

FORM 645



GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Transportation and Works
Highway Design Division

SECTION 645

SUPPLY AND INSTALLATION OF WOODEN GUIDE POSTS

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645.01 SCOPE

This specification covers the requirements for the supply and installation of wooden guide posts.

645.02 ENVIRONMENTAL REQUIREMENTS

Guide posts located in Protected Water Supply areas shall only be chromated copper arsenate treated type.

645.03 MATERIALS

Wooden guide posts shall consist of a post with an anchor attached to the base as shown on the drawing Section 1285 "Wooden Guide Post".

Lumber for posts and anchors shall be sound, well seasoned structural grade lumber free from cracks and warp.

Only birch wood will be acceptable for the guide posts.

Posts shall be of 150mm x 150mm lumber. The length shall be approximately 2400mm.

Anchors shall consist of two pieces of 38mm x 89mm lumber each of length 450mm.

Posts and anchors shall be pressure treated with an acceptable wood preservative.

The minimum required depth of penetration of wood preservative shall be 13mm. To determine penetration, a borer core shall be taken from 20 pieces in each charge. If 80% of the borings meet the penetration requirements, the charge shall be accepted.

The minimum retention of preservative shall be as follows:

PRESERVATIVE	MINIMUM RETENTION	METHOD OF DETERMINATION
PENTACHLOROPHENOL	6.4 KG/M ³	BY ASSAY
CHROMATED COPPER ARSENATE	6.4 KG/M ³	BY ASSAY
OTHER	IN ACCORDANCE WITH CSA 080-M 89	

Incising will normally be required. However, this requirement will be waived if specifications for both penetration and retention are satisfied.

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If requested by the Engineer, the Contractor shall provide penetration and retention test reports for the guide posts and guide rail posts supplied for the project.

Nails for attaching anchor pieces to the post shall consist of 100mm galvanized nails.

Nails to secure Department supplied reflectors, shall be 30mm galvanized flat head nails.

All materials, with the exception of the reflectors, shall be supplied by the Contractor. The Department will supply the silver signal reflectors and the yellow signal reflectors which will both be of size 75mm x 100mm.

645.04 ASSEMBLY AND INSTALLATION

Anchors shall be attached to the posts as shown on drawing Section 1285 "Wooden Guide Post". Each piece of 28mm x 89mm x 450mm lumber shall be nailed near its centre to the post so that the lower edge of the anchor is 30mm above the bottom of the post. Each piece shall be secured by means of two galvanized nails of length 100mm.

Should any piece of lumber become split or cracked during nailing, then the Contractor shall, at his own expense, replace the damaged piece with sound lumber.

Guide posts shall be placed at the locations as set by the Engineer. The Contractor shall excavate holes for the posts such that when placed in the holes the bottom of the posts are at least 1200mm below the ground surface.

The posts shall be set plumb, and firmly backfilled with selected material, free of large rock, placed in layers of thickness not greater than 150mm. Each layer shall be thoroughly compacted before the next layer is placed. Should the backfill material be dry, then each layer shall be moistened before tamping.

All surplus excavated material shall be disposed of along the sides of fill, or in other locations as directed by the Engineer.

The tops of the posts shall be cut to a point 1000mm above the edge of the pavement, as shown on drawing Section 1285 "Wooden Guide Post", or cut otherwise as directed by the Engineer.

The tops of the posts shall be treated with 2 applications of wood preservative as in Section 590, "Wood Preservation".

Signal reflectors shall be attached to the top of the guide posts, as shown on drawing Section 1285, "Wooden Guide Post".

The Contractor shall drill nail holes in the reflectors, bend the reflectors to the required shape and then secure the reflectors with 30mm galvanized flat head nails so that silver reflectors are placed facing on-coming traffic and yellow reflectors are placed on the opposite side except on divided highway. On divided highways, silver reflectors are to be placed facing oncoming traffic on the outside shoulder and yellow reflectors are to be placed facing oncoming traffic on the median shoulder.

645.05 MEASUREMENT FOR PAYMENT

Measurement for Payment will be by means of the number of completed new wooden guide posts placed at the required locations.

645.06 BASIS OF PAYMENT

Payment at the contract price for the Supply and Installation of Wooden Guide Posts shall be compensation in full for all labour, materials and equipment-use to: supply the posts, anchor, nails, and wood preservative, assemble the guide posts, excavate the post hole, install the post, backfill the hole, tamp the backfill, dispose of all surplus materials, trim the post, apply wood preservative to top of post and install the reflectors all in accordance with this specification.