURE. DUCTWORK CONSTRUCTION AND INSTALLATION SHALL BE AS PER THE REQUIREMENTS OF SMACNA.
2. ALL DUCTWORK TRANSVERSE JOINTS AND CONNECTIONS SHALL BE SEALED.
3. FLEXIBLE DUCT LENGTH SHALL BE LIMITED TO 8FT. MAXIMUM AND SHALL BE FACTORY FABRICATED TO CAN/ULC S110 SHALL BE ALUMINUM FOIL REINFORCED FLM LAMINATE, PERMANENTLY BONDED TO A CORROSION RESISTANT COATED SPRING STEEL WIRE HELIX. WHERE IT IS REQUIRED TO BE INSULATED, IT SHALL BE INSULATED AS PER R-VALUE SPECIFIED BELOW.
4. DUCTWORK SHALL BE INSULATED AS FOLLOWS. ALL INSULATION SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
 - 1. SUPPLY AIR DUCTS LOCATED INSIDE THE BUILDING ENVELOPE IN CEILING SPACES AND BULKHEADS NOT USED AS RETURN AIR PLENUM OR IN UNHEATED OR NOT AIRCONDITIONED SPACES SHALL BE INSULATED WITH 1-1/2 IN. THICKNESS OF FLEXIBLE DUCTWRAP INSULATION WITH REINFORCED FOIL/KRAFT VAPOUR BARRIER RETARDER FACING, DENSITY 0.75 PCF AND NOMINAL R-VALUE OF 5.0 H.F.T2F/8TU.
 - 2. FASTENINGS:
 - 1. SELF ADHESIVE ALUMINUM TAPE ULC LABELLED.
 - 2. LAP SEAL ADHESIVE, QUICK SETTING FOR JOINTS AND LAP SEALING OF VAPOUR BARRIERS.
 - 3. CONTACT ADHESIVE QUICK SETTING.
5. FOR DUCT PENETRATIONS AT WALL, VOIDS AROUND DUCT SHALL BE SEALED AND CAULKED TO MAINTAIN REQUIRED INTEGRITY.

PLUMBING FIXTURES AND EQUIPMENT SCHEDULE

- WC1 WATER CLOSET, WALL MOUNTED, FLUSH VALVE TYPE, TOP SPUD, LOW CONSUMPTION 1.3 IMP. G (6 LPT), ELONGATED BOWL WHITE FINISH, AMERICAN STANDARD 3351101 AFWALL, EVERCLEAN TYPE. TOILET SEAT OPEN FRONT TYPE LESS COVER CEN10C0 500CCSSS, WHITE FINISH. FLUSH VALVE FACTORY SET FOR 1.3 I.G., DELTA 817201 TOP INLET (11.5" OUTLET TUBE).
- WC2 WATER CLOSET, BARRIER-FREE, WALL MOUNTED, FLUSH VALVE TYPE, TOP SPUD, LOW CONSUMPTION 1.3 IMP. G (6 LPT), ELONGATED BOWL WHITE FINISH, AMERICAN STANDARD 3351101 AFWALL, EVERCLEAN TYPE. TOILET SEAT OPEN FRONT TYPE WITH COVER CEN10C0 202ST, WHITE FINISH. FLUSH VALVE FACTORY SET FOR 1.3 I.G., DELTA 817201 TOP INLET (11.5" OUTLET TUBE). TOILET SEAT BE LOCATED NOT LESS THAN 430 MM AND NOT MORE THAN 485MM ABOVE THE FLOOR.
- V1 VANITY COUNTERTOP BASIN, OVAL TYPE, AMERICAN STANDARD 0419 444EC CADET EVERCLEAN, FAUCET HOLES ON 4" CENTRES, WHITE FINISH. TWO HANDLE FAUCET SET DELTA 211133 WITH OPEN GRID STRAINER. COMPLETE WITH CHROME PLATED P-TRAP AND FLEX SUPPLIES WITH SCREWDRIVER LOCKSHIELD STRUCTURE.
- V2 VANITY COUNTERTOP BASIN, BARRIER-FREE, VITREOUS CHINA, AMERICAN STANDARD 9494 001 CADET UNIVERSAL ACCESS, FAUCET HOLES ON 4" CENTRES, WHITE FINISH. TWO HANDLE METERING FAUCET SET DELTA 861093 WITH OPEN GRID STRAINER. OFFSET P.O. PLUG, CHROME PLATED P-TRAP AND FLEX SUPPLIES WITH SCREWDRIVER LOCKSHIELD STRUCTURE. MOUNTING HEIGHT AND CLEARANCES BELOW THE BASIN SHALL COMPLY AS PER D.B.C. 3.8.3.11. INSTALL WITH MECHANICAL MIXING VALVE.
- FD1 FLOOR DRAIN FOR NON-MEMBRANE FINISHED FLOOR, WATTS FD-200-7, C/W TRAP PRIMER TAPPING, 1/2 IN. THK. x 5 IN. DIA. NICKEL BRONZE STRAINER.

HVAC EQUIPMENT SCHEDULE

- DIFUSERS, GRILLES AND REGISTERS BY E.H. PRICE UNLESS OTHERWISE INDICATED. COLOUR TO BE FINALIZED ON SITE WITH ARCHITECT.
- REF. EGI: EXHAUST GRILLE, 5102/F/A WITH VOLUME DAMPER

2	JAN.24/25	ISSUED FOR TENDER
1	DEC.16/24	ISSUED FOR PERMIT
NO.	DATE	REVISION
DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR DURING THE COURSE OF WORK.		
CoPa ENGINEERING LTD.		
		
29 ROLLING ACRES DR. KITCHENER, ONTARIO N2A 3W5 TEL. (519) 894-0022		
PROJECT ORCHARD PARK SECONDARY SCHOOL Corridor Ceiling and Accessibility Renovations 200 DEWITT ROAD STONEY CREEK ONTARIO		
DRAWING STAFF AND BARRIER-FREE WASHROOM MECHANICAL INSTALLATION AND EQUIPMENT SCHEDULES		
DRAWN BY: C. P.		SCALE: AS NOTED
CHECKED BY: C. PASHARTIS		DATE: DECEMBER 19, 2024
PROJECT NO. 24CP059		DRAWING NO. M2-1

ELECTRICAL SPECIFICATION

GENERAL CONDITIONS

- THE CANADIAN STANDARD FORM OF CONSTRUCTION CONTRACT AND GENERAL CONDITIONS GOVERNING THE SAME CCDC PARTS 1 TO 12 INCLUSIVE ARE HEREBY MADE PART OF THIS SPECIFICATION.
- ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE 2021 ONTARIO ELECTRICAL SAFETY CODE, ELECTRICAL SAFETY AUTHORITY (ESA), AND THE LOCAL BUILDING INSPECTION DEPARTMENT REQUIREMENTS.
- ELECTRICAL CONTRACTOR SHALL INCLUDE FOR ESA INSPECTION FEES.
- THIS CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE AS REQUIRED.
- ALL WORKMANSHIP SHALL BE EXECUTED TO A STANDARD DETERMINED BY GOOD PRACTICE. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE EQUIPMENT & INSTALLATION FOR ONE YEAR FROM SUBSTANTIAL COMPLETION.
- THE ELECTRICAL CONTRACTOR SHALL SUBMIT ONE SET OF ELECTRONIC PDF SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW. SHOP DRAWINGS TO INCLUDE ALL ELECTRICAL EQUIPMENT, DEVICES & ULC LISTED FIRE STOPPING DETAILS. MATERIALS **SHALL NOT BE ORDERED** UNTIL REVIEW HAS BEEN COMPLETED. APPROVAL IS FOR GENERAL DESIGN COMPLIANCE ONLY.
- THE OWNERS RESERVE THE RIGHT TO ALTER THE LOCATION OF ANY ITEM UP TO TEN FEET (3m) WITHOUT INCURRING EXTRA COSTS, PROVIDED THE REQUEST IS MADE PRIOR TO INSTALLATION.
- ALL MATERIAL AND EQUIPMENT USED ON THIS PROJECT SHALL BE C.S.A. APPROVED, ESA FIELD EVALUATED, OR MUST BEAR AN ESA RECOGNIZED CERTIFICATION MARK.
- CUTTING AND PATCHING FOR ELECTRICAL WORK SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE EXISTING CONDITIONS AND THEN MAKE NECESSARY ALLOWANCES IN THEIR TENDER PRICE FOR REMOVAL, RELOCATION, REROUTING AND/OR RECONNECTION OF EXISTING ELECTRICAL EQUIPMENT AND WIRING, AS MAY BE NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS PROJECT. EXTRA CHARGES FOR PREMIUM TIME LABOUR SHALL BE INCLUDED IN THE TENDER PRICE, ALLOWING FOR AFTER HOURS, WEEKEND AND HOLIDAY LABOUR REQUIREMENTS.
- THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR CONTRADICTIONS SHALL BE BROUGHT TO THE CONSULTANT'S ATTENTION.
- THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT **IS TO BE CONFIRMED** WITH MECHANICAL DRAWINGS & SCHEDULES PRIOR TO RELATED WORK.
- ALL TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION SHALL BE BY THE GENERAL CONTRACTOR AFTER AGREEMENT WITH THE ELECTRICAL CONTRACTOR. POWER SHALL BE PROVIDED FROM PANELS WITH REQUIRED SUPPLY AND CAPACITY.
- TENDER SHALL BE BASED UPON THE SPECIFIED EQUIPMENT AND MATERIAL. REQUESTS FOR CONSIDERATION OF ALTERNATES TO THE SPECIFIED MATERIALS SHALL BE MADE TO THE CONSULTANT ONE WEEK PRIOR TO TENDER CLOSING AND SHALL INCLUDE MANUFACTURER, MODEL, AND COST MODIFICATION. COSTS OF ANY CHANGE REQUIRED TO OTHER TRADES AS A RESULT OF USING ALTERNATE EQUIPMENT ARE TO BE INCURRED BY THE ELECTRICAL CONTRACTOR.
- ALL CLAIMS FOR EXTRA WORK NOT COVERED IN THE CONTRACT TO BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIALS AND LABOUR.
- DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.
- PROVIDE FIRE STOPPING PROTECTION FOR OPENINGS THROUGH ALL FIRE RATED ASSEMBLIES. ULC LISTED ASSEMBLY NUMBERS ARE TO BE USED.
- LOW VOLTAGE CABLES (IE: NETWORK, SECURITY, CONTROL, ETC...) ROUTED WITHIN PLENUM SPACES SHALL BE FT6, CMP OR PLENUM RATED WHEN ROUTING THROUGH MECHANICAL CEILING PLENUMS.

MOUNTING HEIGHTS

- DEVICE MOUNTING HEIGHT TO CENTRE OF DEVICE IS AS FOLLOWS:
 - LIGHT SWITCHES 1090mm (or 1200mm IN SERVICE ROOMS)
 - RECEPTACLE 400mm
 - THERMOSTATS 1400mm (or 1200mm BARRIER FREE PATH OF TRAVEL)
 - POWER DOOR OPERATORS 1000mm
 - FIRE ALARM BELL/HORN 2300mm
 - FIRE ALARM HORN/STROBE 2300mm
 - FIRE ALARM MANUAL PULL STATION 1150mm
 - FIRE ALARM END OF LINE RESISTORS 1700mm
 - UNIVERSAL WASHROOM CONTROL 1000mm
 - UNIVERSAL WASHROOM AUDIBLE/VISUAL 2300mm
 - OTHER BUILDING CONTROLS 1000mm
- NOTE: AUDIBLE FIRE ALARM DEVICES TO BE AT LEAST 150mm BELOW CEILING.

COMMUNICATION SYSTEM

- THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE EMPTY CONDUIT SYSTEM FOR COMMUNICATION OUTLETS AS SHOWN ON THE PLANS.
- PROVIDE CONDUIT AS PER LOW-VOLTAGE DEVICE SCHEDULE. CONDUIT TO BE METALLIC CONDUIT & FIRE STOPPED WHEN PENETRATING FIRE SEPARATIONS.
- PROVIDE NYLON PULL STRING IN ALL EMPTY CONDUITS.

LIGHTING

- SUPPLY AND INSTALL LIGHTING FIXTURES AND DEVICES AS NOTED ON THE PLANS AS PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
- INSTALL ALL FIXTURES PARALLEL WITH BUILDING LINES UNLESS INDICATED OTHERWISE.
- FOR RECESSED FIXTURES (LED PUCK LIGHTS EXEMPTED) WITHIN SUSPENDED CEILINGS, PROVIDE EITHER:
 - SAFETY 'JACK CHAIN' TO BUILDING STRUCTURE, OR
 - MANUFACTURER APPROVED FASTENING DEVICES OR 'EARTHQUAKE CLIPS' FASTENED TO T-BAR.
- INSTALL A SEPARATE NEUTRAL CONDUCTOR FOR EACH LIGHTING BRANCH CIRCUIT.
- LIGHTING CONTROL WIRING NOT RUN WITHIN CONDUIT SHALL BE PLENUM RATED (FT6).

FIRE ALARM

- GENERAL:
- FIRE ALARM WIRING SHALL BE MINIMUM #18 AWG 300V FAS CABLE (WIRING TO BE SIZED BY FIRE ALARM VENDOR FOR VOLTAGE DROP) RUN AS FOLLOWS:
 - EXPOSED WALL: SURFACE WALL WIRING SHALL BE FAS WIRING IN SURFACE METAL WIREMOLD PAINTED TO MATCH WALL WHERE WIRING AND CONDUIT CANNOT BE RECESSED.
 - ACCESSIBLE CEILING SPACES, CONCEALED SPACES, FINAL DEVICE CONNECTIONS: ARMoured FAS CABLE
 - EXPOSED CEILING, RISER CLOSETS, SERVICE ROOMS: FAS WIRING IN EMT CONDUIT.
 - BELOW GRADE: FAS WIRING IN CONCRETE ENCASED PVC CONDUIT.
 - COMMISSIONING OF LIFE SAFETY SYSTEMS **SHALL BE INCLUDED** IN ELECTRICAL CONTRACTORS PRICE.
 - FIRE ALARM SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH CAN/ULC-5524-14, "INSTALLATION OF FIRE ALARM SYSTEMS".
 - FIRE ALARM SYSTEM SHALL BE VERIFIED IN CONFORMANCE WITH CAN/ULC-5537-13, "VERIFICATION OF FIRE ALARM SYSTEMS" BY A THIRD PARTY (ARMS LENGTH).
 - IF A FIRE ALARM OR VOICE COMMUNICATION SYSTEM OR ANY PART THEREOF IS SHUT DOWN:
 - THE **FIRE DEPARTMENT AND BUILDING OCCUPANTS** SHALL BE NOTIFIED, AND
 - IF APPLICABLE THE SUPERVISORY STAFF SHALL BE NOTIFIED, AND
 - POST NOTICES ON ALL FLOORS BY ELEVATORS AND AT ENTRANCES, STATING THE SCOPE OF WORK AND WHEN IT IS EXPECTED TO BE COMPLETED.
 - HAVE STAFF OR OTHER RELIABLE PERSON(S) PATROL THE AFFECTED AREA(S) AT LEAST ONCE EVERY HOUR. REFER TO CAN/ULC-5537-13(18) APPENDIX B - ALTERNATE MEASURES FOR OCCUPANT FIRE SAFETY.
 - WHERE EXISTING, UNLESS NOTED OTHERWISE, FIRE ALARM TO BE KEPT. THE ELECTRICAL CONTRACTOR TO INCLUDE ALL COSTS ASSOCIATED WITH RELOCATION OF ANY DEVICES OR EQUIPMENT.
 - EXISTING FIRE ALARM DEVICES TO REMAIN AND IN SOME CASES BE RELOCATED TO NEW CEILING IN SAME LOCATION.

EXISTING CONDITIONS

- ELECTRICAL WORK AFFECTING OTHER TENANTS SHALL BE PERFORMED AFTER BUSINESS HOURS (EVENINGS AND WEEKENDS), COORDINATE WITH LANDLORD.
- SERVICE AND DISTRIBUTION SYSTEM POWER INTERRUPTIONS SHALL BE KEPT TO A MINIMUM. POWER INTERRUPTIONS MUST BE COORDINATED WITH THE OWNER AND ALL OTHER TRADES BY THIS CONTRACTOR. WRITTEN APPROVAL FOR ELECTRICAL INTERRUPTIONS MUST BE RECEIVED FROM THE OWNER INDICATING THE DATE, TIME AND ESTIMATED DURATION OF THE INTERRUPTION. APPLICATION FOR APPROVAL OF THE POWER INTERRUPTIONS MUST BE SUBMITTED TO THE OWNERS AND/OR ARCHITECTS AT LEAST TWO WEEKS PRIOR TO THE REQUESTED SHUTDOWN DATE.
- EXISTING ELECTRICAL EQUIPMENT, REMOVED AND INDICATED FOR REUSE, SHALL BE CLEANED BEFORE RE-INSTALLATION.
- WIRING LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT FEEDING OUTLETS OR EQUIPMENT REQUIRED TO REMAIN IN SERVICE, MUST BE REWORKED IN ORDER TO MAINTAIN THE CONTINUITY OF THE EXISTING WIRING.
- REPAIRS TO EXISTING WALLS, FLOORS, AND CEILINGS ARE TO BE PERFORMED BY THE GENERAL CONTRACTOR TO MEET THE EXISTING CONDITIONS.
- SEQUENCE OF REMOVAL AND RELOCATION OF EXISTING EQUIPMENT AND WIRING SHALL BE COORDINATED WITH THE OTHER TRADES AND SHALL CONFORM TO THE REQUIREMENTS AND CONDITIONS OUTLINED.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO EXISTING WIRING AND EQUIPMENT THROUGHOUT THE PROJECT, PARTICULARLY WHERE WIRING AND ELECTRICAL EQUIPMENT HAVE BECOME EXPOSED TO MECHANICAL DAMAGE OR MOISTURE IN THE COURSE OF ALTERATIONS OR NEW CONSTRUCTION.
- NEW OUTLETS AND EQUIPMENT SHOWN IN THE SAME LOCATION AS EXISTING OUTLETS MAY BE FED THROUGH THE EXISTING CONDUITS/WIRING, PROVIDED THAT THEY ARE IN GOOD CONDITION AND ARE ACCEPTABLE TO THE ESA INSPECTION DEPARTMENT.

DEMOLITION

- ALL EXISTING ELECTRICAL EQUIPMENT, WIRING, AND ROUGH-IN DEVICES ARE TO BE REMOVED COMPLETE TO SUIT THE DEMOLITION AND RENOVATION OF THE SPACES. ALL EXISTING ELECTRICAL EQUIPMENT, NOT BEING REUSED, SHALL BECOME THE PROPERTY OF THE OWNER. ELECTRICAL CONTRACTOR SHALL PROPERLY DISPOSE OF EQUIPMENT NOT DESIRED BY OWNER .
- ALL DEVICES & EQUIPMENT MADE OBSOLETE SHALL BE REMOVED FROM THE CONSTRUCTION SITE.
- THE DEMOLITION PLANS SHOW THE MAJORITY OF DEMOLITION WORK INVOLVED. SOME DEVICES MAY HAVE INADVERTENTLY BEEN MISSED, OR WERE HIDDEN DURING THE SURVEY. CONTRACTOR TO ALSO INCLUDE THE FOLLOWING:
 - THREE (3) EXIT COMBINATION SIGNS
 - FIVE (5) LIGHTING FIXTURES
 - THREE (3) WALL LIGHTING CONTROLS
 - FIVE (5) NETWORK/SECURITY ITEMS, THAT WILL BE REWORKED ONTO NEW CEILING

GENERAL CLOSE OUT PROCEDURES

- DOCUMENTS:** ELECTRICAL CONTRACTOR TO SUBMIT:
 - FIRE ALARM SYSTEM ULC-5537-13 VERIFICATION REPORT (INCLUDING DEVICE & AUDIBILITY REPORT).
 - ESA CERTIFICATE OF INSPECTIONS;
 - SIGNED COPY OF EMERGENCY LIGHTING TEST REPORT. EMERGENCY LIGHTING TEST REPORT TO INDICATE TOTAL RUNTIME OF EMERGENCY LIGHTING ONCE NORMAL POWER IS LOST FOR EACH BATTERY SYSTEM. (MINIMUM 30MIN AS PER OBC:3.2.7.4(1b))
- TRAINING:** ELECTRICAL CONTRACTOR SHALL PROVIDE TRAINING SESSIONS TO THE OWNER ON ALL MAJOR ELECTRICAL SYSTEMS.
- COMMISSIONING:** ALL MAJOR SYSTEMS ARE TO BE COMMISSIONED BY THE MANUFACTURERS REPRESENTATIVE INCLUDING FIRE ALARM, LIGHTING CONTROL SYSTEMS.
- FUNCTIONAL TESTING** (AT CONTRACTORS EXPENSE):
 - LIGHTING CONTROL SYSTEM TESTING SHALL INCLUDE OCCUPANCY SENSOR PLACEMENT, SENSITIVITY, AND CONTROL SETTING CALIBRATION. PROPERLY OPERATING OCCUPANCY SENSORS ARE TO TURN OFF LIGHTS WITHIN A REASONABLE PERIOD OF TIME IN UNOCCUPIED SPACES AND SHALL NOT ALLOW LIGHTS TO TURN ON UNLESS SPACE IS OCCUPIED. CONFIRM ALL TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF. COORDINATE WITH MECHANICAL, HVAC SYSTEM TO BE ON DURING TESTING.
- RECORD DRAWINGS:** ELECTRICAL CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ACTUAL INSTALLATION TO OWNERS WITHIN 30 DAYS OF SYSTEM ACCEPTANCE. DRAWINGS ARE TO INCLUDE SINGLE LINE DIAGRAM OF DISTRIBUTION SYSTEM; FLOOR PLANS SHOWING THE LOCATION OF DISTRIBUTION EQUIPMENT AND THE AREAS SERVED BY THAT EQUIPMENT; CHANGES TO LIGHTING, LIGHTING CONTROLS & CIRCUITING.

INSPECTIONS BY CONSULTANT

- CONTRACTOR SHALL NOTIFY CONSULTANTS WHEN INSPECTIONS ARE REQUIRED. ALLOW FOR MINIMUM OF THREE BUSINESS DAYS OF NOTICE PRIOR TO INSPECTION.
- INSPECTIONS ARE REQUIRED AT THE FOLLOWING MILESTONES:
 - FINAL INSPECTION

All Sheet Notes	
#	NOTE

DEVICE/EQUIPMENT OPTIONS & TAGS

	SHEET NOTE LABEL - REFER TO SHEET NOTES
CL	CEILING MOUNT
FL	FLOOR MOUNT
GFI	DEVICE WIRED TO LOAD SIDE OF GFCI RECEPTACLE/BREAKER
RP	REPLACE EXISTING DEVICE WITH NEW DEVICE IN SAME LOCATION.
REL	RELOCATED DEVICE/EQUIPMENT. REWORK WIRING AS NEEDED. IF APPLICABLE PROVIDE NEW DEVICE BOX & CONNECTORS.

- NEW DEVICE/EQUIPMENT
- TO BE REMOVED
- EXISTING TO REMAIN

1 New, Removed, Existing

- RS-2 EQUIPMENT TYPE ID (AS PER MECHANICAL EQUIPMENT SCHEDULE)
- A-4/6/8 EQUIPMENT CIRCUIT
- @1800mm AFF EQUIPMENT SPECIFIC DETAILS.
- EQUIPMENT SYMBOL (VARIES)

2 Tags - Mechanical Equipment

- 2TS DEVICE TYPE ID (AS PER LOW VOLTAGE DEVICE SCHEDULE)
- TV@1800mm DEVICE SPECIFIC MOUNTING INSTRUCTIONS
- DEVICE SYMBOL (VARIES)

DEVICES WITH UNIQUE SYMBOL & TYPE MAY NOT HAVE A TYPE ID. DEVICES MOUNTED BESIDE COUNTER HEIGHT ELECTRICAL DEVICES ARE TO ALSO BE MOUNTED AT COUNTER HEIGHT.

3 Tags - Low Voltage Devices

- RS-2 DEVICE TYPE ID (AS PER ELECTRICAL DEVICE SCHEDULE)
- A-4 DEVICE CIRCUIT
- TV@1800mm DEVICE SPECIFIC DETAILS
- DEVICE SYMBOL (VARIES)

4 Tags - Electrical Devices

- V1 DEVICE TYPE ID (AS PER LIGHTING CONTROL DEVICE SCHEDULE)
- (Z1.1) LIGHTING CONTROL ZONE ID
- 0-10V 0-10V WIRING REQUIRED BETWEEN CONTROL DEVICE AND ALL LIGHTING FIXTURES WITHIN THE SAME CONTROL ZONE.
- A-4 CIRCUIT # USED FOR ZONE
- DEVICE SYMBOL (VARIES)

5 Tags - Lighting Devices

ELECTRICAL LEGEND

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
LIGHTING DEVICE SCHEDULES			x	LIGHT SWITCH
			x	DIMMER SWITCH
			x	LIGHTING MOTION SENSOR
			x	LIGHTING POWER PACK
			x	LIGHTING TIME CLOCK
LIGHTING FIXTURE SCHEDULES			x	LIGHTING CONTACTOR
			x	EXIT SIGN, CEILING MOUNT, HATCH = SIGN, ARROW = DIRECTION
			x	EXIT SIGN, WALL MOUNT, HATCH = SIGN, ARROW=DIRECTION
			x	EXIT / EMERG COMBO, WALL MOUNT, HATCH=SIGN, ARROW=DIRECTION
			x	EMERGENCY LIGHT, BATTERY UNIT
ELECTRICAL EQUIPMENT SCHEDULES			x	EMERGENCY LIGHT, REMOTE HEAD
			x	LIGHTING FIXTURE
			x	WALL MOUNTED LIGHTING FIXTURE
			x	LIGHTING FIXTURE
			x	NIGHT LIGHTING FIXTURE
MECHANICAL EQUIPMENT SCHEDULES			x	ELECTRICAL POWER PANEL
			x	ELECTRICAL DISCONNECT (FUSED OR UNFUSED)
			x	ELECTRICAL EQUIPMENT - MISCELLANEOUS
			x	MECHANICAL EQUIPMENT CONTROL
			x	MECHANICAL EQUIPMENT - HARDWIRE CONNECTION
ELECTRICAL DEVICE SCHEDULES			x	MECHANICAL EQUIPMENT c/w LOCAL DISCONNECT
			x	MECHANICAL EQUIPMENT - CONTRACTOR SUPPLIED ELECTRIC HEATER
			x	#6 AWG CU TO BUILDING GROUND
			x	HARDWIRE CONNECTION
			x	DUPLEX RECEPTACLE 15A
LOW VOLTAGE DEVICE SCHEDULES			x	DUPLEX RECEPTACLE 15A - COUNTER (100mm ABOVE BACKSPLASH)
			x	DUPLEX RECEPTACLE 20A
			x	DUPLEX RECEPTACLE 20A - COUNTER (100mm ABOVE BACKSPLASH)
			x	SPECIAL RECEPTACLE
			x	DATA OUTLET
FIRE ALARM DEVICE SCHEDULES			x	PUSHBUTTON (BOX & 16mm EMT TO ACCESSIBLE CEILING SPACE)
			x	UNIVERSAL WASHROOM: ASSISTANCE REQUESTED AUDIBLE VISUAL SIGNAL
			x	COMMUNICATION BACKBOARD - PLYWOOD GOOD ONE SIDE
			x	CARD READER/FOB
			x	ELECTRIC STRIKE
			x	SOUND SPEAKER
			x	FIRE ALARM MANUAL PULL STATION
			x	FIRE ALARM HORN
			x	FIRE ALARM HORN STROBE (zx = CANDELA, 15cd DEFAULT)
			x	FIRE ALARM STROBE (zx = CANDELA, 15cd DEFAULT)
FIRE ALARM DEVICE SCHEDULES			x	FIRE ALARM SMOKE DETECTOR
			x	FIRE ALARM HEAT DETECTOR
			x	FIRE ALARM SMOKE DETECTOR c/w FORM 'C' RELAY SUB-BASE
			x	FIRE ALARM HEAT DETECTOR c/w FORM 'C' RELAY SUB-BASE
			x	FIRE ALARM BELL
FIRE ALARM DEVICE SCHEDULES			x	POLYCARBONATE COVER WITH ALARM OVER MANUAL PULL STATION
			x	FIRE ALARM END OF LINE RESISTOR

THIS DRAWING IS AN INSTRUMENT OF SERVICE & IS THE PROPERTY OF ROOT3 ENGINEERING & CANNOT BE MODIFIED AND/OR REPRODUCED WITHOUT THE PERMISSION OF ROOT3 ENGINEERING LTD.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.



4	Reissued For Tender	Feb 11, 2025
3	Reissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
1	Issued For Permit	Dec 20, 2024

NO.	DESCRIPTION	DATE
REVISION SCHEDULE		

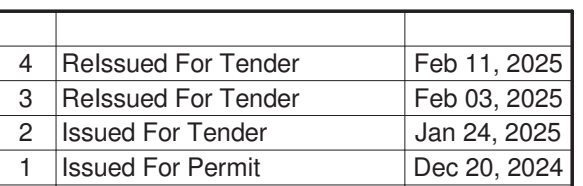


PROJECT NAME	
Orchard Park Secondary School	
200 Dewitt Rd, Stoney Creek City, ON	

DRAWING TITLE	
Electrical Legend & Specification	

SCALE	DRAWING NUMBER
1 : 1	E1
SHEET SIZE	
24"x36"	
PROJECT NUMBER	
24055	

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER, BEFORE PROCEEDING WITH THE WORK.

The logo for Root3 Engineering features the word "Root3" in a large, bold, sans-serif font. The "Root" is in red and the "3" is in black. Below "Root3", the word "Engineering" is written in a smaller, grey, sans-serif font. A red horizontal line is positioned above the "3".

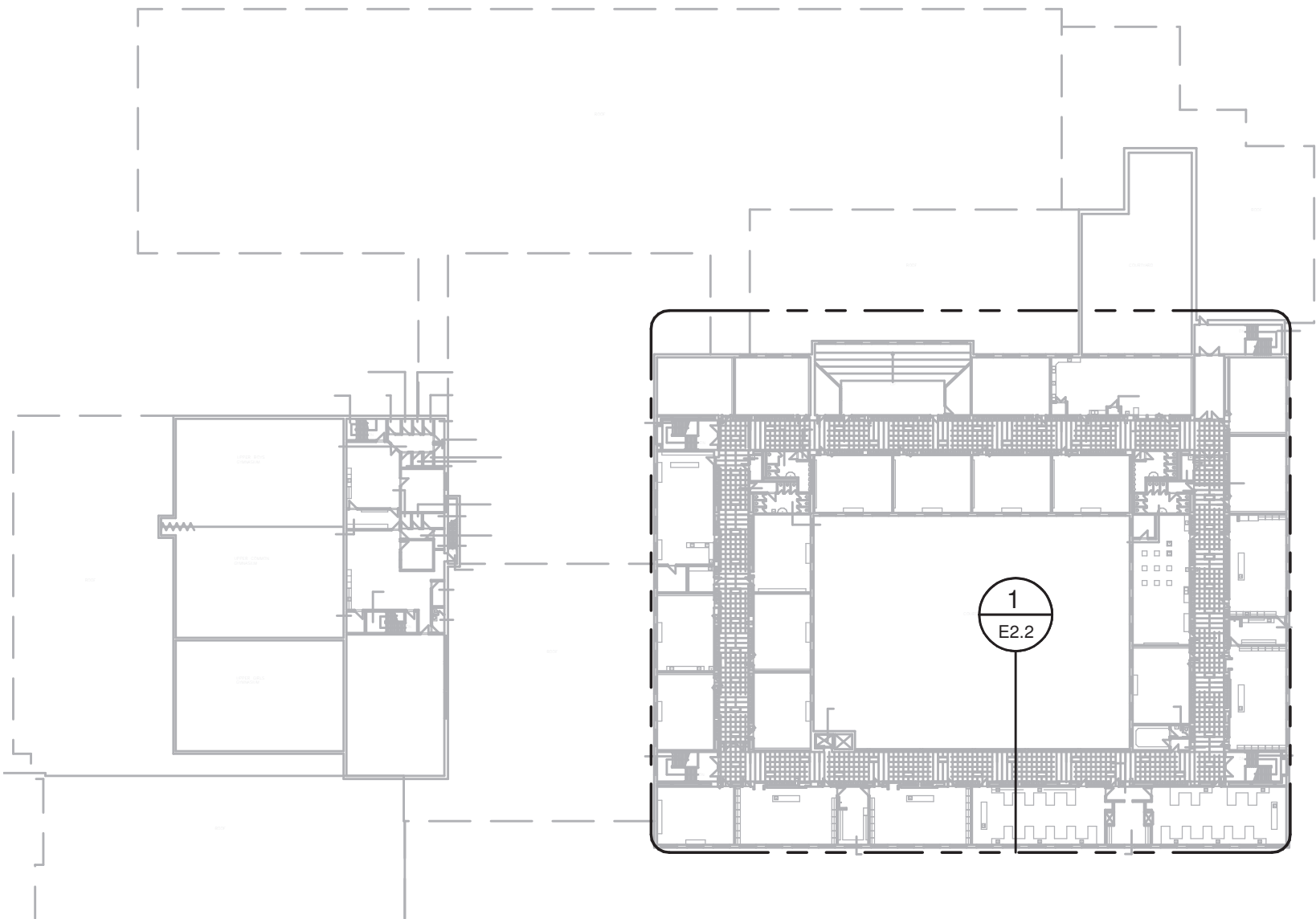
PROJECT NAME

**Orchard Park
Secondary School**

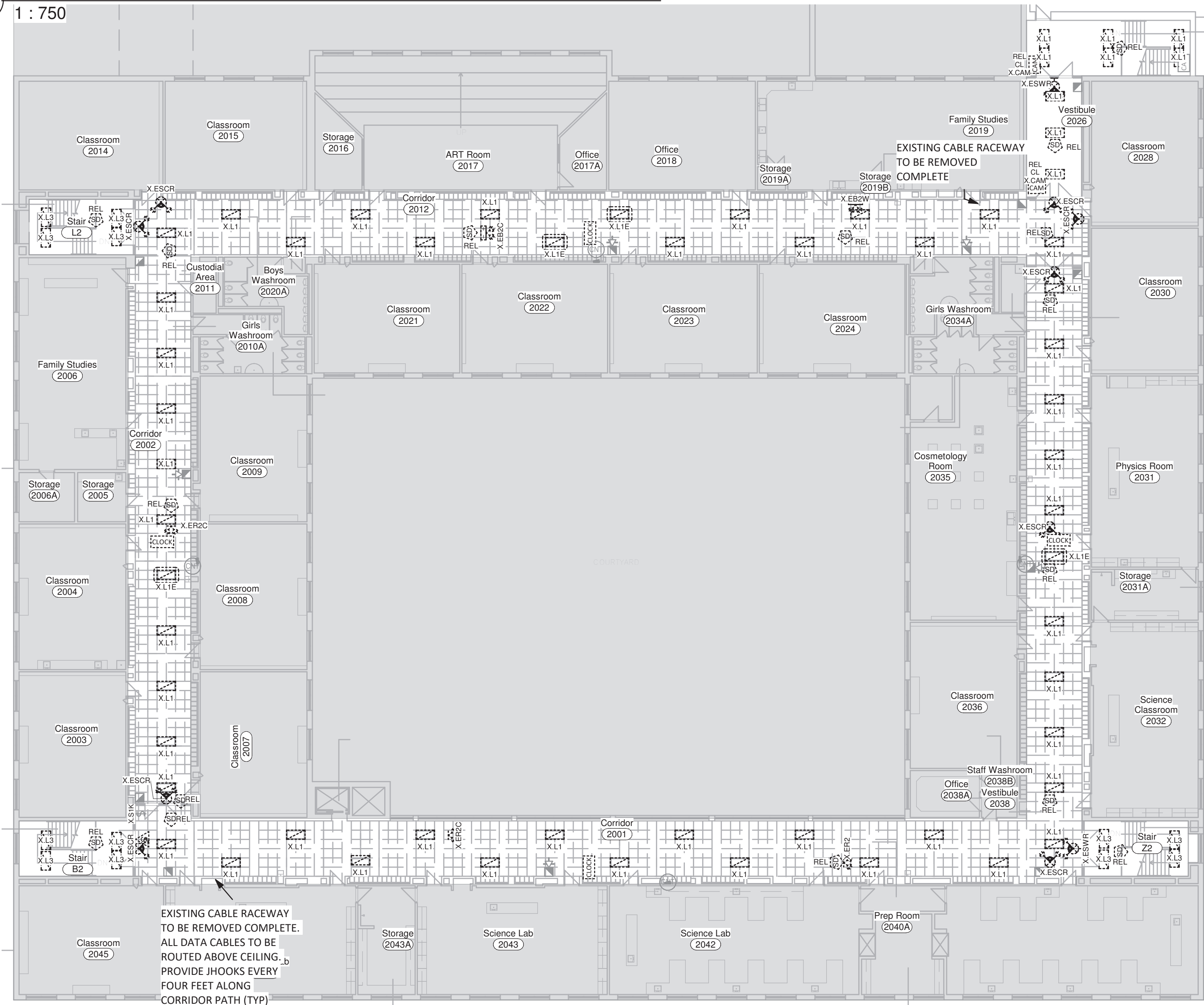
200 Dewitt Rd,
Stoney Creek City, ON

Demo RCP Level 1

SCALE 1 : 225	DRAWING NUMBER E2.1
SHEET SIZE 24"x36"	
PROJECT NUMBER 24055	



2 KEYMAP Demo - Level 2
1 : 750



1 Demo - Level 2 - Lighting & Life-Safety Plan
1 : 200

1 - Total Removed - Low Voltage Device Schedule							
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None			
QTY	Relocated	Type	Conduit	Description	Phase Added	Phase Removed	
4	No	PDO	16mm EMT	Power Door Operator; Device box & conduit to Door controller.	EXISTING	Tender	
1	No	SPEAKER	21mm EMT	Surface Mount Device Box & EMT, Daisy Chain between devices; Home Run EMT to Main Communication Backboard.	EXISTING	Tender	
9	Yes	TIME CLOCK	Unknown Conduit, relocated to new ceiling tile.	Existing ceiling mounted Digital Time Clock	EXISTING	Tender	
1	No	TIME CLOCK	Unknown Conduit, relocated to new ceiling tile.	Existing ceiling mounted Digital Time Clock	Tender	Tender	
8	Yes	X.CAM	Unknown Conduit	Existing Security Camera.	EXISTING	Tender	
9	No	X.SPEAKER	Unknown Conduit, relocated to new ceiling tile.	Existing Recessed Ceiling Speaker	EXISTING	Tender	
7	No	X.SPEAKER 1	Unknown Conduit	Existing surface mounted speaker at high level.	EXISTING	Tender	
Total: 39							

4 - Total Removed - Fire Alarm Device Schedule							
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None			
QTY	Relocated	Model	Description	Type Comments	Phase Added	Phase Removed	
53	Yes		Fire Alarm Initiating	Smoke Detector	EXISTING	Tender	
Total: 53							

6 - Total Removed - Lighting Fixture Schedule											
CURRENT SCHEDULE PHASE: Tender						SHOWING PHASE ITEMS: None					
Qty	Image	Type	Relocated	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added	Phase Removed
1			No	TBD	TBD			TBD	TBD	EXISTING	Tender
1		ESG.C	Yes		Existing	Ceiling	Ceiling	Emergency Exit Sign - Ceiling Mount; Green Pictogram		EXISTING	Tender
5		X.EB2C	No		Existing	Wall	2300mm	Emergency Battery Light - 2 Head;	Assumed 9W Incandescent	EXISTING	Tender
2		X.EB2W	No		Existing	Wall	2300mm	Emergency Battery Light - 2 Head;	Assumed 9W Incandescent	EXISTING	Tender
6		X.EC1	No		Existing	Ceiling	Ceiling	Exit/Emergency combination sign - Ceiling Mount; 2-Head Emerg Light; Red Letters. MAY BE RECESSED EMERGENCY CEILING BATTERY UNIT, WITH TWO EMERGENCY LIGHTS & EXIT SIGN.	Assumed 9W Incandescent	EXISTING	Tender
1		X.ER2	No		Existing	Wall	2300mm	Emergency Remote - 2 Head;	Assumed 9W Incandescent	EXISTING	Tender
4		X.ER2C	No		Existing	Wall	2300mm	Emergency Remote - 2 Head;	Assumed 9W Incandescent	EXISTING	Tender
33		X.ESCR	No		Existing	Ceiling	Ceiling	Emergency Exit/Combo Sign - Ceiling Mount; 2-Head Emerg Light; Red Letters	Assumed 9W Incandescent	EXISTING	Tender
7		X.ESWR	No		Existing	Wall	2300	Emergency Exit/Combo Sign - Wall Mount; 2-Head Emerg Light; Red Letters	Assumed 9W Incandescent	EXISTING	Tender
223		X.L1	No	TBD	TBD			Existing Lighting Fixture	TBD	EXISTING	Tender
4		X.L1E	No	TBD	TBD			TBD	TBD	EXISTING	Tender
4		X.L2	No	TBD	TBD			TBD	TBD	EXISTING	Tender
23		X.L3	No	TBD	TBD			Existing 2x4 Surfaced Mount	TBD	EXISTING	Tender
5		X.EC.2			Existing	Ceiling	Ceiling	Emergency Exit/Combo Sign - Ceiling Mount; 2-Head Emerg Light; Green Pictogram	Assumed 9W Incandescent	EXISTING	Tender
1		X.ER.1	No		Existing	Wall	2300mm	Emergency Remote - 1 Head;	Assumed 9W Incandescent	EXISTING	Tender
Total: 320											

3 - Total Removed - Electrical Device Schedule							
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None			
Qty	Type ID	Relocated	Description	Type Comments	Phase Added	Phase Removed	
2	DC	Yes	Direct Hardwire Connection	Powered Door Controller; Wired to line side of local lighting circuit. Estimated ~300W non-continuous load.	EXISTING	Tender	
1	XJB.1	No	Junction Box	Existing junction box and emt conduit, to be rework above the new ceiling tile.	EXISTING	Tender	
Total: 3							

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DRAWINGS ARE NOT TO BE SCALED.

PROJECT NORTH



4	Reissued For Tender	Feb 11, 2025
3	Reissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
1	Issued For Permit	Dec 20, 2024

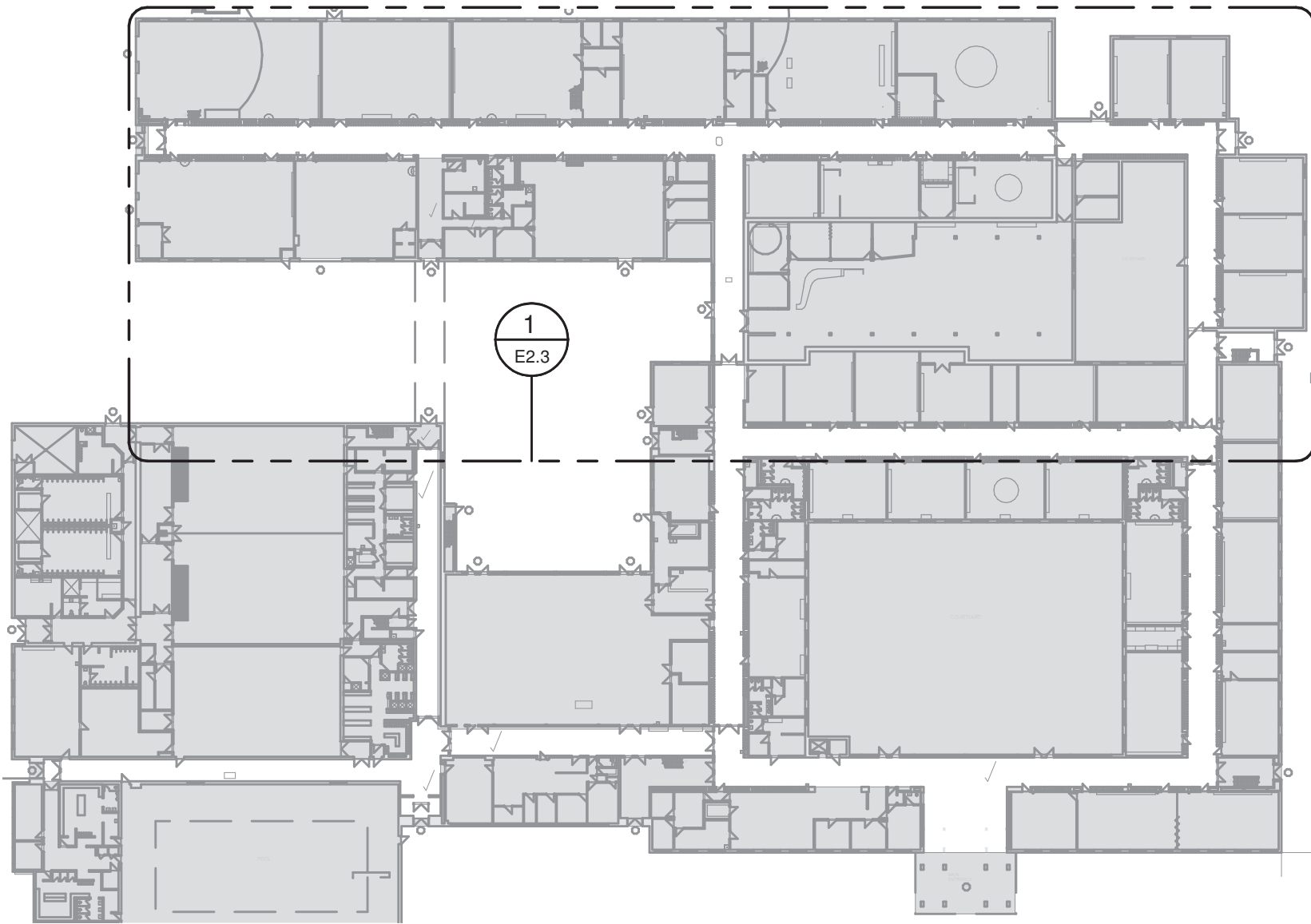
NO.	DESCRIPTION	DATE
REVISION SCHEDULE		

ROOT3 Engineering
1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME
Orchard Park Secondary School
200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE
Demo RCP Level 2

SCALE As indicated	DRAWING NUMBER E2.2
SHEET SIZE 24"x36"	
PROJECT NUMBER 24055	



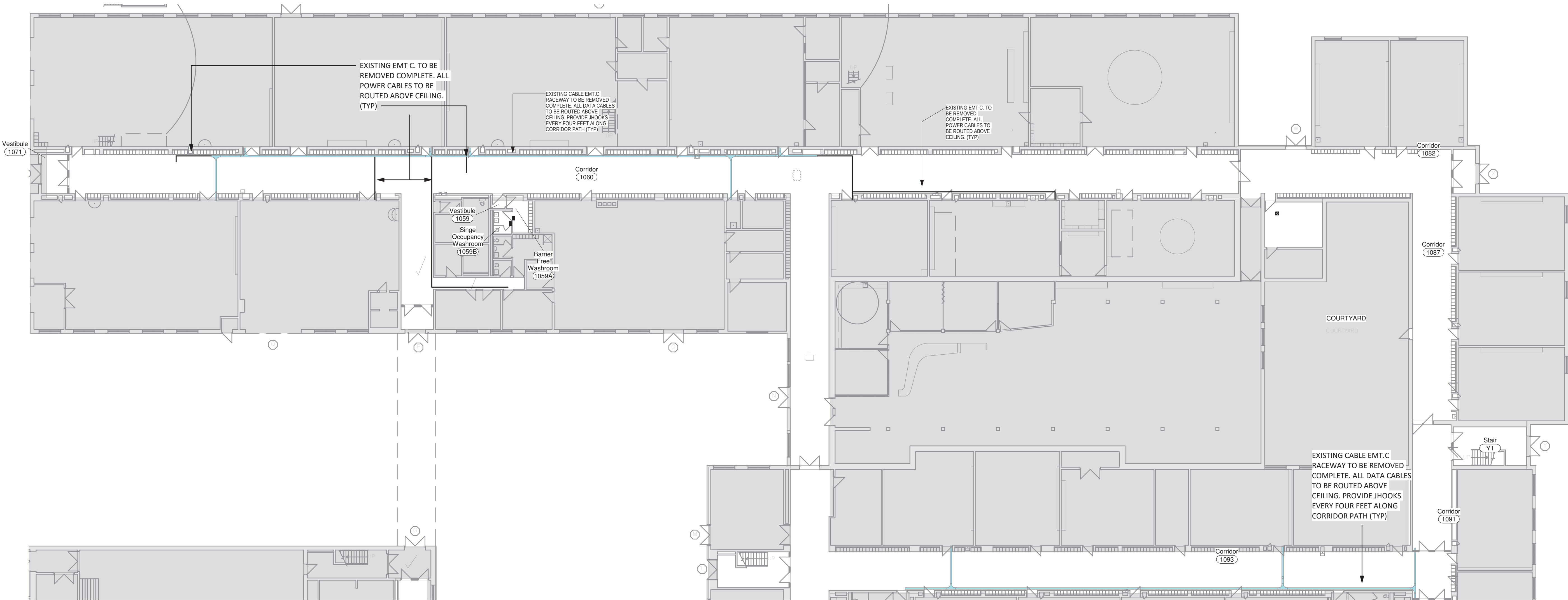
2 KEYMAP Demo - Level 1 North



3 Typical Raceway

NOTE:

- AT LOCATIONS WHERE EXISTING RACEWAYS PENETRATE WALL BELOW CEILING LEVEL, PROVIDE SMALL PLASTIC RACEWAY COVER TO INTERFACE BETWEEN CEILING AN EXISTING PENETRATION. THE MAJORITY OF WALL PENETRATIONS AND DATA CABLE/EMT RACEWAYS ARE SHOWN. IT IS THE INTENT THAT ALL DATA RACEWAYS/CONDUIT ARE RELOCATED ABOVE CEILING TILE EXCEPT FOR SHORT SECTION RIGHT AT EXISTING WALL PENETRATIONS. CURRENTLY NOT SHOWN: ASSUME THERE 30FT OF DATA RACEWAY AND 8 WALL PENETRATIONS ON THIS PROJECT BUT ARE TO BE REWORKED AS NOTED ABOVE. CURRENTLY NOT SHOWN, ASSUME THAT THERE ARE 40FT OF 1/2" EMT C. WITH 8#12 AWG POWER CABLES/WIRING, THAT NEED TO BE REWORKED/ROUTED ABOVE CEILING.



1 Demo - Level 1 - Power & Data Ceiling Conduit - North
1 : 200

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PROJECT
NORTH



NO.	DESCRIPTION	DATE
4	Relissued For Tender	Feb 11, 2025
3	Relissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025

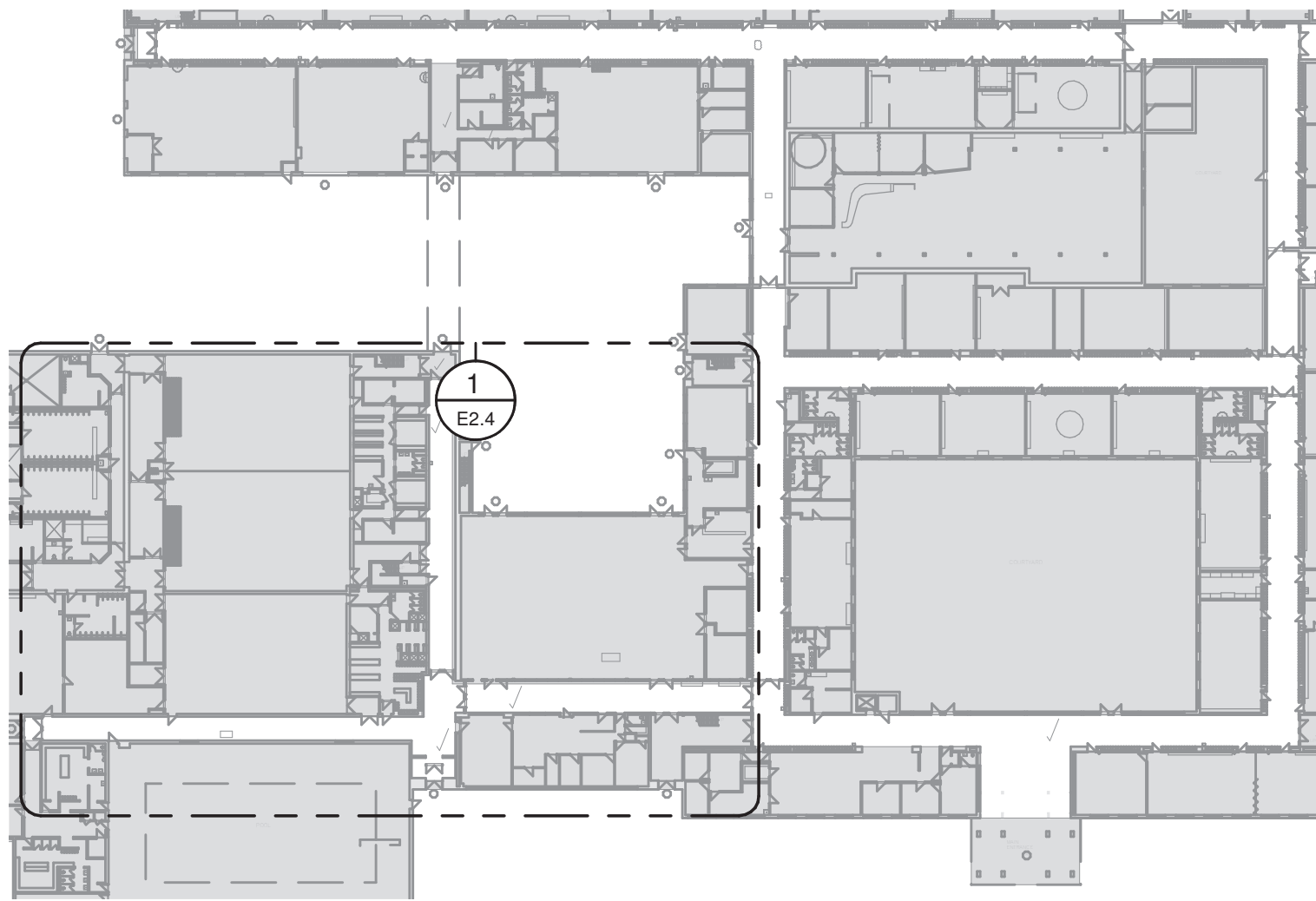
NO.	DESCRIPTION	DATE
1	REVISION SCHEDULE	

ROOT3 Engineering
1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME
Orchard Park Secondary School
200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE
Demo Ceiling Cable tray & Conduit - Level 1 - North

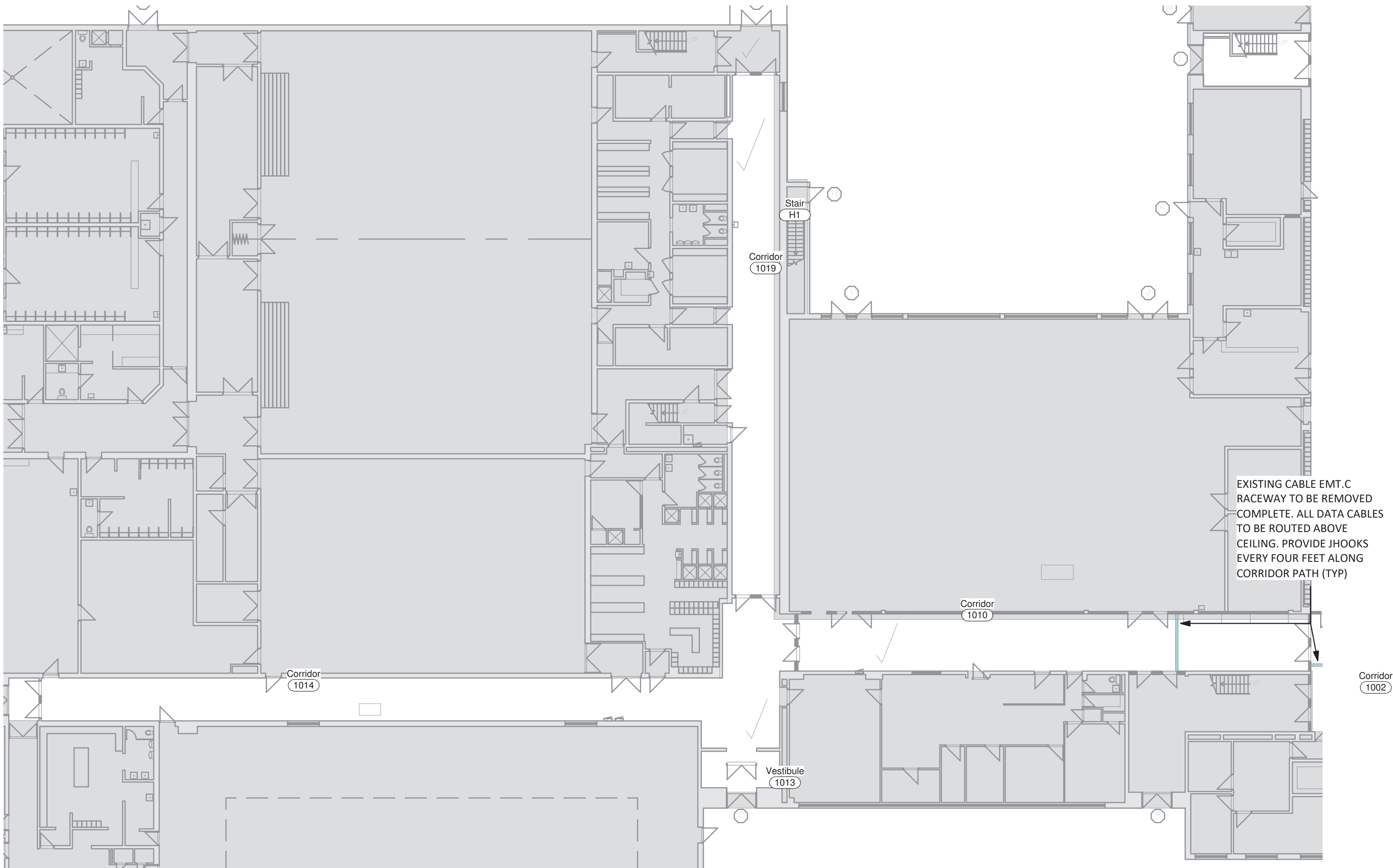
SCALE As indicated	DRAWING NUMBER E2.3
SHEET SIZE 24"x36"	
PROJECT NUMBER 24055	



2 KEYMAP Demo - Level 1 - South

NOTE:

- AT LOCATIONS WHERE EXISTING RACEWAYS PENETRATE WALL BELOW CEILING LEVEL, PROVIDE SMALL PLASTIC RACEWAY COVER TO INTERFACE BETWEEN CEILING AN EXISTING PENETRATION. THE MAJORITY OF WALL PENETRATIONS AND DATA CABLE/EMT RACEWAYS ARE SHOWN. IT IS THE INTENT THAT ALL DATA RACEWAYS/CONDUIT ARE RELOCATED ABOVE CEILING TILE EXCEPT FOR SHORT SECTION RIGHT AT EXISTING WALL PENETRATIONS. CURRENTLY NOT SHOWN: ASSUME THERE 30FT OF DATA RACEWAY AND 8 WALL PENETRATIONS ON THIS PROJECT BUT ARE TO BE REWORKED AS NOTED ABOVE. CURRENTLY NOT SHOWN, ASSUME THAT THERE ARE 40FT OF 1/2" EMT C. WITH 8#12 AWG POWER CABLES/WIRING, THAT NEED TO BE REWORKED/REROUTED ABOVE CEILING.



1 Demo - Level 1 - Power & Data Ceiling Conduit - Southwest

1 : 200

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PROJECT
NORTH



4	Relissued For Tender	Feb 11, 2025
3	Relissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
NO.	DESCRIPTION	DATE
REVISION SCHEDULE		

ROOT3 Engineering

1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

**Orchard Park
Secondary School**

200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE

**Demo Ceiling Cable
tray & Conduit -
Level 1 - Southwest**

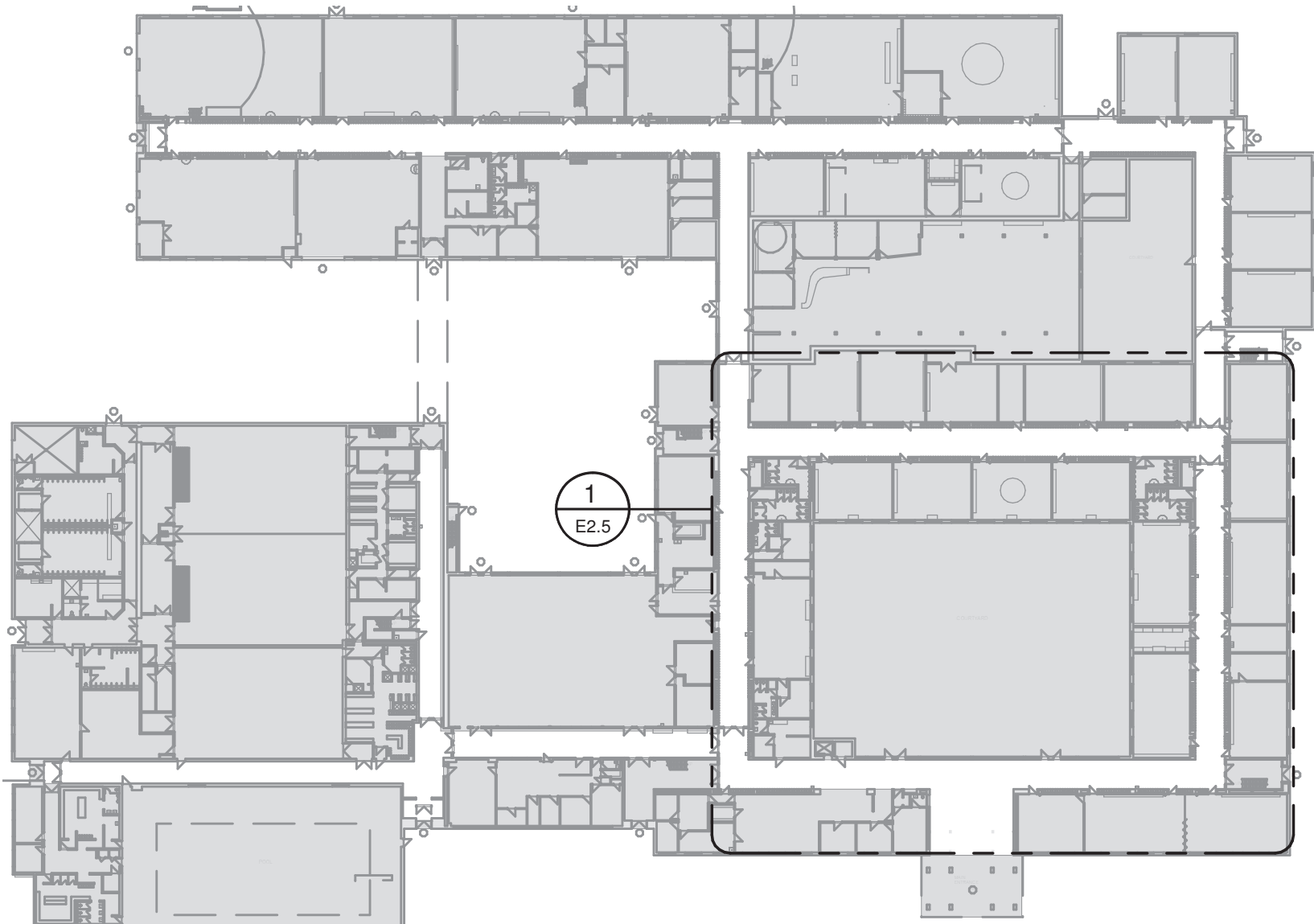
SCALE
As indicated

SHEET SIZE
24"x36"

PROJECT NUMBER
24055

DRAWING NUMBER

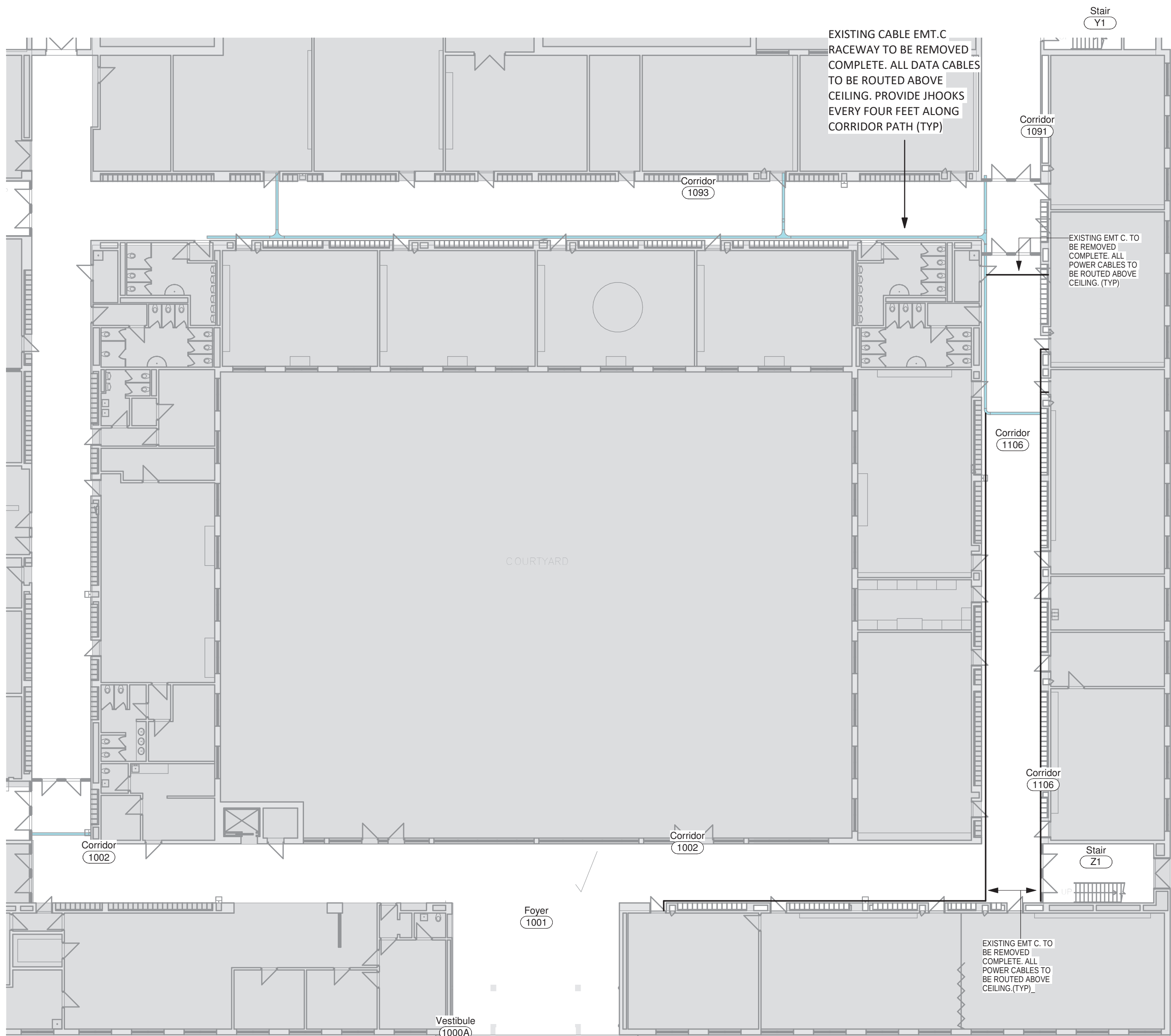
E2.4



2 KEYMAP Demo Level 1 - Southeast

NOTE:

- AT LOCATIONS WHERE EXISTING RACEWAYS PENETRATE WALL BELOW CEILING LEVEL, PROVIDE SMALL PLASTIC RACEWAY COVER TO INTERFACE BETWEEN CEILING AN EXISTING PENETRATION. THE MAJORITY OF WALL PENETRATIONS AND DATA CABLE/EMT RACEWAYS ARE SHOWN. IT IS THE INTENT THAT ALL DATA RACEWAYS/CONDUIT ARE RELOCATED ABOVE CEILING TILE EXCEPT FOR SHORT SECTION RIGHT AT EXISTING WALL PENETRATIONS. CURRENTLY NOT SHOWN: ASSUME THERE 30FT OF DATA RACEWAY AND 8 WALL PENETRATIONS ON THIS PROJECT BUT ARE TO BE REWORKED AS NOTED ABOVE. CURRENTLY NOT SHOWN, ASSUME THAT THERE ARE 40FT OF 1/2" EMT C. WITH 8#12 AWG POWER CABLES/WIRING, THAT NEED TO BE REWORKED/REROUTED ABOVE CEILING.



1 Demo - Level 1 - Power & Data Ceiling Conduit - Southeast
1 : 200

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PROJECT
NORTH



4	Reissued For Tender	Feb 11, 2025
3	Reissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025

NO.	DESCRIPTION	DATE
REVISION SCHEDULE		



1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

**Orchard Park
Secondary School**

200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE

**Demo Ceiling Cable
tray & Conduit -
Level 1 - Southeast**

SCALE

As indicated

SHEET SIZE

24"x36"

PROJECT NUMBER

24055

DRAWING NUMBER

E2.5



NOTE:

- AT LOCATIONS WHERE EXISTING RACEWAYS PENETRATE WALL BELOW CEILING LEVEL, PROVIDE SMALL PLASTIC RACEWAY COVER TO INTERFACE BETWEEN CEILING AN EXISTING PENETRATION. THE MAJORITY OF WALL PENETRATIONS AND DATA CABLE/EMT RACEWAYS ARE SHOWN. IT IS THE INTENT THAT ALL DATA RACEWAYS/CONDUIT ARE RELOCATED ABOVE CEILING TILE EXCEPT FOR SHORT SECTION RIGHT AT EXISTING WALL PENETRATIONS. CURRENTLY NOT SHOWN: ASSUME THERE 30FT OF DATA RACEWAY AND 8 WALL PENETRATIONS ON THIS PROJECT BUT ARE TO BE REWORKED AS NOTED ABOVE. CURRENTLY NOT SHOWN, ASSUME THAT THERE ARE 40FT OF 1/2" EMT C. WITH #812 AWG POWER CABLES/WIRING, THAT NEED TO BE REWORKED/REROUTED ABOVE CEILING.

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DRAWINGS ARE NOT TO BE SCALED.

PROJECT
NORTH



4	Relissued For Tender	Feb 11, 2025
3	Relissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
NO.	DESCRIPTION	DATE
REVISION SCHEDULE		



ROOT3
Engineering

1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

**Orchard Park
Secondary School**

200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE

Demo Ceiling Cable tray & Conduit - Level 2

SCALE

As indicated

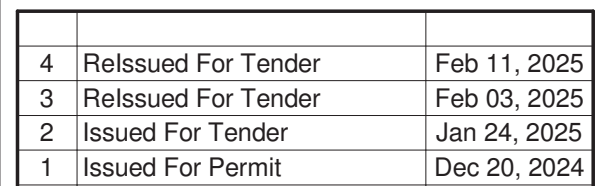
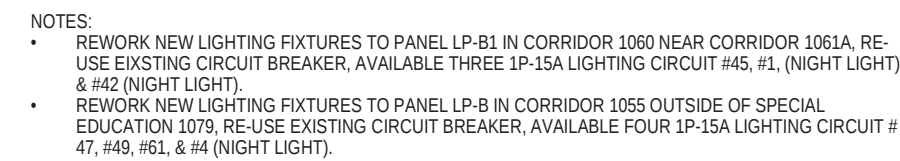
SHEET SIZE	
24"x36"	

PROJECT NUMBER	24055
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DRAWING NUMBER

E2.6

DRAWINGS ARE NOT TO BE SCALED.



ROOT3
Engineering

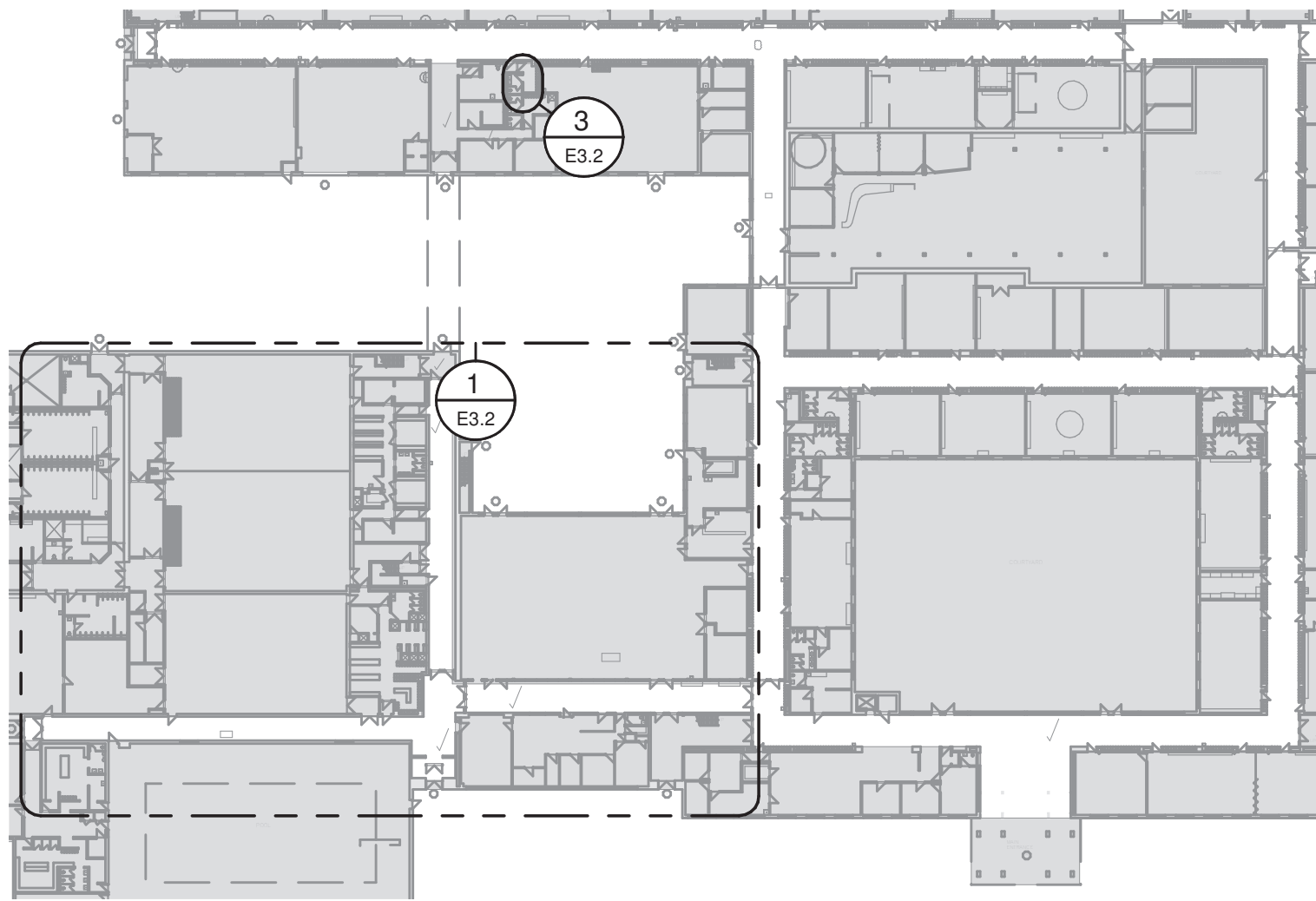
PROJECT NAME

200 Dewitt Rd,
Stoney Creek City, ON

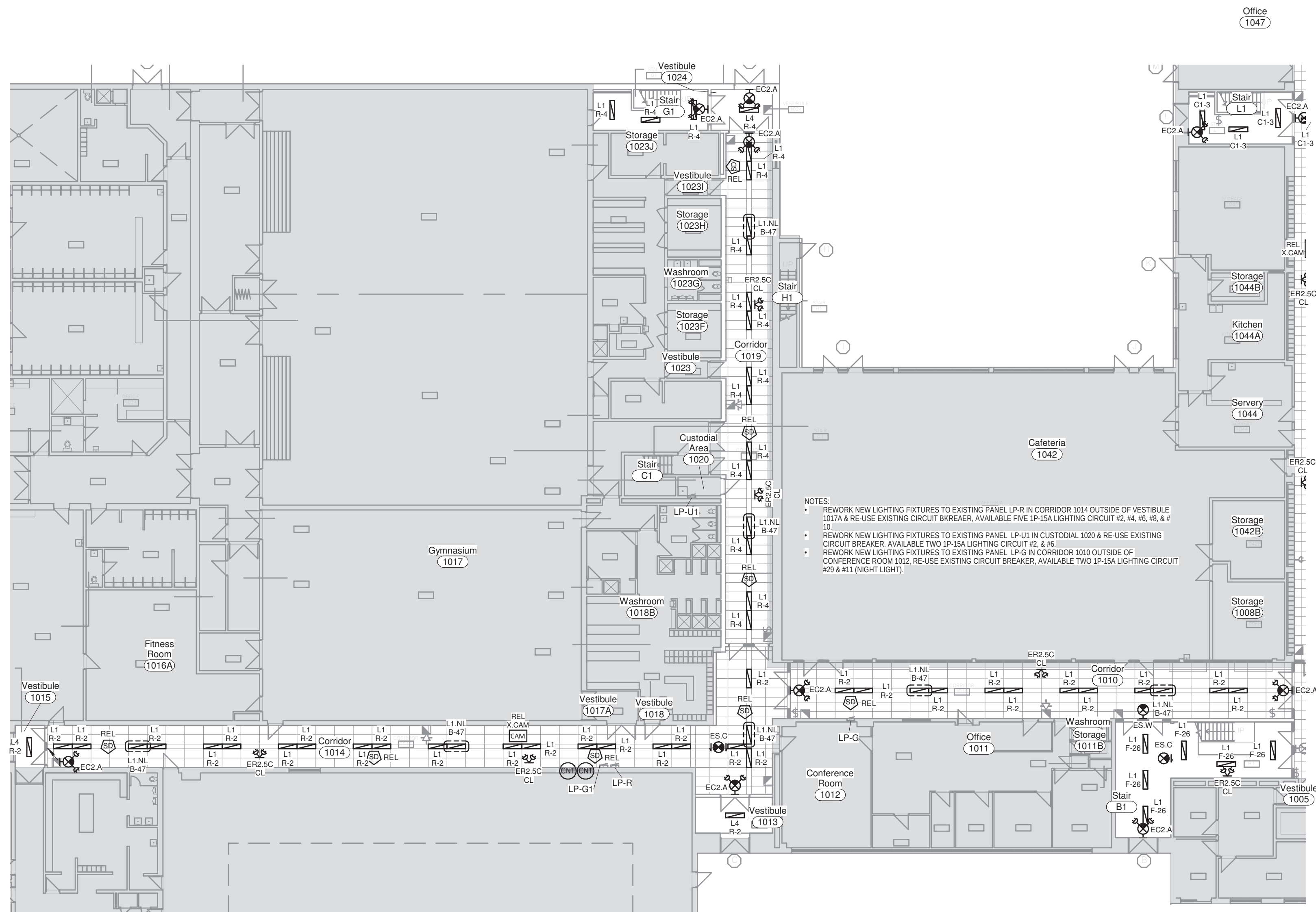
**Proposed RCP Level
1 - North**

E3.1

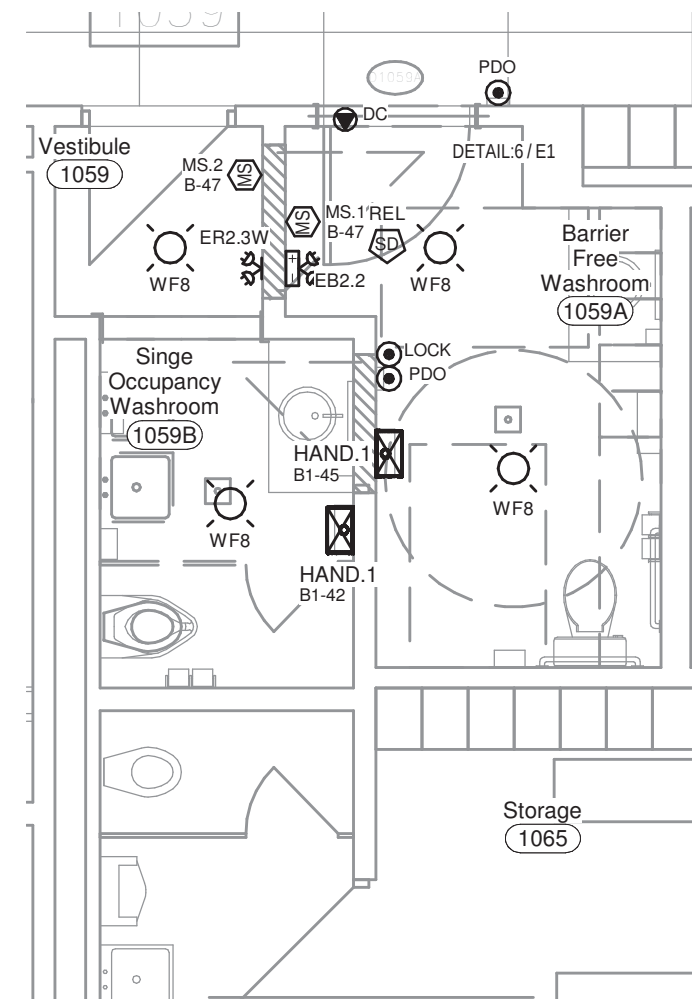
1 Proposed - Level 1 - Power, Lighting & Life-Safety - North
1 : 200



2 KEYMAP - Level 1 - South
1 : 750



1 Proposed - Level 1 - Power, Lighting & Life-Safety - Southwest
1 : 200



3 Proposed Barrier Free Washroom
1 : 50

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DRAWINGS ARE NOT TO BE SCALED.

PROJECT
NORTH



4	Reissued For Tender	Feb 11, 2025
3	Reissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
1	Issued For Permit	Dec 20, 2024

NO.	DESCRIPTION	DATE
REVISION SCHEDULE		

ROOT3 Engineering
1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME
**Orchard Park
Secondary School**
200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE
**Proposed RCP Level
1 - South & WR**

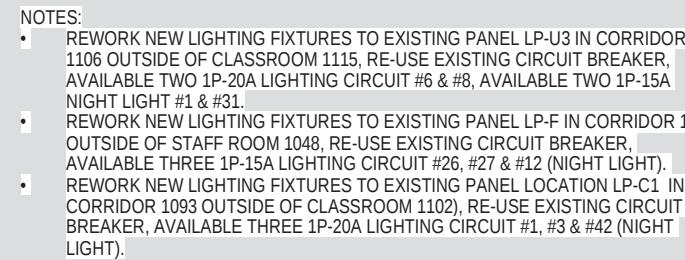
SCALE As indicated	DRAWING NUMBER E3.2
SHEET SIZE 24"x36"	
PROJECT NUMBER 24055	

DRAWINGS ARE NOT TO BE SCALED



2 KEY
1 : 750

1 : 750



1 Prop
1 : 200

1 : 200

NO.	DESCRIPTION	DATE
REVISION SCHEDULE		



TORONTO, ON, M4S 3E2

PROJECT NAME

PROJECT NAME:

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Orchard

Secondary:

Secondary:

200 Dewitt Rd.

Stoney Creek City

DRAWING TITLE

DRAWING TITLE

Dropped PC

Proposed RC

1. South/

1 - South/

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SCALE	DRAWING
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As indicated		
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SHEET SIZE	

SHEET SIZE

24"x36"

PROJECT NUMBER	
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01055

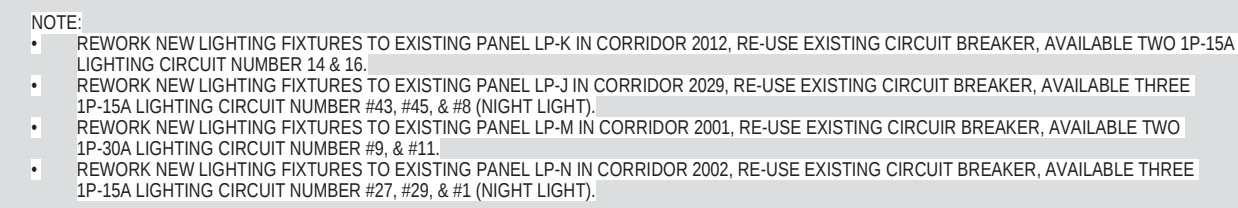
24055		
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Page 10 of 10

DRAWINGS ARE NOT TO BE SCALED.

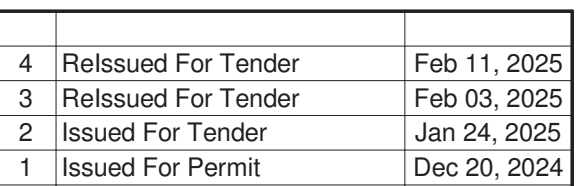


1 : 750



1 Proposed - Level 2 - Lighting & Life-Safety Plan
1 : 200

1 : 200



NO.	DESCRIPTION	DATE
REVISION SCHEDULE		

1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

**Orchard Park
Secondary School**

200 Dewitt Rd,
Stoney Creek City, ON

Proposed RCP Level
2

SCALE	DRAWING NUMBER
As indicated	
SHEET SIZE	
24"x36"	E3.4
PROJECT NUMBER	
24055	

1 - Total New/Relocated - Low Voltage Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
QTY	Relocated	Type	Conduit	Description		Phase Added
1	No	LOCK	16mm EMT	Universal Washroom Lock Button. Device box & conduit to Door controller.		Tender
6	No	PDO	16mm EMT	Power Door Operator; Device box & conduit to Door controller.		Tender
6	Yes	SPEAKER	21mm EMT	Surface Mount Device Box & EMT, Daisy Chain between devices; Home Run EMT to Main Communication Backboard.		Tender
1	No	TIME CLOCK	Unknown Conduit, relocated to new ceiling tile.	Existing ceiling mounted Digital Time Clock.		Tender
8	Yes	X.CAM	Unknown Conduit	Existing Security Camera.		Tender
2	No	X.SPEAKER 1	Unknown Conduit	Existing surface mounted speaker at high level.		Tender





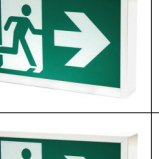

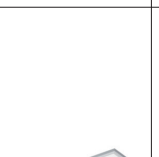

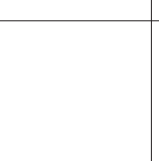

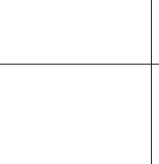

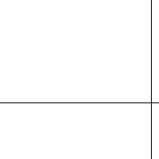
Total: 24

2 - Total New/Relocated - Electrical Equipment Schedule						
CURRENT SCHEDULE PHASE: Tender			SHOWING PHASE ITEMS: Show Previous + New			
Qty	Equip ID	Description	Type Comments	Enclosure	Mounting	Phase Added
2	HAND.1	Hand Dryer	120V, 12.2A 1450W; White Thermoset Resin; 8 second PCR guideline drytime; 62-75dbA, 34-64 CFM; 32C to 67C; 322mm H x 170mm D x 290mm W; Mounted at 1141mm Min. 1090mm Washroom.	Type 1	Surface	Tender
1	TX.24	BAS Transformer	provide 120V-24V 40VA (doorbell style) Transformer for BAS Control system use, confirm location on site. Connect to nearest lighting circuit.	Type 1	Surface	Tender
Total: 3						

3 - Total New/Relocated - Electrical Device Schedule					
CURRENT SCHEDULE PHASE: Tender			SHOWING PHASE ITEMS: Show Previous + New		
Qty	Type ID	Description	Type Comments		Phase Added
3	DC	Direct Hardwire Connection	Powered Door Controller; Wired to line side of local lighting circuit. Estimated ~300W non-continuous load.		Tender
Total:					

4 - Total New/Relocated - Fire Alarm Device Schedule					
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New	
QTY	Relocated	Model	Description	Type Comments	Phase Added
53	Yes		Fire Alarm Initiating	Smoke Detector	Tender
Total: 53					

5 - Total New/Relocated - Lighting Control Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
Qty	Type	Mfg.	Model	Description	Type Comments	Phase Added
9	C120.1	TBD	TBD	Electrically Held Lighting Junction Box, 2-Pole Normally Open	120V Control; 30A 120V Contacts for 15A lighting circuits; Provide Steel junction box in ceiling space, confirm location on site.	Tender
1	C.24	TBD	TBD	Electrically Held Lighting Contactor, 2-Pole Normally Open	24V Control; 30A 120V Contacts for 15A lighting circuits; Provide Steel junction box in ceiling space, confirm location on site.	Tender
1	HOA.1	TBD	TBD	Hand-Off Auto	120V; Master On/Off/Auto control of lighting contactor. Surface Mounted equipment. Coordinate location on site. PROVIDE #14AWG WIRE + BOND BETWEEN BAS SYSTEM LOCATED WITH MECHANICAL ROOM AND 24V CONTACTOR AND 24V CONTROL TRANSFORMER. 24V CONTACTOR MAY BE INTEGRATED WITHIN HOA CONTROL SWITCH, AS A COMPLETE PACKAGE.	Tender
1	MS.1	Sensor Switch	WSX SA WH	PIR Wall Switch Occ Sensor, Manual On	120V; Vacancy; White	Tender
1	MS.2	Sensor Switch	WSX WH	PIR Wall Switch Occ Sensor, Auto On/Off	120V; Auto-On; White	Tender
Total: 13						

6 - Total New/Relocated - Lighting Fixture Schedule										
CURRENT SCHEDULE PHASE: Tender						SHOWING PHASE ITEMS: Show Previous + New				
Qty	Image	Type	Relocated	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added
1		EB2.2	No	Stanpro	SLA12-2L	Wall	2300mm	Easy Out Steel Battery Unit, Emergency Light	12V, 72W for 30min; 2-2.5W Par18 LED Heads (2x183lm), White; Don't exceed battery capacity with additional remote lighting heads, Connect to Line Side of Local Lighting Circuit	Tender
33		EC2.A	No	Stanpro	PRMS12-2L	Wall	2300mm	"Easy Out" Steel Combo Running Man Pictogram Exit, Universal Faces	12V; 72W for 30min; 2-2.5W Par18 LED Heads; White; Don't exceed battery capacity with additional remote lighting heads, Connect to Line Side of Local Lighting Circuit	Tender
1		ER2.3W	No	Stanpro	M.2.06-24.4W.LR.WH	Wall	2300mm	Decorative Remote Heads	06-24V, 2-4W LR MR16 LED Heads (2x330lm), Die Cast Metal, White, Connect to nearest battery unit without exceeding battery capacity	Tender
28		ER2.5C	No	Stanpro	N.2.06-12V.SW.LJ.WH	Ceiling	2300mm	Plastic Mini Remote Heads	06-12V, 2-5W LJ Par18 LED Heads (2x655lm), Plastic, White, Connect to nearest battery unit without exceeding battery capacity	Tender
8		ES.C	No	Stanpro	RMS.D.WH.I.B	Ceiling	Ceiling	Running Man Pictogram Exit Sign	LED; Steel; 90min internal battery; Universal Faces; 1.9W 120/277/347V Field Selectable	Tender
1		ES.W	No	Stanpro	RMS.D.WH.I.B	Wall	2300mm	Running Man Pictogram Exit Sign	LED; Steel; 90min internal battery; Universal Faces; 1.9W 120/277/347V Field Selectable	Tender
1		ESG.C	Yes		Existing	Ceiling	Ceiling	Emergency Exit Sign - Ceiling Mount; Green Pictogram		Tender
282		L1	No	Signify	1FP230L840-4-DS-120-DIM-S WZCSRm	Recessed	Ceiling	LED 1x4 Flat Panel	25W, 3000 lumens, 120V, 80CRI, 4000K Color Temp, 0-10V Dimming, remote interact pro scalable sensor with occupancy sensing, fixture set to automatically dim to 50% on vacancy after 10minutes, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 4 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues.	Tender
43		L1.NL	No	Signify	1FP230L840-4-DS-120-DIM-S WZCSRm	Recessed	Ceiling	LED 1x4 Flat Panel	25W, 3000 lumens, 120V, 80CRI, 4000K Color Temp, 0-10V Dimming, remote interact pro scalable sensor with occupancy sensing, fixture set to automatically dim to 50% on vacancy after 10minutes, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 4 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues. Wire to line side of local lighting circuit	Tender
4		L2	No	Signify	1FP230L840-4-DS-120-DIM-S WZCSRm-FSF14	Surfaced	Ceiling	LED Flat Panel	25W, 3000 lumens, 120V, 80CRI, 4000K Color Temp, 0-10V Dimming, remote interact pro scalable sensor with occupancy sensing, fixture set to automatically dim to 50% on vacancy after 10minutes, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 2 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues, 1x4 Surface mount field assembly kit	Tender
4		L3	No	Mark Lighting	S4PID-LLP-MSLB-80CRI-40K-800LMF-180CRI-140K-1300LM F-SCT-MINDI-FLL-MVOLT-W HTT-ZT-PDT-F2-72A-RDCY-W HTCY-WCRD	Suspended	Ceiling	Generic Suspended Mount 1x4 LED	SLOT 4 Pendant Indirect/Direct, Linear longest possible, 8ft length, 80 CRI, 4000K Colour temperature, 800 Lumens per foot, lambertian, Indirect 80CRI, Indirect 4000K Colour temperature, Indirect 300 lumens per foot, lambertian, single circuit, constant current, dimming to 1%, flush lens, no indirect shielding, multi-voltage 120-277V, White satin, 0-10V, Dual technology occupancy sensor, PIR and Microphonics sensor, Hard Ceiling, Square Round canopy, 72" Adjustable, White Canopy, White cord, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 2 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues, 1x4 Surface mount field assembly kit.	Tender
6		L4	No	Signify	1FP250L840-4-DS-120-DIM-S WZCSRm	Recessed	Ceiling	LED Flat Panel	42W, 5000 lumens, 120V, 80CRI, 4000K Color Temp, 0-10V Dimming, remote interact pro scalable sensor with occupancy sensing, fixture set to automatically dim to 50% on vacancy after 10minutes, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 2 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues.	Tender
5		L5	No	Mark Lighting	S4SD-Llp-MSLB-80CRI-40K-800LMF-SCT-MINI-FLL-MVOL T-WHTT-ZT-APDT	Recessed	Surfaced	LED Flat Panel	SLOT4 Surface Direct, Linear longest possible, 8ft Length, 80CRI, 4000K Colour temperature, 800 lumens per foot, lambertian, single circuit, Constant current, Dimming to 1%, flush lens, Multi-volt 120-277V, White satin, 0-10V, Dual Technology Occupancy and daylight dimming sensor, For proposed alternate lighting fixtures without an integral motion sensor, include for one separate automatic dimming to 50% motion sensor & wiring for every 2 fixtures. Provide 5 additional separate motion sensors to be located and installed on site to fill in for any possible coverage issues, 1x4 Surface mount field assembly kit.	Tender
4		WF8	No	Lithonia	WF8-SWW/5-90CRI-MW	Recessed	Ceiling	Wafer LED Recessed Downlight	8" Wafer-Thin LED Downlight, Round, Switchable Light, 90-CRI, Matte White	Tender
1		XEC.2	Yes		Existing	Ceiling	Ceiling	Emergency Exit/Combo Sign - Ceiling Mount; 2-Head Emergency Light; Green Pictogram	Assumed 9W Incandescent	Tender
Total: 422										

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THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.

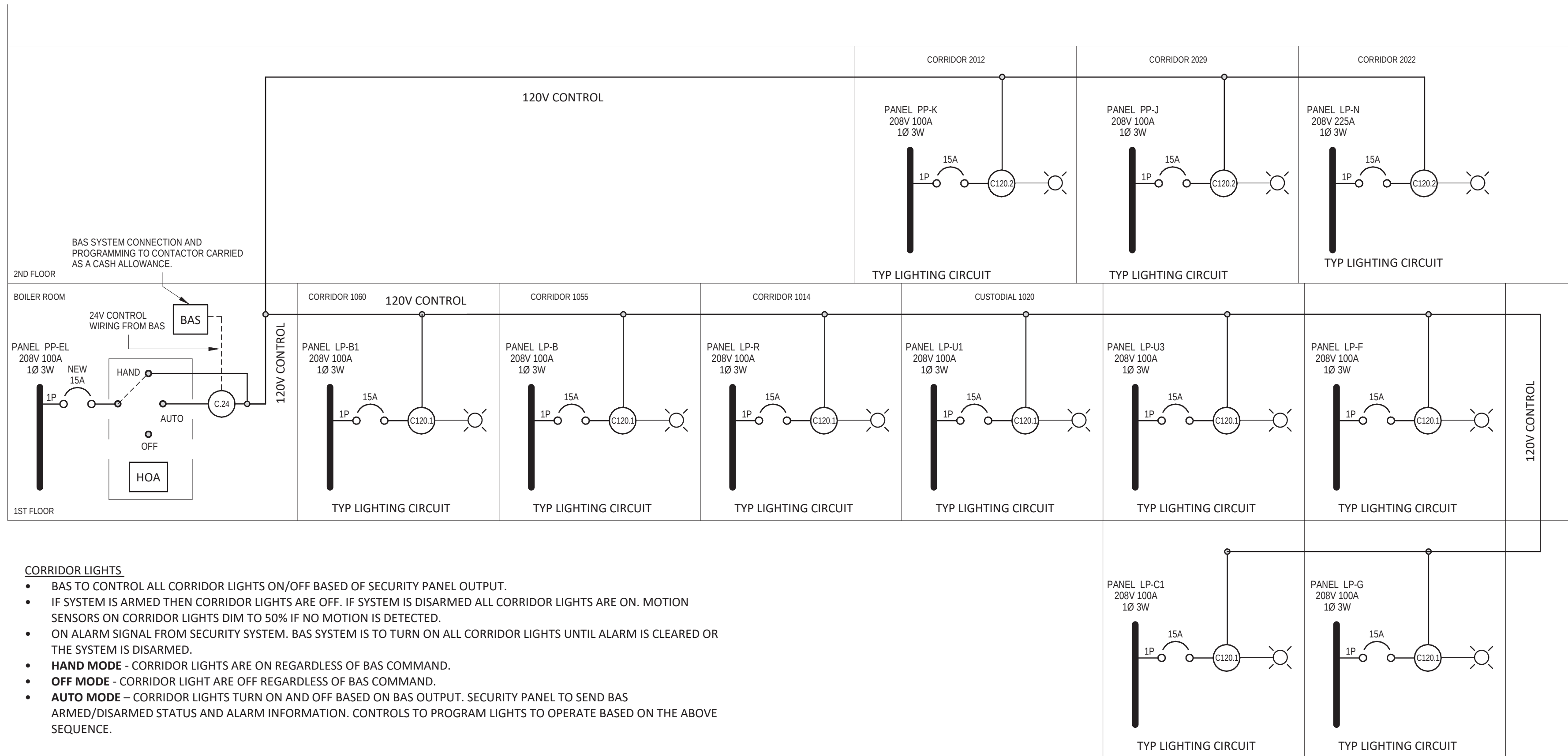
PANEL

	PANEL	EXISTING LIGHTING CCT	REUSED CCTs
FIRST FLOOR	PANEL LP-B	B-47, B-49, B-61, B-4	B-47, B-49
	PANEL PP-B1	B1-1, B1-42, B1-45	
	PANEL PP-R	R-2, R-4, R-6, R-8, R-10	R-2, R-4
	PANEL PP-U1	U1-2, U1-6	U1-2
	PANEL LP-G	G-11, G-29	
	PANEL LP-U3	U3-6, U3-8, U3-1	U3-6
	PANEL PP-F	F-12, F-25, F-27	F-26
SECOND FLOOR	PANEL LP-C1	C1-1, C1-3, C1-42	C1-3
	PANEL LP-K	K-14, K-16	K-14
	PANEL LP-J	J-43, J-45, J-8	J-43
	PANEL LP-M	M-9, M-11	
	PANEL LP-N	N-27, N-29, N-1	N-27

NOTES:

1. EXISTING LIGHTING CIRCUIT TO BE REWIRED TO REDUCE THE NUMBER OF CIRCUITS USED AS NOTED. UNUSED CIRCUITS TO BE LABELED IN PANEL SCHEDULE AS SPARE.
2. EXISTING EXIT SIGNS NOTED (6 TOTAL) ON 2ND FLOOR CORRIDORS ON CIRCUIT J-22 TO REMAIN. RELABEL PANEL SCHEDULE EXIT SIGNS.
3. EXISTING CIRCUITING HAS BEEN DOCUMENTED AS BEST AS PRACTICABLE. CONTRACTOR TO VERIFY ACTUAL CIRCUITING ON SITE PRIOR TO RELATED WORK.
4. EXISTING CIRCUIT B1-42 & B1-45 TO DISCONNECT ON EXISTING LIGHTING CONTRACTOR. THIS CIRCUITS TO BE RE-USED IN HANDRYER.

2 Panel Schedule - Lighting Circuits



CORRIDOR LIGHTS

- BAS TO CONTROL ALL CORRIDOR LIGHTS ON/OFF BASED OF SECURITY PANEL OUTPUT.
- IF SYSTEM IS ARMED THEN CORRIDOR LIGHTS ARE OFF. IF SYSTEM IS DISARMED ALL CORRIDOR LIGHTS ARE ON. MOTION SENSORS ON CORRIDOR LIGHTS DIM TO 50% IF NO MOTION IS DETECTED.
- ON ALARM SIGNAL FROM SECURITY SYSTEM. BAS SYSTEM IS TO TURN ON ALL CORRIDOR LIGHTS UNTIL ALARM IS CLEARED OR THE SYSTEM IS DISARMED.
- **HAND MODE** - CORRIDOR LIGHTS ARE ON REGARDLESS OF BAS COMMAND.
- **OFF MODE** - CORRIDOR LIGHT ARE OFF REGARDLESS OF BAS COMMAND.
- **AUTO MODE** – CORRIDOR LIGHTS TURN ON AND OFF BASED ON BAS OUTPUT. SECURITY PANEL TO SEND BAS ARMED/DISARMED STATUS AND ALARM INFORMATION. CONTROLS TO PROGRAM LIGHTS TO OPERATE BASED ON THE ABOVE SEQUENCE.

1 BAS System

4	Relissued For Tender	Feb 11, 2025
3	Relissued For Tender	Feb 03, 2025
2	Issued For Tender	Jan 24, 2025
1	Issued For Permit	Dec 20, 2024

NO.	DESCRIPTION	DATE
REVISION SCHEDULE		



ROOT3
Engineering

1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

**Orchard Park
Secondary School**

200 Dewitt Rd,
Stoney Creek City, ON

DRAWING TITLE

Schedules & Details

SCALE 1 : 1	DRAWING NUMBER E4
SHEET SIZE 24"x36"	
PROJECT NUMBER 24055	