

1 SITE PLAN
SP-E01 1:500

DRAWING NOTES

- 1. TRANSITION FROM UTILITY OVERHEAD SERVICE TO UNDERGROUND SERVICE AT THIS LOCATION. PROVIDE WIRING IN DUCT BANK AS PER SPECIFICATIONS, ONE (1) CABLE PER DUCT TO CUSTOMER OWNED POLE ON PROPERTY AS SHOWN. ALLOW FOR AN ADDITIONAL SUFFICIENT AMOUNT OF CABLES COILED ON GROUND TO ALLOW FOR CONNECTIONS. HYDRO ONE TO MAKE FINAL CONNECTIONS AND PROVIDE TERMINATIONS AT HYDRO ONE POLE.
- 2. PROVIDE 16.8m (55'-0") CLASS L CONCRETE POLE US#HA-550-L-1-PG AND 200A LOAD BREAK 3 POLE GANG OPERATED SWITCH WITH 30A FUSES. POLE TO BE BURIED MINIMUM 2.59m (8'-6") IN THE GROUND WITH ENGINEERED BASE TO SUIT EQUIPMENT WEIGHT. PROVIDE US1 W SERIES ENTRY BOXES AND RUN LOAD WIRING INSIDE POLE. RUN LINE WIRING SURFACE MOUNTED ON THE BACK OF THE POLE. TRANSITION FROM OVERHEAD SERVICES TO LOAD BREAK SWITCH AND DIP BACK DOWN TO UNDERGROUND SERVICE AT THIS LOCATION. PROVIDE GROUNDING AND CABLE GUARDS AS PER SPECIFICATIONS AND AS PER OESC REQUIREMENTS.
- 3. PROVIDE NEW CUSTOMER OWNED TRANSFORMER C/W 2108mm X 2235mm US1-E-13PS PRECAST BASE. PROVIDE PRIMARY GROUNDING AS PER OESC BULLETIN 36-10-20 FOR TAMPER RESISTANT EQUIPMENT. COORDINATE WORK WITH HYDRO ONE AND INSPECTION AUTHORITY.

GENERAL NOTES

- 1. ROUTING OF THE INCOMING BURIED SERVICES IS A PROPOSED DIAGRAMATIC ROUTING. COORDINATE WITH CIVIL DRAWINGS, LANDSCAPE DRAWINGS, AND HYDRO ONE ON SITE PRIOR TO COMMENCING WORK TO FINALIZE ROUTING.
- 2. THE UTILITY CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A SITE MEETING WITH THE GENERAL CONTRACTOR, HYDRO ONE AND THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION OF BUILDING POWER SUPPLY INFRASTRUCTURE. THE PURPOSE OF THE MEETING IS TO COORDINATE THE WORK, REVIEW THE RESPONSIBILITIES OF HYDRO ONE AND THE ELECTRICAL CONTRACTOR, THE UTILITY CONTRACTOR AND THE ELECTRICAL CONTRACTOR TO ENSURE THAT THE INSTALLATION OF THE TRANSFORMER AND CABLE DUCTS ADHERE TO HYDRO ONE SPECIFICATIONS AND ESA REQUIREMENTS.
- 3. SITE CONDUITS FOR LIGHTING AND RECEPTACLES ARE NOT SHOWN. UTILITY AND ELECTRICAL CONTRACTORS ARE TO PROVIDE LAYOUT AND COORDINATE.
- 4. PROVIDE MINIMUM #8 AWG CONDUCTOR SIZE FOR SITE LIGHTING. ALL LIGHTING CONDUITS SHALL BE MINIMUM 53mm RIGID PVC. PROVIDE FINAL CONNECTIONS TO ELECTRICAL PANELS ONCE THEY ARE INSTALLED DURING BUILDING CONSTRUCTION.
- 5. SIZE RECEPTACLE CONDUCTORS FOR VOLTAGE DROP AT 80% CIRCUIT LOADING AND PROVIDE A MINIMUM WIRE SIZE OF #6 AWG. PROVIDE FINAL CONNECTIONS TO ELECTRICAL PANELS ONCE THEY ARE INSTALLED DURING BUILDING CONSTRUCTION.
- 6. PROVIDE A PRIMARY GROUND GRID BURIED BENEATH THE EXTERIOR OPEN PARKING AREAS OR GROUND LOOP AROUND PERIMETER OF BUILDING DEPENDING ON LOCAL SOILS RESISTIVITY AND THE RESULTS OF THE GROUND POTENTIAL RISE (GPR) STUDY. REFER TO SPECIFICATIONS.
- 7. COORDINATE MOUNTING HEIGHTS OF BUILDING MOUNTED LIGHT FIXTURES WITH ARCHITECTURAL ELEVATION DETAILS.
- 8. SUPPLY AND INSTALL GUARDS AND STRAPS FOR PRIMARY RISERS ON HYDRO ONE POLE (HYDRO ONE TO INSTALL ON POLE).
- 9. ENSURE TRANSITION OF PRIMARY CABLE AS PER HYDRO ONE DETAILS DU-08-307 AND DU-08-302 (CONCRETE INSTALLATION NOT PERMITTED ON HYDRO ONE OWNED POLES).

ELECTRICAL LEGEND

| | |
|-----------|--|
| ○cc | DOWNLIGHT FIXTURE, LETTER DENOTES TYPE. |
| 'BB' ○ | WALL MOUNTED FIXTURE, LETTER DENOTES TYPE. |
| '1-AF2' □ | EXTERIOR LIGHT STANDARD FIXTURE. LETTER DENOTES TYPE. |
| ⊕ | 15A, 120V, DUPLEX GFI RECEPTACLE C/W WEATHER PROOF ENCLOSURE. |
| ⊞ | JUNCTION BOX. |
| ⊙ | HARD WIRED CONNECTION TO EQUIPMENT. |
| --- | U/G RACEWAY FOR COMMUNICATION SERVICES. |
| --- | U/G RACEWAY FOR POWER SERVICES. |
| ← | U/G RACEWAY TO BASE BUILDING ELECTRICAL ROOM FOR FUTURE CARD ACCESS. |
| CA | CARD ACCESS (CONDUIT/BACK BOX ONLY, DEVICES AND WIRING BY OTHERS). |
| EVCS | ELECTRICAL VEHICLE CHARGING STATION. PROVIDE 1-53mmC (PWR) AND 1-53mmC (COMM). |

ABBREVIATIONS:
 HT - HEIGHT
 GFI - GROUND FAULT INTERRUPTER
 WP - WEATHER PROOF
 U.O.N. - UNLESS OTHERWISE NOTED
 N.T.S. - NOT TO SCALE
 N.I.C. - NOT IN CONTRACT

C/W - COMPLETE WITH
 U/G - UNDER GROUND
 POW - POWER SERVICES
 COMMS - COMMUNICATION SERVICES
 AFF - ABOVE FINISHED FLOOR

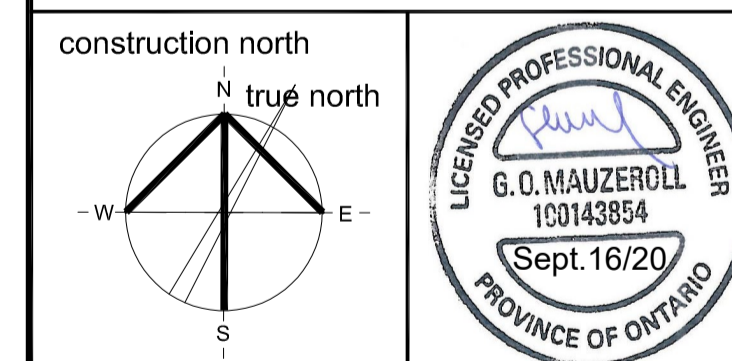
ELECTRICAL DRAWING LIST

| DRAWING No. | DESCRIPTION |
|-------------|--|
| SP-E01 | ELECTRICAL: LEGEND, DRAWING LIST & SITE PLAN |
| SP-E02 | ELECTRICAL: SCHEDULES |
| SP-E03 | ELECTRICAL: DETAILS |



project
PURULATOR DISTRIBUTION KANATA

1400 UPPER CANADA STREET, KANATA, ONTARIO



drawing title
ELECTRICAL: LEGEND, DRAWING LIST & SITE PLAN

| | |
|--------------------------------|---------------------------------|
| scale AS SHOWN | drawn by N.H. |
| date Jan. 2020 | checked by G.O.M. |
| project number 20029 | drawing number SP-E01 |

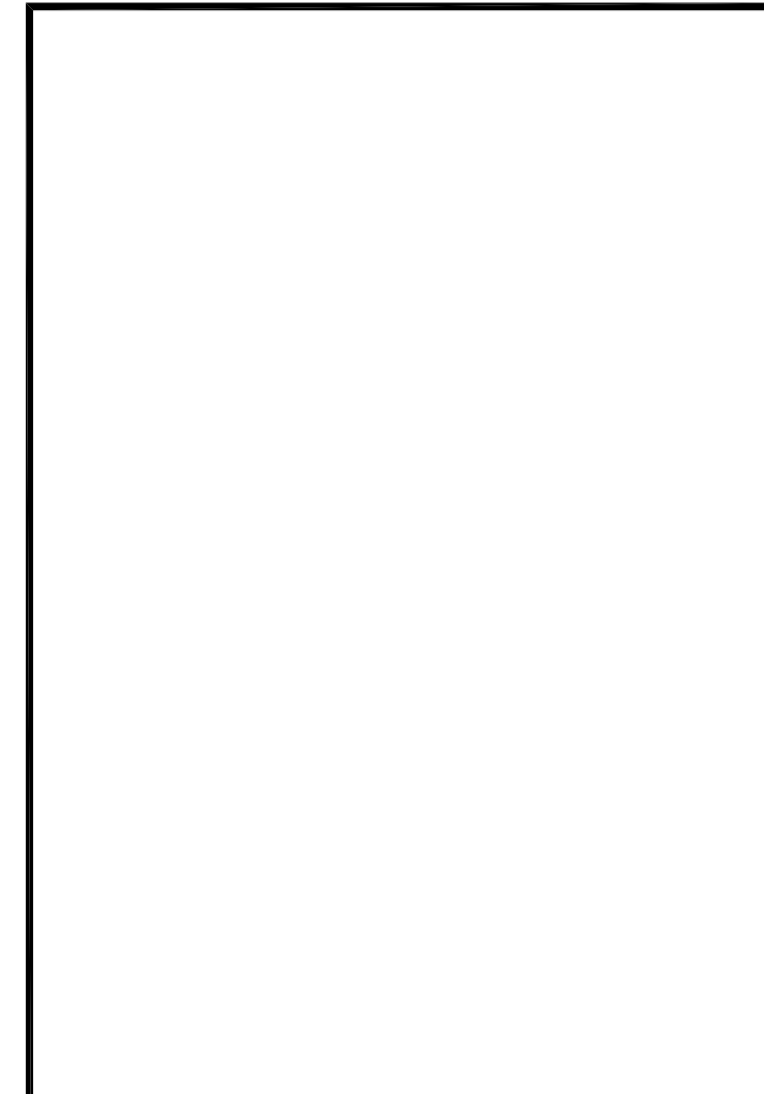
CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

| no. | revision | date |
|-----|------------------------------|--------------|
| 1 | ISSUED FOR SITE PLAN CONTROL | 9 Sept. 2020 |

| EXTERIOR LIGHTING FIXTURE SCHEDULE | | | | | | | |
|------------------------------------|---|---------------|--------------------|---------------|------|--|---|
| TYPE | DESCRIPTION | LAMPS | LED DIMMING DRIVER | DIMMING RANGE | VOLT | MOUNTING | REMARKS |
| 1-AF4 | POLE MOUNTED FIXTURE EQUAL TO GE 'EALS-03' SERIES | 1-116W LED | 0-10V | 10-100% | 347 | SQUARE ALUMINUM POLE 10.5m ABOVE GRADE | - 14500 LUMENS, 4000K, 70 CRI, TYPE IV (F4AH) DISTRIBUTION - FULL CUT-OFF, BACK LIGHT SHIELDING - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR - BLACK, MOUNTING HT. INCLUDES HT. OF BASE. |
| 1-AF2 | POLE MOUNTED FIXTURE EQUAL TO GE 'EALS-03' SERIES | 1-116W LED | 0-10V | 10-100% | 347 | SQUARE ALUMINUM POLE 10.5m ABOVE GRADE | - 15100 LUMENS, 4000K, 70 CRI, TYPE II (F2AN) DISTRIBUTION - FULL CUT-OFF, BACK LIGHT SHIELDING - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR - BLACK, MOUNTING HT. INCLUDES HT. OF BASE. |
| 1-AC2 | POLE MOUNTED FIXTURE EQUAL TO GE 'EALS-03' SERIES | 1-50W LED | 0-10V | 10-100% | 347 | SQUARE ALUMINUM POLE 5.25m ABOVE GRADE | - 7500 LUMENS, 4000K, 70 CRI, TYPE II (C2AN) DISTRIBUTION - FULL CUT-OFF, BACK LIGHT SHIELDING - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR - BLACK, MOUNTING HT. INCLUDES HT. OF BASE. |
| BB | BUILDING MOUNTED FIXTURE EQUAL TO GE 'EWLS' SERIES | 38W LED | 0-10V | 10-100% | 347 | SURFACE WALL MOUNTED 6096mm AFF U.O.N. | - 4000 LUMENS, 4000K, 70 CRI, ASYMMETRIC FORWARD DISTRIBUTION - FULL CUT-OFF, BLACK FINISH |
| CC | CANOPY LIGHT FIXTURE TBD | LED | 0-10V | 10-100% | 347 | RECESSED | |

NOTE:
PROVIDE HAND-HELD WIRELESS CONFIGURATION REMOTE FOR SUCCESSFUL IMPLEMENTATION OF PROGRAMMING, A MINIMUM OF TWO (2) HAND-HELD REMOTES ARE REQUIRED.

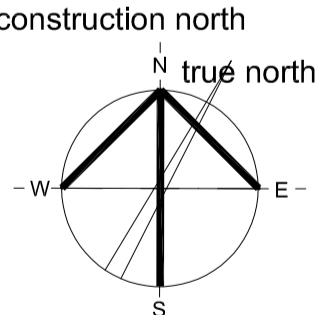
| Statistics | | | | | | |
|-----------------|--------|---------|---------|---------|---------|---------|
| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
| Compound North | + | 1.0 fcd | 2.8 fcd | 0.2 fcd | 14.0:1 | 5.0:1 |
| Compound South | + | 0.9 fcd | 2.8 fcd | 0.1 fcd | 28.0:1 | 9.0:1 |
| Parking | + | 1.4 fcd | 7.8 fcd | 0.3 fcd | 26.0:1 | 4.7:1 |
| Property Line | + | 0.1 fcd | 0.4 fcd | 0.0 fcd | N/A | N/A |
| Snow Storage | + | 0.4 fcd | 1.0 fcd | 0.1 fcd | 10.0:1 | 4.0:1 |
| Trailer Parking | + | 0.7 fcd | 1.6 fcd | 0.1 fcd | 16.0:1 | 7.0:1 |




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project
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 KANATA, ONTARIO

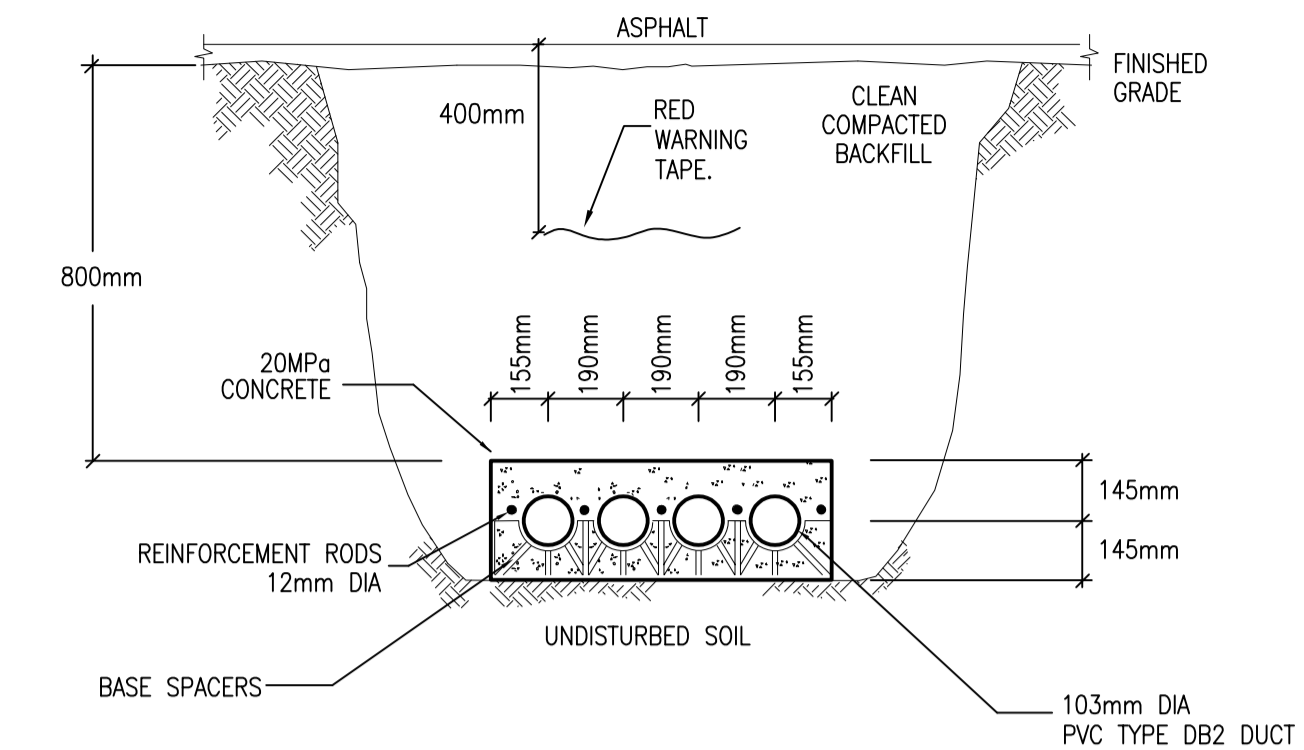
construction north




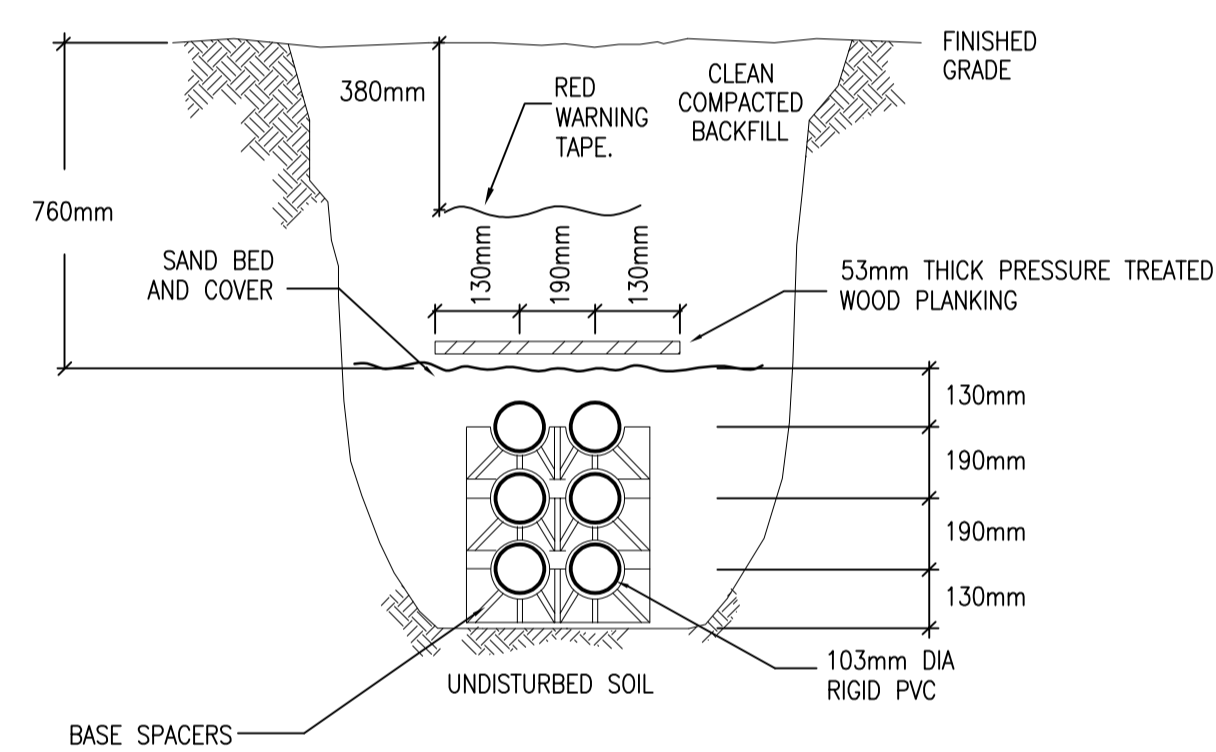
drawing title
**ELECTRICAL:
 SCHEDULES**

| | |
|-----------------------------------|---------------------------------|
| scale N.T.S. | drawn by N.H. |
| date Jan. 2020 | checked by G.O.M. |
| project number 20029 | drawing number SP-E02 |

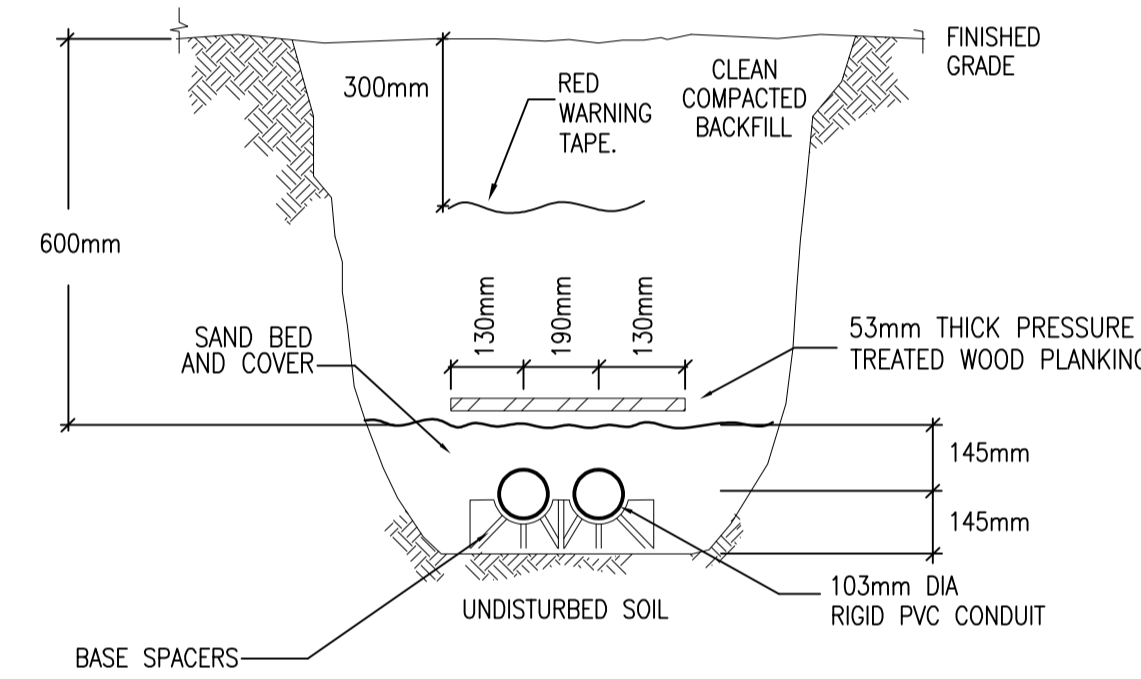
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1 TRENCH DETAIL – PRIMARY 4 CELL
SP-E03 CONCRETE ENCASED

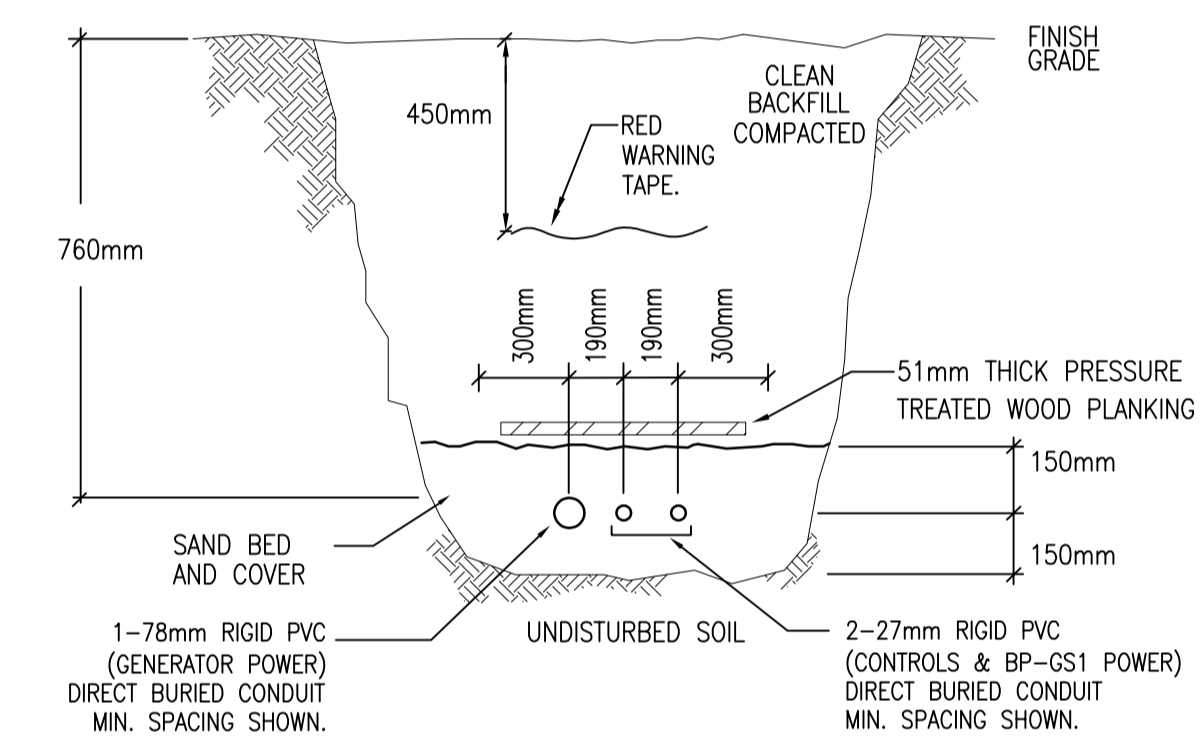


2 TRENCH DETAIL – SECONDARY 6 CELL
SP-E03 DIRECT BURIED

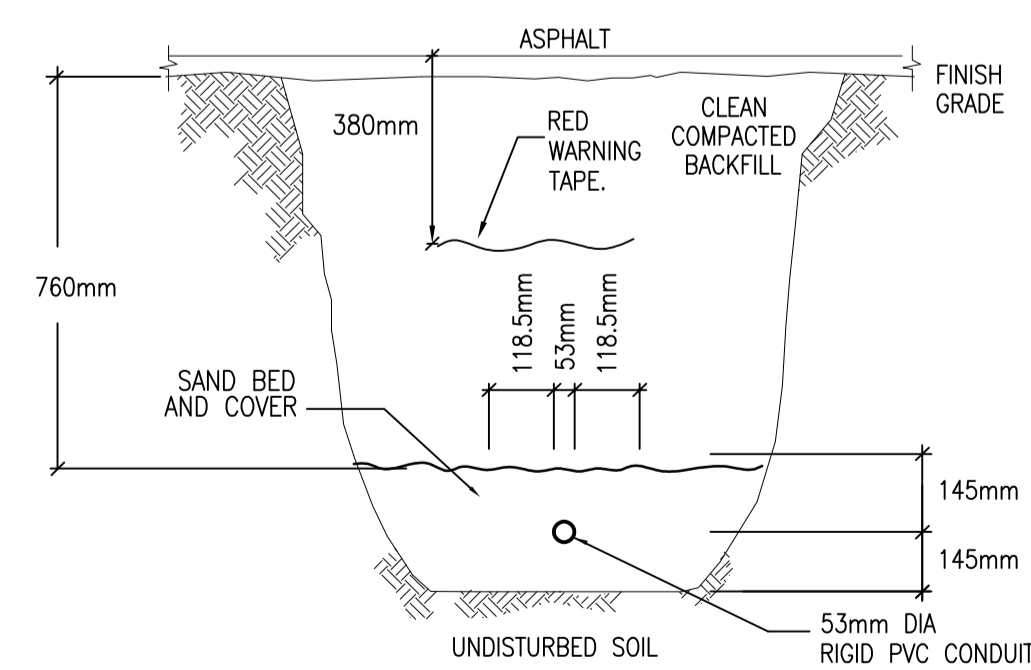


SEPARATE CONDUIT MINIMUM OF 300mm FROM HYDRO AND OTHER TELECOMMUNICATION SERVICES.

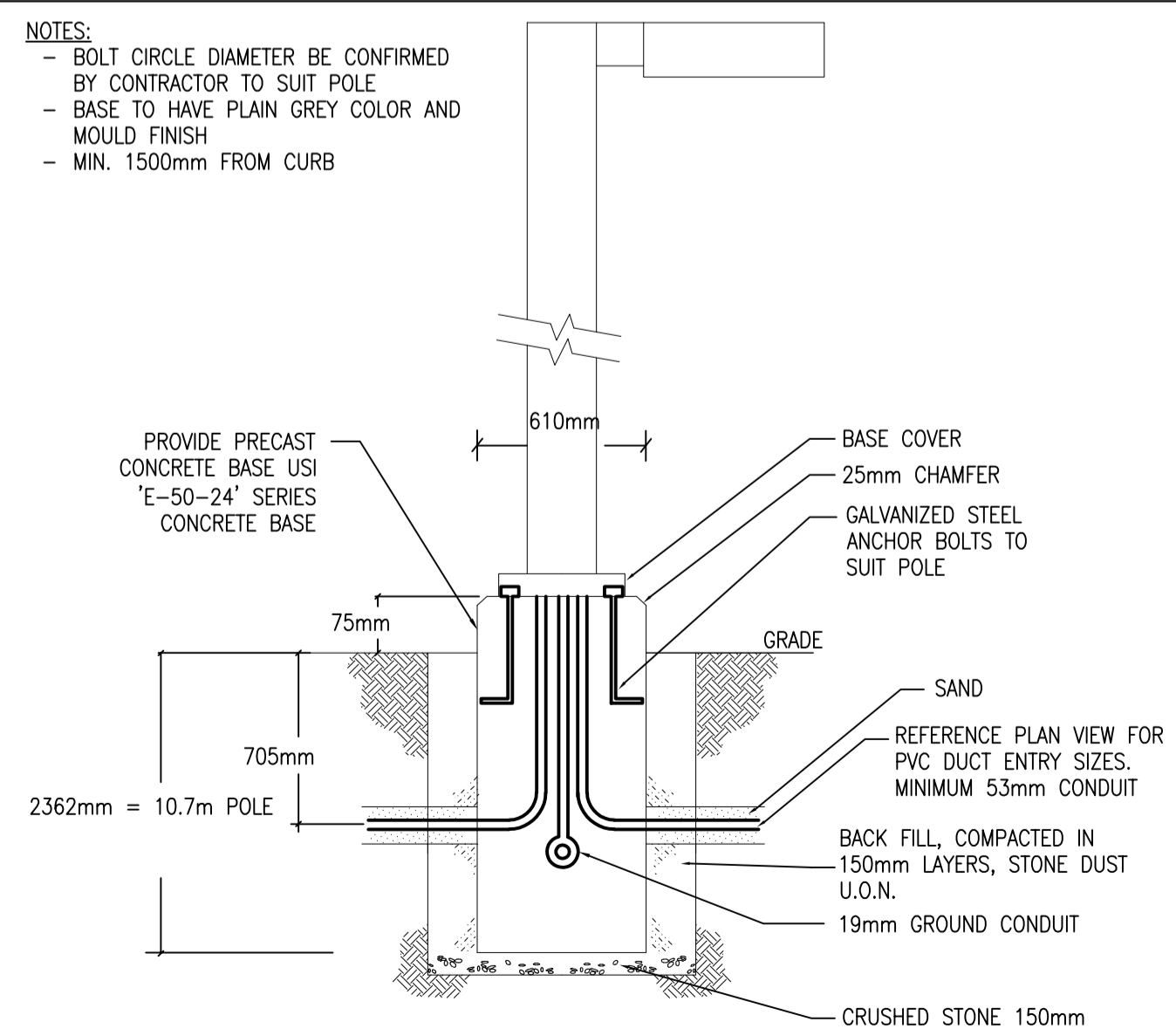
3 TRENCH DETAIL – COMMUNICATION 2 CELL
SP-E03 DIRECT BURIED



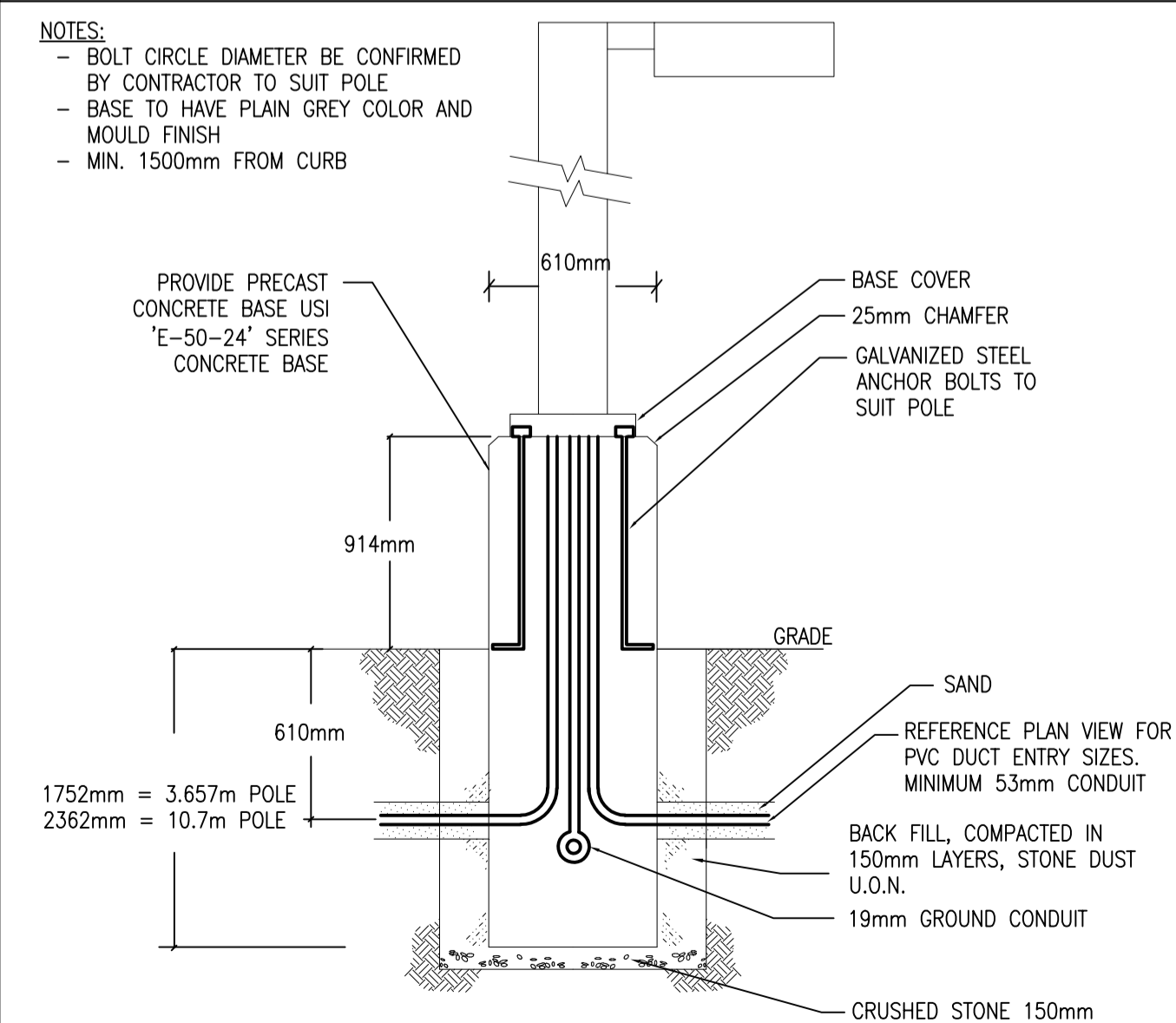
4 GENERATOR TRENCH DETAIL
SP-E03 DIRECT BURIED



5 DIRECT BURIED CONDUIT FOR EXTERIOR
SP-E03 LIGHTING STANDARDS OR POWER



6 MOUNTING OF LAMP POST BASE
SP-E03 CURBED AREAS



7 MOUNTING OF LAMP POST BASE
SP-E03 PARKING LOT AREAS (NO CURBS)

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project
Purolator Distribution Kanata
1400 UPPER CANADA STREET,
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construction north
N true north
W E S

LICENSED PROFESSIONAL ENGINEER
G.O. MAUZERÖLL
190143854
Sept. 16/20
PROVINCE OF ONTARIO

drawing title
ELECTRICAL: DETAILS

| | |
|---|---------------------------------|
| scale N.T.S. | drawn by N.H. |
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| project number 20029 | drawing number SP-E03 |
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| revision | |