

## **1.0 GENERAL**

### **1.1 SURVEY REFERENCE POINTS**

- .1 Primary horizontal and vertical survey reference points have been established by the Minister as specified in the Contract Documents. The Minister is responsible for the accuracy of the primary survey reference points.
- .2 Locate, confirm, and protect primary reference points prior to starting Work on the Site. Preserve permanent reference points during construction.
- .3 Make no changes to or relocations of the primary survey reference points without prior written authorization of the Minister.
- .4 Report to the Minister when a reference point is lost or damaged, or requires relocation because of the Work.
- .5 Replace damaged reference points in accordance with the original survey control.

### **1.2 CONTRACTOR SURVEY WORK**

- .1 Employ qualified construction surveyors to perform survey work.
- .2 Record survey data in accordance with standard survey methods in a form acceptable to the Minister.
- .3 Establish secondary survey reference points required for laying out and staking the Work and for checking tolerances. Be solely responsible for the accuracy of the secondary survey reference points and the layout, staking, and checking of the Work.
- .4 Establish lines, grades, and elevations, and locate and lay out the Work.
- .5 Provide final grade staking of each line, grade or elevation required for the Minister's checking of the work and for measurement for payment purposes, as defined in Section 01280 – Measurement Schedule, for checking by the Minister. Maintain final grade stakes in place until the Minister has authorized their removal.
- .6 Provide such assistance as may be required by the Minister for carrying out surveys in clause 1.3.
- .7 Establish and maintain survey reference points in all work areas, including elevations and locations relative to established stationing and offset systems or otherwise required by the Minister. Provide reference points within [50 m] horizontal distance and [2 m] vertical distance of all locations where testing, observations of conditions, or other similar activities are undertaken by the Minister, such that the Minister can establish the location and elevations at those locations.

**1.3 MINISTER SURVEY REQUIREMENTS**

- .1 The Minister may carry out surveys, as the Minister deems necessary, to check the accuracy of the Contractor's layout and stakes.
- .2 The Minister will carry out surveys for the purpose of measuring the Work for payment.

**1.4 SUBMITTALS**

- .1 Provide the following submittals.
- .2 The name and address of the Contractor's surveyor to the Minister prior to commencing the Work at the Site.
- .3 When requested, submit a copy of reduced notes for surveys or portions of surveys to the Minister.
- .4 A certificate signed by the Contractor's surveyor confirming that the lines, grades, elevations, and dimensions of the completed Work are in conformance or not in conformance with the Contract Documents. Provide details of all non-conformances.
- .5 Electronic survey data files in a format acceptable to the Minister.

**2.0 PRODUCTS – NOT USED**

**3.0 EXECUTION – NOT USED**

**END OF SECTION**