

**Michigan Damage Prevention Board Best Practice  
2025 – 11**

Boring

MDPB Best Practice

This best practice is to provide a better guide to support excavators in the field while drilling or boring new assets. When boring takes place within a caution zone of an underground utility it is the excavator’s responsibility to protect assets already installed and work safely around them.

**Paralleling a Facility: when running along next to an existing facility:**

Before boring parallel to an existing underground facility, it is essential to pothole and visually confirm the precise location at least every 25 feet when boring within 2 feet, or at least every 50 feet when boring within 2 – 4 feet (Table 1) of the existing underground facility. This practice is considered “reasonably necessary” for the continuous verification of the existing underground facility location and reduces the risk of contact or interference when boring parallel.

Table 1

<b>Parallel utility exposure guide</b>	
<b>If drilling parallel within...</b>	<b>Utility must be exposed</b>
2' of existing utility	At least every 25'
2-4' of existing utility	At least every 50'

Table 1

Diagram 1



### **Crossing a Facility: when over or under an existing facility:**

Before boring, it is essential to pothole and visually confirm the precise location of all buried utilities within the caution zone. The facility should be exposed 12-18” all the way around the asset before moving forward with drill out. If crossing an existing underground facility within 12-18”, the Excavator is responsible for visually observing the drill head passing through each pothole and pull-back to ensure safety and potential cross bores or damages.

### **Public Act 174 References**

#### Excavator Responsibilities

460.725 Section 5 (5): For excavation in a caution zone parallel to a precise location of the facility, an excavator shall use soft excavation at intervals as often as reasonably necessary to establish the precise location of the facility.

#### Definitions

Public Act 174, 460.723 Section 3

- (f) Caution Zone: means the area within 48 inches of either side of the facility marks provided by a facility owner or facility operator.
- (m) Excavation means moving, removing, or otherwise displacing earth, rock, or other material below existing surface grade with power tools or power equipment, including but not limited to, grading, trenching, tiling, digging, drilling, boring, auguring, tunneling, scraping, cable or pipe plowing, and pile driving; ...
- (u) Mark, marks, or markings means the temporary identification on the surface grade of the location of a facility in response to a ticket...
- (aa) Safe zone means an area 48 inches or more from either side of the facility marks provided by facility owner or facility operator
- (bb) Soft excavation means a method and technique designed to prevent contact damage to underground facilities including, but not limited to, hand-digging, cautious digging with non-mechanical tools, vacuum excavation methods, or use of pneumatic hand tools

#### Common Ground Alliance

##### [Appendix A Glossary of Terms and Definitions](#)

- **Cross Bore:** An intrusion of an existing underground utility or underground structure by a second utility resulting in direct contact between the transactions of the utilities that compromises the integrity of either the utility or underground structure.<sup>89/</sup>
- **Pothole (a.k.a., test hole):** Exposure of a facility by safe excavation practices to ascertain the precise horizontal and vertical position of underground lines or facilities. Accepted safe excavation practices vary by state/local jurisdiction, but the preferred techniques include hand digging with extreme caution and/or vacuum excavation. ([See Best Practice 5-32.](#))<sup>86/</sup>

#### Discussion:

- Per manufacturer recommendations, proper usage described by the manual for safely utilizing equipment for trenchless drilling. All operating equipment must be up to factory specifications, including strike alarms.

- Monitor and track the bore head at the minimum of 1 rod within the distance of the sonde while actively drilling. The drill head should also be tracked at location and depth of a minimum of 1 rod.
- Excavators are encouraged to reach out to facility owners in unique circumstances involving the installation of underground facilities near existing underground facilities when boring.

#### Additional Discussion:

##### Ped Farms

- Treat existing structures as permanent utility markings and only use soft digging techniques within the caution zone of these structures.
- Do not place a new structure or existing facilities in any location where maintenance or service is likely to occur.

##### Ground Rods

- Never drive a ground rod without locates or within the caution zone of an existing facility without first determining the exact location of that facility. Keep the ground rod at least 12 inches away from any existing facility.

##### Drill Anchors

- If a marked facility is within the caution zone for the placement of a drill anchor the marked facility will be exposed via soft digging techniques before the anchor is inserted clear of the existing facility. Recommended 18" of caution zone allowed between anchors and facilities
- To mitigate the risk of damage caused by machine thrust or pushing, drill anchors must always be positioned on the backside of the existing facility relative to the drilling equipment.
- This positioning prevents the risk of the machine "pushing" into the facility and causing damage during operation.