

SUPERSEDED BY EB 15-031 EFFECTIVE 9/28/15		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 12-020
Title: STANDARD SPECIFICATIONS SECTION 637 – ENGINEER'S FIELD OFFICE, LABORATORY AND EQUIPMENT			
Target Audience: ☐ Manufacturers (18) ☐ Local Govt. (31) ☒ Agencies (32)		☐ Surveyors (33) ☒ Consultants (34) ☒ Contractors (39) ☐ _____ ()	
		Approved: _____ James F. Tynan, P.E. Deputy Chief Engineer (Construction)	
		8-16-12 Date	

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of January 10, 2013.
- This EI supersedes EI 00-012, EI 06-022, EI 08-010 and EI 10-035.
- The revisions issued with this EI will be incorporated into the next update of the Standard Specifications.
- HDM Chapter 21 guidance associated with the pay items eliminated with this issuance will be eliminated in a subsequent revision to HDM Chapter 21.

PURPOSE: This EI issues a revision to Standard Specifications Section 637 *Engineers Field Office, Laboratory and Equipment*.

TECHNICAL INFORMATION:

- This revision to Section 637 eliminates the specifications for mobile telephones, pagers, two-way radio systems and adding machines.
- Mobile telephones are now available to Department construction inspection staff through the Information Technology Division. Mobile telephones have been identified as a tool of the trade for consultant construction inspection staff.
- Pagers and two-way radio systems are no longer being used by construction inspection staff.
- Adding machines are no longer necessary with the provision of computers for construction inspection staff.
- The requirement for the provision of a dedicated telephone line for computers has been removed, as one of the other required telephone lines can be used for remote troubleshooting of the computer equipment, if necessary.

IMPLEMENTATION:

- Designers should stop inserting the Mobile Telephone, Pager and Two-Way Radio System contract pay items in Engineer's Estimates beginning with projects submitted for the letting of 1/10/13. Earlier elimination of the items is encouraged.
- Engineers-in-Charge of contracts let with the Mobile Telephone, Pager and/or Two-Way Radio System contract pay items should direct contractors not to provide mobile telephones, pagers and/or two-way radio systems, and contact their Regional IT Group if mobile telephones are needed.
- Main Office Design Quality Assurance Bureau will insert the standard specification revision into contract proposals beginning with projects submitted for the letting of 1/10/13.

- This EI disapproves the following Contract Pay Items:
637.21 Mobile Telephone
637.22 Pager
637.23 Two-Way Radio System

TRANSMITTED MATERIALS: This EI transmits standard specification revision Section 637 *Engineers Field Office, Laboratory and Equipment*. Both Metric and U.S. Customary revisions are attached.

BACKGROUND: The Department's Information Technology Division is now providing mobile telephones to construction field staff and pagers and two-way radio systems are no longer being used.

CONTACT: Direct questions regarding this issuance to Jon King via email at jonathan.king@dot.ny.gov or to the Office of Construction at (518) 457-6472.

SECTION 637 ENGINEER'S FIELD OFFICE, LABORATORY AND EQUIPMENT

Make the following changes to the Standard Specifications dated May 4, 2006:

Page 604 **Delete** Section 637 – *Engineer's Office and Laboratory Building* in its entirety, and **Replace** it with the following:

SECTION 637 – ENGINEER'S FIELD OFFICE, LABORATORY AND EQUIPMENT

637-1 DESCRIPTION. This work shall consist of providing, furnishing and maintaining an Engineer's Field Office and a Field Laboratory in good working condition and appearance for the exclusive use of, and occupancy by the inspection staff. The buildings shall be habitable environments, readily accessible to the public and free of any recognizable health or safety hazards. The work shall also consist of providing and maintaining equipment for use by the inspection staff.

637-1.01 Engineer's Field Office. This work shall consist of providing for the Engineer's use a building, or a portion thereof, or a modular trailer of a specified type erected at a location approved by the Engineer.

637-1.02 Field Laboratory. This work shall consist of providing a Field Laboratory for soils and materials testing at a location approved by the Engineer.

637-1.03 Concrete Cylinder Curing Box. This work shall consist of providing a concrete cylinder curing box.

637-1.04 Digital Camcorder. This work shall consist of providing and maintaining a fully operational digital camcorder system.

637-1.05 Rain Gauge. This work shall consist of providing and maintaining a wireless rain gauge system.

637-1.06 Inspection Vehicle. This work shall consist of providing and maintaining motor vehicle(s) for exclusive use by the Engineer and the Inspection Staff.

637-1.07 Inspection Boat. This work shall consist of providing and maintaining a motorized boat for exclusive use by the Engineer and the Inspection Staff.

637-1.08 Office Technology Supplies. This work shall consist of providing technology-related materials and supplies for use by the inspection staff.

637-1.09 Construction Testing Supplies - Consumables. This work shall consist of providing consumable testing supplies to be used by Department staff.

637-1.10 Partnering Workshop. This work shall consist of a partnering workshop coordinated and facilitated by an independent facilitator. The Department and the Contractor will share the cost of the partnering workshop equally.

637-2 MATERIALS.

637-2.01 Engineer's Field Office. The Engineer's Field Office shall be within a secured, weatherproof building or mobile trailer. If two or more mobile trailer units are provided, they shall be joined with weatherproof connections. Mobile trailers shall be in new or like new condition. The Contractor may furnish equivalent facilities in an existing building, provided that the building is located to provide convenient service. The Contractor shall supply the Engineer with a copy of the Certificate of Occupancy for the existing building.

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The Engineer's Field Office shall be in accordance with the requirements of the New York State Uniform Fire Prevention and Building Code, 19 NYCRR, and any applicable local codes.

The electrical system shall be able to continuously operate all equipment and be provided with adequate receptacles. To accommodate computer equipment, the field office shall be provided with a dedicated 20 amp electrical service and a vacant floor-to-ceiling area with a 1.0 m x 1.0 m footprint along a wall for the installation of a computer hardware rack/cabinet. Electric light shall be provided by non glare-type luminaries to provide a minimum illumination level of 1,000 lux at desk-height level. An ambient air temperature of $21^{\circ}\text{C} \pm 3^{\circ}\text{C}$ shall be maintained.

Fire extinguishers and smoke and carbon monoxide detectors shall be provided and installed.

The Engineer's Field Office shall be partitioned to provide separate rooms, defined as either "small" or "large", with adjoining doors. Table 637-1 below contains the minimum area requirements for each of the office types.

TABLE 637-1 ENGINEER'S FIELD OFFICE AREA REQUIREMENTS					
Physical Requirement	Engineer's Field Office Type				
	1	2	3	4	5
Min. total floor area (m ²)	50	80	120	230	250
Min. number of small rooms	2	3	2	3	6
Min. floor area of small rooms (m ²)	9	9	11	14	16
Min. number of large rooms	1	1	2	2	2

A. Potable Water. From a local municipal water supply, certified well or bottled with a heating/refrigerator unit to provide hot and cold water. An exterior frost-free hose bib shall be provided in a location adjacent to the Engineer's Field Office. The hose bib need not be installed on a potable water line, and if the water in the line is not potable, it shall be clearly marked as such.

B. Restroom. A separately enclosed room, lockable from the inside, that is properly ventilated and in compliance with applicable sanitary codes. The Contractor shall provide all lavatory amenities, necessary paper and soap products, hot and cold running water and a toilet. The toilet shall be flush-type where sanitary facilities are available, and a type approved by the Engineer prior to installation where sanitary facilities are not available. The minimum required number of restrooms to be provided is specified in Table 637-2.

C. Parking Area. The Contractor shall provide and/or construct paved or hard surfaced (gravel or bankrun material) secure parking area with dedicated parking spaces adjacent to the Engineer's Field Office. Each parking space shall be 2.75 m by 5.5 m, and the minimum required number of spaces to be provided is specified in Table 637-2.

D. Field Office Signs. The sign panel material shall be aluminum, fiberglass, plywood or lightweight plastic. The sign sheeting shall be ASTM Type III. The sign panel shall be 900 mm high by 1200 mm wide with white legend on green background with the phrases as positioned and described below. If erected at a location where the sign might be struck by an errant vehicle, the sign support shall be a breakaway type.

The letters in the phrase "FIELD OFFICE" shall be 150 mm C series with the top of the letters 150 mm below the top of the panel. The letters in the phrase "ENGINEER-IN-CHARGE" shall be 150 mm B series with the top of the letters 450 mm below the top of the panel. The letters in the phrase "N.Y.S. DEPT. OF TRANSPORTATION" shall be 38 mm E series with the top of the letters 750 mm below the top of the panel. All phrases shall be centered horizontally on the panel.

If the Engineer's Field Office is not located within or adjacent to the contract limits, two additional signs shall be displayed conspicuously within the contract limits. The signs shall be similar to the above description, except that they shall be 1200 mm high by 1600 mm wide and have an additional bottom line of text containing the street address of the Engineer's Field Office. The

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letters in the street address shall be 150 mm B series with the top of the letters 900 mm below the top of the panel and centered horizontally on the panel.

E. Mailbox. Standard mailbox (with post if necessary) or post office box meeting the requirements of the U.S. Postal Service.

F. Telephone and Answering System. A separate telephone and answering system for the exclusive use of the inspection staff. The minimum required number of telephone voice lines to be provided is specified in Table 637-2 (these lines are in addition to the separate line to be provided for the facsimile machine, and one of these lines must be made available for remote troubleshooting of computer equipment, if necessary). The telephone and answering system shall provide the ability to answer all voice lines from each voice line, transfer calls to all voice lines and be equipped with a single, dedicated answering system.

A minimum of one telephone shall be cordless and a minimum of one telephone shall be equipped with speaker and conference call capability. The remaining telephones, at least one per required voice line, shall be extension telephones with minimum 7 m long cords. The answering system shall be capable of recording outgoing messages up to 60 seconds long and receiving a minimum of 40 incoming messages of 60 seconds duration. The system must include automated voice marking of time and day of each message received and provide a message mark so that new messages may be played back without erasing old messages. The system shall include remote programming of playback, backspace, and outgoing message re-record and allow for the retrieval of messages without a remote control unit.

G. Facsimile Machine. Plain paper laser or inkjet facsimile machine with a dedicated telephone line. The machine shall be capable of sending and printing a maximum paper size of 216 mm x 356 mm, have a minimum 20 page memory storage, a minimum 20-sheet document feeder, a minimum 50-sheet paper capacity, transmit at least 6 pages per minute and have an autodial/redial with a minimum of 50 phone number memory. The machine shall be capable of storing and printing outgoing message confirmation information and printing the sender's name, fax number and page number on incoming faxes.

H. Photocopier. Heavy duty, electric, dry-process photocopying machine. The machine shall be capable of duplex copying paper sizes of 216 mm x 279 mm, 216 mm x 356 mm and 279 mm x 432 mm, and have separate trays for each paper size. It shall have a document feeder, collator and the capability to reduce/enlarge copies between each paper size. One case (5,000 sheets, 20 lb, white) of each paper size shall be provided as initial stock.

I. Paper Shredder. Automatic start, heavy duty cross-cut paper shredder. The shredder shall be able to receive 216 mm wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples.

J. Pencil Sharpener. Manual or electric pencil sharpener, minimum 1 per room.

K. Exterior Bulletin Board. An installed 1.2 m x 2.4 m weatherproof bulletin board in front of or adjacent to the Engineer's Field Office. The bulletin board may be attached to an outside wall of the office. The location selected must be handicapped accessible and clearly visible.

L. Interior Bulletin Board. An installed, wall-mounted 1.2 m x 1.8 m bulletin board made of cork or similar material in a large room, and one 0.6 m x 1.2 m wall mounted bulletin board installed per room.

M. Dry Erase Board. Installed, wall-mounted 0.6 m x 1.2 m dry erase boards, minimum one per room.

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N. Storage Locker. Metal or wood storage locker with shelves, a tumbler lock and 2 keys for the storage of survey, GPS and testing equipment. The total locker space footprint provided shall be a minimum of 0.8 m² with a minimum height of 1.8 m.

O. Fire Resistant Cabinet. Fire resistant, legal size filing cabinet with locks and 2 keys each, meeting the requirements of ANSI/UL Standard 72 for Insulated Filing Devices, Class 350-1 hour. Each office shall be provided with two 2-drawer cabinets, and the required number of additional 4-drawer cabinets as specified in Table 637-2.

P. Bookcase. Self-standing, 3-shelf metal or wood bookcase, approximately 1.2 m high, 1.2 m wide and 0.3 m deep. The minimum required number of bookcases to be provided is specified in Table 637-2.

Q. Wastebasket. Minimum 26 liter wastebasket, minimum one per desk.

R. Refrigerator. Electric, top-freezer type providing a minimum storage space of 0.4 m³ for Engineer's Field Office Types 1 and 2, and a minimum storage space of 0.6 m³ for Types 3, 4 and 5.

S. Kitchenette. To include a minimum 0.03 m³, 1,300 watt microwave oven, a sink with hot and cold running water with minimum dimensions of 380 mm x 380 mm x 150 mm deep, usable counter space with minimum dimensions of 1.5 m long x 0.6 m deep and cabinet space with minimum dimensions of 1.5 m long x 0.5 m deep x 0.75 m high. If the water in the sink is not potable, it shall be clearly marked as such.

T. Stove. Electric, propane or bottle gas stove with a minimum of two burners adequate for rapid drying of soil samples, including fuel or electrical supply. A stove is required when a separate Field Laboratory is not included.

U. First Aid Kit. A Type III kit in accordance with ANSI Z308.1 Minimum Requirements for Workplace First Aid Kits. The minimum number of first aid kits to be provided is specified in Table 637-2.

V. Thermometer. A minimum-maximum thermometer displaying in degrees centigrade and mounted with an external probe to give the temperature both indoors and outdoors.

W. Coat Rack. A metal or wood coat rack or closet capable of holding at least 4 coats. The minimum required number of coat racks to be provided is specified in Table 637-2. A single coat rack may be provided as long as it holds the minimum number of coats as per Table 637-2.

X. Office Desk and Chair. Fully assembled freestanding office desks and chairs. Each desk shall have a 1.5 m long by 0.75 m wide work surface and a height of 0.7 m, at least 2 lockable drawers and include an adjustable shelf approximately 0.3 m wide and no less than 0.75 m long. Each desk shall also be provided with an adjustable chair with arms, 5 legs with casters and be adjustable from approximately 0.4 m to 0.6 m in height. Each desk shall have a dedicated electrical outlet receptacle. The required number of office desks and chairs to be provided is specified in Table 637-2.

Y. Office/Conference Table. Commercial-grade rectangular table with weather spill resistant top a minimum of 2.4 m long by 0.75 m wide by 0.7 m high. The minimum required number of office conference tables to be provided is specified in Table 637-2.

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Z. Folding Chair. Commercial-grade, folding steel chair with approximate overall dimensions of 740 mm high by 470 mm wide by 520 mm deep. The minimum required number of folding chairs to be provided is specified in Table 637-2.

AA. Drafting Table. Adjustable height, tilting top drafting table with brackets and legs and approximate dimensions of 1.8 m long by 0.9 m wide by 0.9 m high. The minimum required number of drafting tables to be provided is specified in Table 637-2.

TABLE 637-2 ENGINEER'S FIELD OFFICE FURNISHING REQUIREMENTS					
Furnishing Description	Required Number per Engineer's Field Office Type				
	1	2	3	4	5
Restrooms	1	1	2	2	3
Parking spaces	6	8	12	18	22
Telephone voice lines	2	3	4	6	8
Telephone line for facsimile	1	1	1	1	1
Fire resistant cabinets (4-drawer)	2	3	4	6	8
Bookcases	5	7	10	12	16
First aid kits	1	1	1	2	2
Coat racks	1	2	3	4	5
Office desks and chairs	4	8	12	18	22
Office/conference tables	2	2	3	4	5
Folding chairs	4	6	8	10	15
Drafting tables	1	1	2	3	3
Drafting stools	2	2	4	6	6
Vertical plan filing racks	1	1	2	3	8
Roll file units	1	1	1	2	4

BB. Drafting Stools. Adjustable height stool with backrest. The minimum required number of drafting stools to be provided is specified in Table 637-2.

CC. Vertical Plan Filing Rack. Constructed of metal, capable of hanging up to 12 sets of plan drawings up to 0.9 m x 1.2 m in size, 12 hanging clamps included. The minimum required number of vertical plan filing racks to be provided is specified in Table 637-2.

DD. Roll File Unit. Twelve compartments, each measuring approximately 150 mm x 150 mm. The minimum required number of roll file units to be provided is specified in Table 637-2.

637-2.02 Field Laboratory. The Field Laboratory shall be a secured, weatherproof room, building or mobile structure not less than 9 m² floor area in size. The floor covering shall be linoleum, tile or other serviceable finish. A local exhaust system shall be provided. An ambient air temperature of 21°C ±5°C shall be maintained. The Contractor may furnish equivalent facilities in an existing building, provided that the building is located to provide convenient service. The Contractor shall supply the Engineer with a copy of the Certificate of Occupancy for the existing building.

The Field Laboratory shall be in accordance with the requirements of the New York State Uniform Fire Prevention and Building Code, 19 NYCRR, and any applicable local codes.

The electrical system shall be able to continuously operate all equipment and be provided with adequate receptacles. Where an electric hotplate or stove is provided, service shall be increased over 20 amperes by an amount equal to the rating of the device provided.

The Field Laboratory shall be sufficiently anchored to prevent damage from vibration caused by the laboratory equipment.

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Fire extinguishers and smoke and carbon monoxide detectors shall be provided and installed.

A. Potable Water. From an existing system or from an external 200 liter (minimum) gravity-feed storage tank connected to the sink faucet and refilled as necessary.

B. Sink. A sink at least 900 mm long by 600 mm wide by 450 mm deep, equipped with water faucet and drain line.

C. Counter. A work counter next to sink at least 600 mm long by 600 mm wide.

D. Cabinet. A storage cabinet or locker at east 0.6 m square by 1.8 m high, equipped with at least 4 shelves, a lock and 2 keys.

E. Table. A heavy duty work table not less than 2.4 m long by 0.75 m wide by 0.90 m high.

F. Pedestal. A heavy wooden block for soil compaction tests, nominally 250 mm square by 300 mm high.

G. Stove. As specified in §637-2.01U.

H. Office Desk and Chair. As specified in §637-2.01Y.

637-2.03 Concrete Cylinder Curing Box. The concrete cylinder curing box shall be constructed of non corroding materials. A moisture proof seal shall be provided between the lid and body of the box. Provision for automatic control of water temperature to $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ shall be made when the box is located in an uncontrolled environment. A bimetallic thermometer shall be inserted with its sensing element in the storage water. The thermometer shall be capable of being read from the outside without opening the box. The thermometer shall have minimum gradations of 1°C and shall be protected from damage. Electric utility connections shall be made in a lockable switch box securely attached to the outside of the curing box.

A rustproof wire or metal rack shall be set above the bottom of the box to support cylinders in an upright position. The rack and all temperature control elements shall be positioned to allow free circulation of water around the cylinders. A combination hose connection and drain shall be provided at the lower front edge of the box so that it may be drained or water may be circulated. A drain shall also be provided on the box in such a position that when open will drain water to within 25 mm over the top of the cylinders. All areas of the box shall be easily drained and accessible for cleaning.

The concrete cylinder curing box shall be capable of maintaining the required water temperature through an ambient air temperature range of -23°C to $+38^{\circ}\text{C}$. The box shall be capable of holding a minimum of nineteen 150 mm x 300 mm cylinders. When filled with water, the box shall not leak enough so that the cylinders are exposed.

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637-2.04 Digital Camcorder. The digital camcorder shall meet the requirements below. All necessary hardware, cables, operating manuals, and other pertinent media for all the components shall be provided, including connecting the camera to the office computer system. The camera must be able to download the video to a computer without any proprietary software having to be installed on the computer. The equipment shall be no more than 1 year old. To verify the age of the equipment, the Contractor shall provide the Engineer with a dated copy of the receipt(s) for the purchase of the equipment. Once equipment has been provided, it does not require replacement, as long as it is serviceable.

- Records video in .avi and/or .mpg format
- Autofocus operation
- 60 mm LCD screen and optical viewfinder
- Equipped with Electronic Image Stabilization
- Low-light recording capable
- Time/date stamp on recording
- AC adapter and all cables and connections necessary for computer interface
- Two rechargeable batteries (Lithium-Ion or NiMH) and charging unit
- Recording media to store 180 minutes of video footage
- Soft storage/carry case with shoulder strap

637-2.05 Rain Gauge. The wireless rain gauge system shall meet the requirements below. All necessary mounting materials and hardware, operating manuals and other pertinent media for the components shall be provided.

- Wireless remote transmission from outdoor weatherproof rainfall sensor to indoor display unit
- Self-emptying tipping bucket
- Display daily rainfall information and at least 9 day historical rainfall records
- Two sets of rechargeable batteries for each component and charging unit
- No computer software shall be necessary for rain gauge operation or rainfall data storage/viewing

637-2.06 Inspection Vehicle. The vehicle(s) provided shall not be over 4 years old or have over 60,000 km on the odometer as of the delivery date. The supplied vehicle(s) shall be of such durability to carry occupants and equipment over rough terrain and contain sufficient weather protection for both the occupants and equipment. The vehicle(s) shall have sufficient cargo capacity to carry the equipment necessary for the work. The vehicle(s) shall be properly registered, maintained (including repairs, tires, lubrication, fuel, washing, etc.), and be provided with an owner's policy of liability insurance in conformance with §107-06B. *Insurance Requirements.* The vehicle(s) shall be equipped with or meet the following minimum specifications:

- Manufacturer's Standard 4 or 6 cylinder engine
- Automatic transmission
- Manufacturer's Standard 4 wheel drive or all-wheel drive
- Power steering
- Air conditioning
- Manufacturer's base level interior option
- Left, right and center mirrors
- Roof mount flashing yellow light
- All Standard Manufacturer equipment and accessories including spare tire, jack, owner's manual, etc. shall be included with the vehicle(s), along with vehicle registration and insurance cards

637-2.07 Inspection Boat. The boat provided shall comply with the following minimum requirements:

- All required capacity, maximum horsepower, and identification plates shall be affixed in the manner required by Coast Guard regulations.

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- The motor's horsepower shall meet the rated requirements of the boat and be equipped with a forward, neutral, and reverse. The power train shall be equipped with an interlock so that the engine may not be started in gear. U.S. Coast Guard-approved fuel tanks shall be provided.
- All equipment required by Coast Guard regulations shall be provided for the boat. The equipment shall include, but not be limited to, the following:
 - Class B-1 fire extinguisher
 - Life jackets for all persons aboard
 - One anchor, Danforth-type or Navy stockless, suitable for the specified boat
 - Bailing device
 - Power operated whistle or horn
 - Visual distress signals
 - Means for accessing work sites not accessible from land from the water (piers, floating equipment, etc.)
- Registration, licenses, and other legal requirements for boat operation shall be obtained by the Contractor and kept current by the Contractor for the length of time the boat is in operation.
- Dockage facilities shall be maintained by the Contractor and shall be constructed (if necessary) so that easy access to the boat is provided at all times under all tidal conditions.
- The Contractor shall maintain the boat in good, clean condition at all times as required. Fuel tanks shall be maintained full at all times.

A. Inspection Boat – Type A

- Boat lengths up to and including 6 m.
- The boat will be operated by an appropriately trained and certified member of the inspection staff.

B. Inspection Boat – Type B

- Boat lengths in excess of 6 m
- An appropriately trained, certified and licensed operator shall be provided.

637-2.08 Office Technology Supplies. Materials as specified in the bid documents or by the Engineer.

637-2.09 Construction Testing Supplies – Consumables. Consumable testing materials as specified by the Engineer.

637-2.10 Partnering Workshop. None specified.

637-3 CONSTRUCTION DETAILS. The equipment, with the exception of the office technology supplies, shall be maintained by, and remain the property of, the Contractor.

637-3.01 Engineer's Field Office. The Contractor shall be responsible, until use and occupancy is relinquished by the State, for any and all damage, direct or indirect, of whatever nature, occurring to the property of the State and property of the inspection staff which is kept in the Engineer's Field Office. The Engineer will provide the Contractor with a detailed list of items kept in the office, with corresponding dollar values, and will provide the Contractor with updates when something on the list changes. Non-State-owned property shall only be those items used in the performance of contract-related work activities. Such property shall be replaced within 30 days of the reported damages and would include any loss caused by, but not limited to, fire, theft, vandalism or malicious mischief. The Contractor shall not be responsible for items kept in the Engineer's Field Office that are not on this list.

The Contractor shall install the Engineer's Field Office sign at a location approved by the Engineer. If the Engineer's Field Office is not located within or adjacent to the contract limits, two additional signs shall be displayed conspicuously within the contract limits in locations directed by the Engineer.

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The Engineer's Field Office shall be fully equipped and made available for use and occupancy by the inspection staff prior to the start of any contract work, and shall be made available after contract final acceptance as directed in writing by the Regional Construction Engineer.

All furniture and equipment shall be fully assembled, operational, clean and serviceable. The Engineer's Field Office shall be cleaned weekly or more often if required, and the timing of the cleaning operations shall be coordinated with the Engineer. The Contractor shall remove and dispose of all rubbish generated in the office and shall keep the office free from pests. The Contractor shall remove snow from all areas subject to vehicular circulation and parking.

After completion, all portable buildings or trailers, fencing, surfacing and utilities shall be removed from the location and the areas cleaned, loamed and restored as required.

637-3.02 Field Laboratory. The Contractor shall be responsible for any and all damage, direct or indirect, of whatever nature, occurring to the property of the State which is kept in the Field Laboratory. The Engineer will provide the Contractor with a detailed list of items kept in the laboratory, with corresponding dollar values, and will provide the Contractor with updates when something on the list changes. Non-State-owned property shall only be those items used in the performance of contract-related work activities. Such property shall be replaced within 30 days of the reported damages and would include any loss caused by, but not limited to, fire, theft, vandalism or malicious mischief. The Contractor shall not be responsible for items kept in the Field Laboratory that are not on this list.

The Field Laboratory shall be fully equipped and made available for use and occupancy by the inspection staff prior to the start of any contract work. Such use and occupancy shall be made available after contract final acceptance as directed in writing by the Regional Construction Engineer.

All furniture and equipment shall be fully assembled, operational, clean and serviceable. The Field Laboratory shall be cleaned weekly or more often if required, and the timing of the cleaning operations shall be coordinated with the Engineer. The Contractor shall remove and dispose of all rubbish generated in the laboratory and shall keep the laboratory free from pests.

After completion, all portable buildings or trailers, fencing, surfacing and utilities shall be removed from the location, the areas cleaned, loamed and restored as required.

637-3.03 Concrete Cylinder Curing Box. Prior to the placement of any structural concrete, the Contractor shall furnish the Engineer a concrete cylinder curing box and 2 locks with 2 keys for each lock. The locks shall fit each securing latch of the curing box. This concrete cylinder curing box shall remain exclusively available to the Engineer at a location approved by the Engineer. The Contractor shall provide and maintain all necessary utility connections to operate the curing box.

637-3.04 Digital Camcorder. The Contractor shall provide and maintain a digital camcorder system for the exclusive use of Department personnel and their authorized representatives. The digital camcorder shall be fully operational prior to the start of any contract work and the Contractor shall supply qualified instruction to the inspection staff regarding proper equipment operation. The Contractor shall provide replacement, due to breakdown, damage, loss, or theft within 24 hours of notification. The State may retain ownership of any data storage media, data storage containers and consumables.

637-3.05 Rain Gauge. The Contractor shall provide, install and maintain the wireless rain gauge system in accordance with the manufacturer's instructions in a location approved by the Engineer. The Contractor shall make the system fully operational in a timely manner, at a minimum, prior to any soil disturbance at the site. The Contractor shall provide replacement due to breakdown, damage, loss, or theft within 24 hours of notification.

637-3.06 Inspection Vehicle. Prior to the start of any contract work, the Contractor shall make the inspection vehicle(s) available for inspection by the Engineer. The Contractor shall make arrangements for delivery to the site on the date specified by the Engineer. The vehicle(s) will be driven by the Engineer and other personnel authorized by the Engineer possessing a valid driver's license.

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The Contractor shall provide fuel, oil, proper maintenance, tires, and replacement parts as required to keep the vehicle(s) in safe operating condition, and undertake all repairs, including repairs arising from the vandalism, accidents or other damages. The Contractor shall either establish an account at a local gas station or provide the inspection staff with the monetary means to fuel the vehicles. If any vehicle requires maintenance or repairs which cannot be completed on the same day, a comparable replacement vehicle shall be provided while the vehicle is out of service. If the vehicle is lost or stolen, the Contractor shall replace the vehicle within 5 work days with a comparable vehicle.

637-3.07 Inspection Boat. The Contractor shall furnish the boat (and operator for Type B Inspection Boats) within 5 work days after written notification by the Engineer, and the boat (and operator for Type B Inspection Boats) shall, thereafter, be available at all times to the Engineer and other personnel authorized by the Engineer.

637-3.08 Office Technology Supplies. The Contractor shall provide office technology-related supplies for the exclusive use of Department personnel and their authorized representatives. The supplies shall be provided within 2 work days of the Engineer's request, unless the Engineer agrees to a longer delivery time. The Department shall retain ownership of the technology-related materials and supplies.

637-3.09 Construction Testing Supplies - Consumables. The Contractor shall provide consumable testing materials for the exclusive use of Department personnel and their authorized representatives. The supplies shall be provided within 5 work days of the Engineer's request, unless the Engineer agrees to a longer delivery time. The Department shall retain ownership of the consumable testing materials, both materials used and those materials unused for which the Contractor has been paid, at the completion of the contract.

637-3.10 Partnering Workshop. The Contractor and the Regional Construction Engineer will jointly select a facilitator and a location for the workshop. A list of potential facilitators is available from the Department. The facilitator shall present a one to two day Partnering Workshop for this contract between the time of award and the start of work. For long duration, multi year projects, a subsequent follow-up workshop may be convened, with the agreement of the Contractor and the Regional Construction Engineer, at an appropriate point during the progression of the work. The associated costs for this subsequent workshop will be reimbursed under this item.

637-4 METHOD OF MEASUREMENT

637-4.01 Engineer's Field Office. The Engineer's Field Office will be measured for payment as the number of months satisfactorily provided, measured to the nearest 0.25 months.

637-4.02 Field Laboratory. The Field Laboratory will be measured for payment as the number of units satisfactorily provided.

637-4.03 Concrete Cylinder Curing Box. The concrete cylinder curing boxes will be measured for payment as the number of units furnished and installed.

637-4.04 Digital Camcorder. The digital camcorder will be measured for payment on a fixed price Dollars-Cents pay unit basis.

637-4.05 Rain Gauge. The rain gauge will be measured for payment as the number of units furnished and installed.

637-4.06 Inspection Vehicle. The inspection vehicle(s) will be measured for payment on a monthly basis, measured to the nearest 0.25 months.

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637-4.07 Inspection Boat. The inspection boat will be measured for payment on a monthly basis, measured to the nearest 0.25 months.

637-4.08 Office Technology Supplies. Office technology supplies will be measured for payment on a fixed price Dollars-Cents pay unit basis.

637-4.09 Construction Testing Supplies – Consumables. Construction testing supplies will be measured for payment on a fixed price Dollars-Cents pay unit basis.

637-4.10 Partnering Workshop. The Partnering Workshop will be measured for payment on a Dollars-Cents pay unit basis.

637-5 BASIS OF PAYMENT. For the items to be paid on a Dollars-Cents pay unit basis, the total cost shown in the itemized proposal will be considered the price bid even though payment will be made only for actual equipment and materials supplied. The unit price amount is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded, and the original price will be used to determine the total amount bid for the contract.

637-5.01 Engineer's Field Office. The unit price bid per month for the Engineer's Field Office shall include the cost of all labor, materials and equipment necessary to complete the work including property rental, utility charges and incidental expenses. Payment will be made for each month of availability for occupancy by the Engineer and inspection field staff.

No payment will be made under Engineer's Field Office for each calendar day during which there are deficiencies in compliance with these requirements. The first calendar day shall commence 24 hours after notice to the Contractor of such a deficiency. This nonpayment shall be deducted from the next contract payment. The amount of such calendar day nonpayment will be determined by dividing the unit price bid per month by 30.

If the cited deficiencies exceeds 72 hours or is permitted to recur, liquidated damages will be assessed at 20% of the rate shown in Table 108-1 *Schedule of Liquidated Damages* of §108-03 *Failure to Complete Work on Time* for each subsequent calendar day or part thereof that the cited deficiency resulting in nonpayment is not corrected.

Monthly payments may be terminated prior to contract final acceptance by written notification by the Regional Construction Engineer that such office will no longer be required on the contract. Payment for each month's occupancy of the Engineer's Field Office after the date of contract final acceptance will be made as part of the final contract payment. Failure of the Contractor to supply documentation required to complete the final estimate may result in nonpayment during this delaying period.

During periods of contract extension of time where Engineering Charges are assessed, no payment will be made for occupancy and services, except that payment for each month's occupancy after the date of final acceptance will be made as part of the final estimate.

637-5.02 Field Laboratory. The unit price bid for each Field Laboratory shall include the cost of furnishing all labor, materials and equipment necessary to complete the work including property rental, utility charges and incidental expenses.

Payment will be made for each Field Laboratory when it has been placed on the work site and is fully operational.

637-5.03 Concrete Cylinder Curing Box. The unit price bid for each concrete cylinder curing box shall include the cost of all labor, materials and equipment necessary to complete the work including property rental, relocation, repair or replacement, painting, cleaning, maintenance, and utility charges.

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637-5.04 Digital Camcorder. The digital camcorder is a "draw down" item. As materials are supplied, the receipts for the materials shall be submitted to the Engineer. The Contractor will be reimbursed for receipted costs of materials plus 5% for profit and overhead ("materials" includes all labor, materials and equipment, including services to furnish, maintain, and remove all of the components of the digital camcorder system).

If new equipment is not provided, the Engineer will determine a reasonable cost for the equipment. The Contractor shall provide a copy of the original receipt for the equipment to assist the Engineer in assessing the current value of the equipment. Used equipment less than one (1) year old shall be assessed at no more than 50% of the original receipted cost. Equipment over one (1) year old shall not be considered for approval.

637-5.05 Rain Gauge. The unit price bid for each rain gauge shall include the cost of furnishing all labor, materials and equipment necessary to complete the work including installing and maintaining all components of the wireless rain gauge system.

Payment will be made for the rain gauge when it has been installed and is fully operational.

637-5.06 Inspection Vehicle. The unit price bid per month shall include all costs in connection with furnishing properly registered vehicles, maintaining the vehicles (including repairs, tires, lubrication, fuel, washing, etc.), and providing an owner's policy of liability insurance for the vehicles in conformance with §107-06B. *Insurance Requirements.* A deduction of 1/30 of a month will be made for each 24-hour period, or portion thereof, during which the vehicle is unavailable to the Engineer, or personnel authorized by the Engineer, regardless of the reason for the vehicle's unavailability. When directed in writing by the Engineer, payment for each month of use after the date of acceptance will be made as part of the final estimate. Payment will begin the first month the vehicle is furnished and made available for use. Monthly payments may be terminated on a specified date prior to acceptance of the Contract by written notification by the Engineer that the vehicle will no longer be required.

637-5.07 Inspection Boat. The unit price bid per month shall include the cost of furnishing all labor, fuel, maintenance, repairs, registration permits, the operator (for Type B Inspection Boats), and other necessary incidentals for operation of the boat. A deduction of 1/30 of a month will be made for each 24-hour period, or portion thereof, during which the boat is unavailable to the Engineer, or personnel authorized by the Engineer, regardless of the reason for the boat's unavailability. When directed in writing by the Engineer, payment for each month of boat use after the date of acceptance will be made as part of the final estimate. Payment will begin the first month the boat is furnished and made available for use. Monthly payments may be terminated on a specified date prior to acceptance of the Contract by written notification by the Engineer that the boat will no longer be required.

637-5.08 Office Technology Supplies. Office technology supplies is a "draw down" item. As the materials are supplied, the receipts shall be submitted to the Engineer. The Contractor will be reimbursed for receipted costs of materials plus 5% for profit and overhead ("materials" includes all labor, materials and equipment, including services and service contracts provided).

637-5.09 Construction Testing Supplies – Consumables. Construction testing supplies is a "draw-down" item. As the materials are supplied, the receipts shall be submitted to the Engineer. The Contractor will be reimbursed for receipted costs of materials plus 5% for profit and overhead ("materials" includes all labor, materials and equipment, including delivery charges from vendor sources).

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637-5.10 Partnering Workshop. The Department will reimburse the Contractor for 50% of the costs for the facilitator and the facility upon submission of original receipts. Receipted costs eligible for 50% reimbursement include the fee for the facilitator and the costs for the facilitator's travel and expenses; associated workshop costs such as charges for the rental of the meeting room, required audio/visual equipment and any handouts, notes or workshop materials. The costs for travel, lodging, meals and salaries of workshop attendees, other than those of the facilitator, will not be eligible for reimbursement under this item.

Payment will be made under:

Item No.	Item	Pay Unit
637.01	Field Laboratory	Each
637.03	Concrete Cylinder Curing Box	Each
637.11	Engineer's Field Office – Type 1	Month
637.12	Engineer's Field Office – Type 2	Month
637.13	Engineer's Field Office – Type 3	Month
637.14	Engineer's Field Office – Type 4	Month
637.15	Engineer's Field Office – Type 5	Month
637.25	Digital Camcorder	Dollars-Cents
637.26	Rain Gauge	Each
637.31	Inspection Vehicle	Month
637.32	Inspection Boat - Type A	Month
637.33	Inspection Boat - Type B	Month
637.34	Office Technology and Supplies	Dollars-Cents
637.35	Partnering Workshop	Dollars-Cents
637.36	Construction Testing supplies – Consumables	Dollars-Cents

SECTION 637 ENGINEER'S FIELD OFFICE, LABORATORY AND EQUIPMENT

Make the following changes to the Standard Specifications dated May 1, 2008:

Page 622 **Delete** SECTION 637 – *Engineer's Field Office, Laboratory and Equipment* in its entirety, and **Replace** it with the following:

SECTION 637 - ENGINEER'S FIELD OFFICE, LABORATORY AND EQUIPMENT

637-1 DESCRIPTION. This work shall consist of providing, furnishing and maintaining an Engineer's Field Office and a Field Laboratory in good working condition and appearance for the exclusive use of, and occupancy by the inspection staff. The buildings shall be habitable environments, readily accessible to the public and free of any recognizable health or safety hazards. The work shall also consist of providing and maintaining equipment for use by the inspection staff.

637-1.01 Engineer's Field Office. This work shall consist of providing for the Engineer's use a building, or a portion thereof, or a modular trailer of a specified type erected at a location approved by the Engineer.

637-1.02 Field Laboratory. This work shall consist of providing a Field Laboratory for soils and materials testing at a location approved by the Engineer.

637-1.03 Concrete Cylinder Curing Box. This work shall consist of providing a concrete cylinder curing box.

637-1.04 Digital Camcorder. This work shall consist of providing and maintaining a fully operational digital camcorder system.

637-1.05 Rain Gauge. This work shall consist of providing and maintaining a wireless rain gauge system.

637-1.06 Inspection Vehicle. This work shall consist of providing and maintaining motor vehicle(s) for exclusive use by the Engineer and the Inspection Staff.

637-1.07 Inspection Boat. This work shall consist of providing and maintaining a motorized boat for exclusive use by the Engineer and the Inspection Staff.

637-1.08 Office Technology Supplies. This work shall consist of providing technology-related materials and supplies for use by the inspection staff.

637-1.09 Construction Testing Supplies - Consumables. This work shall consist of providing consumable testing supplies to be used by inspection staff.

637-1.10 Partnering Workshop. This work shall consist of a partnering workshop coordinated and facilitated by an independent facilitator. The Department and the Contractor will share the cost of the partnering workshop equally.

637-2 MATERIALS.

637-2.01 Engineer's Field Office. The Engineer's Field Office shall be within a secured, weatherproof building or mobile trailer. If two or more mobile trailer units are provided, they shall be joined with weatherproof connections. Mobile trailers shall be in new or like new condition. The Contractor may furnish equivalent facilities in an existing building, provided that the building is located to provide convenient service. The Contractor shall supply the Engineer with a copy of the Certificate of Occupancy for the existing building.

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The Engineer's Field Office shall be in accordance with the requirements of the New York State Uniform Fire Prevention and Building Code, 19 NYCRR, and any applicable local codes.

The electrical system shall be able to continuously operate all equipment and be provided with adequate receptacles. To accommodate computer equipment, the field office shall be provided with a dedicated 20 amp electrical service and a vacant floor-to-ceiling area with a 3 foot x 3 foot footprint along a wall for the installation of a computer hardware rack/cabinet. Electric light shall be provided by non glare-type luminaries to provide a minimum illumination level of 100 foot-candles at desk-height level. An ambient air temperature of 70°F ±5°F shall be maintained.

Fire extinguishers and smoke and carbon monoxide detectors shall be provided and installed.

The Engineer's Field Office shall be partitioned to provide separate rooms, defined as either "small" or "large", with adjoining doors. Table 637-1 below contains the minimum area requirements for each of the office types.

TABLE 637-1 ENGINEER'S FIELD OFFICE AREA REQUIREMENTS					
Physical Requirement	Engineer's Field Office Type				
	1	2	3	4	5
Min. total floor area (sf)	530	860	1300	2500	2700
Min. number of small rooms	2	3	2	3	6
Min. floor area of small rooms (sf)	100	100	120	150	175
Min. number of large rooms	1	1	2	2	2

A. Potable Water. From a local municipal water supply, certified well or bottled with a heating/refrigerator unit to provide hot and cold water. An exterior frost-free hose bib shall be provided in a location adjacent to the Engineer's Field Office. The hose bib need not be installed on a potable water line, and if the water in the line is not potable, it shall be clearly marked as such.

B. Restroom. A separately enclosed room, lockable from the inside, that is properly ventilated and in compliance with applicable sanitary codes. The Contractor shall provide all lavatory amenities, necessary paper and soap products, hot and cold running water and a toilet. The toilet shall be flush-type where sanitary facilities are available, and a type approved by the Engineer prior to installation where sanitary facilities are not available. The minimum required number of restrooms to be provided is specified in Table 637-2.

C. Parking Area. The Contractor shall provide and/or construct paved or hard surfaced (gravel or bankrun material) secure parking area with dedicated parking spaces adjacent to the Engineer's Field Office. Each parking space shall be 9 feet by 18 feet, and the minimum required number of spaces to be provided is specified in Table 637-2.

D. Field Office Signs. The sign panel material shall be aluminum, fiberglass, plywood or lightweight plastic. The sign sheeting shall be ASTM Type III. The sign panel shall be 36 inches high by 48 inches wide with white legend on green background with the phrases as positioned and described below. If erected at a location where the sign might be struck by an errant vehicle, the sign support shall be a breakaway type.

The letters in the phrase "FIELD OFFICE" shall be 6 inches C series with the top of the letters 6 inches below the top of the panel. The letters in the phrase "ENGINEER-IN-CHARGE" shall be 6 inches B series with the top of the letters 18 inches below the top of the panel. The letters in the phrase "N.Y.S. DEPT. OF TRANSPORTATION" shall be 1 1/2 inches E series with the top of the letters 30 inches below the top of the panel. All phrases shall be centered horizontally on the panel.

If the Engineer's Field Office is not located within or adjacent to the contract limits, two additional signs shall be displayed conspicuously within the contract limits. The signs shall be similar to the above description, except that they shall be 48 inches high by 64 inches wide and have an additional bottom line of text containing the street address of the Engineer's Field Office. The

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letters in the street address shall be 6 inch B series with the top of the letters 36 inches below the top of the panel and centered horizontally on the panel.

E. Mailbox. Standard mailbox (with post if necessary) or post office box meeting the requirements of the U.S. Postal Service.

F. Telephone and Answering System. A separate telephone and answering system for the exclusive use of the inspection staff. The minimum required number of telephone voice lines to be provided is specified in Table 637-2 (these lines are in addition to the separate line to be provided for the facsimile machine, and one of these lines must be made available for remote troubleshooting of computer equipment, if necessary). The telephone and answering system shall provide the ability to answer all voice lines from each voice line, transfer calls to all voice lines and be equipped with a single, dedicated answering system.

A minimum of one telephone shall be cordless and a minimum of one telephone shall be equipped with speaker and conference call capability. The remaining telephones, at least one per required voice line, shall be extension telephones with minimum 25 foot long cords. The answering system shall be capable of recording outgoing messages up to 60 seconds long and receiving a minimum of 40 incoming messages of 60 seconds duration. The system must include automated voice marking of time and day of each message received and provide a message mark so that new messages may be played back without erasing old messages. The system shall include remote programming of playback, backspace, and outgoing message re-record and allow for the retrieval of messages without a remote control unit.

G. Facsimile Machine. Plain paper laser or inkjet facsimile machine with a dedicated telephone line. The machine shall be capable of sending and printing a maximum paper size of 8 1/2 x 14 inches, have a minimum 20 page memory storage, a minimum 20-sheet document feeder, a minimum 50-sheet paper capacity, transmit at least 6 pages per minute and have an autodial/redial with a minimum of 50 phone number memory. The machine shall be capable of storing and printing outgoing message confirmation information and printing the sender's name, fax number and page number on incoming faxes.

H. Photocopier. Heavy duty, electric, dry-process photocopying machine. The machine shall be capable of duplex copying paper sizes of 8 1/2 x 11 inches, 8 1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator and the capability to reduce/enlarge copies between each paper size. One (1) case (5,000 sheets, 20 lb, white) of each paper size shall be provided as initial stock.

I. Paper Shredder. Automatic start, heavy duty cross-cut paper shredder. The shredder shall be able to receive 8 1/2 inch wide paper and shred a minimum of 15 sheets simultaneously along with CD's and staples.

J. Pencil Sharpener. Manual or electric pencil sharpener, minimum 1 per room.

K. Exterior Bulletin Board. An installed 4 foot x 8 foot weatherproof bulletin board in front of or adjacent to the Engineer's Field Office. The bulletin board may be attached to an outside wall of the office. The location selected must be handicapped accessible and clearly visible.

L. Interior Bulletin Board. An installed, wall-mounted 4 foot x 6 foot bulletin board made of cork or similar material in a large room, and one 2 foot x 4 foot wall mounted bulletin board installed per room.

M. Dry Erase Board. Installed, wall-mounted 2 foot x 4 foot dry erase boards, minimum one per room.

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N. Storage Locker. Metal or wood storage locker with shelves, a tumbler lock and 2 keys for the storage of survey, GPS and testing equipment. The total locker space footprint provided shall be a minimum of 9 square feet with a minimum height of 6 feet.

O. Fire Resistant Cabinet. Fire resistant, legal size filing cabinet with locks and 2 keys each, meeting the requirements of ANSI/UL Standard 72 for Insulated Filing Devices, Class 350-1 hour. Each office shall be provided with two 2-drawer cabinets, and the required number of additional 4-drawer cabinets as specified in Table 637-2.

P. Bookcase. Self-standing, 3-shelf metal or wood bookcase, approximately 4 feet high, 4 feet wide and 1 foot deep. The minimum required number of bookcases to be provided is specified in Table 637-2.

Q. Wastebasket. Minimum 7 gallon wastebasket, minimum one per desk.

R. Refrigerator. Electric, top-freezer type providing a minimum storage space of 15 cubic feet for Engineer's Field Office Types 1 and 2, and a minimum storage space of 21 cubic feet for Types 3, 4 and 5.

S. Kitchenette. To include a minimum 1 cubic foot, 1,300 watt microwave oven, a sink with hot and cold running water with minimum dimensions of 15 inch x 15 inch x 6 inch deep, usable counter space with minimum dimensions of 5 feet long x 2 feet deep and cabinet space with minimum dimensions of 5 feet long x 1 1/2 feet deep x 2 1/2 feet high. If the water in the sink is not potable, it shall be clearly marked as such.

T. Stove. Electric, propane or bottle gas stove with a minimum of two burners adequate for rapid drying of soil samples, including fuel or electrical supply. A stove is required when a separate Field Laboratory is not included.

U. First Aid Kit. A Type III kit in accordance with ANSI Z308.1 Minimum Requirements for Workplace First Aid Kits. The minimum number of first aid kits to be provided is specified in Table 637-2.

V. Thermometer. A minimum-maximum thermometer displaying in degrees Fahrenheit and mounted with an external probe to give the temperature both indoors and outdoors.

W. Coat Rack. A metal or wood coat rack or closet capable of holding at least 4 coats. The minimum required number of coat racks to be provided is specified in Table 637-2. A single coat rack may be provided as long as it holds the minimum number of coats as per Table 637-2.

X. Office Desk and Chair. Fully assembled freestanding office desks and chairs. Each desk shall have a 5 feet long by 2 1/2 feet wide work surface and a height of 30 inches, at least 2 lockable drawers and include an adjustable shelf approximately 1 foot wide and no less than 2 1/2 feet long. Each desk shall also be provided with an adjustable chair with arms, 5 legs with casters and be adjustable from approximately 16 inches to 24 inches in height. Each desk shall have a dedicated electrical outlet receptacle. The required number of office desks and chairs to be provided is specified in Table 637-2.

Y. Office/Conference Table. Commercial-grade rectangular table with weather/spill resistant top a minimum of 8 feet long by 2 1/2 feet wide by 30 inches high. The minimum required number of office/conference tables to be provided is specified in Table 637-2.

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Z. Folding Chair. Commercial-grade, folding steel chair with approximate overall dimensions of 30 inches high by 19 inches wide by 21 inches deep. The minimum required number of folding chairs to be provided is specified in Table 637-2.

AA. Drafting Table. Adjustable height, tilting top drafting table with brackets and legs and approximate dimensions of 6 feet long by 3 feet wide by 3 feet high. The minimum required number of drafting tables to be provided is specified in Table 637-2.

TABLE 637-2 ENGINEER'S FIELD OFFICE FURNISHING REQUIREMENTS					
Furnishing Description	Required Number per Engineer's Field Office Type				
	1	2	3	4	5
Restrooms	1	1	2	2	3
Parking spaces	6	8	12	18	22
Telephone voice lines	2	3	4	6	8
Telephone line for facsimile	1	1	1	1	1
Fire resistant cabinets (4-drawer)	2	3	4	6	8
Bookcases	5	7	10	12	16
First aid kits	1	1	1	2	2
Coat racks	1	2	3	4	5
Office desks and chairs	4	8	12	18	22
Office/conference tables	2	2	3	4	5
Folding chairs	4	6	8	10	15
Drafting tables	1	1	2	3	3
Drafting stools	2	2	4	6	6
Vertical plan filing racks	1	1	2	3	8
Roll file units	1	1	1	2	4

BB. Drafting Stools. Adjustable height stool with backrest. The minimum required number of drafting stools to be provided is specified in Table 637-2.

CC. Vertical Plan Filing Rack. Constructed of metal, capable of hanging up to 12 sets of plan drawings up to 3 feet x 4 feet in size, 12 hanging clamps included. The minimum required number of vertical plan filing racks to be provided is specified in Table 637-2.

DD. Roll File Unit. Twelve (12) compartments, each measuring approximately 6 inches x 6 inches. The minimum required number of roll file units to be provided is specified in Table 637-2.

637-2.02 Field Laboratory. The Field Laboratory shall be a secured, weatherproof room, building or mobile structure not less than 100 square foot floor area in size. The floor covering shall be linoleum, tile or other serviceable finish. A local exhaust system shall be provided. An ambient air temperature of 70°F ±10°F shall be maintained. The Contractor may furnish equivalent facilities in an existing building, provided that the building is located to provide convenient service. The Contractor shall supply the Engineer with a copy of the Certificate of Occupancy for the existing building.

The Field Laboratory shall be in accordance with the requirements of the New York State Uniform Fire Prevention and Building Code, 19 NYCRR, and any applicable local codes.

The electrical system shall be able to continuously operate all equipment and be provided with adequate receptacles. Where an electric hotplate or stove is provided, service shall be increased over 20 amperes by an amount equal to the rating of the device provided.

The Field Laboratory shall be sufficiently anchored to prevent damage from vibration caused by the laboratory equipment.