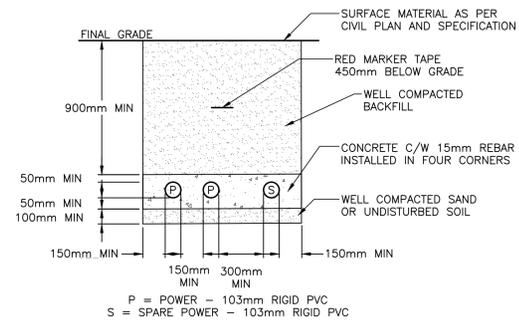


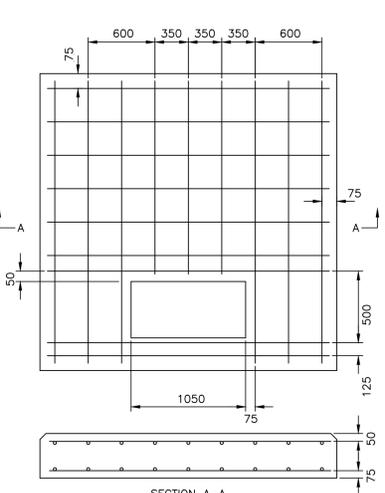
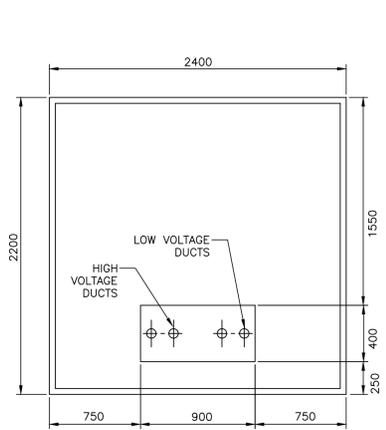
- TRENCH DETAIL NOTES:**
- CONCRETE ENCASED DUCT MATERIAL SHALL BE RIGID SCHEDULE 40 PVC CONDUIT.
  - EXACT DUCT CONFIGURATIONS MAY BE DIFFERENT THAN THAT SHOWN, EXACT ROUTING AND CONFIGURATION SHALL BE INDICATED ON AS-BUILT DRAWING.
  - ALL DUCT BANKS SHALL BE FORMED.
  - INSTALL SPACERS TO MAINTAIN THE REQUIREMENTS OF DUCT SPACING AT 190mm CENTER TO CENTER
  - ALL DUCTS SHALL BE SECURED TO BASE AND INTERMEDIATE SPACERS.

**A TRENCH SECTION VIEW**  
E04



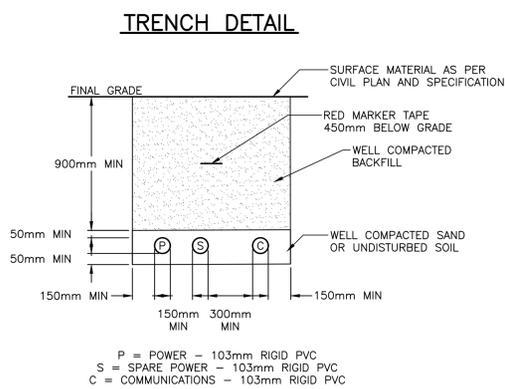
- TRENCH DETAIL NOTES:**
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  - INSTALL SPACERS TO MAINTAIN THE REQUIREMENTS OF DUCT SPACING AT 190mm CENTER TO CENTER
  - ALL DUCTS SHALL BE SECURED TO BASE AND INTERMEDIATE SPACERS.

**B TRENCH SECTION VIEW**  
E04



- DETAIL NOTES:**
- CONCRETE TO HAVE A 28 DAY SPECIFIED STRENGTH OF 28 MPa WITH MAXIMUM AGGREGATE SIZE OF 40mm. THE MAXIMUM SLUMP BE 50mm.
  - REINFORCING BARS SHALL BE 16mm (#15) DEFORMED INTERMEDIATE GRADE BILLET STEEL.
  - CONCRETE SURFACE TO BE LEVEL AND HAVE A SMOOTH FINISH TO ALLOW WATER RUN OFF.
  - REINFORCING BARS MUST NOT FORM A COMPLETE MAGNETIC PATH AROUND SPACE LEFT FOR CABLES AND DUCTS. A GAP SHALL BE PROVIDED IN THE REINFORCING BARS AS SHOWN
  - ALL DIMENSIONS ARE GIVEN IN MILLIMETERS
  - COORDINATE DIMENSIONS BASED ON TRANSFORMER PROVIDED.

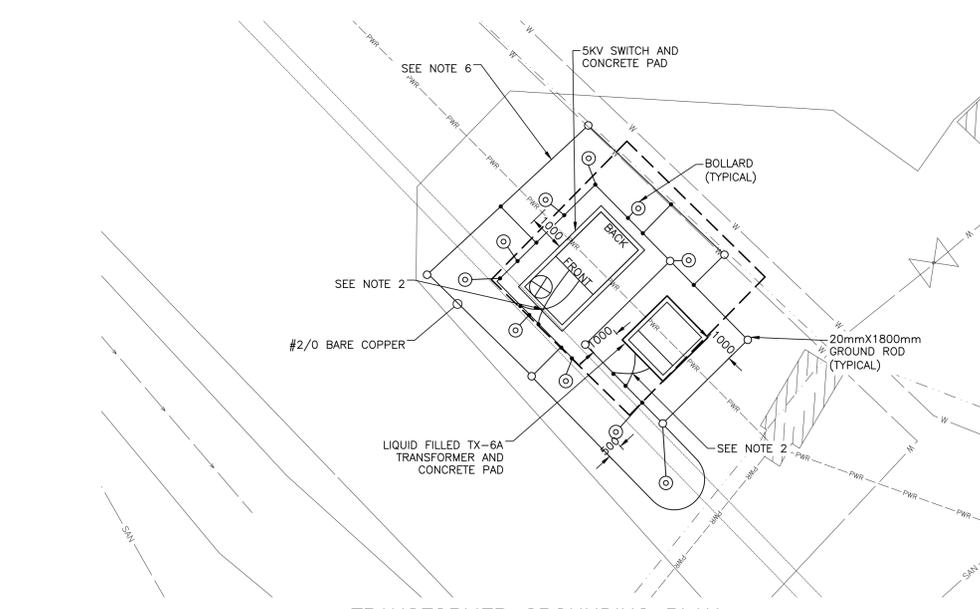
**OIL FILLED TRANSFORMER PAD DETAIL**



- TRENCH DETAIL NOTES:**
- EXACT DUCT CONFIGURATIONS MAY BE DIFFERENT THAN THAT SHOWN, EXACT ROUTING AND CONFIGURATION SHALL BE INDICATED ON AS-BUILT DRAWING.
  - INSTALL SPACERS TO MAINTAIN THE REQUIREMENTS OF DUCT SPACING AT 190mm CENTER TO CENTER

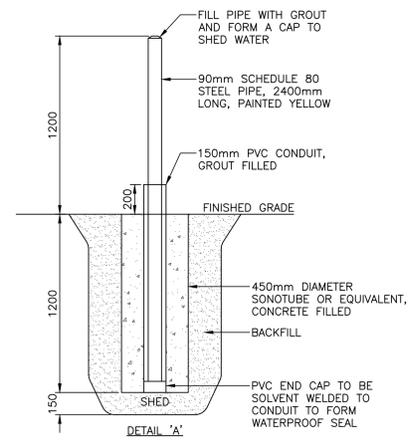
**C TRENCH SECTION VIEW**  
E04

**TRENCH DETAIL**



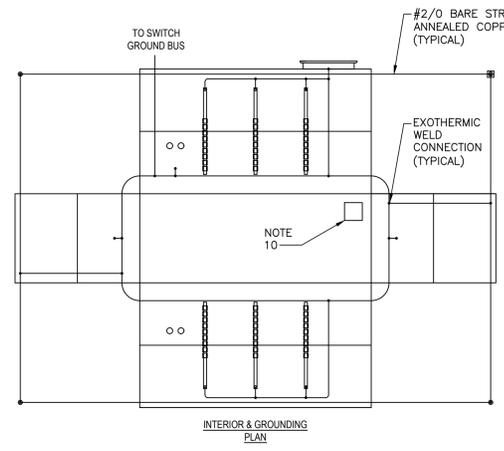
- DETAIL NOTES:**
- INSTALL #2/0 BARE STRANDED COPPER GROUND WIRE OF CONTINUOUS LENGTH TO FORM LOOP AROUND THE PAD AND COME UP THROUGH VOID IN PAD. MINIMUM BURIAL DEPTH TO BE 600mm. LEAVE SUFFICIENT SLACK (1.5m) IN GROUND WIRE FOR CONNECTION TO TRANSFORMER.
  - GROUND WIRE TO CROSS OVER AND BE CONNECTED AT THIS POINT WITH CONNECTOR APPROVED FOR DIRECT BURIAL
  - WHERE VEHICULAR TRAFFIC MAY BE A HAZARD, BOLLARDS SHALL BE INSTALLED. BOLLARDS ARE ONLY REQUIRED ON SIDES WHERE THE HAZARD EXISTS.
  - BOLLARDS SHALL BE PLACED SO AS NOT TO OBSTRUCT OPERATION OF THE DOORS OR TRANSFORMER COMPONENTS.
  - WHERE BOLLARDS ARE REQUIRED, THEY SHALL BE INSTALLED A MINIMUM OF 1000mm FROM THE TRANSFORMER PAD.
  - THE GROUND WIRE LOOP SHALL BE INSTALLED 1000mm FROM THE TRANSFORMER PAD, WHEN BOLLARDS ARE NOT REQUIRED. WHEN BOLLARDS ARE REQUIRED, THE GROUND LOOP SHALL BE INSTALLED OUTSIDE THE BOLLARDS AT 1500mm FROM THE TRANSFORMER PAD.
  - COMPLETE GROUNDING CALCULATIONS TO CONFIRM STEP AND TOUCH POTENTIAL MEETS THE REQUIREMENTS OF CEC RULE 36. ADJUST GROUNDING INSTALLATION ACCORDINGLY. PROVIDE COMPLETED FORMS FOR BULLETIN 36-000 STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF NOVA SCOTIA.

**TRANSFORMER GROUNDING PLAN**  
SCALE: 1:100

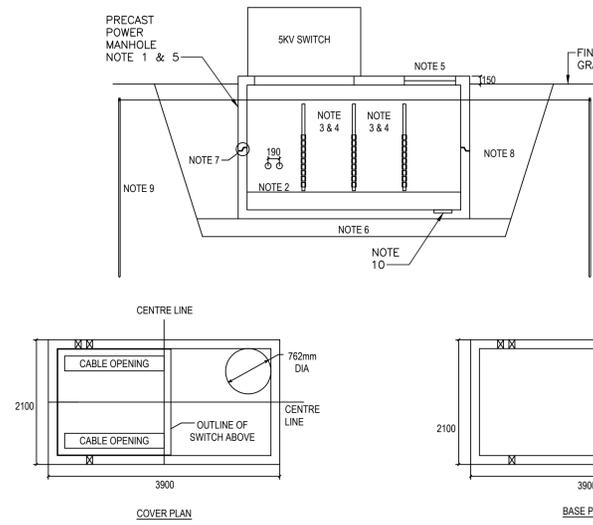


- DETAIL NOTES:**
- PVC CONDUIT OR EQUIVALENT, MUST BE INSTALLED TO INSULATE THE STEEL PIPE AND PREVENT TRANSFER OF TOUCH POTENTIAL IN THE EVENT OF A FAULT.

**BOLLARD DETAIL**



- DESIGN NOTES:**
- DESIGN MANHOLES IN ACCORDANCE WITH SECTION 33 65 73 AND AS FOLLOWS:  
MANHOLE SIZE: 3900mm X 2100mm X 2300mm DEEP.  
LIVE LOAD: CL-625 TRUCK LOAD.
  - PROVIDE 129mm KNOCK-OUTS AS INDICATED COMPLETE WITH THREADED INSERTS AND CAPS IN MANHOLE WALLS FOR CONDUIT INSTALLATION. CONDUIT BELL ENDS SHALL BE LOCATED AT ALL POINTS WHERE CONDUITS ENTER OR LEAVE MANHOLE.
  - PROVIDE U-SHAPED HOT DIP GALVANIZED SUPPORT CHANNELS AS INDICATED. CHANNEL SIZE 41mm X 41mm X 2.5mm THICK. PROVIDE SUPPORT MATERIALS AND CABLE CLAMPS AS INDICATED.
  - PROVIDE ONE PULLING IRON IN EACH WALL OPPOSITE EACH PRESENT AND FUTURE DUCT RUN, ALSO ON FLOOR CENTERED UNDER COVER. PULLING IRONS SHALL BE CAPABLE OF HOLDING A WORKING LOAD OF 5 TONS PURE TENSION WITH A FACTOR OF SAFETY OF 2.0.
  - INSTALL MANHOLE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
  - INSTALL MANHOLE ON 150mm THICK LAYER OF CLEAR STONE.
  - WATER-PROOF MANHOLE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS ASSUMING WATER TABLE AT GROUND LEVEL.
  - BACKFILL FOR MANHOLE SIDES SHALL BE CRUSHED AND SCREENED GRAVEL OR ROCK IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. BACKFILL AGAINST THE STRUCTURE SHALL BE COMPLETED IN LAYERS NO GREATER IN DEPTH THAN 300mm AND COMPACTED TO 95% STANDARD PROCTOR. BACKFILL ENVELOPE AROUND MANHOLE SHALL EXTEND MINIMUM 600mm AROUND THE MANHOLE'S PERIMETER.
  - PROVIDE GROUNDING CONDUCTORS AND GROUND ROD ELECTRODES AS INDICATED. CONNECT MANHOLE GROUND LOOP TO INCOMING GROUND THE CONDUCTOR. UTILIZE EXOTHERMIC WELD CONNECTORS FOR ALL GROUNDING CONNECTIONS.
  - PROVIDE 300mm x 300mm x 75mm CAVITY IN FLOOR FOR FUTURE SUMP PUMP. PROVIDE 1:50 SLOPE IN FLOOR TO THE SUMP PUMP CAVITY.
  - COORDINATE DIMENSIONS WITH ACTUAL SWITCHGEAR AND KNOCKOUTS.



**PRECAST POWER MANHOLE & SWITCHGEAR/CABINET DETAIL**



3	ISSUED FOR TENDER	06/17/2022
2	ISSUED FOR RS4 99% SUBMISSION	10/30/2020
1	ISSUED FOR RS4 66% SUBMISSION	02-28/2020
0	ISSUED FOR RS3 SUBMISSION	08-17/2018

**SEWAGE TREATMENT UPGRADES SPRINGHILL INSTITUTION SPRINGHILL, NS**

**ELECTRICAL SITE DETAILS**

designed EH	conçu
date 2022-06-17	
drawn GS	dessiné
date 2022-06-17	
approved DD	approuvé
date 2022-06-17	
Tender	Soumission
PWOSC Project Manager	Administrateur de projets TPSC
project number	no. du projet
<b>R.061876.001</b>	
drawing no.	no. du dessin
<b>E04</b>	