



Guidelines for Establishing Point of Delivery and Meter Location

The intent of the following is to give guidance to the District's engineering department in establishing service locations and is not meant to cover every possible circumstance or to be used by consultants or designers to predict how the District will respond to any given situation. In all cases, the owner or the owner's agent must consult the District prior to design to determine the exact requirements for each project.

Purpose:

The purpose of this instruction is to set forth guidelines for establishing point of delivery and meter locations in order to maintain consistency from project to project.

Scope:

This instruction covers meter location and point of delivery for temporary and permanent services.

General Requirements:

1. All meter locations and points of delivery shall comply with sections 26, 27, and 29 of the District's Customer Service Policy, respectively. See Appendix A.
2. Generally acceptable service entrance locations are on the face of the building nearest the District's serving facilities or 5 feet down either side. The meter shall be located in an area that is not likely to be enclosed and that it will be readily accessible for reading and maintenance.
3. All residential meters and points of delivery shall be located on the outside of buildings.

4. Non residential metering and points of delivery shall be located on the outside of buildings, unless in the District's opinion, it is impractical.
5. The point of delivery shall be within plain sight of the meter location whenever possible.
6. It may be impractical to establish a point of delivery and/or meter(s) on the outside of a building because of the size of the service, insufficient space or safety considerations. Generally, services up to 800 amps will fit into a 36" x 48" x 11" enclosure.
7. When it is impractical in the District's opinion to locate the point of delivery and/or meter(s) outside the building, the point of delivery and/or meter(s) may be located on the inside of the exterior wall nearest the District's serving facilities of an equipment room, provided:
 - a. There is direct access to the room via a personnel door from the outside of the building, and
 - b. The owner provides a key and key box that can be secured with a standard PUD padlock next to the door or some other satisfactory means for the District to gain access to the room, and
 - c. The owner maintains clear access to the District's equipment once inside the room.
8. Current transformer (CT) metering may be placed on the secondary terminals of a padmount transformer when there is no likelihood that the transformer will be required to serve any other significant load.
9. CT metering on poles other than customer owned poles should be avoided whenever possible.
10. The weatherhead for services mounted on either customer service poles or District poles shall be located at the same height or higher than the District's point of attachment and the leads shall be long enough to reach the District's conductors and provide sufficient slack to form a proper drip loop.

11. The number and size of conduits will be as shown below:

<u>Service Size</u>	<u>Single Phase</u>	<u>Three Phase</u>
200 amps or less	1 - 2 ½"	1 - 3"
201 - 400	1 - 3"	1 - 4"
401 - 800	2 - 4"	2 - 4"
801 - 1200		3 - 4"
1201 - 1600		4 - 4"
1601 - 2000		5 - 4"
2001 - 2500		6 - 4"
2501 - 3000		8 - 4"

*Minimum dimensions for underground single phase meter bases shall be 11" x 14" x 4 1/8". The conduit shall enter the base from the bottom right or left side. Certain meterbases will only accept utility conduit on one side only, typically left. Conduit that enters in the center the base will not be accepted and need to be reinstalled.

The following are acceptable underground meterbases:

- Milbank U7040-RL-TG
- Milbank U7018-XL-TG
- Milbank U1980-O (**Preferred**)
- Cooper B-Line U204
- Cooper B-Line U204MS21
- Cooper B-Line U204F
- Copper B-Line UG204 or UG204F (**Preferred**)
- Or equal to the above listed

12. Single-phase services up to 400 amps maximum (320 continuous) and three-phase services up to 200 amps will be metered using self contained meters. Meter bases with lever type or automatic bypasses will not be accepted. Single-Phase services in excess of 400 amps maximum (320 continuous) and three-phase services in excess of 200 amps will be metered with CT's and CT rated meters. In all cases, the customer will provide the meter bases, CT mounting brackets and CT enclosure as required.
13. The minimum size of the CT enclosure shall be as follows:

<u>Service Size</u>	<u>Single Phase</u>	<u>Three Phase</u>
201 – 400 amp	24" x 30" x 11"***	36" x 48" x 11"*
401 – 800 amp	24" x 48" x 11"	36" x 48" x 11"*
801 – 1200 amp	Not Available	48" x 48" x 11"***

* Covers shall be hinged
 ** Special applications
 *** If needed

The customer shall furnish and install an insulated mounting base with the proper fault current rating. The District will provide and install the current transformers.

Customers are to provide approved connectors for connecting the conductors to CT mounting base or transformer paddles when mounting on transformer.

It is not the intent of this instruction to circumvent the requirement that the customer or his agent obtain approval for the meter and point of delivery location from the District prior to design.

The above guidelines were developed for the District's engineering department and are subject to change at any time.

Revision History:

Date:	Revised By:	Revision History:
6/6/08	PHT	Update District's practices
8/25/97	BJW	Last known revision

Appendix A

The following are sections from the District's Customer Service Policy that was last updated 1/24/06 for establishing points of delivery and meter locations.

26. RIGHT-OF-ACCESS The District, through its authorized employees, shall have access to its equipment at all reasonable times for the purpose of reading and testing meters, repairing or replacing any of the District's equipment. If such equipment is so located that locks must be operated to gain access, the customer shall make provisions to insert the District's lock in series with the customer's lock or the District shall be supplied with keys to the customer's locks.

27. METER LOCATIONS

- A. New meter installations shall be approved by the District and conform to the following:
- (1) Meters shall be installed out of doors on the sides of buildings, on customer-owned poles or on approved pedestals.
 - (2) Meters shall not be installed in places difficult to access, such as over open pits, moving machinery, or hatchways; in the path of water from eaves or rain spouts; in areas subject to live steam or corrosive vapors; within enclosed spaces or spaces which can easily be enclosed such as under porches or carports.
 - (3) Meters served from an overhead service drop shall be installed at a height of five and one-half feet (5-1/2') to six and one-half feet (6-1/2') above final grade or an easily accessible platform. Meters served from an underground service may be installed at a height of 3 feet to six and one-half feet (6-1/2') above final grade or an easily accessible platform.
 - (4) Where the meter is to be recessed into the wall of a building, a space of not less than six inches (6") on each side of the meter base shall be provided to permit access for testing, removal and replacement.

- (5) When a structure is remodeled the meter shall not be enclosed.
- (6) The customer shall provide a point of attachment for the service drop that meets the minimum clearances established by applicable local, state and federal codes. The location of the point of attachment shall be approved by the District and will normally be on the side of the building nearest the District's facilities. The point of attachment shall be capable of withstanding the tension of the service drop.

B. When a meter has been enclosed without express written permission from the District, the District will notify the customer in writing and the customer will be required to relocate the meter to a location accessible to and approved by the District within thirty (30) days. If the meter is not relocated within the thirty (30) day period, the District will begin disconnect procedures.

C. When meters are found to be inaccessible during normal business hours and the District has to contact the customer to make an appointment to read, test, remove and/or replace the meter, the customer will be charged a fee in accordance with Rate Schedule 700.

29. POINT OF DELIVERY Point of delivery is that point on the customer's premises (or other agreed point) where the District terminates its electrical service conductors, and the customer's wires are connected to the District's conductors. All equipment on the load side shall be the responsibility of the customer, except meters and metering equipment and other equipment provided by the District.

It shall be the responsibility of the customer, or their electrical contractor, to advise the District of their service requirements in advance of installation of the service entrance equipment, and to determine that the location is acceptable to the District.

The customer shall furnish an underwriter-approved meter socket or sockets (as specified by the District) for the installation of the District's metering equipment. If instrument transformers are required (as specified by the District) a suitable location, a mounting provision, and an enclosure shall be provided for such installations as agreed by the District. In all cases, the customer shall furnish connecting conduit between the instrument transformers and the meter sockets for which the District will furnish and install the meters and connecting wire.

In general, the point of delivery will be as follows:

- a. Residential Overhead: at the weatherhead
- b. Residential Underground: at the line terminals of the meter base.
- c. Commercial Overhead: at the weatherhead
- d. Commercial Underground: at the line terminal of the meter base or current transformers.