

## Description:

The purpose of the section is to highlight the current applicable UMD Design Standards for the design, selection and location of protective site bollards.

## Related Sections:

- TBD

## Effective Date:

January 1, 2020

## Applicable Standards:

- TBD

## General Requirements:

Site standards have been established for the following items:

### Bollards:

- **Steel Pedestrian Bollard and Chain**

- Material: Powder Coated Steel
- Manufacturer: Key Stone Ridge Designs  
670 Mercer Road,  
Butler, PA 16001-1804
- Model: GV2CE Two Chain (GROVE SERIES) and/or  
Model: GV2CE One Chain (GROVE SERIES) as required by design
- Description: Non-Removable: Bollards constructed of heavy-duty steel painted with two-coat black powder coating.  
Removable: Bollards constructed of heavy-duty steel painted with two-coat black powder coating w/ ability to add lock.
- Performance: Non-Removable bollards are placed around landscape features to control pedestrian traffic.  
Removable bollards are placed stratigcally as control devices at driving lanes to control pedestrian traffic.
- Related Details: N.A.
- Alternate Manufacturer: Victor Stanley
- Anchoring: As directed by Architect.

- **Steel Vehicular Control Bollard**

- Material: Powder Coated Steel
- Manufacturer: Key Stone Ridge Designs  
670 Mercer Road,  
Butler, PA 16001-1804
- Model: PT-6 (Port Bollard Sleeves)
- Description: Non-Removable: Bollard covers are constructed of heavy-duty polyethylene, to be placed over concrete filled 6" steel posts.
- Performance: Non-Removable bollards are placed around building utility features to prevent damage, (i.e. dumpsters, gas meters, hydrants, landscape features to control vehicular traffic).
- Related Details: N.A.
- Alternate Manufacturer: Victor Stanley
- Anchoring: As directed by Architect.