

CALL PSE'S CUSTOMER CONSTRUCTION SERVICES AT 1-888-321-7779 OR VISIT PSE.COM/CUSTOMERCONSTRUCTION FOR MORE INFORMATION.

Builder/owner/developer responsibilities

PSE requires the following conditions to make the worksite construction ready ahead of scheduled service:

Permits

- Electrical permit must be approved and the Department of Labor & Industries (L&I) sticker must be affixed on the electric meter base. (Do not paint over.)

Trench work

- The worksite must be prepared to PSE specifications.
 - » The site must be at final grade or have final grade marked in the area of construction and trench line route.
 - » For unique site preparation requirements, contact your Project Manager.
 - » Installation of trench, work pits, sand for bedding and shading, and conduit must meet PSE specifications.
 - » Conduit for electric service lines shall be used under all paved surfaces, decks, rockeries, bulkheads, or obstacles to access the service line including back yards.

Gas service other than PSE

- If gas service will not be provided by PSE, please consult with the other utility for any additional clearance requirements. If any clearances conflict with PSE's electric service clearances, use the greater of the conflicting distances.

Customer provided materials

- Builder/developer must provide:
 - » Conduit
 - » 3/8" minimum diameter pull rope
 - » Backfill
 - » Shading

Meter location

- An acceptable meter location that allows for required access and clearance shall be provided.
 - » Acceptable electric meter locations include the front wall of the building facing typical public access, or the front 1/3 of the side wall.
 - » Electric meters require 18 inches of maintenance clearance on either side of the electric meter and 36 inches in front of the meter.

Become familiar with what can delay your project and cause it to be red-tagged:

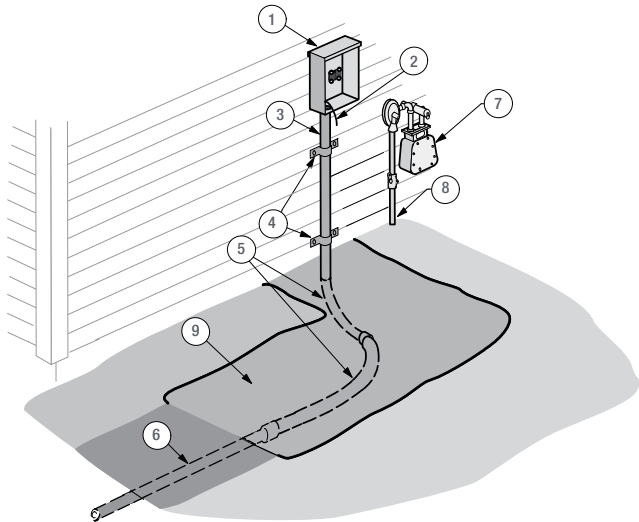
- Construction debris or water in the trench or work pits.
- Trenches excavated to the incorrect depth.
- Failure to maintain minimum separations between utilities and drainage pipes.
- Sand and backfill material are not available, inaccessible, or inadequate.
- Meter location is not acceptable or fails to meet minimum clearances.
- Permits are not approved or visible.
- Conduit color and size are incorrect, or conduit is installed improperly.
- No pull rope in the conduit.
- The fuel line shall be bonded to the grounding system or the appliance served.
The National Electric Code (NEC) prohibits grounding connections to underground gas metal piping systems (such as PSE steel service lines) because of the interference to the necessary cathodic protection that PSE installs.



**Know what's below.
Call before you dig.**

Electric underground service installation requirements

Meter and service connections work pit

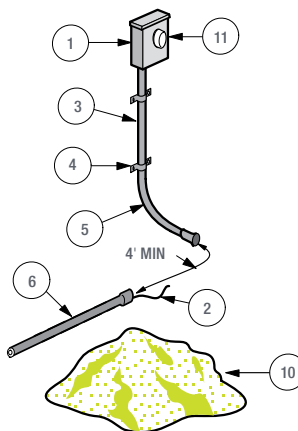


Work pit legend

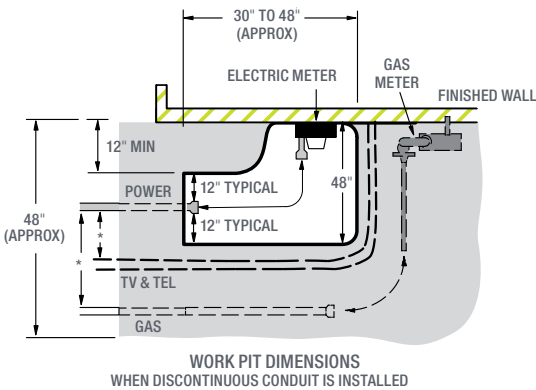
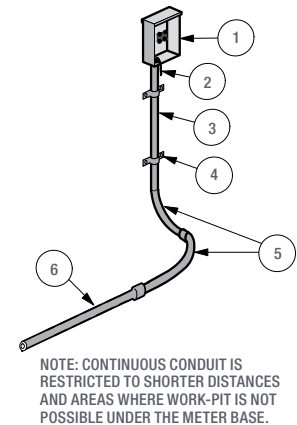
1. **Electric Meter Base** – Customer Provided, and secured to stud or structural member.
2. **3/8" Pull Rope**
3. **Conduit Service Riser** – Customer Provided.
4. **Conduit Straps (2 Minimum)** – Customer Provided.
5. **Conduit Elbows** – Customer Provided. 24" min bend radius. See Conduit Requirements for Electric Service on Page 4.
6. **Electric Service Conduit** – Utility or Customer Provided.
7. **Gas Meter** – Utility Provided.
8. **Finish Grade** – Finish grade shall be clearly marked.
9. **Work Pit** – See work pit dimensions detail on this page.
10. **A minimum 1/2 Yard Bedding and Shading Sand** – Sand shall be provided on-site by the customer and placed within hand-shoveling distance to the work pit for bedding and shading of direct-buried facilities. A larger work pit may require more sand (see backfill requirements on Page 4). Sand shall be washed, clean, and free of debris or rocks larger than 1/4". For discontinuous installations only.
11. **Electric Meter** – Utility or Customer Provided.

Discontinuous and continuous conduit options

DISCONTINUOUS CONDUIT



CONTINUOUS CONDUIT

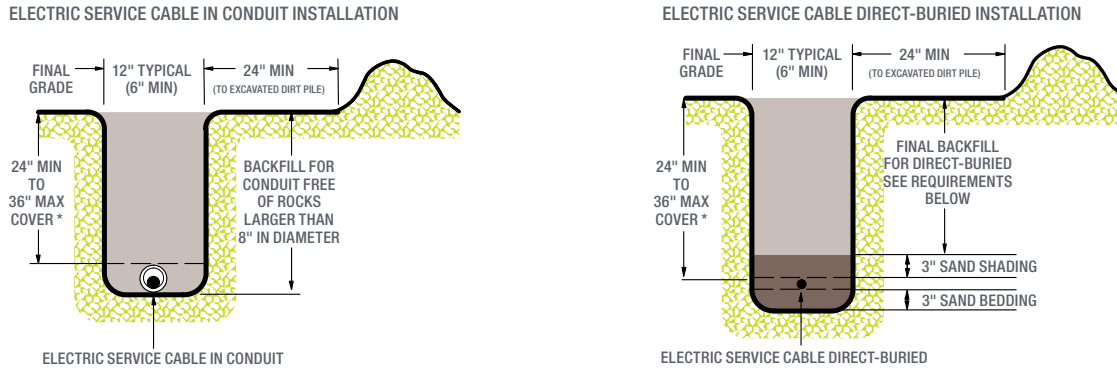


* SEE [FORM 3061](#) FOR SEPARATION REQUIREMENTS TO OTHER UTILITIES

Detailed information on choosing between continuous or discontinuous conduit options can be found in Chapter 2 of PSE's **Single-Family Residential Projects, Permanent and Temporary Service Handbook** ([Form 1218](#)).

Electric underground service installation requirements

Trenching for electric service lines in conduit and direct-buried installations



* Check with local permitting agency for depth of cover requirements for any PSE facility installed in public right-of-way. 36" cover may be required over PSE facilities.

Backfill requirements for direct-buried installations

- **Sand bedding:** The customer shall provide and install clean sand to a minimum depth of 3" prior to electric service cable installation.
- **Sand shading:** The customer shall provide additional clean sand in piles that are readily accessible near the trench. This shading sand is to be installed by the PSE crew after direct-buried electric installation. Enough sand shall be provided so that the installation can be covered to a depth of 3".
- **Final backfill for direct bury:** The backfill layer above the sand shading shall be soil that is free from rocks larger than 8" in diameter, construction debris, glass, sharp rocks, and frozen clods. The standard shading depth shall be per the trench figures shown above.
- **Customer-owned facilities included in the trench:** Please contact PSE directly for clearance requirements.

Conduit requirements for electric service

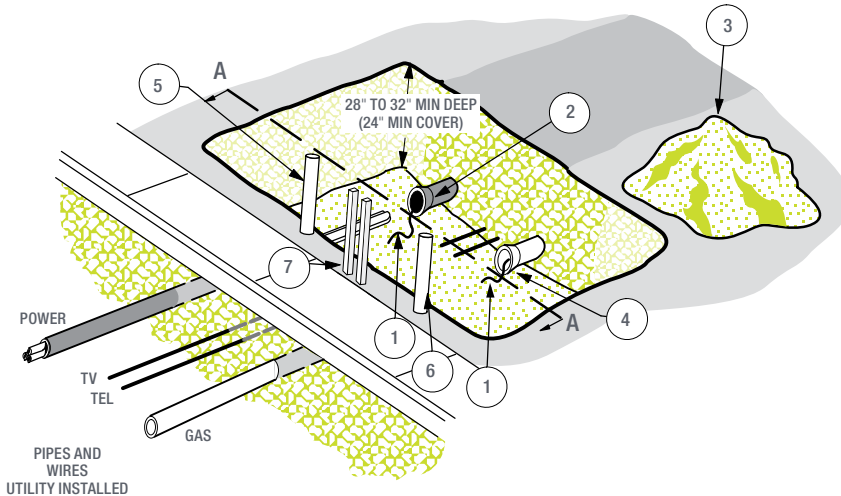
- **PSE recommends the use of conduit for all electric service installations.**
 - » Conduit will be **required** where the service line could become obstructed and difficult to access, inhibiting direct access to the service line cable for maintenance, repair, or replacement purposes.
- **PSE will install underground electric service lines in customer provided conduit that runs from the meter riser to the property line power stub.** Customer-provided conduit may be continuous or discontinuous. Detailed information on choosing between continuous or discontinuous conduit options can be found in Chapter 2 of PSE's **Single-Family Residential Projects, Permanent and Temporary Service Handbook (Form 1218)**.
- **Electric meter base and conduit service riser installation requirements**
 - » The electric meter base shall be secured to a stud or structural member.
 - » The electric service riser shall be fastened securely to a structural wall using a minimum of two conduit straps.
 - » Reducer couplings shall not be used at the meter base.
 - » The sum total of the degrees of bends in the electric conduit run (including the bend required at the bottom of the meter base riser) shall not exceed 180°.
 - » The customer assumes responsibility for damage caused by water entering a customer's meter base or equipment.

Conduit size and dimension requirements for electric services

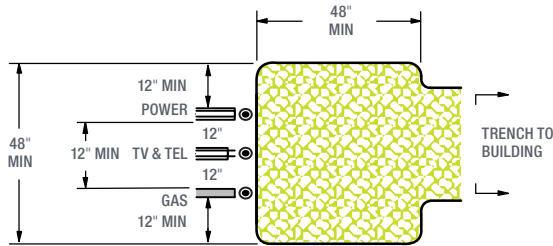
SERVICE PANEL SIZE	METER BASE		SERVICE WIRE SIZE	CONDUIT SERVICE RISER DIAMETER & TYPE	CONDUIT DIAMETER & TYPE	MINIMUM BEND RADIUS
	MIN LUG SIZE	BOTTOM KNOCKOUT				
200 AMP WITHOUT HEAT PUMP	4/0	3"	1/0 OR 4/0	3" GREY SCH 40 PVC	3" GREY SCH 40 PVC	24"
200 AMP WITH HEAT PUMP	4/0	3"	4/0	3" GREY SCH 40 PVC	3" GREY SCH 40 PVC	24"
320 AMP AND LARGER	350-KCMIL	3"	4/0 OR 350-KCMIL	3" GREY SCH 40 PVC	3" GREY SCH 40 PVC	24"

Electric underground service installation requirements

Property line/intersection point work pit



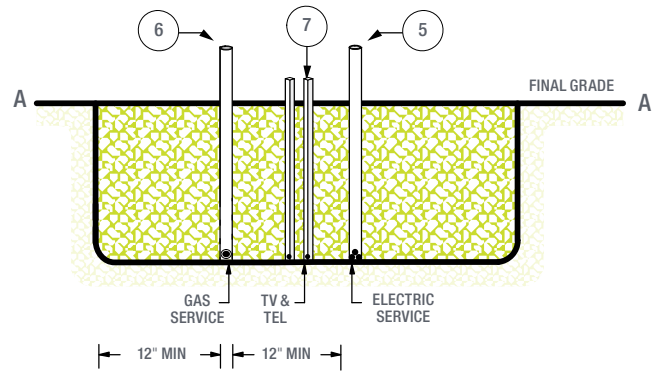
WORK PIT DIMENSIONS
ELECTRIC AND JOINT UTILITY



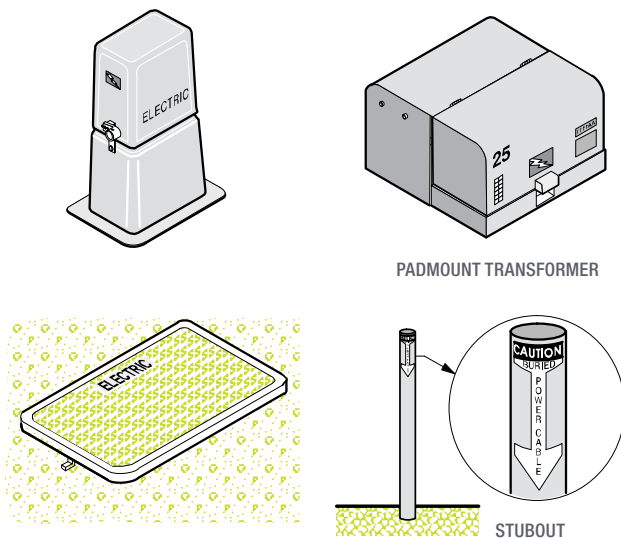
Work Pit Legend

1. 3/8" Pull Rope
2. Electric Service Conduit – Customer Provided. See Conduit Requirements in this handout.
3. 3/4 Yard Bedding and Shading Sand – Sand shall be provided on-site by the customer and placed within hand-shoveling distance to the work pit for bedding and shading of direct-buried facilities. A larger work pit may require more sand (see backfill requirements in this handout). Sand shall be washed, clean, and free of debris or rocks larger than 1/4".
4. Gas Service and Conduit – For PSE gas service and conduit, see Conduit Requirements in Gas Meter Clearances and Service Installation Requirements (Form 3885).
5. Electric Stub Marker – Utility Provided. Power stub shall be exposed on day of service connection.
6. Gas Stub Marker – Utility Provided. For a PSE gas stub marker, see Property Line Work Pit and Service Connections in Gas and Electric Underground Service Installation Requirements (Form 3061).
7. CATV/TEL Marker

SECTION A-A
ELECTRIC AND JOINT UTILITY

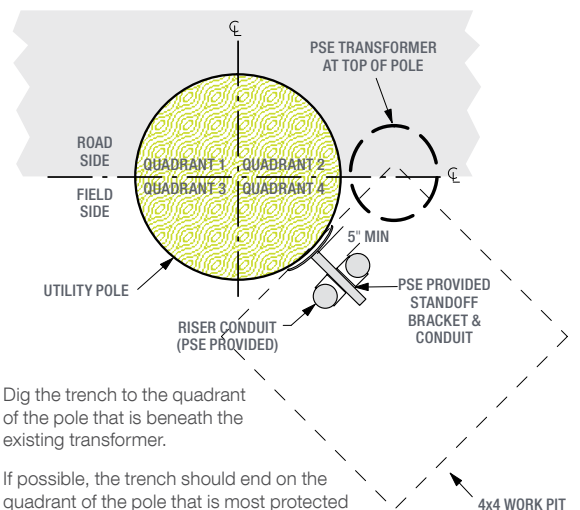


Service intercept locations



If you have questions regarding the location or intercept requirements for your electric service, contact Customer Construction Services or your Project Manager.

WHEN THE ELECTRIC SERVICE TRENCH TERMINATES AT A UTILITY POLE:

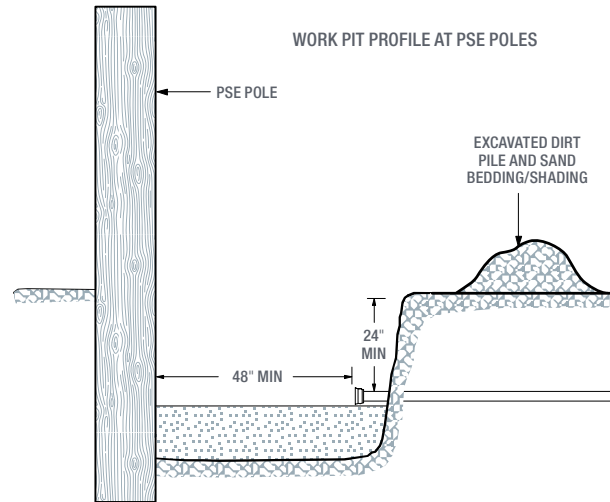
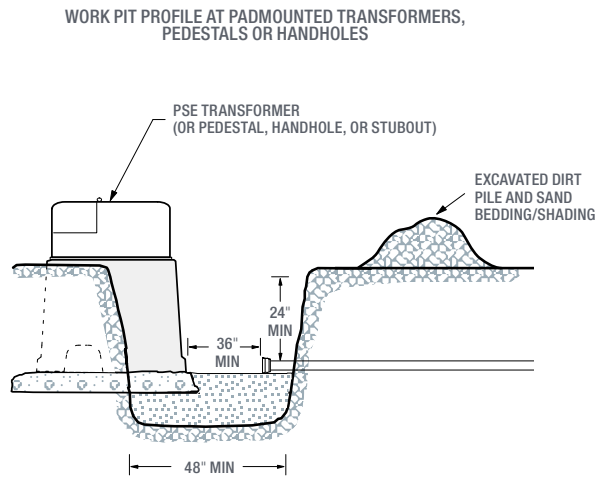


Dig the trench to the quadrant of the pole that is beneath the existing transformer.

If possible, the trench should end on the quadrant of the pole that is most protected from vehicular traffic.

Stop the conduit four feet from the pole in the work pit with the pole butt exposed. (See next page for profile view.)

Electric underground service installation requirements



Temporary electric service requirements

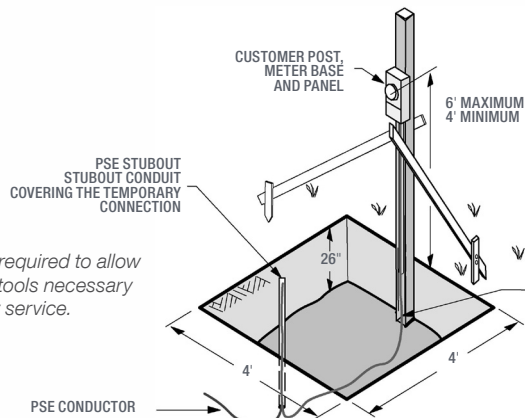
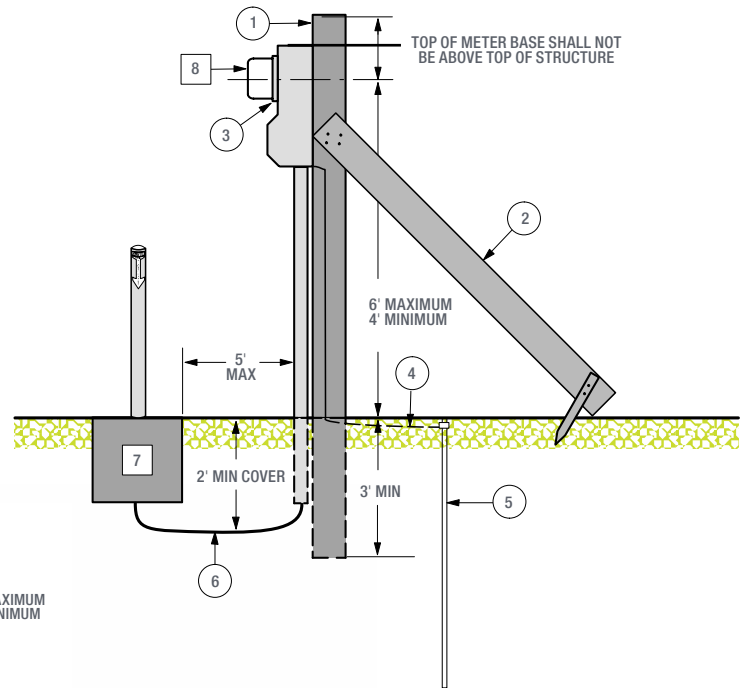
Items owned and installed by customer

1. 4" x 4" x 10' continuous single structure
2. 2" x 4" bracing (post should be braced from two directions)
3. Meter socket and distribution panel (up to 200 A, 120/240 V)
4. Ground wire, according to the NEC
5. NEC allows a ground rod to be installed as a grounding electrode for temporary electrical services only, such as for a remodel. Otherwise, ground rod(s) shall not be installed.
6. Service entrance conductors in accordance with NEC

Items owned and installed by PSE

7. Transformer, handhole, pedestal, or stubout
8. Meter

NOTE: Trench and backfill from meter base to transformer, handhole, pedestal, or stubout is customer provided.



NOTE: 4'x4' work pit required to allow working room for the tools necessary to connect temporary service.

CUSTOMER OWNED TEMPORARY SERVICE CONDUCTORS

NOTE: CUSTOMER GROUND CONDUCTORS SHALL NOT CONNECT TO PSE LOCATING WIRES.

NOTE: THERE SHALL BE A 12" SEPARATION BETWEEN ELECTRIC AND GAS AND ANY UTILITY.