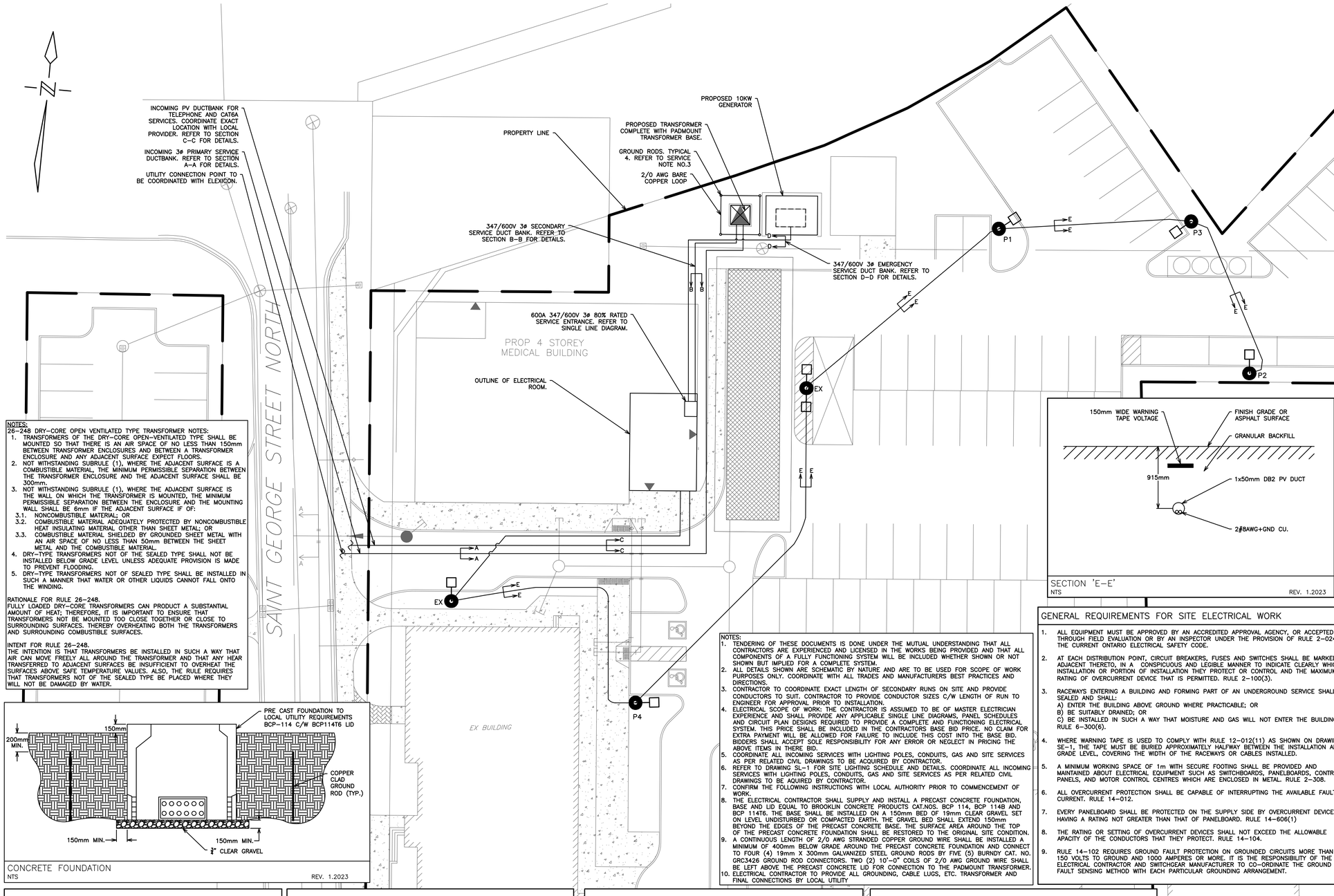
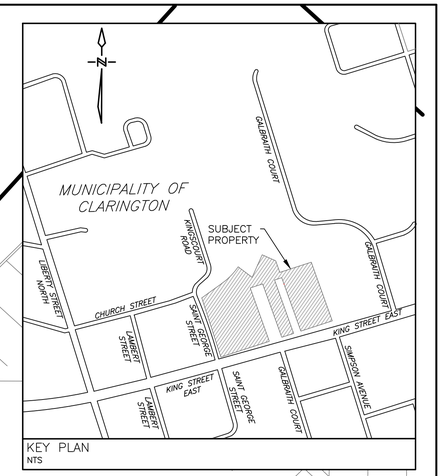




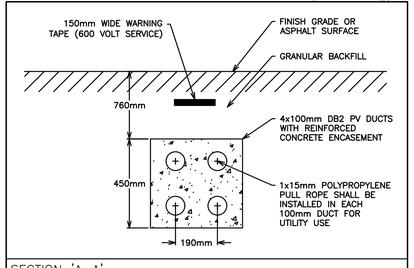
KEY PLAN
NTS

NOTES:
26–248 DRY–CORE OPEN VENTILATED TYPE TRANSFORMER NOTES:
1. TRANSFORMERS OF THE DRY–CORE OPEN–VENTILATED TYPE SHALL BE MOUNTED SO THAT THERE IS AN AIR SPACE OF NO LESS THAN 150mm BETWEEN TRANSFORMER ENCLOSURES AND BETWEEN A TRANSFORMER ENCLOSURE AND ANY ADJACENT SURFACE EXPECT FLOORS.
2. NOT WITHSTANDING SUBRULE (1), WHERE THE ADJACENT SURFACE IS A COMBUSTIBLE MATERIAL, THE MINIMUM PERMISSIBLE SEPARATION BETWEEN THE TRANSFORMER ENCLOSURE AND THE ADJACENT SURFACE SHALL BE 300mm.
3. NOT WITHSTANDING SUBRULE (1), WHERE THE ADJACENT SURFACE IS THE WALL ON WHICH THE TRANSFORMER IS MOUNTED, THE MINIMUM PERMISSIBLE SEPARATION BETWEEN THE ENCLOSURE AND THE MOUNTING WALL SHALL BE 6mm IF THE ADJACENT SURFACE IF OF:
   3.1. NONCOMBUSTIBLE MATERIAL; OR
   3.2. COMBUSTIBLE MATERIAL ADEQUATELY PROTECTED BY NONCOMBUSTIBLE HEAT INSULATING MATERIAL OTHER THAN SHEET METAL; OR
   3.3. COMBUSTIBLE MATERIAL SHIELDED BY GROUNDED SHEET METAL WITH AN AIR SPACE OF NO LESS THAN 50mm BETWEEN THE SHEET METAL AND THE COMBUSTIBLE MATERIAL.
4. DRY–TYPE TRANSFORMERS NOT OF THE SEALED TYPE SHALL NOT BE INSTALLED BELOW GRADE LEVEL UNLESS ADEQUATE PROVISION IS MADE TO PREVENT FLOODING.
5. DRY–TYPE TRANSFORMERS NOT OF SEALED TYPE SHALL BE INSTALLED IN SUCH A MANNER THAT WATER OR OTHER LIQUIDS CANNOT FALL ONTO THE WINDING.

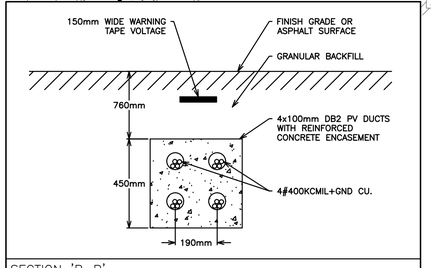
RATIONALE FOR RULE 26–248.
FULLY LOADED DRY–CORE TRANSFORMERS CAN PRODUCT A SUBSTANTIAL AMOUNT OF HEAT; THEREFORE, IT IS IMPORTANT TO ENSURE THAT TRANSFORMERS NOT BE MOUNTED TOO CLOSE TOGETHER OR CLOSE TO SURROUNDING SURFACES. THEREBY OVERHEATING BOTH THE TRANSFORMERS AND SURROUNDING COMBUSTIBLE SURFACES.

INTENT FOR RULE 26–248.
THE INTENTION IS THAT TRANSFORMERS BE INSTALLED IN SUCH A WAY THAT AIR CAN MOVE FREELY ALL AROUND THE TRANSFORMER AND THAT ANY HEAR TRANSFERRED TO ADJACENT SURFACES BE INSUFFICIENT TO OVERHEAT THE SURFACES ABOVE SAFE TEMPERATURE VALUES. ALSO, THE RULE REQUIRES THAT TRANSFORMERS NOT OF THE SEALED TYPE BE PLACED WHERE THEY WILL NOT BE DAMAGED BY WATER.

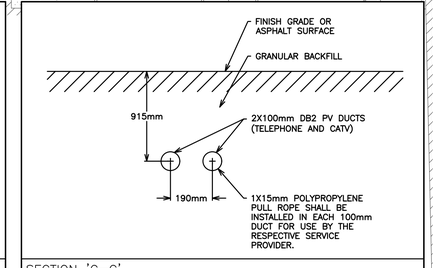
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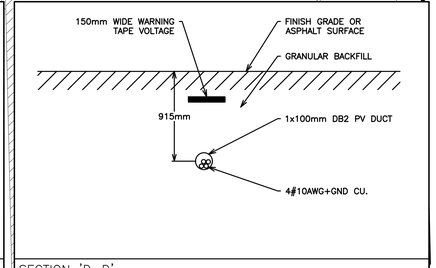
SECTION 'A–A'
NTS REV. 1.2023



SECTION 'B–B'
NTS REV. 1.2023



SECTION 'C–C'
NTS REV. 1.2023



SECTION 'D–D'
NTS REV. 1.2023

SECTION 'E–E'
NTS REV. 1.2023

NOTES:
1. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.
2. ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.
3. CONTRACTOR TO COORDINATE EXACT LENGTH OF SECONDARY RUNS ON SITE AND PROVIDE CONDUCTORS TO SUIT. CONTRACTOR TO PROVIDE CONDUCTOR SIZES C/W LENGTH OF RUN TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
4. ELECTRICAL SCOPE OF WORK: THE CONTRACTOR IS ASSUMED TO BE OF MASTER ELECTRICIAN EXPERIENCE AND SHALL PROVIDE ANY APPLICABLE SINGLE LINE DIAGRAMS, PANEL SCHEDULES AND CIRCUIT PLAN DESIGNS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THIS PRICE SHALL BE INCLUDED IN THE CONTRACTORS BASE BID PRICE. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR FAILURE TO INCLUDE THIS COST INTO THE BASE BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT IN PRICING THE ABOVE ITEMS IN THERE BID.
5. COORDINATE ALL INCOMING SERVICES WITH LIGHTING POLES, CONDUITS, GAS AND SITE SERVICES AS PER RELATED CIVIL DRAWINGS TO BE ACQUIRED BY CONTRACTOR.
6. REFER TO DRAWING SL–1 FOR SITE LIGHTING SCHEDULE AND DETAILS. COORDINATE ALL INCOMING SERVICES WITH LIGHTING POLES, CONDUITS, GAS AND SITE SERVICES AS PER RELATED CIVIL DRAWINGS TO BE ADQUIRED BY CONTRACTOR.
7. CONFIRM THE FOLLOWING INSTRUCTIONS WITH LOCAL AUTHORITY PRIOR TO COMMENCEMENT OF WORK.
8. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL A PRECAST CONCRETE FOUNDATION, BASE AND LID EQUAL TO BROOKLIN CONCRETE PRODUCTS CAT.NOS. BCP 114, BCP 114B AND BCP 1147G. THE BASE SHALL BE INSTALLED ON A 150mm BED OF 19mm CLEAR GRAVEL SET ON LEVEL UNDISTURBED OR COMPACTED EARTH. THE GRAVEL BED SHALL EXTEND 150mm BEYOND THE EDGES OF THE PRECAST CONCRETE BASE. THE SURFACE AREA AROUND THE TOP OF THE PRECAST CONCRETE FOUNDATION SHALL BE RESTORED TO THE ORIGINAL SITE CONDITION.
9. A CONTINUOUS LENGTH OF 2/0 AWG STRANDED COPPER GROUND WIRE SHALL BE INSTALLED A MINIMUM OF 400mm BELOW GRADE AROUND THE PRECAST CONCRETE FOUNDATION AND CONNECT TO FOUR (4) 19mm X 300mm GALVANIZED STEEL GROUND RODS BY FIVE (5) BURNDY CAT. NO. GRC3426 GROUND ROD CONNECTORS. TWO (2) 10'–0" COILS OF 2/0 AWG GROUND WIRE SHALL BE LEFT ABOVE THE PRECAST CONCRETE LID FOR CONNECTION TO THE PADMOUNT TRANSFORMER.
10. ELECTRICAL CONTRACTOR TO PROVIDE ALL GROUNDING, CABLE LUGS, ETC. TRANSFORMER AND FINAL CONNECTIONS BY LOCAL UTILITY

GENERAL REQUIREMENTS FOR SITE ELECTRICAL WORK

1. ALL EQUIPMENT MUST BE APPROVED BY AN ACCREDITED APPROVAL AGENCY, OR ACCEPTED THROUGH FIELD EVALUATION OR BY AN INSPECTOR UNDER THE PROVISION OF RULE 2–024 OF THE CURRENT ONTARIO ELECTRICAL SAFETY CODE.
2. AT EACH DISTRIBUTION POINT, CIRCUIT BREAKERS, FUSES AND SWITCHES SHALL BE MARKED, ADJACENT THERETO, IN A CONSPICUOUS AND LEGIBLE MANNER TO INDICATE CLEARLY WHICH INSTALLATION OR PORTION OF INSTALLATION THEY PROTECT OR CONTROL AND THE MAXIMUM RATING OF OVERCURRENT DEVICE THAT IS PERMITTED. RULE 2–100(3).
3. RACEWAYS ENTERING A BUILDING AND FORMING PART OF AN UNDERGROUND SERVICE SHALL BE SEALED AND SHALL:
   A) ENTER THE BUILDING ABOVE GROUND WHERE PRACTICABLE; OR
   B) BE SUITABLY DRAINED; OR
   C) BE INSTALLED IN SUCH A WAY THAT MOISTURE AND GAS WILL NOT ENTER THE BUILDING. RULE 6–300(6).
4. WHERE WARNING TAPE IS USED TO COMPLY WITH RULE 12–012(11) AS SHOWN ON DRAWING SE–1, THE TAPE MUST BE BURIED APPROXIMATELY HALFWAY BETWEEN THE INSTALLATION AND GRADE LEVEL, COVERING THE WIDTH OF THE RACEWAYS OR CABLES INSTALLED.
5. A MINIMUM WORKING SPACE OF 1m WITH SECURE FOOTING SHALL BE PROVIDED AND MAINTAINED ABOUT ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, CONTROL PANELS, AND MOTOR CONTROL CENTRES WHICH ARE ENCLOSED IN METAL. RULE 2–308.
6. ALL OVERCURRENT PROTECTION SHALL BE CAPABLE OF INTERRUPTING THE AVAILABLE FAULT CURRENT. RULE 14–012.
7. EVERY PANELBOARD SHALL BE PROTECTED ON THE SUPPLY SIDE BY OVERCURRENT DEVICES HAVING A RATING NOT GREATER THAN THAT OF PANELBOARD. RULE 14–606(1)
8. THE RATING OR SETTING OF OVERCURRENT DEVICES SHALL NOT EXCEED THE ALLOWABLE APACITY OF THE CONDUCTORS THAT THEY PROTECT. RULE 14–104.
9. RULE 14–102 REQUIRES GROUND FAULT PROTECTION ON GROUNDED CIRCUITS MORE THAN 150 VOLTS TO GROUND AND 1000 AMPERES OR MORE. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SWITCHGEAR MANUFACTURER TO CO–ORDINATE THE GROUND FAULT SENSING METHOD WITH EACH PARTICULAR GROUNDING ARRANGEMENT.

TELECOMMUNICATIONS SERVICE NOTES

1. A MINIMUM SEPARATION FROM POWER CONDUITS OF NOT LESS THAN 100mm OF CONCRETE (2500 P–S–I) OR 300mm OF WELL TAPPED EARTH IS REQUIRED.
2. PULL ROPE MUST BE PROVIDED FOR ALL CONDUIT RUNS AND THE ENDS OF CONDUITS MUST BE CLEARLY MARKED (STAKED) AT THE PROPERTY LINE.

SERVICE SIZE CALCULATIONS:

ESTIMATED SERVICE DEMAND

BASEMENT	
CLINIC AREA (20W/m²x90m²)	1,800W
HVAC	20,000W
FIRST FLOOR	
CLINIC AREA (20W/m²x400m²)	8,000W
HVAC	55,000W
CT SCANNER (1x125,000W @50%)	57,500W
MRI SCANNER (1x67,000W @50%)	33,600W
ULTRASOUND (6x386W @100%)	2,316W
X–RAY (2x100,000W@50%)	100,000W
BONE MINERAL DENSITY–SCANNER (1x25,020W @100%)	25,020W
MISCELLANEOUS	50,000W
SECOND FLOOR	
CLINIC AREA (20W/m²x400m²)	8,000W
HVAC	55,000W
MISCELLANEOUS	100,000W
THIRD FLOOR	
CLINIC AREA (20W/m²x400m²)	8,000W
HVAC	55,000W
MISCELLANEOUS	100,000W
FOURTH FLOOR	
CLINIC AREA (20W/m²x400m²)	8,000W
HVAC	55,000W
MISCELLANEOUS	100,000W
ELEVATOR (600V, 3ϕ, 70A @75%)	54,495W
EV CHARGER (200A, 1ϕ, 208V)	41,600W
TOTAL ESTIMATED DEMAND	938,331W

SERVICE SIZE = 903A @ 347/600V 3ϕ OR 1,200A @ 100% (FUSED MAIN)

NOT FOR CONSTRUCTION. REFER TO OFFER TO CONNECT BY ELEXICON FOR ALL DETAILS AND NOTES ASSOCIATED WITH THIS INSTALLATION.

1.	ISSUED FOR SITE PLAN APPROVAL	OCT 2026

222 KING STREET E, BOWMANVILLE, ON, L16 1P6

ELECTRICAL SITE SERVICING DESIGN

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
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LICENSED PROFESSIONAL ENGINEER
2026-10-30
STEFFANY ELIZABETH DEMELL
100623281
PROVINCE OF ONTARIO

SCALE:	1:200
DESIGNED BY:	E.B./S.D.
CHECKED BY:	G.V.W.O
PROJECT NO.:	125807
DRAWING NO.:	SE–1

30/10/2026
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