

## ITEM G-130 SERVICES TO BE FURNISHED BY THE CONTRACTOR

### DESCRIPTION

**130-1.1** Furnish and maintain facilities and services specified in the Contract for the Department's project administrative personnel to use during the project. Services include heat, electrical power (NEC compliant), water and any others required to operate the facilities. All furnished facilities remain the property of the contractor when the work is completed.

The Engineer may delete any G-130 Items, by Directive within five working days after the Preconstruction Conference. If any G-130 Items are deleted within the specified period, Subsection 90-09, Eliminated Items, shall not apply to the deleted G-130 Items.

### REQUIREMENTS

**130-2.1 FIELD OFFICE.** Furnish and maintain a suitable office for the Engineer to use during construction. Make the Field Office available for occupancy two weeks before commencing work on the project through two weeks after Project Completion

- a. Submit office proposal to the Engineer prior to procurement or transporting office to the project. The Engineer will approve the office general condition, location, access, features, and physical layout prior to beginning any office setup work. If this office is part of your building, completely partition it from the rest of the structure and provide a separate outside door equipped with a lock.
- b. Provide at least the following minimum requirements, or as approved by the Engineer:
  - (1) Floor space of at least 500 ft<sup>2</sup>
  - (2) Window area of at least 60 ft<sup>2</sup>
  - (3) Lockable outside door(s)
  - (4) 6 each plastic folding tables, 8 ft long
  - (5) Shelf space of at least 24 linear feet
  - (6) Adequate heating and cooling devices, and fuel or power to run the devices, to maintain an office temperature between 65°F and 75°F
  - (7) Adequate ventilation
  - (8) Continuous supply of drinking water from an approved source or commercial supplier
  - (9) Toilet and Sanitary facilities including adequate hand soap, hand sanitizer, toilet paper, and paper towels
  - (10) Janitorial services at least weekly
  - (11) In addition to any power required for adequate heating and cooling devices, provide electrical service and facilities as referenced in 130-2.8 a
  - (12) Internet service and phone as referenced in 130-2.7.
  - (13) One multifunction Color Printer/Scanner/Copier meeting the following requirements:
    - New or like-new condition
    - Printing/copying at least 32 pages per minute (ppm )

Scan speed of 40 ppm at 400 dots per inch (DPI) in color, at a minimum  
Print/Scan/Copy 8.5 inches by 11 inches and 11 inches by 17 inches in color, at a minimum  
Supports network scanning (FTP and SMB Support)  
Supports network printing (PCL and Postscript)  
Network card included  
Automatic Document Feeder  
Furnish ink and toner and perform repairs and maintenance as necessary.  
The Printer/Scanner/Copier remains property of the Contractor upon completion of the contract.

- (14) Make the field office accessible according to the requirements of 2006 U.S. DOT ADA Standards for Transportation Facilities. Provide at least one designated handicap parking space.
  - (15) One AED (Automated External Defibrillator), with carrying case and properly marked wall cabinet. Provide training on how to use the AED.
  - (16) One combination Smoke and Carbon Monoxide Detector minimum. Provide combination Smoke and Carbon Monoxide Detectors in any location requested by the Engineer.
  - (17) One 25 Person Trauma First Aid Kit.
  - (18) 2 mobile hotspots with month-to-month data plans. Include car charger and 5 gigabytes of data usage per month.
- c. Provide electrical power to the Department's portable concrete compressive strength lab, as identified in 130-2.8 i, if there are any bridge items in the bid schedule.
  - d. Provide electrical power to the Department's portable nuclear storage trailer as identified in 130-2.8, h.
  - e. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule and item 130-2.2 Field Laboratory does not appear in the bid schedule.
    - (1) Electrical service as identified in 130-2.8 d Asphalt Laboratory.
    - (2) Internet service as specified for the Field Laboratory.

All long distance calls made by State personnel will be paid by the State. Installation and maintenance fees, local calls, connection fees and internet service provider fees, and all other fees shall be paid by the Contractor. Paper used by the copier/scanner/printer will be paid by the State.

**130-2.2 FIELD LABORATORY.** Furnish and maintain a field laboratory for the Engineer to use exclusively throughout the contract. Provide a completely functional installation two weeks before commencing construction work through two weeks after Project Completion.

- a. **Site.** Grade and compact a site for the lab acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed.
- b. **Main Lab.** Provide a weatherproof structure suitable to field test construction materials, with the following minimum functional requirements:
  - (1) Floor space of 300 ft<sup>2</sup>
  - (2) Two 10-ft<sup>2</sup> windows that open and lock
  - (3) Lockable door(s)

- (4) Work bench(es), 2-1/2 feet wide 16 feet long, 3 feet tall
- (5) Shelf space, 1 foot by 16 feet
- (6) One 18-inch deep sink with attached industrial faucet with hand sprayer attachment and approved drain
- (7) A gravity-fed 250-gallon tank or pressurized constant water supply of acceptable quality.
- (8) Electrical service as indicated in 130-2.8 b Field Laboratory
- (9) Heating equipment suitable to maintain a uniform room temperature of 65 F to 75 F
- (10) Storage cabinet, 3 feet wide by 3 feet tall by 3 feet deep, lockable, securely fixed to an inside wall with a hinged door opening outward
- (11) Office desk and 2 chairs
- (12) One combination Smoke and Carbon Monoxide Detector minimum. Provide Combination Smoke and Carbon Monoxide Detectors at any location requested by the engineer.
- (13) One 25 person Trauma First Aid Kit.
- (14) Continuous supply of drinking water from an approved source or commercial supplier
- (15) Toilet and Sanitary Facilities including adequate hand soap, hand sanitizer, toilet paper, and paper towels
- (16) Internet service and phone as referenced in 130-2.7.

If the lab is a mobile unit mounted on axles and wheels, block the structure under the frame so that the wheels do not touch the ground and the blocking rests firmly on the prepared site.

c. **Auxiliary Lab.** Provide a separate weatherproof shed within 20 feet of the main lab structure with the following minimum functional requirements:

- (1) Floor 8 feet by 12 feet, ceiling height 8 feet
- (2) Door 4 feet wide and window 5 ft<sup>2</sup> that opens and locks
- (3) Electrical service as identified in 130-2.8 c, Field Laboratory Out Building
- (4) Work table 1-1/2 feet wide, 3 feet long, 3 feet tall, capable of supporting 250 pounds and affixed to an inside wall as directed
- (5) Concrete-slab floor, 8 feet by 8 feet and 4 inches thick, cast-in-place or pre-cast. Install anchor bolts in the floor to accommodate the mounting pattern of the Gilson sieving machine at a location as directed.
  - (a) Comply with 1. above for slab foundation requirements.
  - (b) Found the slab directly on the prepared site.

d. **Access.** For all types of installations, if the entryway is located higher than a single 7-inch rise, provide the following:

- (1) Stairway, 3 feet wide with 11-inch tread and 7-inch rise
- (2) Landing, 4 feet by 4 feet centered on the entryway

- (3) Handrail(s) firmly affixed to the stairway
- e. **Lab Equipment and Services.** Provide the following lab equipment and services:
  - (1) Propane necessary for the lab operation, including two 100-pound tanks, regulators, hoses, fittings, and incidentals for a functional system
  - (2) Specialized sampling equipment such as belt templates or belt sampling devices as required
  - (3) Fuel and power necessary to continuously operate the facilities
- f. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule.
  - (1) Electrical service as identified in 130-2.8 d Asphalt Laboratory.
  - (2) Internet service as specified for the Field Laboratory.

**130-2.3 CURING SHED.** Furnish and maintain a suitable weather tight shed for curing concrete test cylinders, with a suitable tank(s) for curing concrete test cylinders.

Provide a tank(s) large enough to contain at least 6 test cylinders, each 4 inches by 8 inches, from each pour that you propose to make during any 28-day period. Use a tank(s) at least 18 inches high, insulated, and constructed of heavy duty plastic or non-corrosive metal. Construct a lid to provide access to the tank(s).

Provide suitable heating to maintain the temperature in the tank between 70 and 77°F at all times when curing the test cylinders. In addition, provide suitable thermometers in the shed and tank(s) to check the temperature.

Provide a supply of calcium hydroxide (high-calcium hydrated lime) sufficient to maintain a fully saturated water bath in the tank(s). Provide a source of potable water.

Provide one combination smoke alarm and carbon monoxide detector.

Provide electrical service as identified in 130-2.8 e Curing Shed.

**130-2.4 MEALS AND LODGING.** When pay Item 130.040.0000 or 130.050.0000 appear in the bid schedule, furnish and maintain suitable facilities for Department employees and other authorized personnel. The Special Provisions will list an estimated number of Department employees and other authorized personnel.

Provide facilities meeting Alaska Administrative Code 8 AAC 61.1010 and 8 AAC 61.1040 *Occupational Safety and Health Standards*, 18 AAC 31 *Alaska Food Code*, and U.S. Code of Federal Regulations 29 CFR 1910.142 *Temporary Labor Camps*, with the following modifications:

- a. Lodging
  - (1) Lockable single occupancy furnished rooms of at least 60ft<sup>2</sup> to accommodate the number of Department employees and other authorized personnel. Furnish each room with a dresser, twin size bed frame, box spring, mattress, mattress pad, sheets, at least two pillows, pillow cases, a heavy blanket or comforter, two bath towels and wash cloths. Provide freshly laundered sheets, pillow cases, bath towels and wash cloths on a weekly basis. Vacuum rooms and provide other cleaning as required weekly. Provide brooms and other cleaning supplies for Department employees and other authorized personnel to use between weekly cleanings.

b. Meals

- (1) Provide three well balanced meals per day for the number of Department employees and other authorized personnel on site, of at least the same type and quality as contractor/subcontractor employees receive. Provide sufficient food, drinks, and bottled water to pack a mid-shift lunch daily. Kitchen and dining area may be shared with contractor/subcontractor employees.

c. Sanitary and Other Facilities

- (1) Clean bathrooms and empty garbage daily.
- (2) Provide a common area of at least 35ft<sup>2</sup> per person at full occupancy, with a minimum 120ft<sup>2</sup>. Furnish the common area with a table and chairs adequate for the number of Department employees and other authorized personnel, a TV sized at least 43 inches with a minimum number of 30 channels, and a DVD or Blue-Ray player. Provide a first aid kit, Naloxone nasal spray, and one AED (Automated External Defibrillator), with carrying case and properly marked wall cabinet.
- (3) Laundry facilities shall have clothes washers and dryers at the rate of 1 each per 30 persons.
- (4) Provide wifi reaching each single occupancy room and the common area, with a minimum speed of \_\_\_ Mbps down, \_\_\_ Mbps up.

Facilities may include a contractor camp or the use of roadhouses or lodges located near the project, providing the accommodations conform with the Contract requirements.

Provide every individual staying at the facilities with a copy of the emergency response plan and emergency evacuation plan.

Provide camp facilities for use by Department employees and other authorized personnel starting 2 weeks before commencing work on the project through one week after project completion.

Require Department employees and other authorized personnel to sign a meal sheet and a lodging sheet after each meal and each night's lodging.

Completely remove and dispose of all garbage and/or trash piles, cesspools, septic tanks and leach fields as required by applicable laws and regulations and as directed.

**130-2.5 NUCLEAR TESTING EQUIPMENT STORAGE SHED.** Design, furnish and maintain a weatherproof, heated, and ventilated nuclear densometer/testing equipment storage shed for the Engineer to use exclusively throughout the contract. Install the building at least 15-feet from an occupied area at a location approved by the Engineer. Install the shed at least one week before the commencement of construction activities and maintain it until one week after Project Completion. Provide sufficient floor area for the nuclear testing equipment and a portable electric heater to maintain a minimum room temperature of 50°F. Design the building with enough floor area to provide sufficient clearance between the equipment, heater, and combustibles. Provide a commercial grade metal-clad exterior entrance door of 3 feet width minimum width by 6-feet and 8 inches height with dead-bolt lockset. Hang the door so that hinge pins are not accessible from the exterior. Provide the Engineer with 2 keys to control access. Provide a 5/16-inch by 10 feet long welded steel security chain securely attached inside the structure with tamperproof hardware for the Engineer to secure the testing equipment. Provide electrical service as identified in 130-2.8 g Nuclear Testing Equipment Storage Shed. Secure the structure to the ground with tamperproof anchors to resist wind loads and prevent unauthorized movement of the building. The Nuclear Testing Equipment Storage Shed remains the property of the Contractor. Remove the shed from the site following project completion. The Nuclear Testing Equipment Storage Shed must be windowless.

**Commented [RD(1):** Note to designer: Add needed speeds based on location. Minimum of 30 Mbps down, 5 Mbps up is recommended.

**130-2.6 STORAGE CONTAINER.** Furnish, transport and maintain a weathertight, lockable, steel enclosed 20 feet long by 8 feet wide by 8 feet high wooden floored container for the storage of the Department's materials, supplies and testing equipment (but not nuclear equipment). Provide twenty equally spaced fastening points on the interior walls that are capable of securing the Department's contents. Door opening dimensions of the storage container shall be greater than 60 square feet. Supply necessary equipment to lift and move container with minimal disturbance to the Department's contents. The container shall not be moved by skidding or hook lift. The Contractor shall be listed as the shipper on all documents listing and acknowledging receipt of the Department's goods for shipment.

Deliver an empty and clean container to the Regional Materials Laboratory, or location acceptable to the Engineer, three weeks prior to transporting to the project site. Allow 7 days for the Department to load the container. Transport the loaded container to the project site. Set up container at a location approved by the Engineer prior to commencing construction work.

**130-2.7 FIELD COMMUNICATIONS.** Furnish and maintain a satellite communications system that includes internet and phone for the Engineer to use exclusively throughout the contract. Provide a completely functional installation 2 weeks before commencing construction work through one month after Project Completion.

Two weeks prior to procuring the field office and field laboratory, submit to the Engineer the proposed communications system consisting of phone and internet service. Obtain the Engineer's approval of the communications system prior to procuring the system.

Furnish and install high speed internet service and telephone service, with all necessary ancillary equipment. Provide internet and phone jacks in the field office and field laboratories in locations identified by the Engineer. Furnish one mobile satellite phone in addition to the phone system in the field office.

The internet system shall have a send and receive capability supporting \_\_\_ Megabytes per second (Mbps) download speed or higher and \_\_\_ Mbps or higher upload speed at all times. The internet system shall have a minimum monthly data usage of \_\_\_ Gigabytes (GB). Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be separate from the internet system of the contractor for exclusive use of the Department.

The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

Internet and telephone service shall be supplied and operational no more than two weeks after the field laboratory has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field laboratory and field laboratory

**130-2.8 ELECTRICAL POWER.** Furnish and maintain a constant source of power to the facilities specified in the contract for the Department's use during the project. Provide a completely functional installation 2 weeks before commencing construction work through 2 weeks after Project Completion.

a. **Field Office.** Provide electrical services as follows:

- (1) Heating/Cooling adequate to maintain temperatures between 65°F to 75°F
- (2) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
- (3) Wiring system to support a 40 Ampere user load demand with two 20-Amp circuits
- (4) Outlets spaced every six feet on the interior wall, consistent with local codes
- (5) Eight 100 Watt incandescent or sixteen 40 Watt florescent, or equivalent LED fixtures

b. **Field Laboratory.** Provide electrical services as follows:

**Commented [LL2]:** Note to Designer: Add needed speeds based on location. Minimum of 30 Mbps down, 5 Mbps up is recommended. 10 Gigabytes is typical minimum monthly data usage, adjust as needed.

- (1) Heating/Cooling adequate to maintain temperatures between 65°F to 75°F
  - (2) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (3) Wiring system to support a 60 Ampere user load demand with two 20-Amp circuits, GFI Protected
  - (4) Outlets spaced every six feet on the interior wall, consistent with local codes
  - (5) Four 100 Watt incandescent or eight 40 Watt florescent, or equivalent LED fixtures
  - (6) Exhaust fan: minimum airflow capacity of 5 cubic feet per second (cfs)
- c. **Field Laboratory Out Building.** Provide electrical services as follows:
- (1) Heating/Cooling adequate to maintain temperatures between 65°F to 75°F
  - (2) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (3) Wiring system to support a 20 Ampere user load demand, GFI Protected
  - (4) Three conveniently spaced outlets on the interior wall, consistent with local codes
  - (5) Two 100 Watt incandescent or four 40 Watt fluorescent, or equivalent LED fixtures
  - (6) Exhaust fan: minimum airflow capacity of 5 cubic feet per second (cfs)
  - (7) 1-30 amp 110 volt circuit ( asphalt cut off saw)
- d. **Asphalt Laboratory** Provide electrical services as follows:
- (1) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (2) 100 Ampere service
  - (3) At least one 15 Amp lighting circuit,
  - (4) Outlets, six duplex outlets conveniently spaced around the lab, consistent with local codes.
  - (5) Lights, switch by door and either four 100 Watt incandescent or eight 40 Watt fluorescent, or equivalent LED fixtures.
  - (6) Exhaust fan, minimum airflow capacity of 5 cubic feet per second (cfs).
  - (7) 1-240 volt -50 Ampere circuit (Asphalt Burn off oven)
  - (8) 2 240 volt 20 Amp circuit for each (of two) aggregate ovens. (If a large oven is used power required depending on oven demands)
- e. **Curing Shed.** Provide electrical services as follows:
- (1) Heating/Cooling adequate to maintain temperatures between 70°F to 77°F
  - (2) Two 100 Watt incandescent or four 40 Watt fluorescent, or equivalent LED fixtures
- f. **Storage Container.** Provide electrical services as follows:
- (1) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (2) Wiring system to support a 20 Ampere user load demand, GFI Protected

- (3) Two conveniently spaced outlets on the interior wall, consistent with local codes
- (4) Four 100 Watt incandescent or eight 40 Watt fluorescent, or equivalent LED fixtures
- g. Nuclear Testing Equipment Storage Shed.** Provide electrical services as follows:
  - (1) Heating/Cooling adequate to maintain minimum temperatures of 50°F
  - (2) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (3) Two 100 Watt incandescent or four 40 Watt fluorescent, or equivalent LED fixtures
  - (4) Wiring system to support a 20 Ampere user load demand
- h. Nuclear Testing Equipment Storage Shed (State Provided).** Provide electrical services as follows:
  - (1) Electrical current, 120/240 VAC, 60-cycle on 24-hour basis
  - (2) Wiring system to support a 20 Ampere user load demand
- i. Portable Concrete Compressive Laboratory.** Provide electrical services as follows:
  - (1) Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
  - (2) Wiring system to support a 20 Ampere user load demand

If Nuclear Testing Equipment Storage Shed is deleted the electrical power requirement are still required per 130-2.8 h.

If the contract contains bridge items that require concrete or grout provide electrical power to the Department's Portable Concrete Compressive Laboratory per 130-2.8 i.

#### METHOD OF MEASUREMENT

**130-4.1 MEAL.** By each meal served to authorized personnel, based on signed meal sheets.

**130-4.2 LODGING.** By each night's lodging received by authorized personnel based on signed lodging sheets.

**130-4.3 NUCLEAR TESTING EQUIPMENT STORAGE SHED.** By the number of storage sheds specified, to include all components, installed and accepted as completed units and ready for equipment storage.

**130-4.4 STORAGE CONTAINER.** By the number of storage containers specified, to include all components, installed and accepted as completed units and ready for materials and equipment storage.

#### BASIS OF PAYMENT

**130-5.1 LUMP SUM ITEMS.** Payment for Items G130.010.0000, G130.020.0000 and G130.030.0000 will be made as follows:

- a. A percentage of the lump sum amount, to be determined by the Engineer, will be paid as full compensation for furnishing the facility at the site.
- b. The balance of the lump sum amount will be prorated over the anticipated active construction period with a portion included as part of each interim payment, for maintenance, repairs, providing all utilities, and for removing it from the site. If anticipated construction period changes, the final increment will be held until final payment.



Item G130.010.0000 Field Office, includes initial telephone and Internet service costs to provide operational connections.

When Item G130.090.0000, Engineering Communications appears in the bid schedule, internet and telephone service will be measured and paid under G130.090.0000, and are not subsidiary to G130.010.0000 and G130.020.0000.

**130-5.2 MEAL.** Includes all labor, materials, tools, equipment and supplies required to provide meals to all authorized personnel assigned to, or associated with, the project.

**130-5.3 LODGING.** Includes all labor, materials, tools, equipment and supplies required to provide lodging for all authorized personnel assigned to, or associated with, the project.

**130-5.4 NUCLEAR TESTING EQUIPMENT STORAGE SHED.** At the contract unit price to include all labor, materials, tools, equipment and supplies required to furnish and install the shed before commencement of construction, to maintain it for the duration of the project and to remove the shed and electrical service after project completion. Electrical service and utility costs are subsidiary to this item.

**130-5.5 STORAGE CONTAINER.** At the contract unit price to include all labor, materials, tools, equipment and supplies required to deliver the storage shed to the regional office for loading, to deliver it to the project office, to install it before commencement of construction, to maintain it for the duration of the project, to remove the shed and electrical service after project completion, to deliver it to the regional office for unloading, and to remove the storage shed. Electrical service and utility costs are subsidiary to this item.

**130-5.6 (RESERVED)**

**130-5.7 ENGINEERING COMMUNICATIONS.** Installation and maintenance of equipment and monthly invoice costs will be paid for by contingent sum under Item G130.090.0000, Engineering Communications when included in the bid schedule. Provide invoices from vendor for installation, maintenance, and monthly subscription costs.

Payment will be made under:

Item G130.010.0000	Field Office – per lump sum
Item G130.020.0000	Field Laboratory – per lump sum
Item G130.030.0000	Curing Shed – per lump sum
Item G130.040.0000	Meal – per each
Item G130.050.0000	Lodging – per each
Item G130.060.0000	Nuclear Testing Equipment Storage Shed – per each
Item G130.070.0000	Storage Container – per each
Item G130.090.0000	Engineering Communications – per contingent sum