

ITEM 690.6202--25 - INSTALLATION OF TOLL TREADLE FRAME

1. DESCRIPTION:

- 1.01 The work shall consist of casting toll treadle frames into the toll lane concrete as shown on the plans and as directed by the Engineer. The treadle frames shall be fabricated by one of the manufacturers listed below. Under this item number, the Contractor shall also supply and install the additional materials listed in this Specification under Materials.

2. MATERIALS:

- 2.01 Each treadle frame installation will require the following:

- A. **Galvanized Drainage Pipe and Fittings:** 3" diameter, Schedule 40 galvanized pipe, galvanized elbows and couplings as required. Materials shall meet ASTM A53, A197 and A153.
- B. **Polyethylene Drainage Fittings:** (wyes, tees, reducing fittings, etc.): Fittings are to be sized as indicated on the drawings. Where required, fittings are to be supplied with the appropriate Type 301 stainless steel adjustable bands. Polyethylene fittings shall meet ASTM F-405.
- C. **PVC Conduit and Fittings:** 2" diameter, Schedule 40 PVC conduit and fittings as indicated on the drawings. PVC reducing joining clamp with the appropriate Type 301 stainless steel adjustable bands, PVC bushed end required where PVC conduit terminates within the toll booth pie, PVC welding solvent, and Polyurethane sealant.

- 2.02 Treadle Frame; reference Contract Drawings [REDACTED] manufactured by:



No substitution shall be permitted.

- 2.03 Division ITSM shall be on site during the Engineer's inspection of the frame at the construction site. The Contractor shall contact Division ITSM through the Engineer to coordinate the inspection at least one (1) week prior to installation. Please note that treadle frames have precise tolerances and the contractor should take this into consideration when ordering and scheduling inspections to prevent delays in case the frame is rejected.

3. CONSTRUCTION DETAILS:

- 3.01 The Contractor shall be responsible for damage to the frame of any nature. Such responsibility for damage shall continue until the official opening by the Authority of the lane in which the treadle frame is installed.

The Contractor shall supply and install the treadle frames, supply and install treadle frame drain piping with connection into existing drain system, supply and install treadle frame PVC conduit including core drilling the toll booth concrete foundation wall for conduit penetration. All PVC conduit joints shall be welded with appropriate PVC solvent. PVC conduit at foundation penetration shall be sealed to prevent water from entering the toll booth foundation interior.

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3. CONSTRUCTION DETAILS:

3.01 (cont'd)

When placing concrete at the treadle frame, extreme care shall be taken to prevent concrete from encroaching above the bottom bars of the treadle pad's recess. Concrete must be flush with the top of these bars to provide full support for the pad.

All work shall be accomplished as shown on the plans and as directed by the Engineer.

3.02 The frames shall be set to conform to the adjacent transverse pavement grade (i.e., cross-slope).

The treadle frames in reversible lanes shall be installed such that their longitudinal grade is 0% (i.e., flat).

The treadle frames in one-way lanes shall be installed such that their longitudinal grade is 3% (i.e., 3/8 inch per foot) sloped so that the leading edge (the edge toward traffic) is lower than the trailing edge.

3.03 The treadle frames shall be secured to prevent movement during concrete pouring operations. The Contractor shall provide a partial footing as a base to support the frame as approved by the Engineer and as indicated on the Drawings.

3.04 Prior to concrete pouring operations, it will be the Contractor's responsibility to connect all necessary drains and conduits. These items shall be provided as indicated on the drawings.

3.05 The Contractor shall verify treadle frame bushing alignment and spacing prior to setting in concrete. Thread size and pitch shall be in English units.

3.06 After concrete pouring operations, the treadle frames shall be cleaned and prepared as directed by the Engineer for receipt of the treadle body to be supplied and installed by others.

4. METHOD OF MEASUREMENT:

4.01 The work shall be measured on an each basis for the number of treadle frame units, installed as described in the Contract Plans and in this specification.

5. BASIS OF PAYMENT:

5.01 The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work.