

# **TENDER DOCUMENTS**

## **SUBSECTION 6.72 SMALL SIGNAGE**

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## SUBSECTION 6.72 SMALL SIGNAGE

### 6.72.1 GENERAL

- 6.72.1.1 This subsection sets out the requirements for dismantling, disposal, reinstallation, supply of materials, fabrication and permanent installation of small signage (direction, information and hazard) to be carried out under this contract.
- 6.72.1.2 Any special requirements pertaining to the small signage work provided for in this contract are set out in Section 4 *Specific Technical Conditions*.
- 6.72.1.3 The requirements pertaining to steelwork are set out in subsection 6.41 *Steelwork*.
- 6.72.1.4 The requirements pertaining to aluminum work are set out in subsection 6.43 *Aluminum Work*.

### 6.72.2 REFERENCE STANDARDS

- 6.72.2.1 The **Contractor** shall carry out all small signage work in accordance with the requirements set out in the following standards and documents to which the provisions of the contract are added:
- 6.72.2.1.1 (ASTM) ASTM International
- ASTM D4956-07e1 *Standard Specification for Retroreflective Sheeting for Traffic Control*;
  - ASTM A153/A153M-05 *Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware*.
- 6.72.2.1.2 (CSA) Canadian Standards Association
- CAN/CSA G40.20-F04/G40.21-F04 *General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel*;
  - CAN/CSA-G164-M92(R2003) *Hot Dip Galvanizing of Irregularly Shaped Articles*.
- 6.72.2.1.3 (MTQ) Quebec Department of Transport
- MTQ – *Cahier des charges et devis généraux (CCDG)*;
  - MTQ – *Normes – Ouvrages routiers, Tome I Conception routière*;
  - MTQ – *Normes – Ouvrages routiers, Tome II Construction routière*;
  - MTQ – *Normes – Ouvrages routiers, Tome III Ouvrages d'art*;
  - MTQ – *Normes – Ouvrages routiers, Tome V, Signalisation routière, volumes 1 et 2*;

- MTQ – Normes – Ouvrages routiers – Tome VII Matériaux, Chapitre 6 Pièces métalliques, Norme 6201 Boulons, tiges d'ancrage, écrous et rondelles en acier,
- MTQ – Normes – Ouvrages routiers – Tome VII Matériaux, Chapitre 14 Pellicules rétro réfléchissantes, Norme 14101 Pellicules rétro réfléchissantes.

#### 6.72.2.1.4 Éditeur officiel du Québec

- Highway Safety Code (R.S.Q., c. C-24.2);
- Safety Code for the construction industry (R.S.Q., c. S-2.1, r.6);
- Regulation respecting road signs (S.Q., c. C-24.2, r.4.1.2).

### 6.72.3 MATERIALS

#### 6.72.3.1 SIGNAGE PANELS

6.72.3.1.1 Small signage shall be made of aluminum the thickness of which is specific in chapter 6 of MTQ standard *Normes — Ouvrages routiers, Tome III Ouvrages d'art*.

6.72.3.1.2 The retroreflective film to be used to cover the aluminum sheets shall be Type III film conforming to MTQ standard 14101.

#### 6.72.3.2 ACCESSORIES

6.72.3.2.1 This subsection does not necessarily contain a full and detailed description of all the accessories needed to perform the work. Consequently, the **Contractor** shall supply and install in a professional manner all accessories needed to complete the work.

#### 6.72.3.3 SIGNAGE PANELS FASTENERS

6.72.3.3.1 Bolts, fasteners, nuts and other accessories needed to attach signage panels shall conform to MTQ standard 6201.

#### 6.72.3.4 POSTS

6.72.3.4.1 Posts shall be Type 2 cold-rolled U posts 63.5 mm by 31.8 mm and shall be hot tip galvanized in accordance with standard CAN/CSA-G164-M.

6.72.3.4.2 Posts shall be tapered and have holes 11.1 mm in diameter 50.8 mm apart.

#### 6.72.3.5 STORAGE

6.72.3.5.1 The conditions under which materials are stored shall meet the manufacturer's requirements. Film and other signage components altered in the course of the work shall be replaced by the **Contractor** at its expense.

## 6.72.4 EXECUTION OF WORK

### 6.72.4.1 GENERAL

- 6.72.4.1.1 Shop drawings shall be submitted to the Engineer for review at least 14 days prior to fabrication.
- 6.72.4.1.2 Where small signage panels are being relocated, the **Contractor** shall obtain approval from the Engineer to reuse the existing panels and posts.
- 6.72.4.1.3 If the panels and posts to be relocated cannot be reused, the **Contractor** shall supply new materials and dispose of the components that cannot be reused.

### 6.72.4.2 INSTALLATION OF PANELS

- 6.72.4.2.1 Panels shall be installed in accordance with the specifications set out in the *Regulation respecting road signs*.
- 6.72.4.2.2 New fasteners supplied by the **Contractor** shall be used to install new panels and replace existing panels.
- 6.72.4.2.3 For supports carrying three or more panels, the **Contractor** shall supply and install horizontal aluminum bars in order to make the panels wind resistant.

### 6.72.4.3 INSTALLATION OF POSTS

- 6.72.4.3.1 Before installing the posts, the **Contractor** shall carry out all necessary checks to ensure that utilities and other buried services are not damaged.
- 6.72.4.3.2 The number of posts per installation shall be sufficient to ensure adequate stiffness. Posts shall extend at least 900 mm into the ground.

## 6.72.5 QUALITY CONTROL

- 6.72.5.1 Once the work is complete, the Engineer shall conduct a daytime inspection accompanied by a representative of the **Contractor** in order to verify the location, height, visibility and appearance of the panels and a nighttime inspection to verify the orientation of the panels, glare and any other visible defects.
- 6.72.5.2 Defects in a panel including, but not limited to, any defect discovered during these two inspections shall be remedied by the **Contractor** to the satisfaction of the **Owner**.

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**END OF SUBSECTION**