

# **TENDER DOCUMENTS**

## **SUBSECTION 6.71 OVERHEAD SIGNS**

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## SUBSECTION 6.71 OVERHEAD SIGNS

### 6.71.1 GENERAL

- 6.71.1.1 This subsection sets out the requirements for dismantling and installing permanent overhead signage under this Contract.
- 6.71.1.2 Any specific requirements pertaining to the overhead signage work provided for in this Contract are set out in Section 4 *Specific Technical Conditions*.
- 6.71.1.3 The requirements pertaining to steelwork are set out in subsection 6.41 *Steelwork*.
- 6.71.1.4 The requirements pertaining to aluminum work are set out in subsection 6.43 *Aluminum Work*.

### 6.71.2 REFERENCE STANDARDS

- 6.71.2.1 The **Contractor** shall carry out all overhead signage work in accordance with the requirements set out in the following standards and documents to which the provisions of the Contract are added:
- 6.71.2.1.1 (ASTM) ASTM International
- ASTM D4956-07e1 *Standard Specification for Retroreflective Sheeting for Traffic Control*.
- 6.71.2.1.2 (CSA) Canadian Standards Association
- CAN/CSA G40.20-04/G40.21-04 *General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel*.
- 6.71.2.1.3 (MTQ) Ministère des Transports du Québec
- 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 Traffic Control Devices, Part 1 and 2*;
  - MTQ – *Normes – Ouvrages routiers – Tome VII Matériaux, Chapitre 14 Pellicules rétro réfléchissantes, Norme 14101 Pellicules rétro réfléchissantes*;
- 6.71.2.1.4 Éditeur officiel du Québec
- *Quebec 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)*.

6.71.2.1.5 Publications du Québec

- Greage et levage : guide de sécurité (2007).

**6.71.3 MATERIALS**

6.71.3.1 ACCESSORIES

6.71.3.1.1 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 according to rules of good practice, all accessories needed to complete the work.

6.71.3.2 SIGN PANELS

6.71.3.2.1 Sign panels shall be made of extruded or sheet aluminum. Illuminated signs incorporated into sign panels shall meet the requirements set out in the CCDG for illuminated vertical signage.

6.71.3.3 RETROREFLECTIVE FILM

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

6.71.3.4 SIGN PANEL FASTENERS

6.71.3.4.1 The fasteners that hold sign panels on the structure shall be as indicated on the drawings.

6.71.3.4.2 The fasteners used to hold sign panels on aluminum structures shall be aluminum or stainless steel.

6.71.3.4.3 The fasteners used to hold sign panels on galvanized steel structures shall be galvanized steel.

6.71.3.4.4 The **Contractor** shall not, under any circumstances, drill and/or drive screws into the signage structure.

6.71.3.4.5 Where a sign panel has to be mounted directly onto an aluminum structure using stainless steel or aluminum straps, the **Contractor** shall use a fastening system that does not cause the metal to corrode.

6.71.3.4.6 A neoprene protective strip shall be placed between the structure and the metal strap in order to prevent any direct contact; the neoprene strip shall have three (3) gaps every 25 mm of length to allow water to drain.

#### 6.71.3.5 STORAGE

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

### 6.71.4 EXECUTION OF WORK

#### 6.71.4.1 GENERAL

- 6.71.4.1.1 The **Contractor** shall check on site the existing installations that need to be modified or that may hinder its work. The **Contractor** shall also check on site all dimensions related to the exact clearances and heights of the overhead structures and other supports. The **Contractor** may not claim any additional costs or damages resulting from errors and omissions in the dimensions shown on the drawings.

- 6.71.4.1.2 Sign panels shall be installed in accordance with the requirements set out in MTQ, Tome V – *Signalisation routière*.

- 6.71.4.1.3 The **Contractor** shall, in dismantling, transporting, handling, storing and installing sign panels, take such measures as are needed to prevent alteration of the film or any other component of the panels.

#### 6.71.4.2 MOUNTING DRAWING

- 6.71.4.2.1 At least seven (7) days before the panel is mounted, the **Contractor** shall submit to the Engineer a mounting drawing of the sign panels signed and sealed by an engineer who is a member of the Ordre des ingénieurs du Québec.

- 6.71.4.2.2 The mounting drawing shall describe the recommended method of installing the sign panel. Where existing signs are to be dismantled, the mounting drawing shall also include dismantling.

- 6.71.4.2.3 The mounting drawing shall identify a safe method of prehension for attaching the sign panel while it is being handled and lifted and until it is installed on the structure and shall include a description of the operations to be performed at the various stages of attaching the fasteners of the sign panel.

- 6.71.4.2.4 When a panel is being lifted, the lifting device shall not be attached to the bolts inserted in the grooves at the top of the panel.

- 6.71.4.2.5 The **Contractor** shall inform workers of the existence of the mounting drawing and the lifting method.

#### 6.71.4.3 SHOP DRAWINGS

- 6.71.4.3.1 At least fourteen 14 days before fabrication begins, the **Contractor** shall submit to the Engineer for review shop drawings and design briefs signed and sealed by an engineer who is a member of the Ordre des ingénieurs du Québec.

6.71.4.3.2 The information shown on the drawings is intended to guide the **Contractor**. The **Contractor** is responsible for providing as built shop drawings of the final structures.

6.71.4.4 DISMANTLING OF PANELS

6.71.4.4.1 All messages on overhead sign panels shall be visible to traffic at all times. Authorization to proceed to the panels dismantling shall be obtained from the Engineer before recovering overhead signage from the existing structures.

6.71.4.4.2 The **Contractor** is responsible for disposing of waste from the removal of the panels at an authorized site.

6.71.4.5 DELIVERY AND ASSEMBLY OF PANELS

6.71.4.5.1 The **Contractor** shall assemble on site panels manufactured in two or more sections and shall replace the T stiffeners temporarily bolted to the panels in the shop with full-length stiffeners for each panel and insert the necessary bolts.

6.71.4.5.2 New panels and panels that are dismantled and relocated shall be identified and numbered as shown on the drawings.

**6.71.5 QUALITY CONTROL**

6.71.5.1 Once the work is completed, 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.

6.71.5.2 Any defect in a panel including, but not limited to, any defect discovered during these inspections shall be remedied by the **Contractor** to the satisfaction of the **Owner**.

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**END OF SUBSECTION**