**CONSTRUCTION LAYOUT EQUIPMENT**

Effective: June 1, 2025

General. The Contractor shall furnish articles of survey equipment to be used by the Department for independent monitoring and verification of construction layout stakes, reference points, and any other horizontal and vertical control set by the Contractor. All equipment will be for the exclusive use of the Department throughout the duration of the contract and will be returned to the Contractor at the end of the contract.

Equipment. The equipment shall be furnished no later than fourteen days prior to construction activities begins. The equipment to be furnished by the Contractor shall consist of the following, or equivalent:

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| --- | --- | --- |
| Product Number | Name | Qty |
| 5199-00 | Yel Tripod, Antenna, GPS, Adjustable | 1 |
| 8154-00 | Org Bag, Tripod, 5119 GPS Antenna | 1 |
| 51870-50-70 | Utility Gain Antenna | 3 |
| 74450-14 | TDL 450H Field Battery/Charger Kit includes: | 1 |
| 56657-00 | Battery in pouch | 1 |
| 51862-00 | 9’ SAE to SAE cable | 1 |
| 52083 | Univ. power adapter kit | 1 |
| C01790 | Charger | 1 |
| R10-102-60-01 | Trimble R10-2, Model 60, single receiver Case, Row | 3 |
| R10-CFG-002-41 | Trimble R10-2 Config. Lvl – R10 Base & Rover Mode | 3 |
| 101071-00-01 | Trimble Acc – Power Supply and Power Cord for Dual Battery Charger (North America) | 3 |
| 43169-20 | Rod – 2.5m Carbon Fiber Telescopic Range Pole w/ Bipod | 2 |
| TSC7-1-1111-00 | Trimble TSC7 controller – QWERTY keypad, USB/Serial boot, Worldwide region, Standalone Includes: | 2 |
|  | Power supply with cable | 2 |
|  | Screen protector | 2 |
|  | Hand strap | 2 |
|  | 1 set of two batteries | 2 |
|  | Stylus with tether | 2 |
|  | Quick start guide | 2 |
| TA-FENSURV-P | Trimble Access – General Survey; Perpetual License (software) | 2 |
| SA-ROADS-P | Trimble Access – Roads; Perpetual License (software) | 2 |
| 121349-01-1 | Trimble TSC7 Accessory – Pole Mount | 2 |
| 121358-01-1 | Trimble TSC7 Accessory – Ext. Battery Charger w/ Int. Cord, Battery 2-pack | 2 |
| 121354-01-1 | Trimble TSC7 Accessory – Carry Case Shoulder Bag | 2 |

The Department will have control over data loaded onto the units and may use data not available to the Contractor.

Any software updates will be applied to the equipment by the Contractor. Another unit shall be furnished to the Department when updates or fixes require the unit to be unusable for more than eight consecutive hours.

Training. The Contractor shall provide training for six members of the Department’s staff on use of the equipment and software. Training shall occur at least seven days before construction activity begins. For the purpose of this specification, construction activity includes but is not limited to mobilization of equipment and erection of traffic control signs. Training shall consist of at least 8 hours and be on-site.

Basis of Payment. This work will not be measured separately but shall be included in the contract lump sum price for CONSTRUCTION LAYOUT.