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## 1. GENERAL

This document is provided to Columbia Gas of Virginia customers for informational purposes. Only Columbia Gas of Virginia employees and the Company's qualified contractors working on our behalf are authorized to repair, replace or perform maintenance on the meter set and service line.

This document sets forth the requirements for protecting all new, replaced, and existing residential and small commercial meter set assemblies. For the purpose of this document, a meter set assembly also includes, where installed, first/second/third cut (as required) service regulators.

For large commercial and industrial meter set assembly and/or service regulator protection requirements, please contact the Columbia Gas of Virginia New Business Team at 1-800-440-6111.

The meter set assembly shall also be protected from atmospheric corrosion.

## 2. LOCATION

Each meter set assembly, whether inside or outside a building, shall be installed in a readily accessible location and be protected from damage.

When installed inside a building:

- a. Each meter shall be installed in a ventilated space, and not less than 3 feet from any ignition sources or any source of heat which might damage the meter.
- b. Each service regulator shall be located as close to the service line entrance to the building as possible.

The meter set assembly should be installed in a location where it will not be subjected to damage by outside forces such as vehicular traffic, ice and snow, construction equipment and falling objects. Avoid installing the meter set assembly under fire escapes.

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The following factors should be considered when selecting a suitable location for the meter set assembly.

- a. Type of road (e.g. private, residential, federal or state highway, limited access highway).
- b. Road attributes (e.g. curb/no curb, guide rail/no guide rail, etc.).
- c. Function of driveway (e.g., residential, commercial, industrial).
- d. Type of off-road activity (e.g., four-wheeling, snowmobiling, farming operations).
- e. Natural barriers, (e.g. swales, earth embankments, terrain, etc.).
- f. Weather-related conditions (e.g., ice, snow, snow removal).

When it is not possible to install the meter set assembly in a safe location as outlined in this section of the document, protection shall be provided as outlined in Section 3 below.

Outside meter set assemblies shall be located such that potential damage from snow accumulation and/or falling ice and snow is limited. Locating the meter set assembly along an outside building wall under a roof gable or overhang should be sufficient protection.

### **3. INSTALLATION OF METER SET ASSEMBLY PROTECTION**

#### **3.1 Protection from Vehicular Damage - Bollards**

Except for an engineered meter set assembly protection design, bollards shall be installed to protect the meter set assembly as set forth in this section.

See Exhibits A, B, C, D and E for typical bollard application, spacing and installation requirements.

#### **3.2 Protection from Snow and Ice**

Where a roof overhang does not cover the meter set assembly, consideration shall be given to providing additional protection (e.g., protective meter enclosure) in locations where it is reasonably anticipated that snow or ice accumulation could negatively impact the meter set. Please consult Columbia Gas of Virginia for guidance.

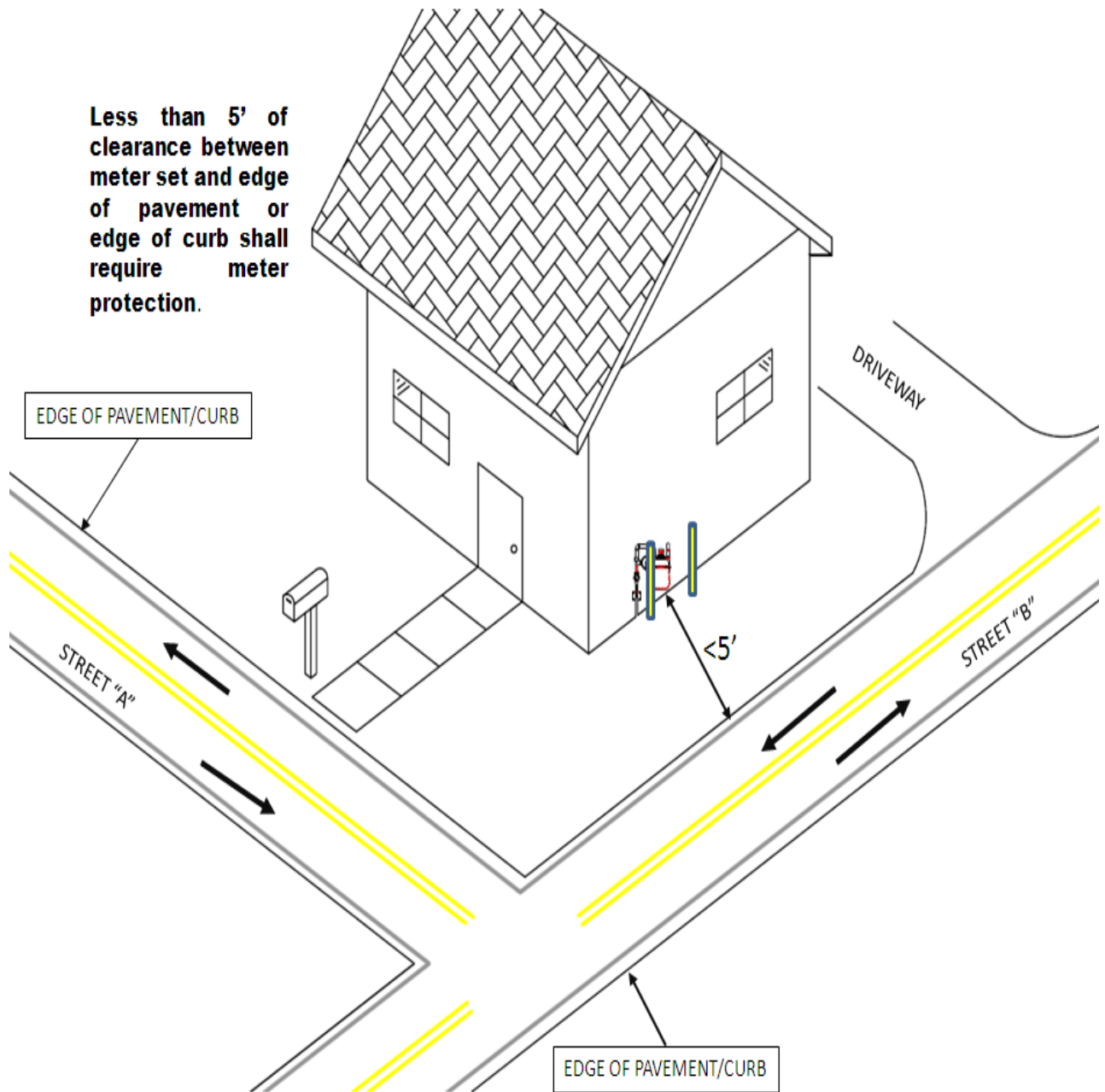
#### **3.3 Protection from Atmospheric Corrosion**

All above ground piping that is part of the meter set assembly shall be coated or painted with an approved material designed for such application in accordance with the manufacturer's application instructions.

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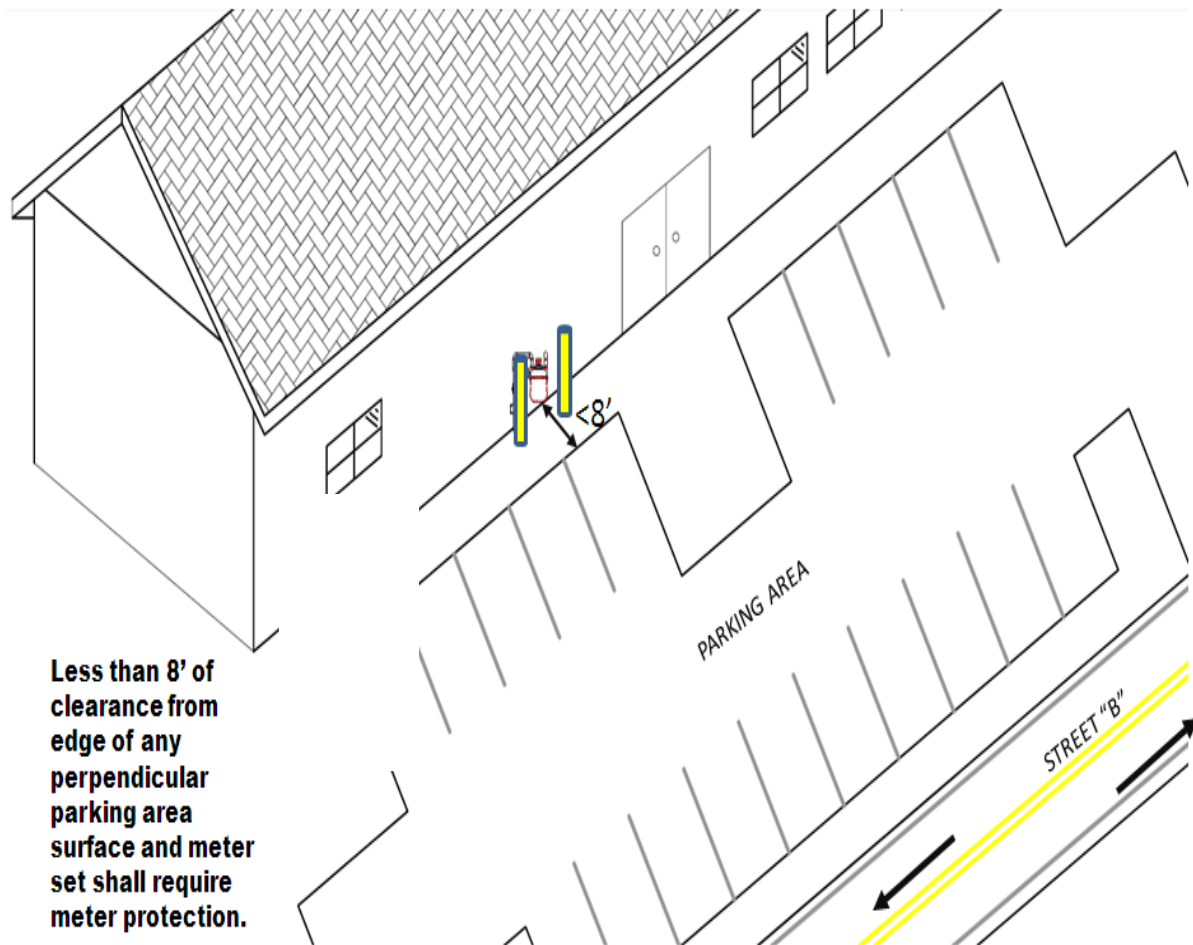
EXHIBIT A



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EXHIBIT B



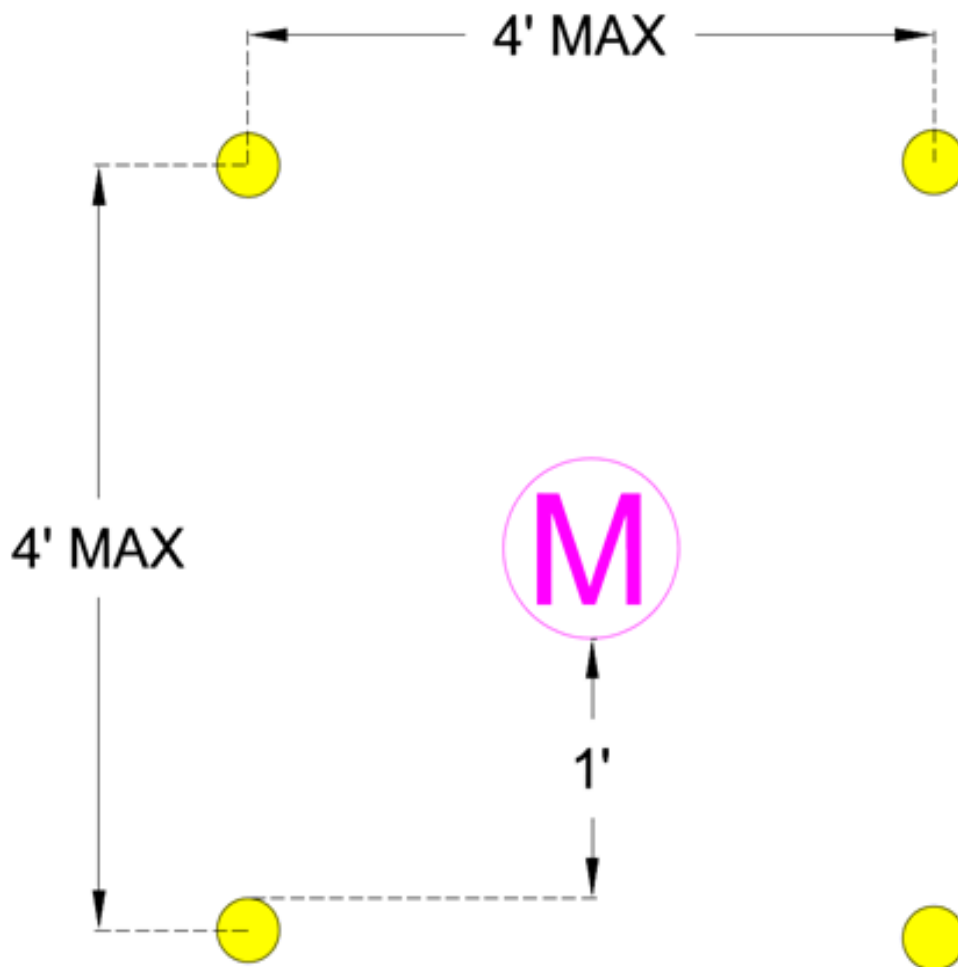
**Less than 8' of clearance from edge of any perpendicular parking area surface and meter set shall require meter protection.**

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EXHIBIT C

**Typical Remote Meter Set**



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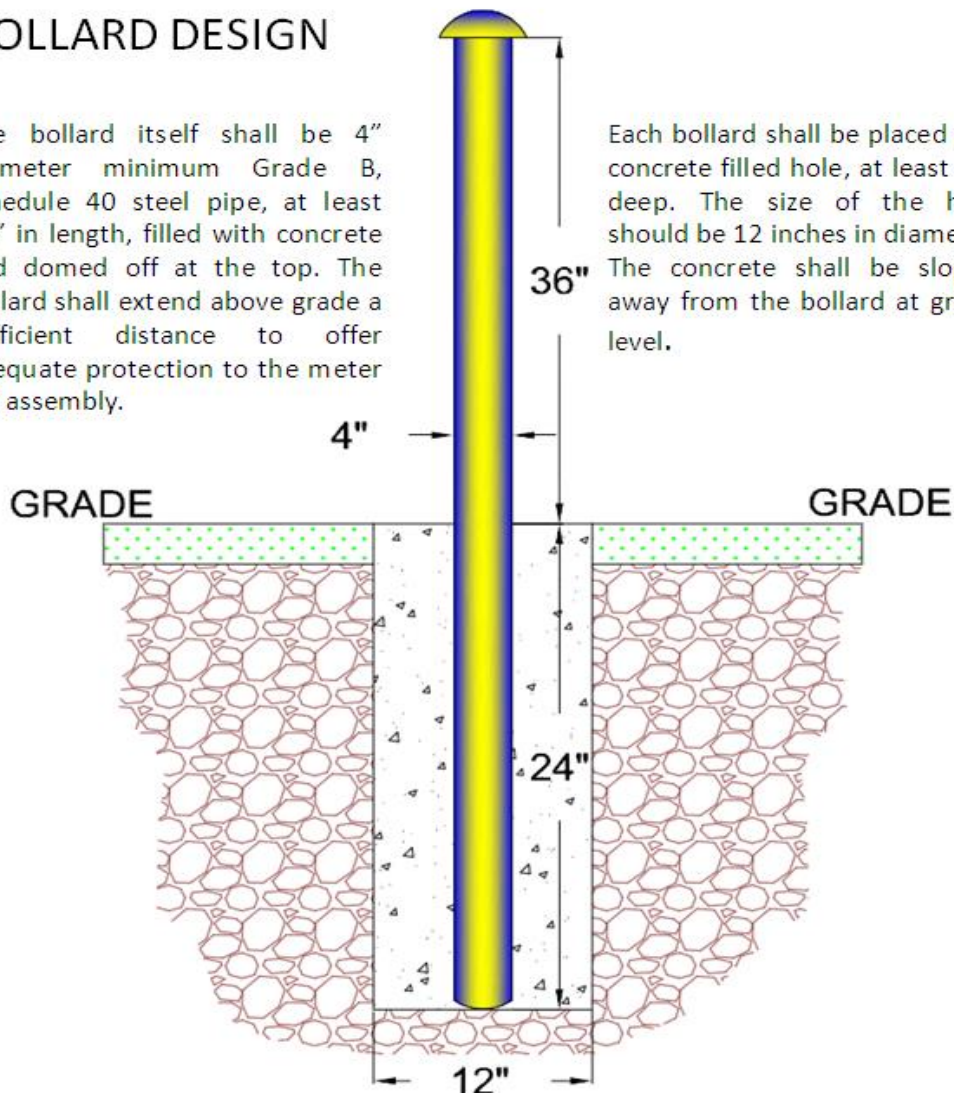
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EXHIBIT D

**BOLLARD DESIGN**

The bollard itself shall be 4" diameter minimum Grade B, schedule 40 steel pipe, at least 60" in length, filled with concrete and domed off at the top. The bollard shall extend above grade a sufficient distance to offer adequate protection to the meter set assembly.

Each bollard shall be placed in a concrete filled hole, at least 24" deep. The size of the hole should be 12 inches in diameter. The concrete shall be sloped away from the bollard at grade level.



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EXHIBIT E

- Meter settings located less than 5 feet from a roadway, driveway or driving surface edge or road side edge of curb, shall be protected by the installation of at least 2 bollards.
- Meter settings exposed to perpendicular vehicle parking shall have at least 2 bollards installed if the curb edge or edge of driving surface is less than 8 feet from the meter set.
- Maximum spacing of bollards is 4 feet on center.
- If more than 2 bollards are required to protect the meter set assembly, the maximum spacing of the bollards shall not exceed 4 feet.
- Bollards shall be installed no closer than 1 foot from the front of the meter set assembly and shall be positioned to allow adequate room for operation and maintenance activities.
- Any deviation from the above requirements shall be approved by a member of leadership.

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