

SECTION 923
SUPPLY AND INSTALLATION OF GUIDE RAIL - STRUCTURES

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923.01 SCOPE

This specification covers the requirements for the supply and installation of "Guide Rail With Additional Posts", including all posts and hardware at the approach to and exit from a bridge, overpass and underpass type structure as per Form 1282-1 of the Specifications Book.

The supply, installation, measurement for and basis of payment for modified special end shoes is considered in Section 904.02.11, Miscellaneous Materials, of the Specifications Book.

923.02 MATERIALS

Materials shall be in accordance with Section 640.03, "Materials", of the Specifications Book except as outlined herein.

The Contractor shall pay particular attention that post bolts be of sufficient length to accommodate the offset block.

Posts shall be 150 mm x 150 mm or 200 mm x 200 mm as outlined herein, whichever is appropriate. Post length shall be at least 2400 mm long.

Standard hazard markers, two (2) each of WE-1 and WE-2, shall be supplied by the Department to the Contractor at no expense. The Contractor is responsible for posts, mounting hardware and the erection of hazard markers as per contract drawings. Posts for mounting the hazard markers shall be a nominal 100 mm x100 mm, length as required.

923.03 INSTALLATION

Installation shall be in accordance with Section 640.03 and Form 1282-1 of the Specifications Book or details on the contract drawings, and as outlined herein. The correct Form to follow for installation will be indicated on the Contract drawings.

The minimum installed length of guide rail at the structure approach is three (3) horizontal plus two (2) sloped sections, and at the structure exit two (2) horizontal lengths plus the terminal section. The guide rail shall be attached to each end block with the modified special end shoes.

Galvanized Standard Buried Ends shall be identified and paid for as separate bid items. Galvanized Standard Buried Ends shall consist of an angle unit and one standard partially buried unit. Standard units shall include straight units and Standard Terminal Ends as may be required.

The below criteria shall apply where guide rail is installed as per Form 1282-1 and where it is a continuation of roadway guide rail. At structure approach and exit, one length of guide rail measuring 3.5

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mm thickness shall be attached to the modified end shoes. At the structure approach and exit, posts within 7620 of the end block shall be 200 mm x 200 mm except as outlined herein. Offset blocks shall be used on all posts supporting horizontal rail sections. Posts beyond the 7620mm dimension from the end block shall be 150 mm x 150 mm. All posts spacing shall be spaced at 1905mm centre to centre, more or less up to five (5) and two (2) guide rail lengths at the structure approach and exit respectively.

The below criteria shall apply where guide rail is installed as per contract drawings and where it is a continuation of roadway guide rail. At structure approach and exit, one length of guide rail measuring 3.5 mm in thickness shall be attached to the modified end shoes. Within 11527mm structure approach and 7717mm of exit, posts shall be 200 mm x 200 mm except as outlined herein. Offset blocks shall be used on all posts supporting horizontal guide rail sections. Posts beyond the given dimensions shall be 150 mm x 150 mm. All post spacings shall be as indicated on contract drawings. There shall be a minimum of five (5) and two (2) lengths of horizontal guide rail at structure approach and exit respectively.

This specification is not intended to provide for guide rail installed in the permanent traffic opening of overpasses or underpasses.

Standard hazard markers shall be installed in accordance with the standard drawing.

923.04 MEASUREMENT FOR PAYMENT

Measurement for payment purposes shall be limited to that guide rail contained within five (5) rail lengths at the structure approach and two (2) rail lengths at the exit from a structure excluding modified special end shoes.

Measurement for payment regarding the Supply and Installation of Guide Rail - Structures for the work as described herein and as outlined in Form 1282-1 and/or details on the contract drawings shall be the length of guide rail measured in metres, rounded to one decimal place, measured end to end along the face of the railing and terminal sections regardless of the type and kind of installation excluding the modified special end shoe.

Measurement for payment for the supply and installation of standard hazard markers shall not be made.

923.05 BASIS OF PAYMENT

Payment at the contract price tendered for Supply and Installation of Guide Rail - Structures, shall be full compensation for all labour, materials, plant and equipment to: excavate post holes, supply and install all posts, anchors, rail sections, rail terminal sections, bolts, nuts, washers, spikes and nails, bend rail sections where required to a uniform radius, backfill post holes, compact backfill, dispose of surplus excavation material, trim posts, supply and apply wood preservative, install reflectors, clean, pre-treat, and coat steel rail with galvanizing compound where so required, all in accordance with this specification..

The supply and installation of standard hazard markers including all fasteners, attachments and posts shall be considered incidental to "Supply and Installation of Guide Rail - Structures".