

ITEM S-142 EQUIPMENT STORAGE BUILDING

DESCRIPTION

142-1.1 Furnish all labor, materials and equipment required to construct a new snow removal equipment building at the location indicated on the plans. Comply with the building technical specifications located in Appendix L for work on the building and related systems. This item will construct the new equipment storage building(s) on a new or existing building pad.

MATERIALS

142-2.1 Materials required to perform this work are outlined in the building technical specifications in Appendix L except as specified in Subsection 142-6.1. Comply with GCP Subsection 60-08 for submittals.

CONSTRUCTION REQUIREMENTS

142-3.1 Comply with the plans and specifications outlined in the building technical specifications in Appendix L except as specified in Subsection 142-6.1. Submit plans and working drawings in accordance with GCP Subsection 50-02.

142-3.2 TESTING. Perform testing in conformance with the plans and specifications outlined in the building technical specifications in Appendix L except as specified in Subsection 142-5.1.

METHOD OF MEASUREMENT

142-4.1 This item will not be measured for payment.

BASIS OF PAYMENT

142-5.1 Payment will be made at the contract lump sum price for construction of the building and related systems. This item provides full compensation for this work to include the building and internal systems.

Bollards external to building walls, all required mobilization/demobilization, surveying required for this work, airport lighting equipment, and standard signs are specified and paid for under items F-170, G-100, G-135, L series specifications, and P-661.

Earthwork associated with construction of the building pad, including the area within the building boundary line, will be specified, measured, and paid for under the appropriate earthwork (P series) bid items. Excavation and backfill of building foundation and footings will be subsidiary to Item S142.040.0000.

Payment will also include all labor and materials necessary to connect the fuel oil tank furnished under Item S-143 with the appropriate building heating system.

Payment will be made under:

Item S142.010.0000	Equipment Storage Building (Concrete Floor) – per each
Item S142.020.0000	Equipment Storage Building (Steel Floor on Grade) – per each
Item S142.030.0000	Equipment Storage Building (Steel Floor on Skid) – per each
Item S142.040.0000	Equipment Storage Building – per lump sum

ITEM S-143 FUEL TANK

DESCRIPTION

143-1.1 This item consists of furnishing and installing a protected aboveground motor vehicle fuel or heating oil tank complete with fuel and accessories as specified. Prepare for Department use, an EPA approved Spill Prevention, Control and Countermeasure Plan (SPCC plan).

MATERIALS

143-2.1 TANK. Provide skid-mounted, doublewall, aboveground steel tank. The tank shall be of the type and capacity shown in the bid schedule. Equip tank with accessories as shown on the Plans and as follows:

- a. **Overfill Alarm.** Provide a mechanical, audible overfill alarm, Ventalarm Signal as manufactured by Scully Signal Company, 70 Industrial Way, Wilmington, MA 01887 or approved equal.
- b. **Automatic Shut-Off Device.** Provide a positive closing, mechanical, automatic shut-off device. Clay & Bailey model F-30 as manufactured by Clay and Bailey Manufacturing Co., 6401 East 40th Street, Kansas City, MO 64129 or approved equal.
- c. **Tank-Mounted Mechanical Fuel Gauge.** Provide mechanical gauge with 12-hour clock face in feet and inches readout, activated by a stainless steel float connected to a stainless steel cable. Morrison Model 818 as manufactured by Morrison Bros. Co., P.O. Box 238, Dubuque, Iowa 52004 or approved equal.
- d. **Openings.** Provide the following threaded openings and accessories on tank top:
 - One 2-inch Interstitial Monitoring with plug
 - One 2-inch Normal Vent with screen
 - One 2-inch Product fill opening with locking cap
 - One 2-inch Product pump opening with plug
 - One 2 to 4-inch Liquid level gauge
 - One 4 to 8-inch Emergency vent with plug, primary tank
 - One 4 to 8-inch Emergency vent with plug, secondary tank
 - No Drain Opening at bottom
- e. **Exterior Coating.** Abrasive blast the exterior surface of the outer tank according to SSPC-SP 6. Coat the exterior surface with 8 mils total thickness of epoxy paint base and urethane paint finish.
- f. **UL Labeling.** Heating oil tanks shall be manufactured and labeled according to UL 142. Motor vehicle fuel tanks shall be manufactured and labeled according to UL 142 and UL 2085.
- g. **Insulation.** For motor vehicle fuel tanks install 3-inch thickness of insulation according to ASTM C332 and ASTM C495.

When a motor vehicle fuel-dispensing tank is specified, it shall meet or exceed the requirements of UL 2085, Underwriters Laboratories Standard for Safety for Protected Aboveground Tanks for Flammable and Combustible Liquids. Equip with a threaded opening for the specified fuel pump.

Tanks larger than 2,500 gallons require additional openings and accessories for UL rating.

143-2.2 MANUAL DISPENSING SYSTEM. Provide a double-action pump, equipped with detachable, self-venting bung adapter, set screws and strainer screen. Provide a dispensing system that is not gravity fed. The pump shall have 16 feet of 3/4-inch diameter hose with shut-off nozzle and deliver a minimum of 20 gallons/100 strokes. The pump supplied shall be a Gasboy, Model 1720, or approved equal.

143-2.3 ELECTRIC DISPENSING SYSTEM. Provide an electric suction or submerged turbine pump with a delivery rate up to 18 gpm, 3-wheel, meter-register with reset and non-resettable 6 digit master totalizer in a cabinet, anti-siphon valve with internal pressure relief, gate valve, canister style fuel filter, flow meter, 20 ft fuel hose with swivel and breakaway coupling, hose retractor, OPW 11-A automatic nozzle with lockable nozzle holder, explosion proof pump activation switch, emergency pump shutoff switch mounted on the SRE building, warning signs, and BC fire extinguisher per International Fire Code (IFC) chapter 2201 - 2206.

143-2.4 FUEL. No. 1 diesel or No. 1 heating oil, depending on tank use.

CONSTRUCTION REQUIREMENTS

143-3.1 INSTALLATION. Install according to the International Fire Code (IFC) chapters 22 and 34 for the type of tank specified. Mount and secure the tank on the skid base. Install dispensing system to include all fittings and hose. Install wiring of the pump and emergency shut off according to National Fire Protection Association (NFPA) 30 and the current edition of the National Electrical Code (NEC) for hazardous locations. Place tank at the location shown on the Plans, or as directed. Set automatic shut-off device to 90% capacity. Fill to 90% capacity with specified fuel.

143-3.2 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC). Provide for Department use after tank installation/modification, an EPA approved SPCC plan for the motor vehicle fuel or heating oil tank, in compliance with 40 CFR 112. (See <http://www.epa.gov/oilspill/lawsregs.htm> for SPCC plan requirements).

Provide two (2) copies of the SPCC Plan; deliver one to the Engineer to be retained at the site and deliver the other to the Department's Statewide Safety Officer at 5300 E. Tudor Drive, Anchorage, AK, 99507.

METHOD OF MEASUREMENT

143-4.1 GCP Subsection 90-02 and as follows:

- a. Lump Sum. No measurement of quantities will be made.
- b. Unit Prices. The quantity to be paid for will be the number of units installed, complete, in place, accepted, and ready for operation.

BASIS OF PAYMENT

143-5.1 At the contract unit price for the pay items listed below that appear in the bid schedule. Heating fuel distribution and delivery systems are measured and paid for under Item S-142.

Payment will be made under:

Item S143.010.0500	Heating Fuel Tank, 500 Gal – per each
Item S143.020.0000	Fuel – per lump sum
Item S143.030.0000	Manual Dispensing System – per each
Item S143.040.0000	Electric Dispensing System – per each

ITEM S-146 PASSENGER WAITING SHELTER

DESCRIPTION

146-1.1 Design, and furnish all labor, materials and equipment required to construct a passenger waiting shelter at the location and in accordance with the conceptual plan shown on the plans. The shelter shall be designed by the Contractor, however a prefabricated structure will be accepted pursuant to the requirements outlined on the plans and these specifications.

MATERIALS

146-2.1 Comply with International Building Code (IBC 2009) and contain at a minimum, the following:

1. ___ square feet of floor area.
2. ___ square feet of window area.
3. Adequate ventilation.
4. A thermostatically controlled interior heating system with necessary fuel.
5. Adequate electrical lighting and 120 volt, 60 hertz power, with a minimum of 1 electrical outlet.
6. One exterior light to adequately light the entry area.
7. Entry shall conform to the Uniform Federal Accessibility Standards (UFAS) and the 2006 U. S. DOT ADA Standards for Transportation Facilities.
8. Roof shall be designed to shed to the sides so snow does not fall on entry way area.
9. The interior surface of the floor shall be finished and/or treated in order to be slip-resistant.
10. The exterior of the structure shall have a weatherproofing sealer, material or compound applied that is suitable for arctic climate use.
11. The structure shall be constructed of vandal resistant materials.
12. Paints and pigmentation shall be lead-free and shall have a minimum ten (10) year warranty.

Comply with GCP Subsection 60-08 for submittals.

DESIGN CRITERIA

146-2.2. It is the responsibility of the Contractor to furnish design and fabrication drawings for the shelter. This includes structural, electrical, mechanical, and foundation designs that are stamped by a registered Civil Engineer in the State of Alaska. Submit plans and working drawings in accordance with GCP Subsection 50-02. The drawings are to include floor plan view with dimensions, component and appurtenance layout with dimensions and material detail and plan sheets with exterior dimensions and elevation views.

- a. Design of the passenger waiting shelter shall include the following:
 - (1) Design roof snow load: minimum 200 pounds per square foot (psf)
 - (2) Design floor load: minimum 150 psf
 - (3) Design wind load: minimum 120 miles per hour (mph)

- (4) Seismic design category: D1 event
- (5) Roof pitch: 4H:1V minimum/3H:1V maximum
- b. If a prefabricated structure, the manufacturer supplying the shelter must meet the following:
 - (1) Provide stamped, engineered fabrication and erection drawings prior to acceptance.
 - (2) Acceptance of drawings to be based on design criteria listed above, building layout and appearance, product material, appearance and function.
 - (3) Manufacturer must be pre-approved by the Engineer prior to ordering.

CONSTRUCTION REQUIREMENTS

146-3.1 Construct the passenger waiting shelter in accordance with the plans, these special provisions and general contract provisions.

METHOD OF MEASUREMENT

146-5.1 This item will not be measured for payment. The Engineer's acceptance constitutes measurement.

BASIS OF PAYMENT

146-6.1 Payment for Item S146.010.0000, Passenger Waiting Shelter, will be made at the contract lump sum amount and will be considered full compensation for all work inside the pay limits noted on the plans. Payment includes the shelter foundation, structural, electrical, mechanical and architectural items and finishes, and all appurtenances. No separate payment will be made for excavation or backfill, if necessary.

Payment will be made under:

Item S146.010.0000 Passenger Waiting Shelter – per lump sum