

1 SITE PLAN  
SP-E01 1:500

**GENERAL NOTES**

- ROUTING OF THE INCOMING BURIED SERVICES IS A PROPOSED DIAGRAMMATIC ROUTING. COORDINATE WITH CIVIL DRAWINGS, LANDSCAPE DRAWINGS, AND HYDRO ONE ONSITE PRIOR TO COMMENCING WORK TO FINALIZE ROUTING.
- 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 THE GENERAL 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.
- SITE CONDUITS FOR LIGHTING AND RECEPTACLES ARE NOT SHOWN. UTILITY AND ELECTRICAL CONTRACTORS ARE TO PROVIDE LAYOUT AND COORDINATE.
- 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.
- 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.
- 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.
- COORDINATE MOUNTING HEIGHTS OF BUILDING MOUNTED LIGHT FIXTURES WITH ARCHITECTURAL ELEVATION DETAILS.
- SUPPLY AND INSTALL GUARDS AND STRAPS FOR PRIMARY RISERS ON HYDRO ONE POLE (HYDRO ONE TO INSTALL ON POLE).
- 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 DRAWING LIST**

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

**DRAWING NOTES**

- PROVIDE OVERHEAD SERVICE CABLES FROM HYDRO ONE POLE TO CUSTOMER OWNED POLE ON PROPERTY AS SHOWN. ALLOW FOR AN ADDITIONAL SUFFICIENT AMOUNT OF CABLES COILED FOR UTILITY CONNECTIONS. HYDRO ONE TO MAKE FINAL CONNECTIONS AND PROVIDE TERMINATIONS AT HYDRO ONE POLE.
- PROVIDE 16.8m (55'-0") CLASS L CONCRETE POLE USI#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 USI W SERIES ENTRY BOXES AND RUN LOAD WIRING INSIDE 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.
- PROVIDE NEW CUSTOMER OWNED TRANSFORMER C/W 2108mm X 2235mm USI-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.
- PROVIDE RECEPTACLE AND DATA OUTLET WITHIN EXTERIOR PARCEL LOCKER. CONDUITS TO RUN UNDERGROUND FROM ELECTRICAL ROOM AND COME UP THROUGH CONCRETE PAD BELOW LOCKER.

**ELECTRICAL LEGEND**

Occ	DOWNLIGHT FIXTURE, LETTER DENOTES TYPE.
'BB' Q	WALL MOUNTED FIXTURE, LETTER DENOTES TYPE.
'1-AF4'	EXTERIOR LIGHT STANDARD FIXTURE. LETTER DENOTES TYPE.
⚡	15A, 120V, DUPLEX RECEPTACLE ON DEDICATED CIRCUIT.
⊠	JUNCTION BOX.
⊙	HARD WIRED CONNECTION TO EQUIPMENT.
---	U/G RACEWAY FOR COMMUNICATION SERVICES.
---	U/G RACEWAY FOR POWER SERVICES.
▽	COMBINATION TELEPHONE/DATA OUTLET.
←	U/G RACEWAY TO BASE BUILDING ELECTRICAL ROOM FOR FUTURE CARD ACCESS.
CA	CARD ACCESS (CONDUIT/BACK BOX ONLY, DEVICES AND WIRING BY OTHERS).
EV3	ELECTRICAL VEHICLE CHARGING STATION. PROVIDE 1-53mmC (PWR) AND 1-53mmC (COMM).

ABBREVIATIONS:	C/W - COMPLETE WITH
HT - HEIGHT	U/G - UNDER GROUND
GFI - GROUND FAULT INTERRUPTER	POW - POWER SERVICES
WP - WEATHER PROOF	COMMS - COMMUNICATION SERVICES
U.O.N. - UNLESS OTHERWISE NOTED	AFF - ABOVE FINISHED FLOOR
N.T.S. - NOT TO SCALE	
N.I.C. - NOT IN CONTRACT	



no.	revision	date
3	ISSUED FOR SITE PLAN CONTROL R1	16 Dec. 2020
2	ISSUED FOR SITE PLAN APPLICATION	18 Sept. 2020
1	ISSUED FOR SITE PLAN CONTROL	9 Sept. 2020



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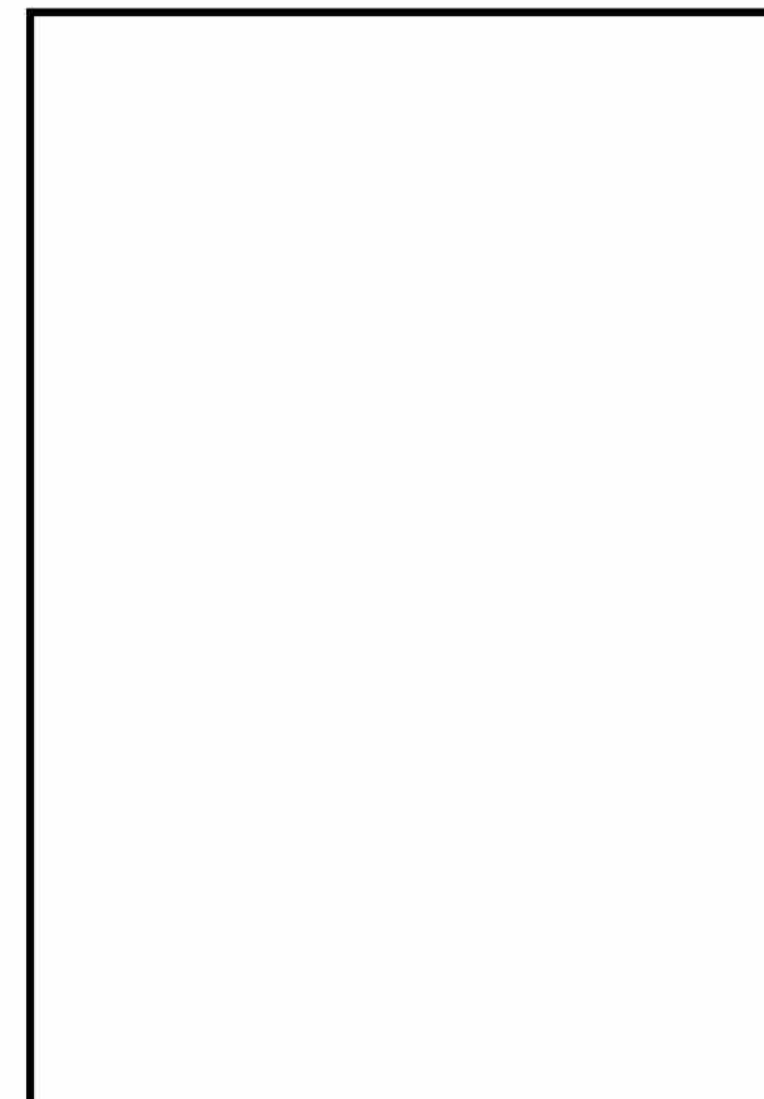
drawing title <b>ELECTRICAL: LEGEND, DRAWING LIST &amp; SITE PLAN</b>	
scale AS SHOWN	drawn by M.O.
date JANUARY 2020	checked by G.O.M.
project number <b>20029</b>	drawing number <b>SP-E01</b>
CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.	
	revision



EXTERIOR LIGHTING FIXTURE SCHEDULE							
TYPE	DESCRIPTION	LAMPS	LED DIMMING DRIVER	DIMMING RANGE	VOLT	MOUNTING	REMARKS
1-AF4	POLE MOUNTED FIXTURE EQUAL TO SIGNIFY GARDCO 'ECF-S' SERIES	1-159W LED	0-10V	10-100%	120	SQUARE ALUMINUM POLE 10.5m ABOVE GRADE	- 20880 LUMENS, 4000K, 70 CRI, TYPE IV DISTRIBUTION. - FULL CUT-OFF, BACK LIGHT SHIELDING. - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR. - BLACK, MOUNTING HEIGHT INCLUDES HEIGHT OF BASE.
1-AH4	POLE MOUNTED FIXTURE EQUAL TO SIGNIFY GARDCO 'ECF-S' SERIES	1-122W LED	0-10V	10-100%	120	SQUARE ALUMINUM POLE 10.5m ABOVE GRADE	- 15537 LUMENS, 4000K, 70 CRI, TYPE IV DISTRIBUTION. - FULL CUT-OFF, BACK LIGHT SHIELDING. - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR. - BLACK, MOUNTING HEIGHT INCLUDES HEIGHT OF BASE.
1-AC4	POLE MOUNTED FIXTURE EQUAL TO SIGNIFY GARDCO 'ECF-S' SERIES	1-106W LED	0-10V	10-100%	120	SQUARE ALUMINUM POLE 5.25m ABOVE GRADE	- 14006 LUMENS, 4000K, 70 CRI, TYPE IV DISTRIBUTION. - FULL CUT-OFF, BACK LIGHT SHIELDING. - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR. - BLACK, MOUNTING HEIGHT INCLUDES HEIGHT OF BASE.
1-AC3	POLE MOUNTED FIXTURE EQUAL TO SIGNIFY GARDCO 'ECF-S' SERIES	1-56W LED	0-10V	10-100%	120	SQUARE ALUMINUM POLE 5.25m ABOVE GRADE	- 7426 LUMENS, 4000K, 70 CRI, TYPE III DISTRIBUTION. - FULL CUT-OFF, BACK LIGHT SHIELDING. - FACTORY INSTALLED DIMMING OCCUPANCY SENSOR. - BLACK, MOUNTING HEIGHT INCLUDES HEIGHT OF BASE.
BB	BUILDING MOUNTED FIXTURE EQUAL TO SIGNIFY GARDCO '121' SERIES	55W LED	0-10V	10-100%	120	SURFACE WALL MOUNTED 6096mm AFF U.O.N.	- 5476 LUMENS, 4000K, 70 CRI, TYPE IV DISTRIBUTION. - FULL CUT-OFF, BLACK FINISH.
CC	102mm ROUND DOWNLIGHT FIXTURE EQUAL TO SIGNIFY LIGHTOLIER C4RA SERIES.	6W LED	0-10V	10-100%	120	RECESSED CANOPY	- 500 LUMENS, 4000K, 90 CRI, SPECULAR FINISH. - WHITE FLANGE, MEDIUM BEAM.

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	+	1.4 fd	2.3 fd	0.8 fd	2.9:1	1.8:1
Compound South	+	1.4 fd	2.4 fd	0.6 fd	4.0:1	2.3:1
Gated Entrance North	+	0.8 fd	1.2 fd	0.5 fd	2.4:1	1.6:1
Gated Entrance South	+	0.9 fd	1.5 fd	0.3 fd	5.0:1	3.0:1
Office Entrance East	+	5.4 fd	6.5 fd	4.7 fd	1.4:1	1.1:1
Office Entrance South	+	5.4 fd	5.5 fd	5.4 fd	1.0:1	1.0:1
Parking	+	1.2 fd	5.3 fd	0.2 fd	26.5:1	6.0:1
Property Line	+	0.0 fd	0.5 fd	0.0 fd	N/A	N/A
Snow Storage	+	0.5 fd	1.1 fd	0.0 fd	N/A	N/A
Trailer Parking	+	1.1 fd	2.4 fd	0.5 fd	4.8:1	2.2:1



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 SCHEDULES**

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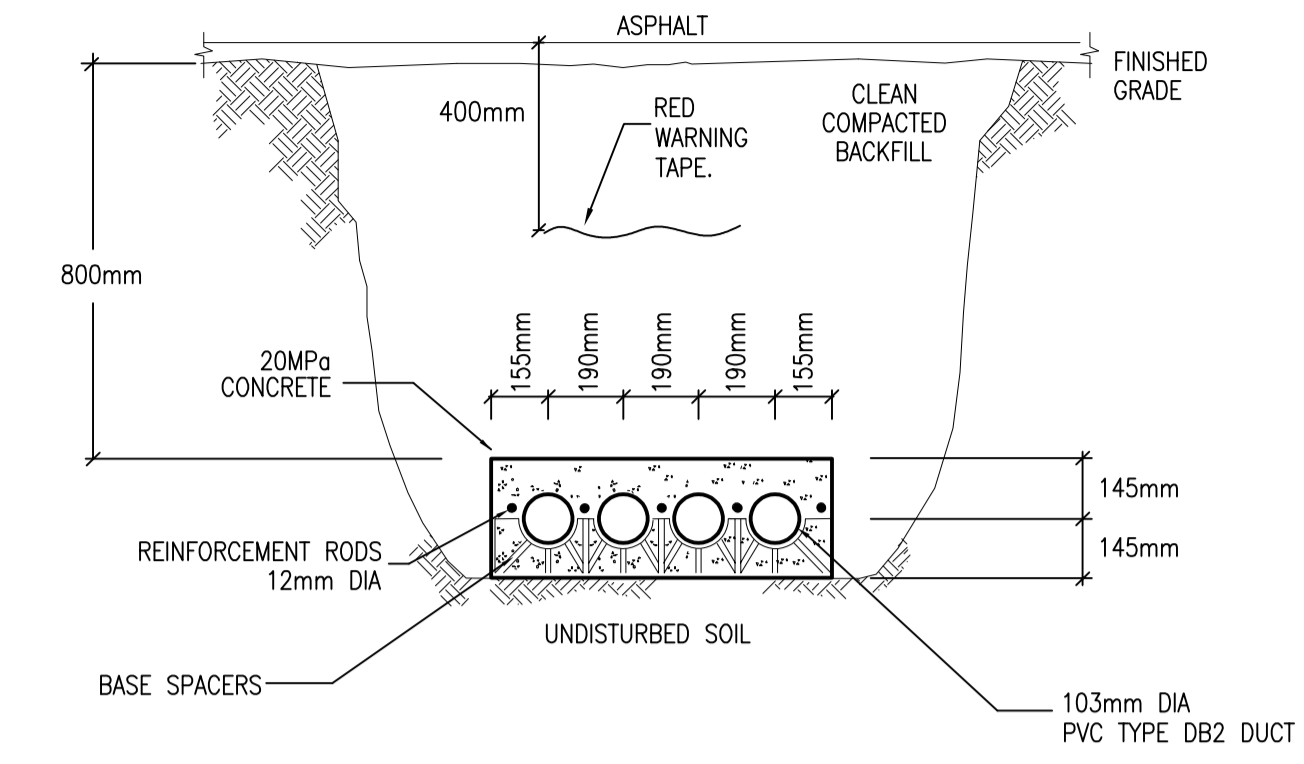
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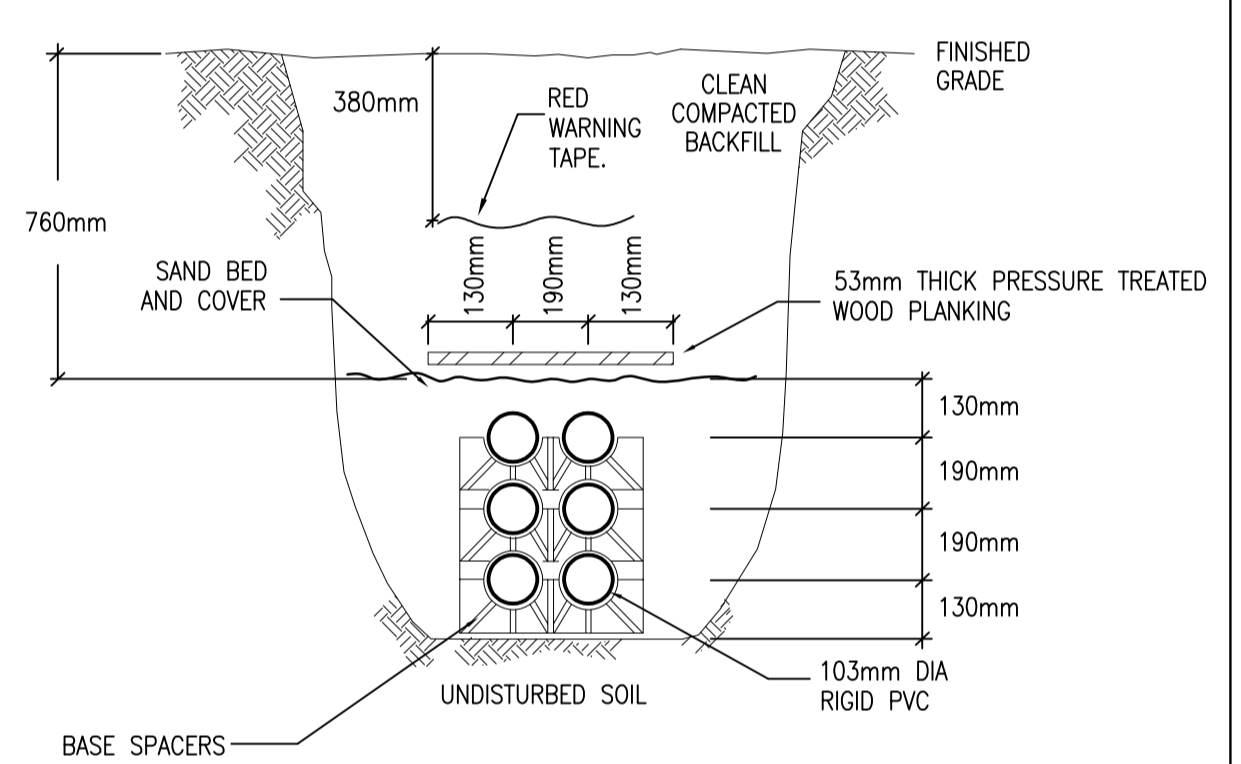
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**SP-E02**

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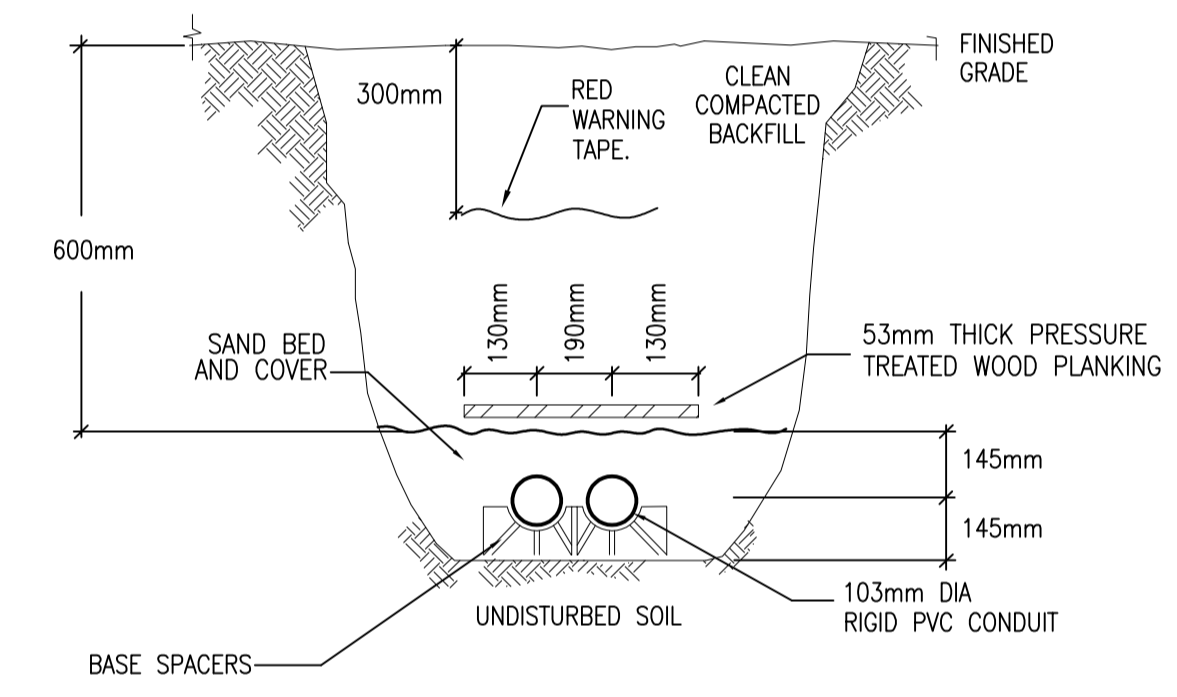
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**1** TRENCH DETAIL – PRIMARY 4 CELL  
SP-E03 CONCRETE ENCASED

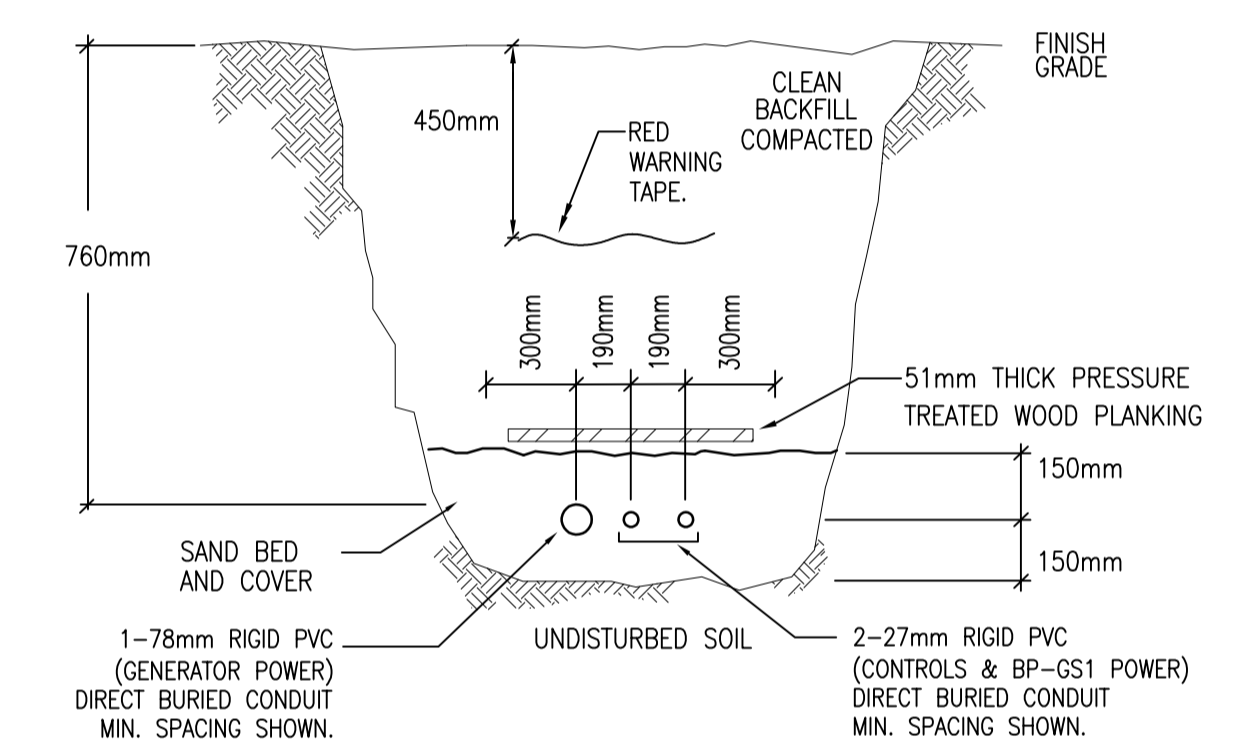


**2** TRENCH DETAIL – SECONDARY 6 CELL  
SP-E03 DIRECT BURIED

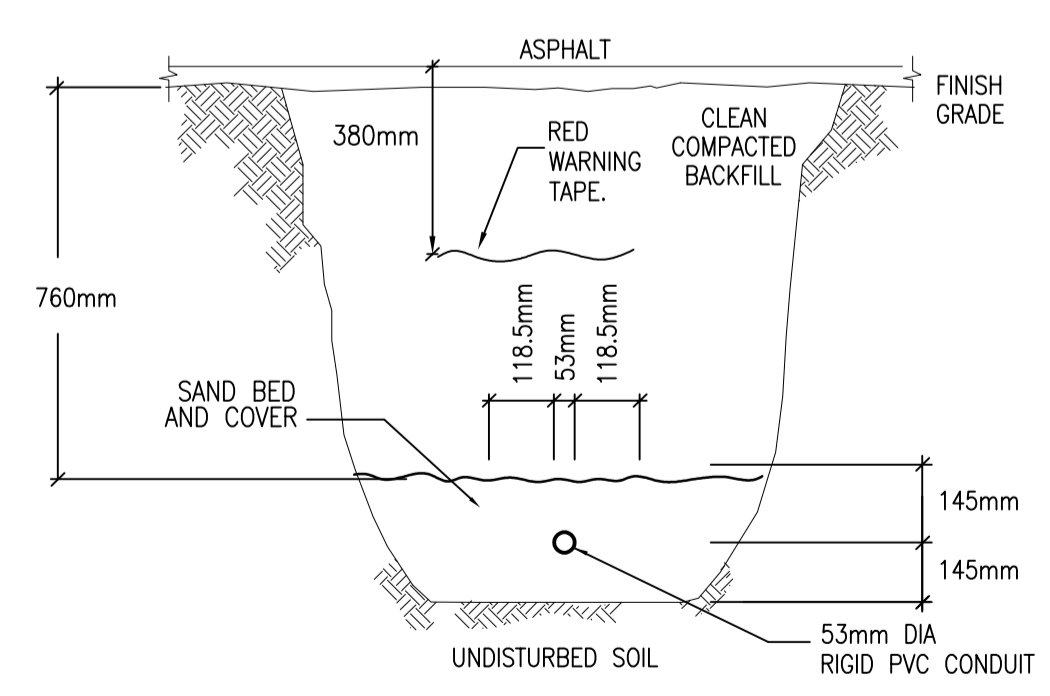


SEPARATE CONDUIT MINIMUM OF 300mm FROM HYDRO AND OTHER TELECOMMUNICATION SERVICES.

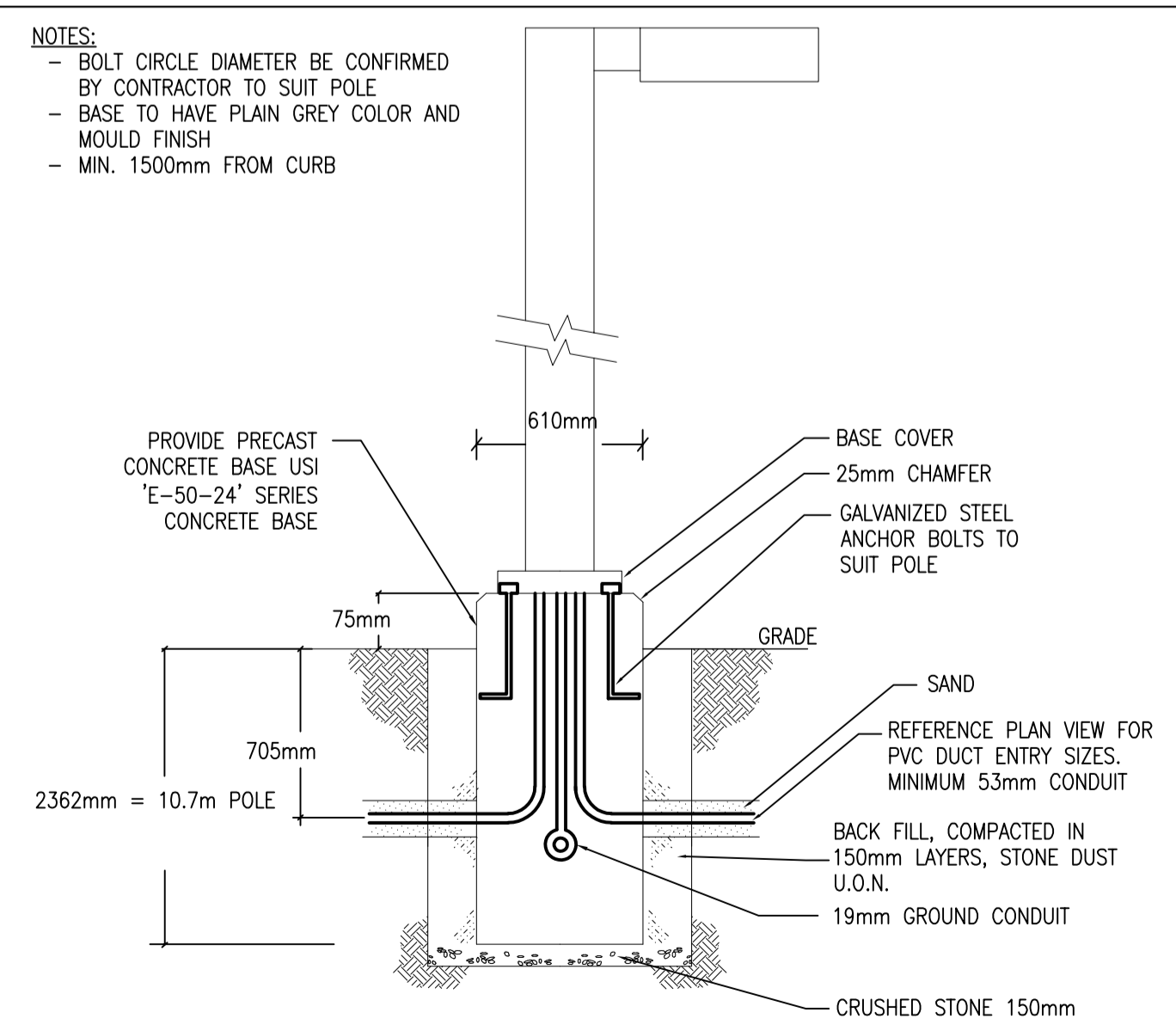
**3** TRENCH DETAIL – COMMUNICATION 2 CELL  
SP-E03 DIRECT BURIED



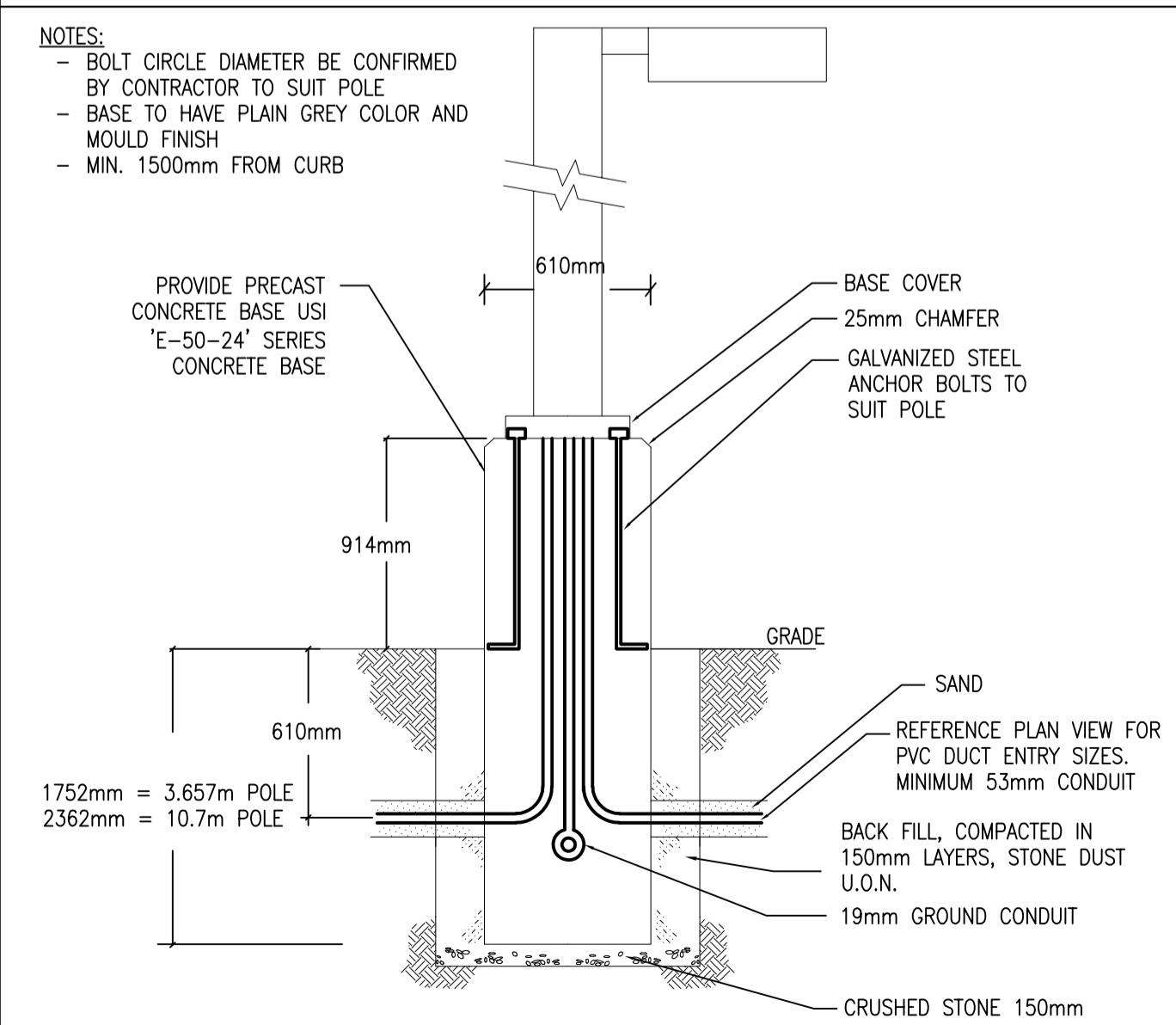
**4** GENERATOR TRENCH DETAIL  
SP-E03 DIRECT BURIED



**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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