

Underground services are required by Wyandotte Municipal Services (WMS) for all newly constructed Commercial buildings or a service upgrade at a Commercial building. This style of construction provides additional electrical clearance, safety and reliability for the electrical service.

### **WHO CAN CONSTRUCT AN UNDERGROUND SERVICE?**

Construction of an underground service must be performed by a licensed electrical contractor.

### **WHAT ARE THE STEPS INVOLVED FOR INSTALLING AN UNDERGROUND SERVICE?**

#### **■ Service Planning**

Call the WMS Electric Department (phone 734-324-7153) to schedule a site visit. Our representative will visit your site to discuss location of the new meter socket, routing and requirements for underground conduit and other utility conduit to be located in the same trench and provide a service planning document. Failure to comply with the service plan may result in a requirement to rebuild the underground service.

#### **■ Electrical Permit**

A licensed electrical contractor must visit Wyandotte City Hall (phone 734-324-4500) located at 3200 Biddle Avenue and request an Electrical Permit for an underground commercial service.

#### **■ Meter Socket**

When converting an existing overhead service to an underground service or installing a new underground service on a newly constructed building, it is necessary to obtain a meter socket that will accommodate the underground service. The meter socket and current transformers, if necessary, are provided free of charge by the WMS Electric Department with proof of Electrical Permit and your copy of the service planning document. The meter socket and current transformers can be obtained at the WMS Electric Department

Storeroom located at 3575 11<sup>th</sup> Street, 8:00 am to 4:00 pm, Monday through Friday. The meter socket must be mounted at the location stated on the service planning session document. The meter height shall be 54" to 66" on center above final grade, and located on the building exterior, unless otherwise specified by the WMS Electric Department representative. Current transformers must be installed in an approved current transformer cabinet.

#### **■ Current Transformer Cabinet**

If the service is greater than 200 amps, a current transformer cabinet must be supplied by the licensed electrical contractor. The cabinet specifications and manufacturer must be approved by the WMS Electric Department prior to installation.

#### **■ Conduit Trench**

At least three days prior to digging the trench for underground conduit contact Miss Dig (phone 800-482-7171). Miss Dig initiates a request to all utilities for locating and marking underground facilities on your property. Michigan law requires three business days for the utilities working with Miss Dig to determine if any utilities are buried in or near the future trench area.

The trench route will be located by the WMS Electric Department representative during the service planning session. The trench dimensions will be 30" in depth and a minimum 4" in width.

The trench will be a distance of 18" from the property line unless otherwise specified by the WMS Electric Department representative. The trench excavation is the responsibility of the licensed electrical contractor.

**■ Conduit Installation**

Schedule 40 electrical grade conduit is required for yard areas and Schedule 80 electrical grade conduit is required for driveway, parking lot, alley areas and above ground connection at the meter socket or current transformer cabinet. **Electric, Cable Television and Telephone must be contacted separately to determine the size and quantity of conduit.**

2-foot minimum conduit sweeps are required for all conduit bends. The use of conduit elbows is prohibited.

"CAUTION BURIED ELECTRICAL LINES" warning tape will be installed 8" below final grade.

A pull line will be installed in all conduits to aid in the installation of the electrical, cable television and telephone service cables.

**■ Electrical Conduit**

A single 2" gray electrical grade conduit is required with a 2" expansion coupling to be installed in the center between the meter or disconnect and ground. The installation must have a minimum of 24" ground cover to finish grade for an electrical service. Conduit will be connected into the meter socket at the house and stubbed 6" above final grade at the pole, pad-mount transformer or pedestal location.

**■ Cable Television and Telephone Conduit**

Gray electrical grade conduits are required with a minimum 18" of ground cover to finish grade for cable television and telephone services.

Conduit will be stubbed 12" above final grade. Allow a minimum 12" horizontal clearance of electric service at the building.

**■ Underground Conductor**

All service entrance conductors shall be copper with type USE-2 or equivalent insulation. Service entrance cable larger than #2 AWG USE2 copper stranded or longer than 175 linear feet will be supplied by the licensed electrical contractor.

**DO NOT FULLY BACKFILL YOUR CONDUIT YET!** All work performed to this point requires the rough electrical inspection performed by a Wyandotte City Hall representative.

**■ Rough Inspection**

Request a rough electrical inspection from Wyandotte City Hall Engineering Department located at 3200 Biddle Ave. All sweeps, pull strings and warning tape must be visible for the inspection. If these items are not exposed, you may be required to excavate

to expose the conduits. After successfully passing the rough inspection, contact the Electric Department to schedule the installation of electric conductors in conjunction with the licensed electrical contractor. This schedule may change due to weather or other conditions beyond the Electric Department's control.

**■ Final Inspection**

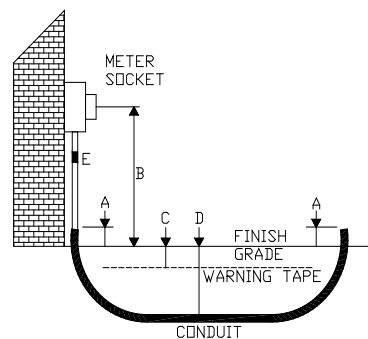
After successfully passing the final inspection and signing an electric service contract at the WMS 3005 Biddle Avenue office, a work order will be generated to energize the building service.

**■ Site Restoration**

Site backfill, ground leveling and landscaping are the responsibility of the licensed electrical contractor.

\* See Conduit Installation.

***This document is supplied as a general overview of underground service construction. For further information, please contact a WMS representative at (734) 324-7153.***



Letter	Description	Letter	
A	6" stub electric conduit height	D	24" electric conduit depth
B	54" to 66" meter mount height	E	2" expansion coupling – centered between finished grade and meter socket
C	8" warning tape depth		