



**SPECIAL PROVISIONS  
FOR  
ENTRANCE BOLLARD**

**Poweshiek County  
STP-S-C079(50)--5E-79**

**Effective Date  
July 17, 2018**

**THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**151042.01 DESCRIPTION.**

Entrance bollards shall consist of welded steel tubing filled with concrete and painted safety yellow constructed as herein specified and as shown on the plans in conformity with the contract documents.

**151042.02 MATERIALS.**

- A.** Entrance bollards shall be made of steel tubing (8 feet 6 inches in length) having a minimum tensile strength of 36,000 psi (ASTM Grade A).
- B.** Entrance bollards shall be 8 inch diameter steel pipe with a wall thickness of 0.188 inches.
- C.** Concrete for foundations shall have a minimum strength of 3000 psi after 28 days.
- D.** Entrance bollards gates shall be painted with a Prime Coat (Gray organic zinc-rich epoxy primer) and a top coat of Safety Yellow Latex.

**151042.03 CONSTRUCTION.**

- A.** Contractor shall clear all vegetation required to install entrance bollards.
- B.** Entrance bollards shall be installed on true alignment, grade and to dimensions shown on the plans. The height of the entrance bollard above finished grade shall be 48 inches.
- C.** Loose dirt around post holes shall be removed and loose dirt in post holes shall be tamped prior to placing posts and concrete. Posts shall be set in a vertical position, plumb and in line. Concrete shall be placed into the excavation and shall be crowned 1 inch above grade to shed water away

from the post. Post shall be braced, as required, to ensure post remain vertical, plumb and in the design location. Posts shall be filled with concrete and crowned 2 inches above top of post.

- D. The entrance bollards shall be constructed using the steel tubing as previously specified and to the dimensions shown on the plans. The steel tubing shall be sawcut and welded, as required. Welds shall be made smooth and flush. All welds shall be of A36 steel and in accordance with the AWS Welding Code.
- E. Surfaces to be painted shall be prepared and paint applied as follows:
1. Exposed surfaces shall be clean of all grease, oil, mill scale, dirt, concrete, rust, old paint or any other contaminants.
  2. Prime coat shall be applied at 3.0 to 4.0 mils Dry Film Thickness.
  3. Two top coats shall be applied each at 1.5 mils Dry Film Thickness. A minimum of 24 hours shall be allowed between coats for the preceding coat to dry completely.
  4. Application shall be by brush or spraying. Adjacent surfaces shall be protected. Contractor shall be responsible for damage by overspray and airborne paint particles.
  5. Paint shall not be applied when the air temperature in the shade is below 40°F or when the surface is wet. Paint shall not be applied when inclement weather conditions are pending. Contractor shall repaint if weather affects drying.

**151042.04 METHOD OF MEASUREMENT.**

The Entrance Bollards shall be measured per each post installed complete.

**151042.05 BASIS OF PAYMENT.**

The Entrance Bollards will be paid for at the contract unit bid price per each post installed, which shall include all necessary material, labor and equipment