



INDIANA DEPARTMENT OF TRANSPORTATION

DRIVING INDIANA'S ECONOMIC GROWTH

Design Memorandum No. 08-11 Technical Advisory

May 30, 2008

TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/ Anthony L. Uremovich
Anthony L. Uremovich
Design Resources Engineer
Production Management Division

SUBJECT: Project Field Office

REVISES: *Indiana Design Manual Section 14-1.02(03)*

EFFECTIVE: September 4, 2008, Letting

Online editable document Summarization 14-1C, Contract-Preparation Documents to Contract Administration Division, has been revised due to changes in the requirements for a project field office and related equipment. The project manager will work with the district Office of Construction to obtain this information. Once it is known, and Summarization 14-1C is otherwise complete, the project manager will forward it to the designer.

The designer should incorporate the field-office-related pay items and quantities into the estimate of quantities and cost estimate. Recurring Special Provision 628-R-552, attached hereto, should be called for. Such documents should be included with the Final Tracings submission.

The code numbers and pay-item names are listed below. The pay unit for all items is MOS.

628-09401	Field Office, A
628-09402	Field Office, B
628-09403	Field Office, C
628-09404	Field Laboratory, A
628-09405	Field Laboratory, B
628-09406	Field Laboratory, C

628-09407 Field Office Computer System, Additional
628-09408 Mobile Laptop Computer System
628-09409 Mobile Internet Service

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Attachment

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628-R-552 FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS AND OFFICE MACHINES

(Revised 04-25-08)

The Standard Specifications are revised as follows:

SECTION 105, LINE 593, DELETE AND INSERT AS FOLLOWS:

105.17 ~~Field Office~~ Blank

SECTION 105, DELETE LINES 594 THRU 954.

SECTION 106, LINE 168, DELETE AND INSERT AS FOLLOWS:

106.04 ~~Field Laboratory~~ Blank

SECTION 106, DELETE LINES 169 THRU 173.

SECTION 628, BEGIN LINE 1, INSERT AS FOLLOWS:

SECTION 628 – FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS AND OFFICE MACHINES

628.01 Description

This work shall consist of providing the specified facilities, equipment, supplies and services in accordance with 105.03.

628.02 Field Office and Laboratory Requirements

10 *When specified, the Contractor shall provide a field office, computer systems, office machines, field laboratory, services, equipment and supplies for the Department’s exclusive use in accordance with the minimum requirements listed below.*

(a) Field Office

20 *The field office shall be located as mutually agreed by the Engineer and the Contractor. If a building exists within the limits of the right-of-way that is acceptable as a field office and the building is scheduled to be removed under the terms of the contract, the building may be equipped and furnished as the field office. A building within the right-of-way that is furnished under this specification shall be removed prior to the date of the last work and other acceptable facilities for the field office shall then be provided.*

The field office may be a permanent building or a trailer and shall be of the type shown on the Schedule of Pay Items. The building or trailer furnished for the field office shall be in accordance with all applicable state and local codes and applicable IOSHA/OSHA requirements.

30 *The field office shall be complete and ready for use by the Department, including all utility connections and specified computer systems, office machines, internet service, equipment and supplies, prior to the start of work. If the Contractor is unable to provide the permanent field office prior to the start of the work, the Engineer shall be notified in writing and the Contractor and the Engineer will agree on temporary field office arrangements prior to the start of work. A temporary field office will not be accepted by*

the Department for more than two months, at which time a permanent field office shall be ready for the Department's use.

The field office shall at a minimum be the size listed below for the type field office specified.

- 40
1. *Type A – 400 sft (37 m²)*
 2. *Type B – 550 sft (51 m²)*
 3. *Type C – 650 sft (60 m²)*

Minimum dimensions shall be 8 ft (2.4 m) wide and 7 ft (2.1 m) in height, from floor to ceiling. For a trailer, the calculation of minimum area will be based on the exterior box dimensions.

50 *The office shall have a solid and level floor with no holes, a weatherproof roof and shall be dust-proof, and wind-tight. The field office shall have at least 2 doors for ingress and egress and shall have a minimum of 6 windows for a type A field office and 8 windows for a type B or C field office, not including any windows in the doors.*

60 *Each door shall have a satisfactory lock. At least one door must always be able to be unlocked and opened from inside the field office. If a padlock is used to secure a door, it shall be a high security type which is invulnerable to bolt cutters, hacksaws, hammers, or prybars. The padlock shall be mounted in such a manner that locking and unlocking the door is satisfactorily convenient. Installation of additional hardware to protect the lock or use of multiple padlocks on a door will not be permitted. However, additional hardware to receive the padlock will be acceptable. The Contractor shall furnish the number of keys to the office as directed by the Engineer. The Department will maintain a list of all Department personnel who are given keys.*

Windows shall be hinged or sliding and have a minimum area of 5 sft (0.45 m²) each. Windows shall be provided with satisfactory locks and screens. Windows, including windows in the doors, shall be provided with shades, blinds, or other approved coverings.

The field office shall have heating and air-conditioning equipment capable of maintaining a uniform temperature between 68°F and 80°F (20°C and 26°C).

70 *The field office shall have a minimum 100 amp, 120/240 volt electrical service, shall have sufficient receptacles to satisfactorily accommodate all required electrical equipment without the use of extension chords or splitters and shall be provided with satisfactory office type lighting.*

The field office shall include a minimum of one separately lockable storage area suitable to store a nuclear density/moisture gauge. The storage area shall have a minimum storage volume of 63 cu ft (1.3 m³) with a minimum floor area of 9 sft (1 m²).

If the field office is a trailer, the trailer shall be securely supported by adequate blocking. The blocking shall provide a foundation to prevent settlement. The trailer shall

- 80 *be secured to the ground with a trailer tie down system that is in accordance with all state and local requirements. Each trailer shall be furnished with steps meeting IOSHA/OSHA requirements at each doorway.*

The field office location shall be selected in order to provide satisfactory parking and trash disposal facilities for Department use. Parking spaces shall be either paved or surfaced with compacted aggregate, size No. 53, or other acceptable materials suitable for all-weather usage.

(b) Field Office Equipment and Supplies

- 90 *The following minimum equipment and supplies shall be furnished for each field office of the type specified.*

Office Type	A	B	C
Pencil Sharpener	1	1	1
Broom and Dust Pan	1	1	1
Six-hook Coat Rack	1	1	1
Toilet Facilities	Yes	Yes	Yes
Drinking Water	Yes	Yes	Yes
Fire Extinguishers	1	2	2
100 First-Aid Kit	1	1	1
Bloodborne Pathogen Kit	1	1	1
Smoke Detector	1	1	2
Carbon monoxide Detector	1	1	1
Shelving	16 lft (4.9 m)	20 lft (6.1 m)	24 lft (7.3 m)
Telephones	2	2	3
Voice Mail	1	1	1
Telephones Lines	2	2	2
File Cabinet Drawers	4	8	12
Office Desks & Office Chairs	2	4	4
110 Folding Office Tables	1	2	2
Chairs	4	8	12
Drafting Tables	1	1	1
Drafting Stools	1	1	1
Waste Paper Baskets	2	4	4
Cleaning Supplies	Yes	Yes	Yes
Calculators	1	2	2
Paper Shredder	1	1	1
Microwave Oven	1	1	1
120 Refrigerator/Freezer	1	1	1

The office and the equipment shall be furnished in a condition satisfactory to the Department.

Adequate quantities of basic hygiene and office cleaning supplies shall be provided. These supplies shall include, but are not limited to, hand soap, hand sanitizer, paper towels, toilet paper, window cleaner, all-surface cleaner, toilet disinfectant, toilet brush and a toilet plunger.

130 *Potable drinking water with both hot and cold water capabilities shall be furnished. Drinking cups and paper towels shall be provided.*

Fire extinguishers shall be five-pound, Class ABC or higher rated and shall be maintained in a fully charged and operable condition and shall meet all IOSHA/OSHA requirements.

First-aid kits shall meet the requirements of ANSI Z308.1 current at the time of letting.

140 *Shelving shall have a minimum width of 10 in. (250 mm).*

At least one telephone shall be a cordless phone having a frequency of at least 900 MHz.

The telephone voice mail system shall be capable of providing both a minimum one minute outgoing message and 30 minute total recording time for incoming messages. It shall have a remote operation feature, which may be used to retrieve, replay, erase, and save messages. An answering machine meeting these requirements may be substituted for the voice mail system.

150 *Filing cabinets shall at a minimum be fire resistant steel filing cabinets with a class D or higher classification established by UL or Safe Manufacturers National Association. Cabinet drawers shall have a filing depth of 25 in. (635 mm). All cabinets shall have a lock and at least four drawers shall be fire proof.*

Office desktops shall be at least 48 in. (1220 mm) wide and 25 in. (635 mm) deep. All desks shall contain at least two drawers, one of which shall be provided with a lock.

160 *Folding office tables shall be a minimum size of 30 in. x 60 in. (760 mm x 1520 mm).*

Office chairs shall be height adjustable and equipped with castors. Other required chairs may be stackable or folding chairs.

Drafting tables shall contain a tilt top work table for drafting purposes. Dimensions shall be at least 30 in. x 60 in. (760 mm x 1520 mm). The drafting stool shall be proportional to each drafting table.

170 *Supplies to be furnished shall include all items required for proper operation of the required equipment. This includes, but is not limited to, operating manuals and paper supplies.*

Calculators shall be electric powered, have a printer and a minimum 12-digit capacity.

The shredder shall have a minimum capacity of 12 sheets (20 lb paper), shall be capable of shredding paper clips and staples and shall include a 5 gallon capacity waste basket.

The microwave oven shall have a minimum 1.0 cu ft capacity with a minimum 1100 watts and shall have digital controls.

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The refrigerator/freezer shall have a minimum combined capacity of 12 cu ft.

The field office and all equipment and supplies shall be maintained and replenished in a satisfactory manner during the term of the contract or until released by the Engineer. If the field office or required equipment and supplies are not maintained by the Contractor, the Engineer may withhold partial payments until the field office is operational to the Department's satisfaction.

(c) Field Office Computer System

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The Contractor shall provide one field office computer system for the Department's exclusive use for each field office specified. The Contractor has the option to provide either a desktop or a laptop computer system in accordance with the minimum requirements listed below.

1. Field Office Desktop Computer System

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- a. *Processor – Intel or AMD compatible, 2.0 GHz*
- b. *Memory – 1.0 GB, 533 MHz*
- c. *Hard Drive – 60 GB, 5400 rpm*
- d. *Optical Drive – 24X CD-RW drive*
- e. *Ports – Two USB 2.0 compliant ports*
- f. *Network/Wireless – Ethernet or wireless card to be compatible with the selected internet and office network connections*
- g. *Graphics – Integrated graphics card*
- h. *Monitor – 22 in. widescreen digital flat panel*
- i. *Keyboard – USB enhanced multimedia keyboard*
- j. *Mouse – USB 2-button scroll mouse*

2. Field Office Laptop Computer System

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- a. *Processor – Intel or AMD compatible, 2.0 GHz*
- b. *Memory – 1.0 GB, 533 MHz*
- c. *Hard Drive – 60GB, 5400 rpm*
- d. *Module Bay Device – 24X CD-RW drive*
- e. *Ports – Two USB 2.0 compliant ports*
- f. *Network/Wireless – Ethernet or wireless card to be compatible with the selected internet and office network connections*
- g. *Graphics – Integrated graphics card*
- h. *Display – 15" XWGA LCD panel*
- i. *Battery – 9 cell lithium ion*
- j. *External Monitor – 22 in. widescreen digital flat panel*
- k. *External Keyboard – USB enhanced multimedia keyboard*
- l. *External Mouse – USB 2-button scroll mouse*

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- m. Miscellaneous – One compatible port replicator with AC adapter, one additional AC adapter, one DC adapter and one padded carrying case*

3. Computer Software

The Contractor shall provide software for the computer system in accordance with the minimum requirements listed below.

- 230
- a. Operating System Software – Windows XP Professional*
 - b. Productivity Software – Microsoft Office 2003 Small Business and Adobe Acrobat Professional*
 - c. Security Software – McAfee Virus Scan Plus*

All software shall include the most current updates and patches at the time the computer system is provided to the Department. The Contractor shall provide for installation of updates and patches for the operating system, productivity and security software during the term of use of the computer system by the Department. Updates and patches shall be provided by an automatic update method.

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The Department may install and maintain proprietary software on the computer in order to run the Department's construction management programs.

4. Miscellaneous Computer Requirements

The initial condition of the computer system shall be nearly pristine. All owner installed e-mail accounts, games, spyware, online services, applications, network or other profiles previously set up on the system shall be removed prior to placement in the field office. If the system was provided for a previous Department contract, all software not specified shall be removed prior to placement in the current field office.

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The Contractor shall provide an uninterruptible power supply (UPS), minimum 120 VA, 100 Watts and full time surge suppression for each field office computer system specified in the contract.

The Contractor shall provide all cables, connections and software required to connect the field office computer system to the printer and the scanner.

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When more than one computer system is specified for a field office, the Contractor shall provide either an Ethernet or wireless office network to allow all computer systems in the field office to access the field office internet service, the printer and the scanner.

The Contractor shall provide appropriate dust covers for all field office desktop computer systems.

The Contractor shall provide all manuals necessary for operation of the computer system and software with the system and shall include all documentation normally furnished with the equipment and software when purchased.

270 *The Department will be utilizing the computer system to run or access Department provided construction management software applications. These applications are known to run on Intel and AMD compatible equipment when using the Windows XP Professional operating system. If the Department experiences problems running these applications due to hardware or software compatibility, the Contractor shall replace the equipment to ensure compatibility to the satisfaction of the Engineer within five business days.*

280 *The computer system shall be maintained in good working order. If a portion of the system becomes defective, inoperable, damaged, or stolen, that portion shall be repaired or replaced within five business days after the Contractor is notified by the Engineer. If the computer system and related accessories are not maintained by the Contractor as required, the Engineer may withhold partial payments until the computer system is operational to the Department's satisfaction.*

(d) Field Office Internet Service

The Contractor shall provide broadband internet service for the field office. Broadband internet service shall be capable of a minimum average upload speed of 350Kbps unless otherwise approved by the Engineer.

290 **(e) Field Office Machines**

The Contractor shall provide a fully operational copier, printer, document scanner and fax machine for the Department's exclusive use in the field office in accordance with the minimum requirements listed herein.

In lieu of separate copier, printer, scanner and fax machines, the Contractor may provide an all-in-one unit that meets all the requirements for any combination of the individual machines being provided. Separate machines shall be provided for those machine functions that are not included in an all-in-one type machine.

300 **1. Copier**

The copier shall be a dry ink copier capable of using plain paper and of making full size, black and white copies of letter, legal and ledger US paper size original documents. The copier shall be capable of reducing and increasing copy sizes. The copier shall have a self-feeding paper tray, an automatic document feeder and be capable of producing at least 12 copies per minute.

2. Printer

310 *The printer shall be a laser printer compatible with the computer system provided by the Contractor for use by the Department in the field office. The printer shall be capable of printing single-sided, black and white letter and legal US paper size documents at a rate of 20 pages per minute and capable of automatic duplex printing.*

3. Document Scanner

The document scanner shall be compatible with the computer system provided by the Contractor for use by the Department in the field office. The scanner shall be capable of scanning letter and legal size documents and shall have an automatic document feeder and be capable of 600 dpi black and white resolution.

4. Fax Machine

320 The fax machine shall be connected to one of the required telephone service lines in the field office. The machine shall have an automatic document feeder with a 10 page capacity and be capable of faxing letter and legal size sheets. It shall be able to automatically dial 40 preprogrammed fax numbers and have the capability to program at least 2 groups of numbers. The machine shall have a 2 MB memory, shall be equipped with a telephone handset and be capable of automatic redial.

5. Miscellaneous Office Machine Requirements

330 The Contractor shall provide letter, legal and ledger size paper, ink cartridges and toner as required by the Engineer for the operation of each piece of equipment provided.

If any office machine becomes defective, inoperable, damaged, or stolen, that machine shall be repaired or replaced within five business days after the Contractor is notified by the Engineer. If any of the office machines are not maintained by the Contractor as required, the Engineer may withhold partial payments until the machine is operational to the Department's satisfaction.

(f) Field Laboratory

340 The field laboratory shall be located as mutually agreed by the Engineer and the Contractor. The laboratory shall consist of an acceptable building or trailer in accordance with 628.02(a) in which the Department will house and use equipment to perform testing procedures for the contract.

The following equipment and supplies shall be furnished for each field laboratory of the type specified. The equipment and supplies shall meet the requirements of 628.02(a) as applicable.

	A	B	C
Laboratory Type			
Broom and Dust Pan	1	1	1
350 Six-hook Coat Rack	1	1	1
Toilet Facilities	Yes	Yes	Yes
Drinking Water	Yes	Yes	Yes
Fire Extinguishers	1	2	2
First-Aid Kit	1	1	1
Bloodborne Pathogen Kit	1	1	1
Smoke Detector	1	1	2
Carbon monoxide Detector	1	1	1
Shelving	16 lft (4.9 m)	20 lft (6.1 m)	24 lft (7.3 m)
Telephones	1	1	1
360 Voice Mail	1	1	1
Telephones Lines	1	1	1
File Cabinet Drawers	4	4	4
Office Desks & Office Chairs	1	1	1
Folding Office Tables	1	1	1
Chairs	2	2	2

Waste Paper Baskets	2	2	2
Cleaning Supplies	Yes	Yes	Yes

370 *If a field office is provided that is large enough to include the required space for the laboratory, the Engineer may agree to accept the field office for use as both office and laboratory, in which case the equipment and supplies listed for the laboratory will not be required.*

If the field laboratory is a separate structure that is located directly adjacent to the field office, the toilet facilities, drinking water, telephones, voice mail/answering machine, telephone lines and cleaning supplies will not be required.

628.03 Additional Computer Systems and Mobile Internet Service

380 *When specified, the Contractor shall provide the following computer systems and internet services for the Department's exclusive use.*

(a) Additional Field Office Computer System

The additional field office computer system shall be either a desktop or laptop computer system in accordance with 628.02(c)1 or 628.02(c)2 except that the monitor for a desktop system may be a 19 in. flat panel and the external monitor for a laptop system will not be required. The requirements of 628.02(c)3 and 628.02(c)4 shall apply to each additional field office computer.

(b) Mobile Laptop Computer System

390 *The mobile laptop computer system shall be in accordance with 628.02(c)2 except that the external monitor, integrated graphics card, external keyboard and port replicator with AC adapter will not be required. Mobile laptop computers will be used by the Department for contracts that do not include a field office. The requirements of 628.02(c)3 and 628.02(c)4 shall apply to each mobile laptop computer except that those requirements specifically for a field office computer will not apply.*

(c) Mobile Internet Service

400 *The mobile broadband internet service access card will be used by the Department in a laptop computer provided by either the Contractor or the Department.*

The card shall connect to the laptop via a type II PC card slot, an express card slot or a USB 2.0 compliant port. The card and service shall be capable of a minimum average upload speed of 350 Kbps. The internet service rate plan shall include unlimited data and time usage with no roaming charge for national domestic use. All software necessary for the operation of the card shall be provided to the Engineer.

The Contractor shall not purchase any card or enter into any service agreement until authorized by the Engineer. The Engineer will provide a minimum of 10 business days notice prior to the date the card will be required.

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628.04 Method of Measurement

Field office and field laboratory will be measured by the month for the specified type. Partial months will be rounded up to the next half or whole month. The Department will provide two weeks advanced notice prior to when the facility will be vacated.

If a field laboratory is specified and is included in the same space as the field office, the field laboratory will not be measured for payment.

420 Additional field office computer system, mobile laptop computer system and mobile internet service will be measured by the month for each system or service provided. Partial months will be rounded up to the next half or whole month. The Department will provide two weeks advanced notice prior to when mobile internet service will no longer be required.

628.05 Basis of Payment

Field office and field laboratory will be paid for at the contract unit price per month, complete in place until released.

430 Additional field office computer system, mobile laptop computer system and mobile internet service will be paid by the month for each system or service provided.

Payment will be made under:

	<i>Pay Item</i>	<i>Pay Unit Symbol</i>
	Field Office, _____ type	MOS
	Field Laboratory, _____ type	MOS
440	Field Office Computer System, Additional, _____ qty. Each	MOS
	Mobile Laptop Computer System, _____ qty. Each.....	MOS
	Mobile Internet Service, _____ qty. Each.....	MOS

450 The cost of all heating, cooling, electrical service, telephone service and other miscellaneous utility bills required for the field office or field laboratory shall be included in the cost of the field office or the field laboratory.

If a field office smaller than the specified type is approved by the Engineer, a new unit price will be established for the smaller field office. The new unit price will be equal to the original contract unit price multiplied by the smaller floor area and divided by the specified floor area.

If a temporary field office is provided in accordance with 628.02, payment will be 65% of the unit price during the time the temporary field office is in use by the Department.

460 *The cost of all materials and labor necessary to setup, secure, maintain and remove the field office, including all required equipment and supplies and any material required to provide parking, shall be included in the cost of the field office.*

All costs necessary to provide the field office computer system, including the required software, manuals, peripherals and related equipment, technical support and miscellaneous computer requirements shall be included in the cost of the field office.

470 *All costs necessary to establish, install and maintain field office internet service, including any required hardware, software, fees, monthly charges, setup, installation and technical support shall be included in the cost of the field office.*

All costs necessary to provide the copier, printer, document scanner and fax machine, including setup, installation, all required connections to computer systems, technical support and miscellaneous office machine requirements shall be included in the cost of the field office.

480 *All costs necessary to establish and maintain a field office network when one or more additional field office computer systems are specified shall be included in the cost of the field office.*

All cost necessary to provide an additional field office computer system, including the required software, manuals, peripherals and related equipment and technical support shall be included in the cost of the additional field office computer.

All costs necessary to provide the mobile laptop computer system, including the required software, manuals, peripherals and related equipment, technical support and miscellaneous computer requirements shall be included in the cost of the mobile laptop computer.

490 *All costs necessary to establish, install and maintain mobile internet service, including required hardware, software, fees, monthly charges, setup, installation and technical support shall be included in the cost of mobile internet service.*
