



06/08/2023	DATE
REVISED PER DRB REVIEW	ISSUED FOR
1	NO.

GRISTMILL BUILDERS  
5430 WATERBURY STONE RD., WATERBURY CTR., VT  
RICHMOND CREAMERY BUILDING #2  
ELECTRICAL SITE PLAN

PROJ. NO.: 22037V  
DRAWN: CLD  
DATE: 00/00/0000

ES1

**GENERAL NOTES:**

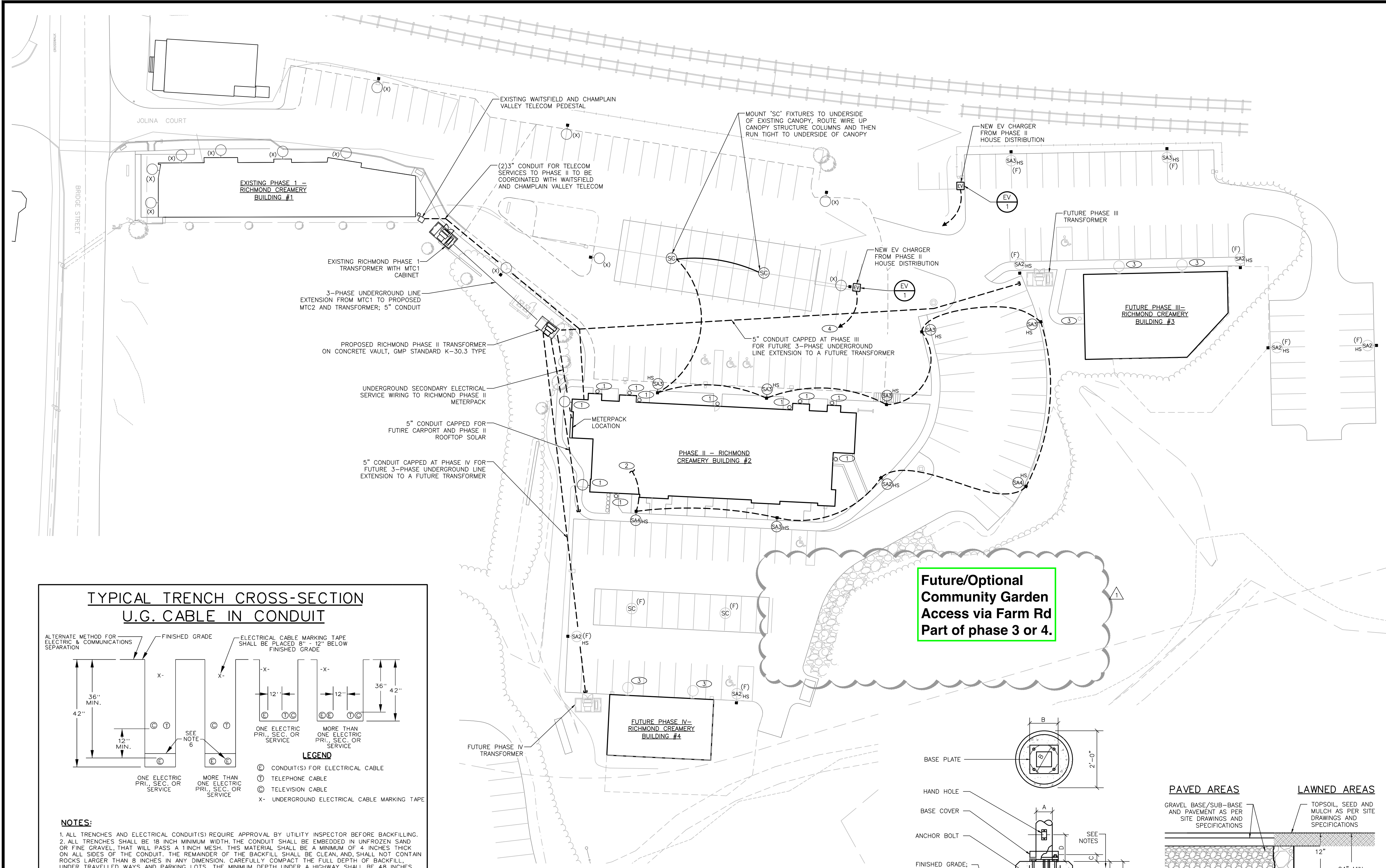
- THESE GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS.
- FOLLOW ALL APPLICABLE CODES AND USE GOOD ELECTRICAL CONSTRUCTION PRACTICES WHEN DETERMINING TYPES OF WIRING METHODS AND SIZING OF CONDUCTORS AND CONDUIT. INSTALL ALL POWER, CONTROL AND SIGNAL WIRING USING METHODS AS FOLLOWS:
    - UNDERGROUND: INDIVIDUAL CONDUCTORS INSTALLED IN SCHEDULE 40 PVC RIGID NON-METALLIC CONDUIT (RNC) FOR DIRECT BURIAL; TRANSITION TO GALVANIZED STEEL RIGID METALLIC CONDUIT (RMC) WHERE CONDUIT RISES TO BE EXPOSED ABOVE GRADE OR CONCRETE SLAB, FROM A MINIMUM 24" BELOW TOP OF FINISHED GRADE OR SLAB. REFER TO TRENCH DETAIL FOR SERVICE ENTRANCE WIRING.
    - EXPOSED, EXTERIOR WIRING: INDIVIDUAL CONDUCTORS IN GALVANIZED STEEL RIGID METALLIC CONDUIT (RMC).
    - CONCEALED FEEDERS AND BRANCH CIRCUITS: MULTI-CONDUCTOR METAL CLAD (TYPE MC) CABLE OR INDIVIDUAL CONDUCTORS IN ELECTRICAL METALLIC TUBING (EMT)
      - NON-METALLIC (TYPE NM) CABLE MAY BE UTILIZED WITHIN APARTMENT UNITS, CONTAINED WITHIN THE UNIT. NM CABLE IS NOT ALLOWED TO PENETRATE THROUGH THE 1 HOUR OR GREATER FLOOR ASSEMBLY OR WALL ASSEMBLY.
      - WHERE PENETRATIONS THROUGH (BOTH SIDES) OF A 1 HOUR OR GREATER FLOOR OR WALL ASSEMBLY IS NECESSARY, ANY NM CABLE SHALL TRANSITION TO MC CABLE OR INDIVIDUAL CONDUCTORS IN EMT.
  - MINIMUM CONDUCTOR SIZE SHALL BE 12 AWG. PROVIDE AN INSULATED GROUND CONDUCTOR WITHIN ALL CABLES AND RACEWAYS.
  - CIRCUITS SHALL BE 20A1P, (2#12, 1#12G) 1/2" C. OR CABLE, UNLESS INDICATED OTHERWISE.
  - ALL WIRING SHALL BE ROUTED CONCEALED AND ALL DEVICES AND OUTLETS SHALL BE FLUSH MOUNTED IN FINISHED SPACES, TO THE GREATEST EXTENT POSSIBLE. WHERE WIRING IS ROUTED EXPOSED, IT SHALL BE RUN NEATLY, IN LINE WITH (PERPENDICULAR TO OR PARALLEL TO) BUILDING SURFACES.
  - MINIMUM 1" CONDUIT UNDERGROUND FOR SITE.
  - MOUNT LIGHTING CONTROL SWITCHES 48" ABOVE FINISHED FLOOR TO TOP, WITHIN 6" OF THE LATCH SIDE OF THE DOOR, UNLESS OTHERWISE INDICATED.
  - ALL LIGHTING LAYOUTS AND EXACT LOCATION OF LUMINAIRES SHALL BE CHECKED AT CONSTRUCTION TIME AND PRIOR TO INSTALLATION WITH OTHER TRADE'S LATEST DRAWINGS AND EQUIPMENT LAYOUTS.
  - LUMINAIRES MOUNTED ON SURFACE METAL RACEWAY WITH SHALLOW BOXES MAY REQUIRE BACK MOUNTING TRIM. REFER TO ARCHITECT'S MOUNTING DETAIL.
  - CONNECT EMERGENCY AND EXIT LUMINAIRES TO THE UNSWITCHED PORTION OF THE LIGHTING CIRCUIT SERVING THE SPACE.
  - MOUNT RECEPTACLE DEVICES 18" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. MOUNT RECEPTACLE DEVICES SUCH THAT THEY ARE ORIENTED SO THE GROUND IS IN THE "UP" POSITION. "AC" INDICATES MOUNTING "A" OVER COUNTER BACK SPLASH, APPROXIMATELY 44" ABOVE FINISHED FLOOR. ALL RECEPTACLES SHALL BE TAMPER PROOF STYLE.
  - ENSURE RECEPTACLE PLACEMENT THROUGHOUT THE UNITS MEETS CODE REQUIREMENTS AS A MINIMUM.
  - WHERE MECHANICAL EQUIPMENT IS INDICATED ON PLAN WITHOUT LOCAL DISCONNECT, EITHER IT IS FURNISHED WITH THE EQUIPMENT OR IS INDICATED IN THE EQUIPMENT WIRING DIAGRAM AND EQUIPMENT SCHEDULE. REFER TO MECHANICAL EQUIPMENT SCHEDULE AND WIRING DIAGRAMS FOR CONNECTIONS TO CONTROL DEVICES. WHERE MECHANICAL EQUIPMENT IS SHOWN WITHOUT HOMERUN, REFER TO PANEL SCHEDULES.
  - CIRCUIT APARTMENT LIGHTING, DEVICES AND EQUIPMENT AS PER PANEL SCHEDULES AND DRAWING NOTES.

**DRAWING NOTES:**

- THESE DRAWING NOTES APPLY TO THIS DRAWING, ONLY.
- BUILDING MOUNTED LUMINAIRES SHOWN FOR REFERENCE. SEE LIGHTING PLANS FOR FURTHER INFORMATION.
  - TO EXTERIOR LIGHTING CONTROLS IN BUILDING II.
  - 'FUTURE' EXTERIOR MOUNTED BUILDING LIGHTS.
  - PROVIDE CIRCUIT TO POWER EV CHARGING STATION FROM HOUSE PANELS IN BUILDING II.

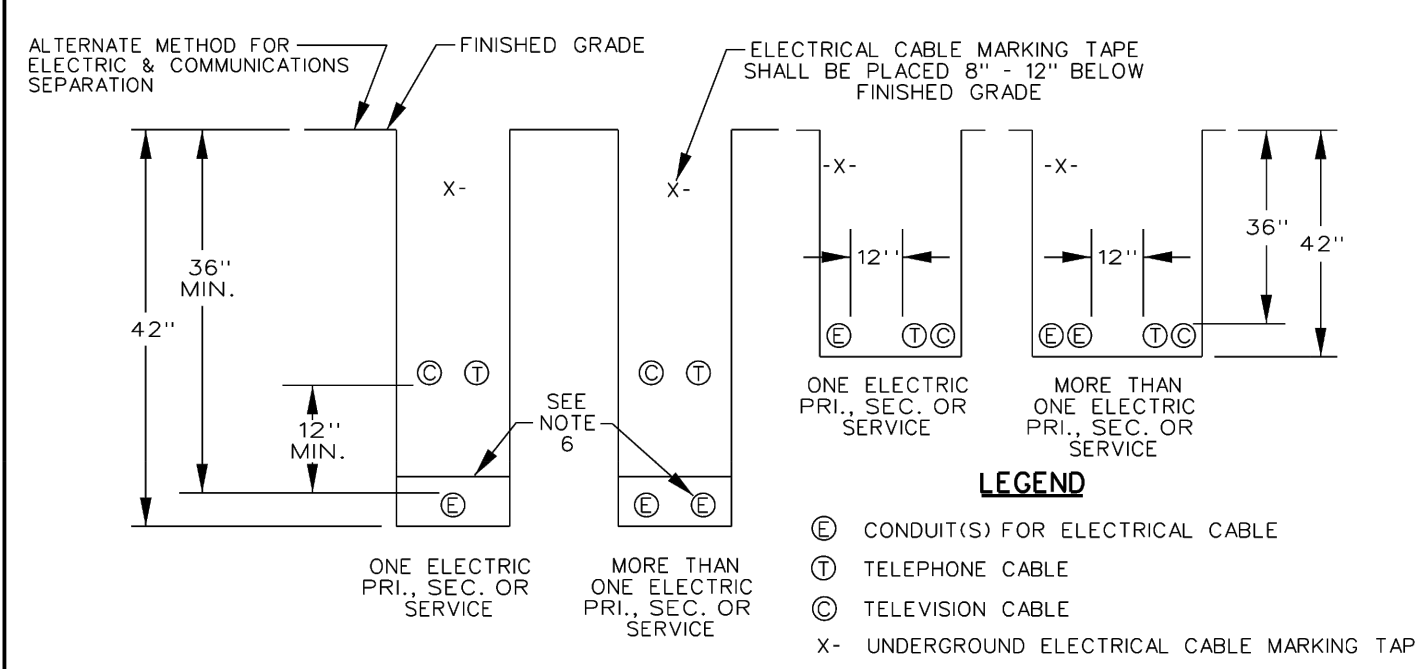
**ELECTRICAL LEGEND:**

- SEE LUMINAIRE SCHEDULE FOR LUMINAIRE TYPES
- HOMERUN TO PANEL INDICATED
  - BRANCH CIRCUIT OR FEEDER WIRING
  - UNDERGROUND WIRING
  - HS HOUSE SHIELDS
  - (X) EXISTING, TO REMAIN
  - (F) FUTURE
  - EV ELECTRIC VEHICLE CHARGING STATION
  - CEILING MOUNT LUMINAIRE OUTLET, TYPE AS INDICATED, REFER TO LIGHTING PLANS
  - BUILDING MOUNT LUMINAIRE OUTLET, REFER TO LIGHTING PLANS
  - POLE MOUNT LUMINAIRE, TYPE AS INDICATED



Future/Optional  
Community Garden  
Access via Farm Rd  
Part of phase 3 or 4.

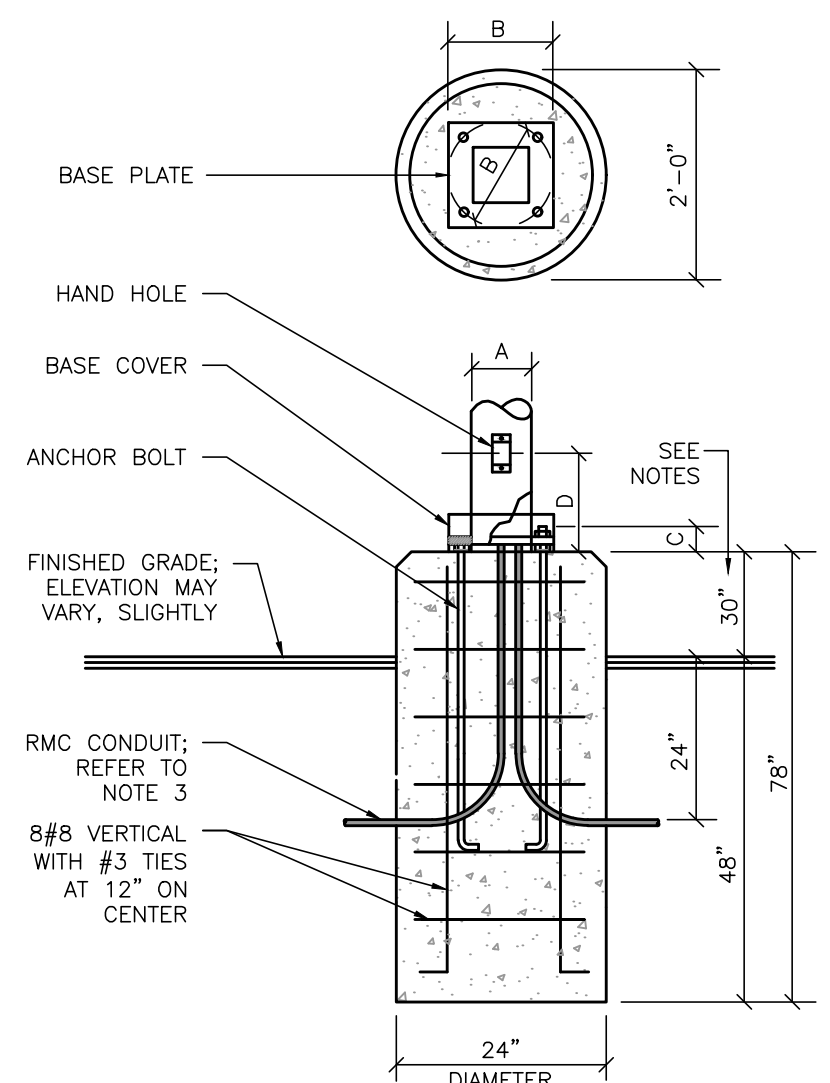
**TYPICAL TRENCH CROSS-SECTION  
U.G. CABLE IN CONDUIT**



- LEGEND**
- CONDUIT(S) FOR ELECTRICAL CABLE
  - ⊙ TELEPHONE CABLE
  - ⊙ TELEVISION CABLE
  - X- UNDERGROUND ELECTRICAL CABLE MARKING TAPE
- NOTES:**
- ALL TRENCHES AND ELECTRICAL CONDUIT(S) REQUIRE APPROVAL BY UTILITY INSPECTOR BEFORE BACKFILLING.
  - ALL TRENCHES SHALL BE 18 INCH MINIMUM WIDTH. THE CONDUIT SHALL BE EMBEDDED IN UNFROZEN SAND OR FINE GRAVEL THAT WILL PASS A 1/8" MESH. THIS MATERIAL SHALL BE A MINIMUM OF 4 INCHES THICK ON ALL SIDES OF THE CONDUIT. THE REMAINDER OF THE BACKFILL SHALL BE CLEAN, AND SHALL NOT CONTAIN ROCKS LARGER THAN 8 INCHES IN ANY DIMENSION. CAREFULLY COMPACT THE FULL DEPTH OF BACKFILL UNDER TRAVELLED WAYS AND PARKING LOTS. THE MINIMUM DEPTH UNDER A HIGHWAY SHALL BE 48 INCHES RATHER THAN 36 INCHES. MOUNDING THE TRENCH, TO PROVIDE THE REQUIRED DEPTH, IS NOT ALLOWED.
  - CONDUIT SHALL BE ENCASED IN A 4 INCH ENVELOPE OF CONCRETE UNDER THE FOLLOWING CONDITIONS:
    - BROOK CROSSINGS.
    - CROSSINGS OF WATER, SEWER, AND GAS PIPELINES. CROSSINGS SHALL BE DONE AT NINETY DEGREES IF POSSIBLE. NORMALLY, THE ELECTRICAL CONDUIT SHALL BE A MINIMUM OF 18 INCHES ABOVE THE PIPE. CAREFULLY COMPACT THE FILL BELOW THE ELECTRICAL CONDUIT. CONCRETE ENCASEMENT IS REQUIRED FOR 10 FEET ON EACH SIDE OF THE PIPE.
    - UNDER THE TRAVELLED WAY OF CITY STREETS, AND UNDER TOWN HIGHWAYS, IF REQUIRED BY THE TOWN, A PIPE SLEEVE SURROUNDING THE CONDUIT, MAY BE SUBSTITUTED.
    - CONDUITS WITHIN 20 FEET OF TANKS CONTAINING FUELS, OR SOLVENTS. THESE TANKS MAY BE ABOVE OR BELOW GRADE. THIS REQUIREMENT DOES NOT APPLY TO URD SERVICES.
  - TRENCHES SHOULD BE LOCATED 10 FEET FROM ANY WATER, SEWER, OR GAS PIPELINE THAT PARALLELS THE CONDUIT. CONTACT THE UTILITY IF CLOSER APPROACHES ARE NECESSARY.
  - COMMUNICATIONS CABLES AND CONDUITS MAY BE LOCATED IN THE SAME TRENCH WITH ELECTRICAL CABLES OR CONDUITS. A MINIMUM HORIZONTAL OR VERTICAL SEPARATION OF 12 INCHES IS REQUIRED. ELECTRICAL CONDUITS SHALL BE SEPARATED BY 4 INCHES. THESE DISTANCES ARE MEASURED SURFACE-TO-SURFACE, NOT CENTER-TO-CENTER.
  - DEPTHS SHALLOWER THAN 36 INCHES MAY BE ALLOWED WHERE OBSTRUCTIONS SUCH AS LEDGES ARE ENCOUNTERED. ANY PORTION OF THE CONDUIT SHALLOWER THAN 24 INCHES SHALL BE COVERED WITH A MINIMUM 2 INCH CONCRETE CAP. SEE THE UTILITY FOR DEPTHS SHALLOWER THAN 12 INCHES.
  - CHECK WITH THE LOCAL UTILITY FOR SPECIFIC REQUIREMENTS.

THIS DETAIL APPLIES TO 3-PHASE UNDERGROUND UTILITY SERVICE EXTENSION WIRING AND TO UNDERGROUND SECONDARY ELECTRIC SERVICE WIRING

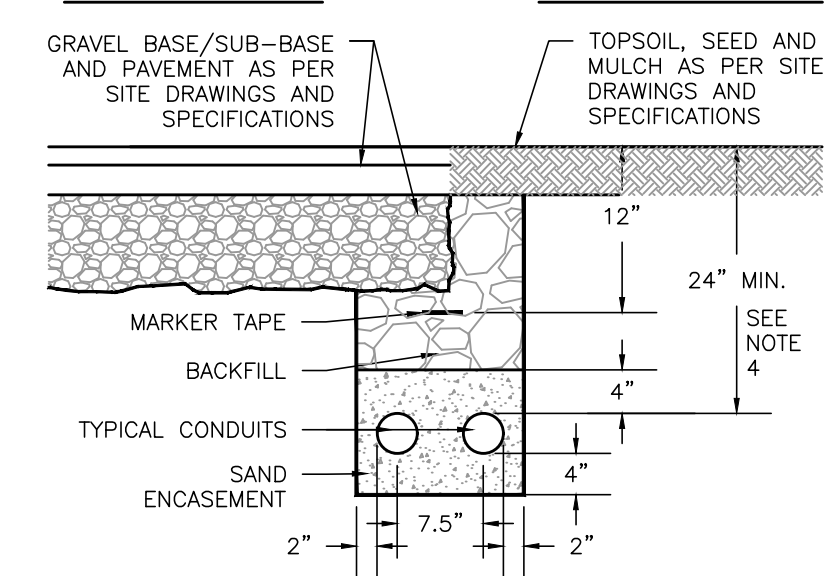
**ELECTRICAL SITE PLAN**  
SCALE: 1"=30'-0"



- NOTES:**
- SHOWN FOR TYPE SB4, SD3 AND SD4. SIMILAR FOR TYPE SE3, EXCEPT ONLY 2" EXPOSED ABOVE GRADE.
  - SIMILAR FOR ELECTRIC VEHICLE CHARGING STATIONS ("EV") EXCEPT ONLY 6" EXPOSED ABOVE GRADE.
  - REFER TO LIGHT POLE MANUFACTURER FOR A, B, C AND D DIMENSIONS AND ANCHOR BOLT SIZE.
  - CONDUIT/SLEEVES IN BASE SHALL BE 1" GALVANIZED STEEL RIGID METAL CONDUIT (RMC).
  - PROVIDE RUBBED FINISH ON ALL EXPOSED CONCRETE SPACES.
  - CENTER BASE PLATE/ANCHOR BOLT PATTERN IN CENTER OF CONCRETE BASE.
  - CONTRACTORS OPTION TO PROVIDE PRECAST CONCRETE BASE OF SIMILAR PROPORTION IN LIEU OF SITE-BUILT CONCRETE BASE IF PRECAST. PROVIDE PRODUCT INFORMATION SUBMITTAL FOR APPROVAL.

**TYPE SA LIGHT POLE  
CONCRETE BASE DETAIL**  
NOT TO SCALE

**PAVED AREAS      LAWNED AREAS**



- NOTES:**
- DETAIL IS TYPICAL FOR ALL WIRING THAT IS NOT ELECTRICAL SERVICE POWER WIRING.
  - COMPLY WITH OSHA TRENCH PROTECTION REQUIREMENTS.
  - PROVIDE CONDUIT SPACERS/SADDLES EVERY 6 FEET.
  - BURIAL DEPTH IS SHOWN FOR DIRECT BURIAL PVC RIGID NON-METALLIC CONDUIT. WHERE SPECIFIED BURIAL DEPTH IS NOT POSSIBLE, UTILIZE GALVANIZED STEEL RIGID METALLIC CONDUIT. NOTIFY ENGINEER PRIOR TO ANY CHANGE OF WIRING METHODS.
  - DETAIL IS TYPICAL INSTALLATION; PROVIDE QUANTITY OF CONDUITS AS REQUIRED FOR THE INSTALLATION AND AS DIRECTED IN THE PLANS AND DETAILS.

**TYPICAL ELECTRICAL  
DUCTBANK DETAIL**  
NO SCALE

VERMONT UTILITIES  
ELECTRIC SERVICE REQUIREMENTS

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DRAWINGS STANDARD VERMONT