Agenda Item Memorandum

TO: City Commission of the City of Clewiston

FROM: Leslie Almanza, Permit Technician

VIA: Christopher Cooper, Building Official

DATE: September, 02, 2025

SUBJECT: Recommendation to Create Electrical Service Standards

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Background:

As Clewiston continues to grow, the demand for reliable and safe electrical infrastructure is increasing. Currently, the City does not have a formally adopted set of Electrical Service Standards governing design, construction, and installation requirements. This creates inconsistencies in service delivery, project timelines, and compliance with state and national electrical codes.

The adoption of Electrical Service Standards will:

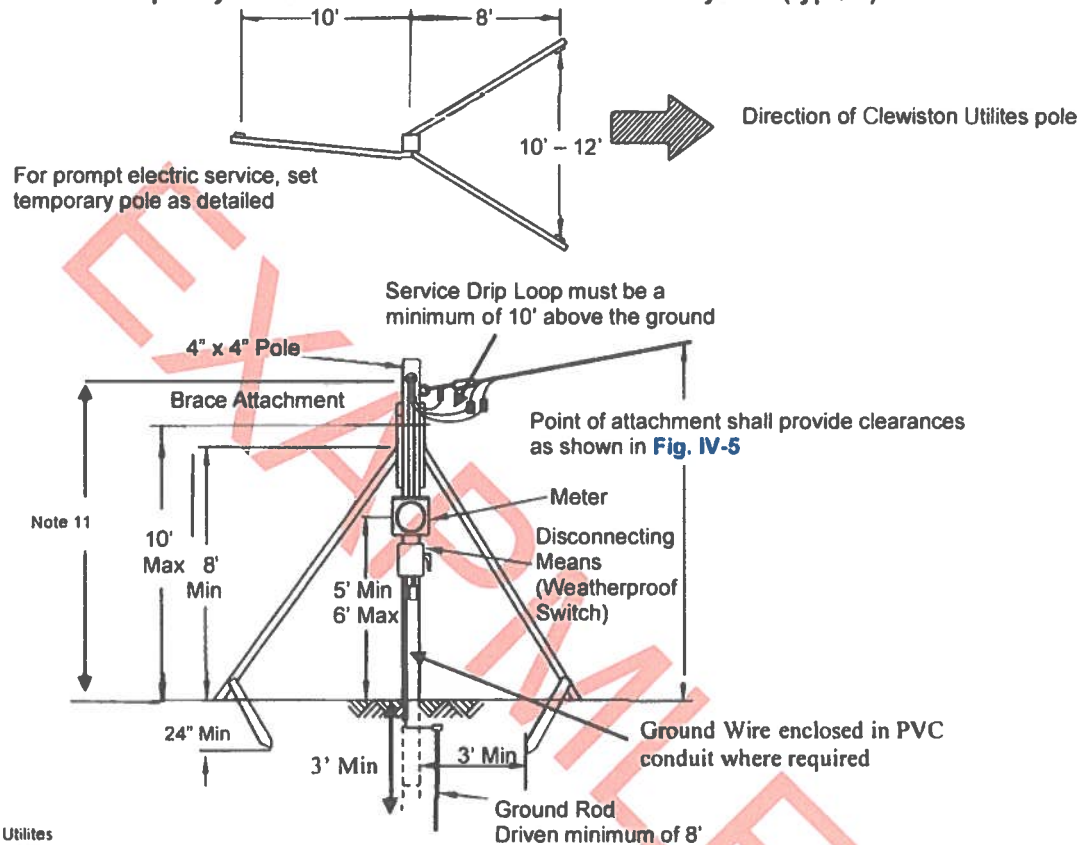
- Establish uniform requirements for electrical connections and installations.
- Ensure compliance with the National Electrical Code (NEC) and Florida Building Code.
- Provide clear guidance for developers, contractors, and residents.
- Enhance the safety and reliability of the City's electrical distribution system.
- Reduce service interruptions and long-term maintenance costs.

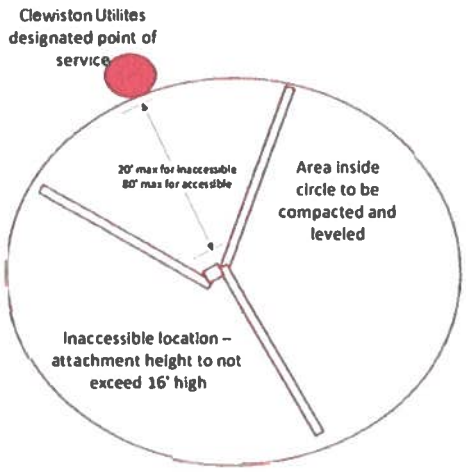
Recommendation:

It is recommended that the City Commission formally adopt the proposed recommendation of Electrical Service Standards, to be applied to all new construction, upgrades, and modifications to electrical service within the City of Clewiston.

FIGURE IV-1

Temporary/Construction Service - from Overhead System (typical)

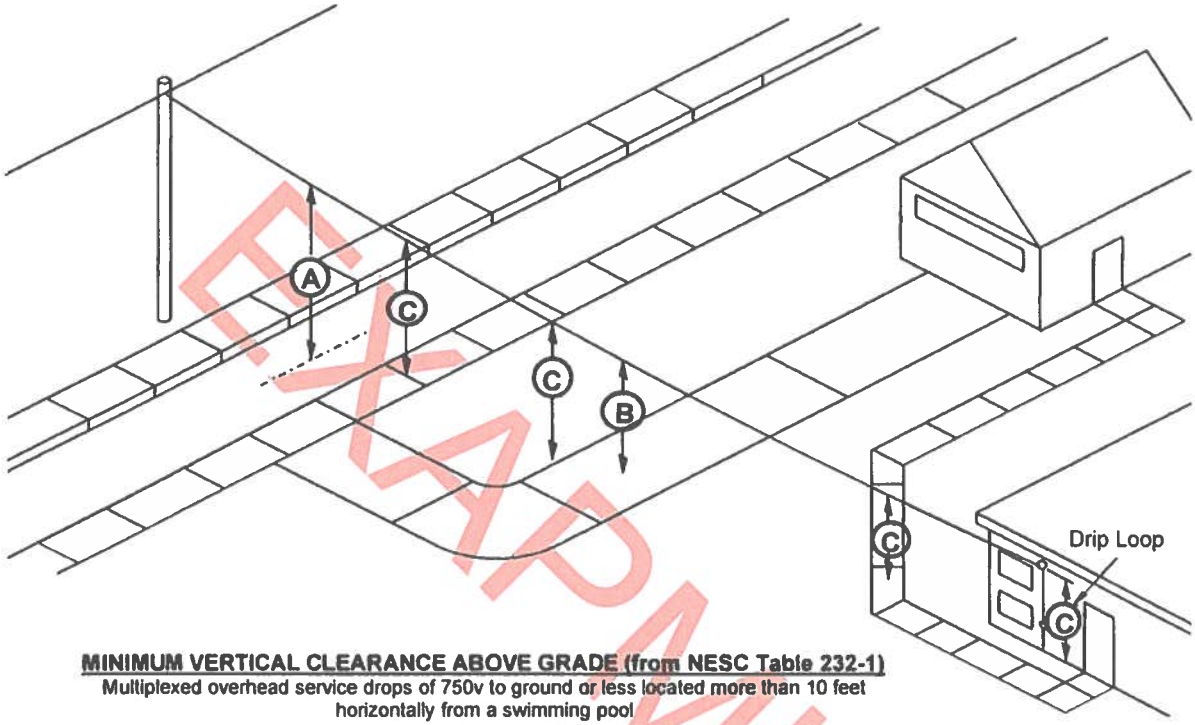




Notes:

1. Before service can be run, Company must have an electrical inspection, necessary tree trimming shall be done by the customer, and the deposit and non-refundable temporary service charge shall be paid
2. Service pole shall not be within 25 ft of swimming pool and must provide clearances shown in Fig. IV-5
3. Unspliced timbers are required (minimum length of 12 ft for 2x4 braces and 16 ft for 4x4 posts. Use ten penny (10d) nails (3" long)
4. The brace must be installed between 8' – 10' above the ground
5. Weatherhead height must not exceed the height of the 4" x 4" post. The post should extend at least an additional 6" past the weatherhead
6. All stakes supporting the temporary stand need to be a minimum of 2" x 4" and driven to a depth of at least 24"
7. Special arrangements shall be made with Clewiston Utilities if service drop exceeds 80 ft, anything above 16' for ***INACCESSABLE*** location or is larger than 200-amp capacity
8. Minimum typical requirements are shown. If local code requirements are more stringent, they shall be adhered to.
9. The surface the meter socket is mounted on shall be plumb so the meter socket jaws are truly vertical. The meter enclosure must be on rvEG's approved list.
10. Where acceptable to the inspecting authority, an 18 ft treated pole (5" min. diameter at the top) may be substituted for the 4x4 timber and braces, provided the pole is set 5 ft deep and well tamped. All other requirements remain the same. Keep in mind the NEC minimum clearance varies depending on where the temp stand is located. An 18' temp stand 5' in the ground leaves 13' of clearance from the ground which works for pedestrian traffic but will not work if it is over a driveway
11. For inaccessible locations the attachment point may not exceed 16' high. The area around the temporary stand needs to be compacted and leveled. The temporary stand shall not be more than 20' from the base of the Clewiston Utilities pole.

FIGURE IV-5
Overhead Service - Minimum Vertical Clearances



MINIMUM VERTICAL CLEARANCE ABOVE GRADE (from NESC Table 232-1)
Multiplexed overhead service drops of 750v to ground or less located more than 10 feet horizontally from a swimming pool

A. Roads, streets and other areas subject to truck traffic ..... 16 feet

B. Driveways, parking lots and alleys ..... 15 feet
Exception - Residential driveways only where attachment height at building does not permit 15 feet of clearance:

Voltage limited to 300v to ground:
- Service Drops ..... 12.5 feet
- Drip Loops ..... 10.5 feet

Voltage limited to 150v to ground:
- Service Drops ..... 12 feet
- Drip Loops ..... 10 feet

C. Spaces and ways subject to pedestrian or restricted traffic only ..... 12 feet
Exception - Where attachment height at building does not permit 12 feet of clearance:

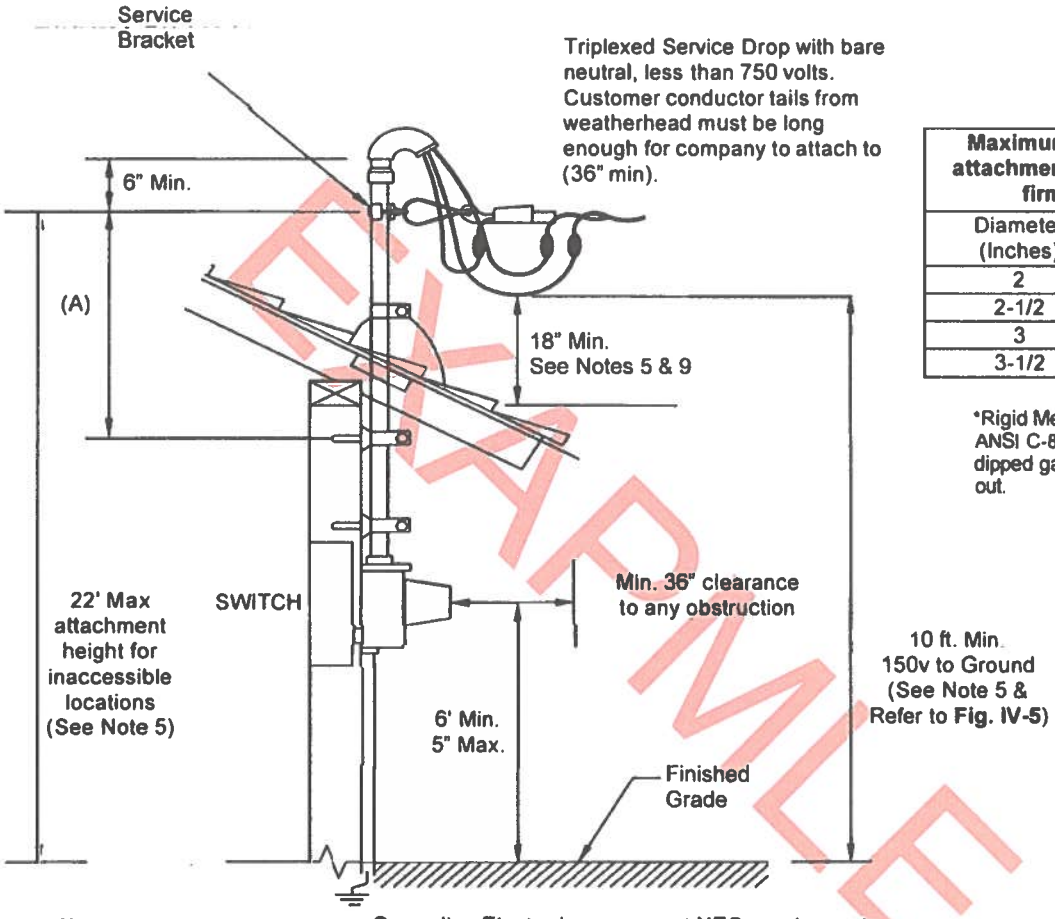
Voltage limited to 300v to ground:
- Service drops and drip loops ..... 10.5 feet

Voltage limited to 150v to ground:
- Service drops and drip loops ..... 10 feet

D. Other land (such as cultivated, grazing, forest, orchard, etc.) traversed by vehicles ..... 16 feet

NOTES:
-120v single phase, 120/240v single phase, and 120/208v wye 3 phase services meet the 150v to ground criteria.
-120/240v open or closed delta 3 phase and 277/480v wye 3 phase services meet the 300v to ground criteria.
-240/480v delta services do not meet either the 150v or 300v to ground criteria and do not qualify for the exception to the basic clearance.
The clearances above are NESC minimum values for worst-case sag conditions. The attachment height at the building or customer's service pole must be sufficient to provide these clearances for all situations involved. Good judgment dictates that initial installation be made at higher values to ensure code compliance under worst-case sag conditions. For additional details and clarification regarding these and all clearances, refer to Article 23 of the NESC.

FIGURE IV-6a
Attachment of Service Drop at Buildings - to the Pipe Mast



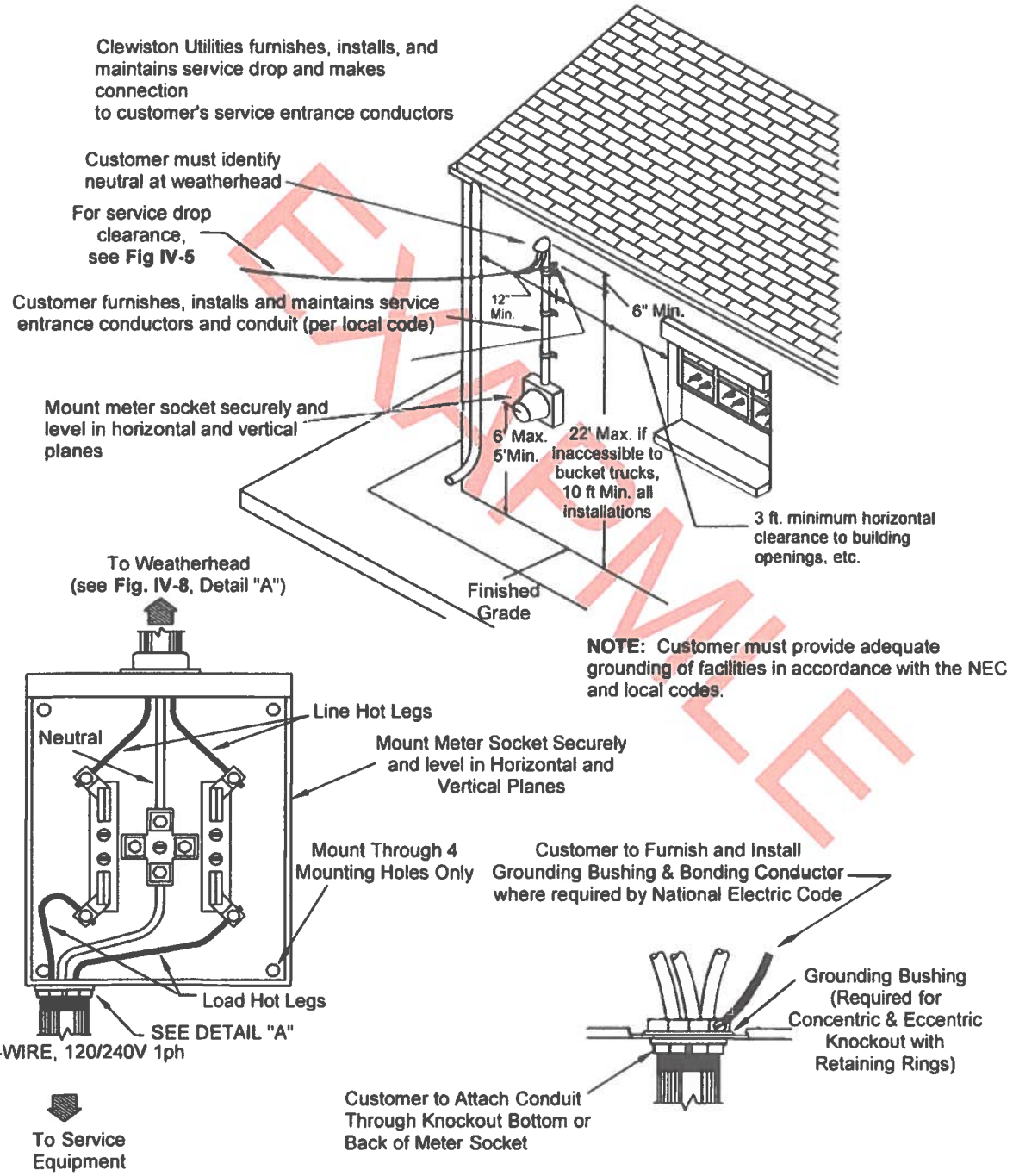
Maximum Service Bracket attachment height above last firm support (A)	
Diameter (Inches)	Rigid Metallic* ~~or IMC~~ (feet)
2	2.5
2-1/2	3.50
3	5.50
3-1/2	7.75

*Rigid Metallic shall be per ANSI C-80.1 and shall be hot dipped galvanized inside and out.

Notes:

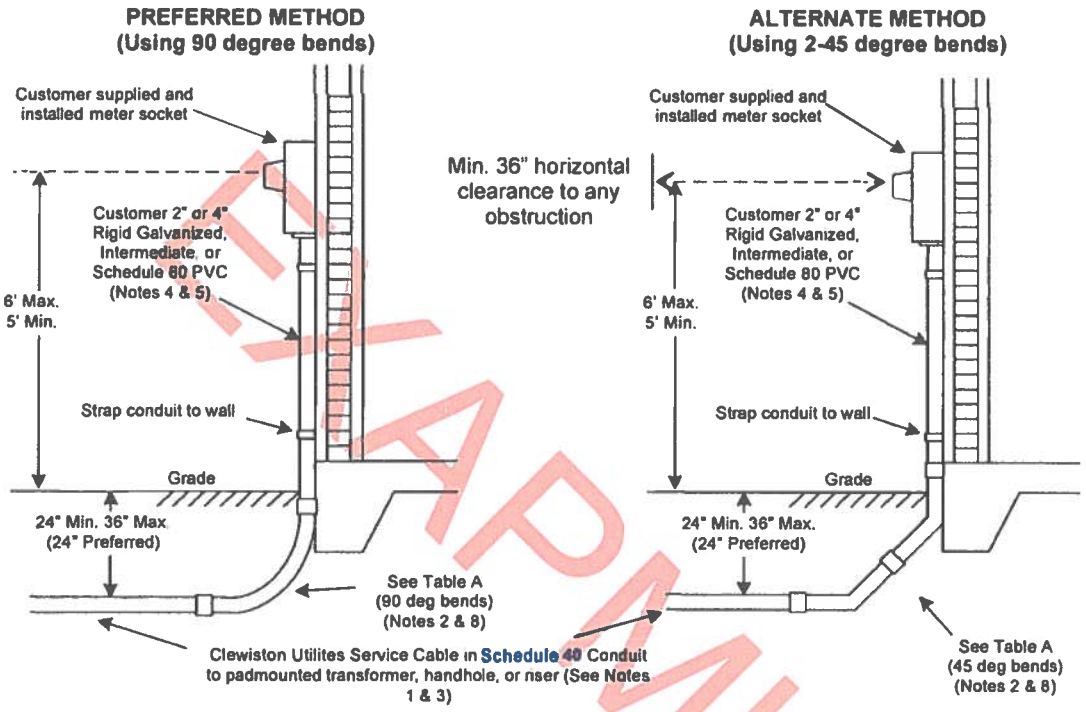
1. A service Mast may be used to get proper clearance if permitted by local code.
2. The Service Drop and Service Bracket are provided and installed by Clewiston Utilities
3. Service Mast or other approved attachment post or bracket must be sufficient strength to support the Service Drop (650lb of pulling tension @ 50lb wind force). 2" or larger rigid galvanized conduit is preferred. The point of attachment must be sufficient height to provide minimum clearances. Clewiston Utilities will not attach Service Drop to an aluminum, EMT, or PVC mast.
4. Customer provides and installs Service Mast in accordance with National Electrical Code and/or local codes.
5. Minimum clearance to Drip Loops is 10 feet from ground. Minimum Drip Loop to Roof clearance is 18 inches. Maximum service attachment height is 22 feet above grade for locations not accessible to bucket trucks.
6. Weatherheads in excess of 72" above a roof and located more than 3' from the roofs edge needs to be accessible from a company bucket truck. The company will not place ladders on top of a roof to make connections.
7. Service Drop, Service Bracket and Meter are owned and installed by Clewiston Utilities Meter Socket is owned, installed and maintained by customer.
8. Service Drop clearance required at locations other than a house are shown in **Fig. IV-5**.
9. For triplexed or quadraplexed cable services, less than 750 volts, with bare neutral, the 18" minimum clearance is allowed only where no more than 6 feet, measured horizontally, of the service drop passes over a roof to terminate at a through-the-roof mast located not more than 4 feet, measured horizontally, from the nearest edge of the roof. Otherwise, the minimum clearance above the roof (not readily accessible) of the building to which the service is attached is 3 feet. Refer to NESC 234C3d.

FIGURE IV-7
Outdoor Meter Installation - 1ph 120/240v 3 wire Overhead Service

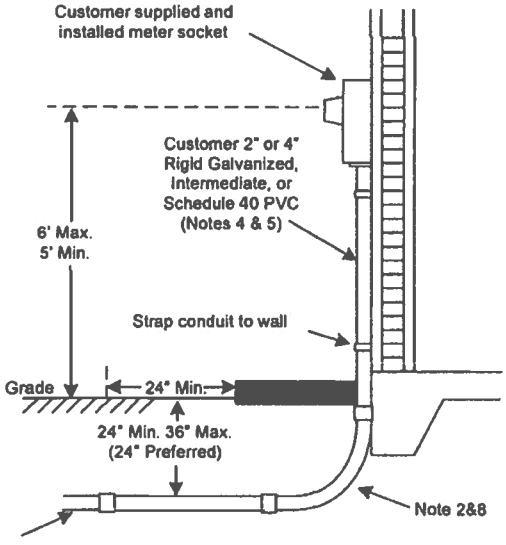


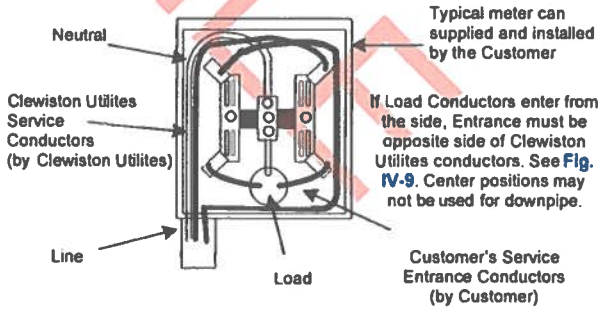
DETAIL "A"
BONDING AROUND CONCENTRIC & ECCENTRIC KNOCKOUTS

FIGURE IV-11b
Clewiston Utilities Buried Service Lateral – Meter Socket & Down Pipe Requirements (references to notes shown in Figure IV-11a)



EXTENDING CONDUIT 24" BEYOND OBSTRUCTIONS





IMPORTANT – Please distinguish between Overhead and Underground (URD) meter sockets when purchasing. (See Clewiston Utilites Approved List in Section VII)

Note: If Clewiston Utilities Service Conductors (line side) are parallel #4/0 triplex, then the customer shall provide and install connectors designed for multiple conductors in the meter socket.

Table A – Galvanized or Schedule 80 PVC

Wire Size Cu or Al	Downpipe	90 Degree Bends		45 Degree Bends	
		Bends	Radius	Bends	Radius
1/0 or 4/0	2"	(1) 2" – 90	24"	(2) 2" – 45	18"
2 – 4/0	2 – 2"	(2) 2" – 90	24"	(4) 2" – 45	24"
2 – 4/0	4"	(1) 4" – 90	36"	(2) 4" – 45	24"

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