



Timber Operations, Pricing and First Nations Division Engineering Branch

Guidance for Ordering Road Closure Gates Ministry Standard Drawings STD-G-010-01 to 05 & STD-G-011-01 to 05

1.0 General

Structural details for fabrication of a surface mounted road closure gate and a buried footing road closure gate are provided on ministry standard drawings STD-G-010-01 to 05 and STD-G-011-01 to 05, respectively. These drawings provide some options for gate installations on Forest Service Roads (FSRs).

The standard drawings do not provide site specific specifications for gate design, roadway design, installation, signage, or road user safety. These issues must be addressed by the person taking responsibility for gate installation at a specific site based on an assessment of the site specific characteristics including: road width, road alignment and site visibility, foundation materials, vehicle traffic configurations and expected vehicle operating speeds on the road. For some gate sites, alternate steel gate component designs may be required.

The ministry contact who is initiating an order (ITQ) for gate materials should ensure that all gate specifications are determined prior to ordering materials for any specific gate site. A materials template has been prepared to facilitate the ordering of gates and is available at: <https://www2.gov.bc.ca/gov/content/industry/natural-resource-use/resource-roads/engineering-publications-permits>

2.0 Considerations when ordering gates

2.1 Gate Arm Supports: Surface Mounted Abutments vs Posts with Buried Footings

Surface Mounted Abutments (STD-G-010-01 to 05)

- The surface mounted gates have been developed for temporary installation, or for installation at sites where ground conditions are expected to be bedrock or otherwise difficult to excavate. The surface mounted abutments require a level surface for abutment foundation. Installation at some sites may require an excavator to prepare a level foundation.

Posts with Buried Footings (STD-G-011-01 to 05)

- Gate arm supports that are posts with buried footings will be (compared to surface mounted abutments) less expensive to fabricate and transport.
- Installation requires earthworks with an excavator, and there should be confidence that excavations to a depth of 1.4 m below ground surface at post locations can be accomplished at the gate installation site.

2.2 'Telescoping' vs 'Fixed Length' Gate Arm

- A telescoping gate arm or a fixed length gate arm can be ordered with either surface mounted or buried footing abutments. If a gate is planned to be moved frequently from site to site, with varying gate opening widths required, the telescoping gate arm is recommended. If a gate is intended to be left at one location long term, and the required and practically attainable opening width is well known in advance, a fixed length gate arm would be most suitable.
- The telescoping gate arm will be more expensive than the fixed length gate arm, and may have some problems with vandals removing the bolts at mid-arm length. In some situations the ministry may want to consider tack welding the nuts onto the bolts, or otherwise making the nuts difficult to remove, in order to discourage thieves and vandals from removing the bolts.
- Both the telescoping and the fixed length gate arms have a single rail and a double rail version. The single rail versions are less expensive, and weigh less which may make installation and operation easier. The double rail versions provide a fence-like gate which is more visible and will deter low vehicles such as some small ATVs, etc., as well as regular vehicles.

2.3 Gate Reflective Materials and Signage

- The standard drawings do not specify connection details (e.g., welded tabs, specific holes, etc.), or connectors (e.g., bolts, nuts, etc.) for attachment of reflective material and signs to the gate.
- Reflective material and attached signage must be considered to ensure gate visibility to road users.
- The person taking responsibility for gate installation at a specific site must determine the requirements for reflective materials and signage attached to the gate as well as approach roadway signage.
- Gate-ahead signage must be installed to be clearly visible and provide adequate warning for vehicles approaching the gate from both directions.

3.0 Reporting Gate Installation Issues

- The person taking responsibility for the gate installation should require the installation contractor to report any installation issues and/or any problems achieving the gate installation requirements shown on ministry standard drawings STD-G-010-01 to 05 and STD-G-011-01 to 05.