

Contract No.:



**U S DEPARTMENT OF TRANSPORTATION**

**FEDERAL HIGHWAY ADMINISTRATION**

**EASTERN FEDERAL LANDS HIGHWAY DIVISION**

**SHILOH NATIONAL MILITARY PARK  
PROJECT: TEA-21 SHIL 502(3)  
PMIS: 88297**

**SOLICITATION**

**IFB NO.: DTFH71-08-B-00028**

**This Contract Cites  
Standard Specifications FP-03  
Metric Units**

**CONTRACTOR:  
ADDRESS:**

**STATE:** Tennessee

**COUNTY:** Hardin County

**PARK / REFUGE / NF:** Shiloh National Military Park

<b>ROADWAYS:</b>	<b>STATIONS</b>	<b>METERS</b>
Sherman / Cavalry Road	500+000.0 to 502+160.04	2,160.4
Woolf Filed Road	100+002.8 to 100+171.7	168.9
Tent Hospital Road (Option 1)	90+003.2 to 90+356.5	353.3
Pittsburg Landing Road (Option 2)	250+007.0 to 250+293.7	286.7
Hamburg – Savannah Road (Option 3)	80+000.0 to 82+114.6	2,114.6

**PROJECT LENGTH TOTAL:** 5.08 kilometers

**TYPE OF IMPROVEMENT:**

**Schedule A** (Sherman / Cavalry Road, Woolf field Road, and McClernand Road):  
-Aggregate base, superpave asphalt concrete pavement, bridge over Tilghman branch, pipe replacement, obliteration existing asphalt pavement, and other miscellaneous work.

**Option 1** (Tent Hospital Road):  
-Aggregate base, superpave asphalt concrete pavement, pipe replacement, obliteration existing asphalt pavement, and other miscellaneous work.

**Option 2** (Pittsburg Landing Road):  
-Pavement overlay, aggregate base, superpave asphalt concrete pavement, pipe replacement, riprap/ lawn interface, and other miscellaneous work.

**Option 3** (Hamburg Savannah Road):  
-Pavement overlay, aggregate base, superpave asphalt concrete pavement, pipe replacement, obliteration existing asphalt pavement, and other miscellaneous work.

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## FEDERAL ACQUISITION REGULATION & TRANSPORTATION ACQUISITION REGULATION SOLICITATION PROVISIONS & CONTRACT CLAUSES

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## SPECIFICATIONS

Special Contract Requirements	J-1 through J-40
Plans	152 Pages
Geotech Report, Part I	274 Pages
Geotech Report, Part II	42 Pages
Geotech Report, Memo	1 Page

**\*BOLD FACED ITEMS ARE TO BE INCLUDED WITH THE BID SUBMITTAL PACKAGE**

**Bidders Qualification questionnaire regarding the preparation of the bid for time:**

- 1) Does the bid for time include the impact of normal weather conditions on the work of the Contract?
- 2) Does the bid for time include the impact of the terms of the Contract Specifications regarding work restrictions - including all identified delays, suspensions, and shut-downs?
- 3) Does the bid for time include sufficient time to allow that all contract work can be completed within contract time without the imposition of liquidated damages?
- 4) Does the bid for time include time for the review and approval process for all submittals required by the Contract?
- 5) Does the bid for time include time for the review and approval process for required drawings submitted under Subsection 104.03 of the Specifications?
- 6) Does the bid for time include the lead time required for the procurement, manufacture, and delivery of materials that are to be incorporated into the Contract work?
- 7) Does the bid for time include sufficient time to accommodate the fact that the date of Notice to Proceed is conditional upon the Government awarding the contract up to 60 days after the bid opening?
- 8) Does the bid for time include the 14 days after the award of the Contract that the Contractor has to provide Performance and Payment bonds?
- 9) Does the bid for time include sufficient time to accommodate the fact that the Contracting Officer has up to 30 days after receipt of acceptable Performance and Payment bonds to issue the Notice to Proceed?

I hereby certify that the answer to each and every one of the questions listed above is yes.

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**Note: If the questionnaire is not signed the bid shall be found non-responsive and rejected.**

## **NOTICE TO BIDDERS**

### **CONTRACT FORMAT:**

Offerors should note that the format of this contract is in accordance with Federal Acquisition Regulations (FAR), promulgated by the General Services Administration (GSA), effective April 1, 1984, including all applicable revisions. Applicable FAR provisions and clauses are incorporated in this contract by reference or full text as indicated in the INDEX before the D-page in this booklet. FAR provisions and clauses incorporated by reference can be accessed on the Internet on the GSA website at [www.arnet.gov/far/](http://www.arnet.gov/far/). Offerors are encouraged to review the documents thoroughly before bidding.

### **PROPOSAL BOOKLET AND OFFER SUBMITTAL:**

It is the responsibility of the Offeror to verify that this proposal is complete as listed in the Table of Contents. The Offeror is responsible for submitting all required forms and documents with the offer. Offerors should use the Checklist for Bid Submittal included in this booklet to check that their bids are complete. **New Questionnaire Form on Calendar Days with required signature.**

### **CONSTRUCTION CONTRACTS:**

As stated in FAR Clause 52.236-1, the **Contractor shall perform on the site, and with its own organization, work equivalent to at least 50%**. Additional guidance is given in FAR Subpart 35.005 where the majority of the project work is complex and specialized such as restoration work, bridge painting, and proprietary construction techniques (i.e. proprietary Cintec arch strengthening.) There are exceptions and they will be reviewed on a case-by-case basis.

### **HAZARDOUS MATERIALS IDENTIFICATION AND MATERIAL SAFETY DATA:**

As required by FAR Clause 52.223-3, Hazardous Materials Identification and Safety Data, the apparent low Offeror must submit prior to award a Material Safety Data Sheet (MSDS's) for all hazardous materials that the Offeror identifies in paragraph (b) of this clause in the D-pages of this booklet. Failure to submit MSDS's may render the Offeror ineligible for award of contract. The apparent low Offeror should submit their MSDS's within two weeks after bid opening.

### **ATTENTION LARGE BUSINESSES - UTILIZATION OF SMALL BUSINESS CONCERNS:**

Large business Offerors should note their responsibilities in the awarding of subcontracts in accordance with FAR Clause 52.219-8, Utilization of Small Business Concerns. The offeror, if a large business concern, should note its responsibility to establish and conduct a Subcontracting Plan in accordance with FAR Clause 52.219-9, Alternate I, Small Business Subcontracting Plan. If the apparent Low Offeror is a LARGE BUSINESS it will be required to submit a Subcontracting Plan within 2 weeks of receipt of request from the Contracting Officer. If the apparent low offeror fails to submit a subcontracting plan acceptable to the Contracting Officer within the allowable time, the offeror may be ineligible for award of the contract. PLEASE NOTE: A sample plan is included in this solicitation package for your use.

**FINANCING ASSISTANCE:** Minority, Women-owned, and Disadvantaged Business Enterprises (DBE's). The Department of Transportation (DOT) offers working capital financing assistance for transportation related contracts. DOT's Short-Term Lending Program (STLP) offers lines of credit to finance accounts receivable. Maximum line of credit is \$750,000 with interest at the prime rate. For further information, call (800) 532-1169. Internet address: <http://osdbuweb.dot.gov>.

**INTERNET BASED DATA BASES - REQUIRED INPUT:** According to the FAR Subpart 4.1102 contractors **MUST** be registered in Central Contractor Registration (CCR) **prior** to the award of any contract. Access the following web site to register: [www.ccr.gov](http://www.ccr.gov)

According to the FAR Subpart 4.1201 contractors **MUST** complete their Online Annual

Representations and Certifications Application (ORCA) **prior** to the closing date of the bid on line at <http://orca.bpn.gov/>.

According to the FAR Subpart 22.1302 (b) contractors and sub-contractors **MUST** complete the required Annual Vets-100 Form in order to be eligible for a contract award. It can be completed on-line at <http://vets100.cudenver.edu/>.

## **NOTICE TO BIDDERS - (CONT'D.)**

**This should be completed before submitting a bid package.**

### **PAYMENT:**

Offerors are advised to review the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP), subsection 109.05, concerning **direct** and **indirect** payment included under a pay item in the bid schedule.

### **PROGRESS PAYMENTS:**

ALL payments will be made via Electronic Funds Transfer (EFT) as such; the payment information in the CCR must be accurate in order for contractors' invoices to be considered proper invoices for the purpose of prompt payment under DOT contracts. Contractors must input and maintain (update as necessary) their EFT information in the CCR database. Offerors are advised that under FAR Clause 52.232-5, Payments Under Fixed Price Construction Contracts, upon request, progress payments will include premiums paid by the Contractor to obtain performance and payment bonds as required under this contract. These payments shall not be made in addition to the contract price. As specified in the FP, "Section 151 - MOBILIZATION", payments for performance and payment bond premiums shall be included in mobilization.

### **WELFARE-TO-WORK INITIATIVE:**

The President's Welfare Reform Bill was initiated to assist welfare recipients and hopefully aid welfare recipients to find gainful employment. In support of this bill, Contractors are encouraged to hire welfare recipients whenever possible and to use welfare recipients in performance of duties on Government contracts.

### **INCREASING SEAT BELT USE IN THE UNITED STATES:**

The President's Executive Order 13043 dated April 16, 1997, was issued to increase the use of seat belts in the United States. In support of this Order, contractors and subcontractors are encouraged to adopt and enforce on-the-job seat belt policies for their employees when operating company-owned, rented, or personally owned vehicles.

### **OBTAINING BID DOCUMENTS:**

Bid documents **will not be** mailed. All bid documents are available for direct download from the Federal Business Opportunities (FBO) website:

<https://www.fbo.gov/index?s=opportunity&mode=list&tab=list&cck=1&au=&ck=>

**Type DTFH71 in Keywords/Sol. # Block then click on GO,** or the Eastern Federal Lands Highway Division website: <http://www.efl.fhwa.dot.gov/contracting/Documents.aspx>

Contractors are encouraged to register on the FBO website (for this specific project) in order to receive Email Notifications automatically when a document is added or updated for this specific project. All questions about this construction project must be emailed to the following address:

[eflhd.contracts@fhwa.dot.gov](mailto:eflhd.contracts@fhwa.dot.gov).

**THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MONITORING THE WEB PAGES NOTED ABOVE FOR ALL CHANGES TO THE SOLICITATION AND ACTING ON SAID CHANGES.**

**PLEASE NOTE: for security reasons, individuals requiring access to all government buildings must present a valid photo ID and be escorted to their destination by a Government employee. All visitors attending bid openings are urged to arrive at least 1 hour prior to schedule bid opening. All visitors must register with the receptionist in Room 100. A Government employee will collect all bids. Prior to bid opening, a Government employee will escort all bidders to the bid opening. Unescorted visitors will be denied entry and no exceptions will be made.**

## CHECKLIST FOR BID SUBMISSION

The following is a checklist of items included in the proposal/bid package that are required to be completed and returned (or filled in on-line) to the address in Block 8 of the Standard Form 1442, Solicitation, Offer, and Award (page A-1). This checklist is for informational purposes only and is not required to be filled out by the bidder. **Failure to submit a complete bid may be cause to reject your bid.**

### 1. Bid Envelope:

- a. Addressed as shown in Block 8 of Page A-1
- b. In lower left corner, indicate Solicitation No., Project Name & Number, time for Receipt of Offers and send to Room 105.

### 2. Standard Form 1442: Solicitation, Offer and Award (Pages A-1 and A-2)

- a. Block 14: Name and Address of Bidder.
- b. Block 15: Telephone Number of Bidder.
- c. Block 16: Remittance Address if different from Block 14.
- d. Block 19: All Amendments Acknowledged, with dates of Amendments.
- e. Block 20: Bid is signed and dated.

### 3. Bid Schedule - (Pages B-1 through B-17)

- a. Unit bid price and bid amount provided for each pay item in numbers.
- b. Corrections initialed.
- c. Price Evaluation eligibility is indicated on the Bid Summary page.

### 4. Standard Form 24, Bid Bond (Pages C-1 through C-2) (Required if bid guarantee is bid bond)

- a. Date executed
- b. Legal name and address of bidder.
- c. Type of organization.
- d. State of incorporation (if applicable).
- e. Name and business address of Treasury approved surety.
- f. Penal sum of bond (not less than 20% of bid total).
- g. Bid identification.
- h. Signature of Bidder
- i. Seal, if corporation
- j. Signature of Surety
- k. Seal, if corporation

***BIDS RECEIVED WITHOUT A VALID BID BOND WILL BE REJECTED.***

### 5. Power of Attorney.

- a. Dated on or before execution date of bond
- b. Power has original signature of surety, or is embossed with surety's seal in the certification section

***BIDS RECEIVED WITHOUT A VALID POWER OF ATTORNEY WILL BE REJECTED.***

## CHECKLIST FOR BID SUBMISSION

**6. Fill In's.** The following full text Clauses and/or Provision numbers shall be checked or filled in and return with the bid package:

- a. 52.219-4 – HubZone ONLY - See Section F, Clause 52-219-4, paragraph "C", check block if wavier is applicable.

**7. Bidder's Qualifications form (provided separately as part of the Bid Documents Package).** Form completed, signed and submitted with bid

**8. Bidder's Questionnaire on Calendar Days signature required (if not completed bid shall be found non-responsive).**

**9. Sub-Contracting Plan - Large Businesses Only:** Submittal with the bid is not mandatory, **but it is encouraged**, as it will speed up the award process should your firm be the apparent low bid.

***THE FOLLOWING THREE ITEMS ARE NOT TO BE SUBMITTED WITH THE BID; BUT FAILURE TO COMPLETE THE REQUIREMENTS WILL BE CAUSE TO REJECT THE BID.***

**10. Central Contractor Registration (CCR):** The Contractor is currently registered in the Internet-Based CCR database at <http://www.ccr.gov>.

**11. Online Representations and Certifications Application (ORCA):** The Contractor's Representations and Certifications have been input online via the Internet-Based ORCA electronic database at <http://orca.bpn.gov>.

**12. Vets100 Reporting:** The Contractor has completed the annual Internet-Based reporting requirement online at <http://vets100>.

***NOTE: THE CONTRACTOR IS FULLY RESPONSIBLE TO VERIFY THAT ALL DATA IN THE THREE DATABASES IS CORRECT EACH TIME A BID PACKAGE IS SUBMITTED. FAILURE PROPERLY INPUT AND/OR UPDATE YOUR DATA MAY CAUSE THE BID TO BE REJECTED.***

**Bidders Qualification questionnaire regarding the preparation of the bid for time:**

- 1) Does the bid for time include the impact of normal weather conditions on the work of the Contract?
- 2) Does the bid for time include the impact of the terms of the Contract Specifications regarding work restrictions - including all identified delays, suspensions, and shut-downs?
- 3) Does the bid for time include sufficient time to allow that all contract work can be completed within contract time without the imposition of liquidated damages?
- 4) Does the bid for time include time for the review and approval process for all submittals required by the Contract?
- 5) Does the bid for time include time for the review and approval process for required drawings submitted under Subsection 104.03 of the Specifications?
- 6) Does the bid for time include the lead time required for the procurement, manufacture, and delivery of materials that are to be incorporated into the Contract work?
- 7) Does the bid for time include sufficient time to accommodate the fact that the date of Notice to Proceed is conditional upon the Government awarding the contract up to 60 days after the bid opening?
- 8) Does the bid for time include the 14 days after the award of the Contract that the Contractor has to provide Performance and Payment bonds?
- 9) Does the bid for time include sufficient time to accommodate the fact that the Contracting Officer has up to 30 days after receipt of acceptable Performance and Payment bonds to issue the Notice to Proceed?

I hereby certify that the answer to each and every one of the questions listed above is yes.

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**Note: If the questionnaire is not signed the bid shall be found non-responsive and rejected.**

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. Solicitation No. <b>DTFH71-08-B-00028</b>	2. Type of Solicitation <input checked="" type="checkbox"/> Sealed Bid ( <i>IFB</i> ) <input type="checkbox"/> Negotiated ( <i>RFP</i> )	3. Date Issued <b>07/01/08</b>	Page of Pages 1 OF 4
	<b>IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.</b>			

4. Contract No.	5. Requisition/Purchase Request No.	6. Project No. <b>TEA-21 SHIL 502(3)</b>
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7. Issued By: <b>Federal Highway Administration Eastern Federal Lands Highway Division Loudoun Tech Center, Room 105 21400 Ridgetop Circle Sterling, Virginia 20166-6511</b>	CODE: N/A:	8. Address Offer To:  <b>See Block 7</b>
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9. FOR INFORMATION See Blocks 9A & 9B	A. Name: <b>Peggy Schaad</b>	B. Telephone No. (Include area code) (NO COLLECT CALLS) Email All Questions/Inquiries To: <b>eflhd.contracts@fhwa.dot.gov</b>
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See Continuation of SF 1442

**SOLICITATION**

**NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"**

10. The Government requires performance of the work described in these documents (title, identifying no., date): This Invitation for Bids is for the Shiloh National Military Park, located in Hardin County, Tennessee in strict accordance with the Solicitation/Contract instructions, notices, clauses, provisions, \*items listed below, and for the quantities of work actually performed at the unit prices as bid in the Bid Schedule, including all applicable Federal, State, and local taxes.

- \* FP - Standard Specification for Construction of Roads & Bridges on Federal Highway Projects.
- \* Bid Schedule, Section B - pages B-1 through B-17.
- \* Special Contract Requirements, Section J - pages J-1 through J-40.
- \* Plans (Drawings), Sheets 1 through 152.
- \* Geotech Part I, Pages 1 through 274.
- \* Geotech Part II, Pages 1 through 42.

11. The Contractor shall begin performance within **10** calendar days and complete it within    calendar days after receiving  
 Award,  Notice to Proceed. This performance period is  mandatory,  negotiable. (See \*Continuation Sheet)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SEE SUBSECTION 102.06 OF FP.	12B. CALENDAR DAYS Within <b>14</b> calendar days after Notice of Award
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

- a. Offers in original and **0** copies to perform the work required are due at the place specified in Item 8 by **2:00 PM** local time **08/05/08**. If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.
- b. An offer guarantee  is,  is not required.
- c. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
- d. Offers providing less than **60** calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.



# CONTINUATION OF SF 1442

## Block 2:

This project is **UN-RESTRICTED** - Bids will be accepted from **ALL** eligible business concerns.

This procurement is made pursuant to Public Law 100-656 Title VII, which established the Small Business Competitiveness Demonstration Program. This procurement falls under North American Industry Classification System (NAICS) code 237310 - Highway, Street, and Bridge Construction (see FAR Subpart 19.10)

The award of this project is subject to a 10% price evaluation preference for eligible HubZone Small Business Concerns (must be on the SBA listing) (see FAR Clause 52.219-4).

Facsimile and electronic bids will not be accepted.

### PHYSICAL DATA AVAILABLE FOR REVIEW

1. Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition, published by the Federal Highway Administration. <http://mutcd.fhwa.dot.gov>.
2. National Park Service Sign Manual, revised - January 1988, United States Department of the Interior. <http://www.nps.gov/npsigns>.
3. Geotech Reports

## Block 9:

In accordance with FAR Provision 52.236-27, Site Visit, a Government representative can be available to show the project to prospective bidders. **All requests** for site visits see Section E of the solicitation and e-mail all questions concerning this construction project to the following e-mail address [eflhd.contracts@fhwa.dot.gov](mailto:eflhd.contracts@fhwa.dot.gov). Interested parties must provide the Solicitation Number and the relevant project name with all requests and questions.

## \*Block 11:

The maximum time for ***Schedule A, Option 1, Option 2, and Option 3 shall not exceed*** **200 Calendar days**. Option 1, Option 2, and Option 3 must be awarded within 115 calendar days after NTP.

The completion time for the contract will be the time offered by the successful bidder, **not to exceed** the maximum time above.

Notice to Proceed, or date specified in the Notice to Proceed will be issued within 30 days following receipt of acceptable performance and payment bonds.

Work restrictions can be found in SCR Sections 108 and 156

No work will be permitted on weekends, National legal holidays, or the weekday immediately before or after a National legal holiday without prior written approval from the CO. A weekend is defined as beginning at 7 p.m. Friday, and ending at 5 a.m. Monday. Request approval from the CO in writing at least 7 days before any planned weekend or holiday work.

## CONTINUATION OF SF 1442

Minimize construction traffic on Park roads. To the greatest extent possible, use only portland cement concrete roadways, such as Corinth-Pittsburg Landing Road and Hamburg-Purdy Road, to access sites inside Park boundaries. Submit a construction access plan with proposed haul routes to the CO for approval prior to beginning of construction. Do not operate construction vehicles on asphalt or unpaved roads within the Park, except work areas, without prior approval from the CO. Concrete trucks will not be allowed to clean or waste concrete on Government property. No construction activity, including any lane closures, will be permitted during Memorial Day weekend, or the Shiloh National Battlefield Anniversary Weekend, which is held in early April. Hauling will only be permitted from the nearest point of public access to the work site. Minimize hauling over completed pavement. Begin paving operations at the furthest location from the asphalt plant and proceed towards the plant. Limitations of operations for temporary traffic control are specified in Subsection 156.06.

### **Block 12A:**

Furnish performance and payment bonds in accordance with FAR Clause 52.228-15.

### **Block 13:**

A bid guarantee in the amount of not less than 20 percent of the bid price or \$3 million, whichever is less, is required with this bid. If the bidder fails to provide the required bid guarantee, such failure may require rejection of the bid. Reference FAR Provision 52.228-1, Bid Guarantee.

### **Other:**

The estimated price is expected to fall within the price range of **\$2,000, 000 to \$5,000,000**.

The work requires contractor design or construction experience per Sections 562 and 565 of the FP and SCR's.

Responsibility of bidders shall be evaluated in accordance with the information provided on the Bidder's Qualification Form, which can be downloaded from FHWA web site. FP-96 or FP-03 versions can be downloaded at the FHWA web site. FHWA web site is <http://www.efl.fhwa.dot.gov/contracting/Documents.aspx>.

### **Subcontracting Goals**

Required from all other than Small business when the requirement is expected to exceed \$500,000 [FAR 19.702]. The Contracting Officer, along review and advisory comments from the Office of Small Disadvantaged Business Utilization (OSDBU), is responsible for approving a reasonable and realistic plan [FAR 19.705-4] [TAM 1219.201(e)(6)]. The legislated subcontracting goals are as shown below. A copy of each subcontracting plan (or contractor statement that no subcontracts are to be awarded) must be provided to OSDBU prior to close of negotiations [TAM 1219.705-5 and - 6].

Legislated subcontracting goals: (15 USC 644 (g)(1))

- 5% Small Disadvantaged Businesses (SDB)
- 5% Small Woman Owned Business Entities (SWBE)
- 3% Service-Disabled Veteran-Owned Small Businesses (SDVOSB)

## **BID SCHEDULE INSTRUCTIONS**

**PROJECT:** TEA-21 SHIL 502(3)

**BIDDERS PLEASE NOTE:** Before preparing the bid, carefully read the Instructions to Bidders. While preparing the bid, comply with the following:

### COMPLETING THE BID SCHEDULE

Complete the Bid Schedule(s) by handwriting in ink or typing. Specify a Unit Bid Price, in figures with cents to only two decimal places, for each pay item in the Unit Bid Price column for which a quantity is given. Do not enter or tender a Unit Bid Price for any pay item for which no estimated quantity appears in the Bid Schedule. Determine the products of the respective unit prices and quantities, and show them, in figures, in the Amount Bid column. If a Unit Bid Price and Amount Bid have been inserted by the Government for a pay item, do not change the Unit Bid Price and Amount Bid for the pay item. Determine the Bid Total by adding the amounts of the several items, as shown in the block provided on **Page B-5 for Schedule A, Page B-8 for Schedule B, Page B-12 for Schedule C, and Page B-16 for Schedule D**. In case of multiplication errors, the Amount Bid for the item will be based on the Unit Bid Price.

To be eligible for award, bidders must submit prices for each pay item.

Review Subsection 109.05 of the FP regarding scope of payment for direct and indirect payment work.

### SCHEDULES OF WORK

The Bid Schedule is comprised of the following separate schedules and options of work:

- Schedule A (Base Contract)** – **Rehabilitation of roadways and bridge replacement at Tilghman Branch. Construction includes intersection improvement, drainage, topsoil, turf establishment, and other miscellaneous work at Sherman/Cavalry Road, Wolf Field Road, and McClernand Road.**
- Schedule B (Government Option 1)** – **Rehabilitation of roadways at Tent Hospital Road. Construction includes obliteration of existing asphalt pavement, drainage, and other miscellaneous work.**
- Schedule C (Government Option 2)** – **Rehabilitation of Roadways at Pittsburg Landing Road. Construction includes drainage, riprap/lawn interface, and other miscellaneous work.**

**Schedule D (Government Option 3) – Rehabilitation of roadways at Hamburg Savannah Road. Construction includes obliteration of existing asphalt pavement, drainage, and other miscellaneous work.**

The purpose of the multiple schedules and options is to give the Government maximum flexibility in completing the project in a timely manner and at a cost-effective price, by proper utilization of available funds and upon receipt of all required funding. If complete funding is in place at the time of award of Schedule A, the Government may award Schedule B (Government Option 1), Schedule C (Government Option 2), and Schedule D (Government Option 3) or any combinations at that time. If Schedule B (Government Option 1), Schedule C (Government Option 2), and Schedule D (Government Option 3) funding is received after award of Schedule A, the Government has the right to exercise Schedule B (Government Option 1), Schedule C (Government Option 2), Schedule D (Government Option 3) at the unit prices bid, no later than 115 calendar days from the Notice To Proceed.

**BIDDING OF CALENDAR DAYS**

For Schedule A + Schedule B (Government Option 1) + Schedule C (Government Option 2) + Schedule D (Government Option 3), determine the number of calendar days necessary to complete the work from Notice To Proceed to contract completion (it is assumed that Government Option 1, Government Option 2, and Government Option 3 will be constructed concurrently with Schedule A, therefore providing the number of calendar days necessary to complete Government Option 1, Government Option 2, and Government Option 3 is not required). **Specify the number of calendar days (NOT to exceed the maximum number of calendar days shown in Block 11 of the SF-1442)** in the space provided on the Bid Summary Page. Failure to specify a number of calendar days for contract completion indicates the bidder accepts the maximum contract time provided in Block 11 of the SF-1442.

In developing a construction schedule to determine the number of calendar days included in their bid, bidders should include the work limitations shown in the Special Contract Requirements (SCR's). Specific work limitations may be (but are not limited to): holidays, weekends; rush hours; night work; no work periods; work or traffic control phasing. Bidders are advised to consider those work items that are weather sensitive and when those work items will be performed. Specific work items are (but not limited to): those that require a minimum ambient air temperature (asphalt paving and surface treatment, pavement striping, stone masonry); those that require maintaining a minimum surface temperature (concrete pavement, structural concrete, painting); and those that have specific planting seasons (turf establishment, sod, trees and plants). Bidders are also advised to consider time required for preparing material and drawing submittals, and the allowable Government review times for those submittals (Subsection 104.03 of the FP and SCR's). The total calendar days bid should also include any work limitations and any delay days or contractor winter shutdowns required due to weather sensitive work items.

When evaluating the bids, the Government will consider the Contract Administrative Cost for the project to be \$2,200 per calendar day bid. The Contract Administrative Cost is only used to determine the Evaluation Total Price of Project.

Add the **Bid Total(s)** and the **Contract Administrative Cost(s)** for each schedule of work as directed on the **Bid Summary** page(s). Show the **Evaluation Total Price of Project** in the space provided on the **Bid Summary** page.

BASIS FOR AWARD

The contract will be awarded to the responsive, responsible bidder with the lowest **Evaluation Total Price of Project**, which is defined as:

**Bid Total of Schedule A + Bid Total of Government Option 1 + Bid Total of Government Option 2 + Bid Total of Government Option 3 + Contract Administrative Cost of Schedule A.**

**The number of calendar days specified by the successful bidder for the completion of the elected combination will become the performance period for the contract.**

**NOTE: Contract Administration Cost is used for evaluation and ranking purposes only.**

## Bid Schedule

Project: TEA-21 SHIL 502(3)  
SHILOH NATIONAL MILITARY PARK - SHERMAN / CAVALRY, WOOLF

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 5,270 m	\$ _____	\$ _____
15705-0400	Soil erosion control, earth berms 150 m	\$ _____	\$ _____
15705-1800	Soil erosion control, temporary diversion berm 60 m	\$ _____	\$ _____
15706-0200	Soil erosion control, check dam 21 Each	\$ _____	\$ _____
20101-0000	Clearing and grubbing 1.7 ha	\$ _____	\$ _____
20301-1200	Removal of headwall 2 Each	\$ _____	\$ _____
20301-2400	Removal of sign 3 Each	\$ _____	\$ _____
20302-2100	Removal of pipe culvert 70 m	\$ _____	\$ _____

Bid Schedule A

Project: TEA-21 SHIL 502(3)  
SHILOH NATIONAL MILITARY PARK - SHERMAN / CAVALRY, WOOLF

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20401-0000	Roadway excavation 1,700 m3	\$ _____	\$ _____
20402-0000	Subexcavation 280 m3	\$ _____	\$ _____
20403-0000	Unclassified borrow 2,950 m3	\$ _____	\$ _____
20410-0000	Select borrow (subexcavation areas) 280 m3	\$ _____	\$ _____
20701-1200	Earthwork geotextile, type IV-A 1,960 m2	\$ _____	\$ _____
20801-0000	Structure excavation 440 m3	\$ _____	\$ _____
20802-0000	Foundation fill 45 m3	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 1,700 m2	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 3 m3	\$ _____	\$ _____
25101-3000	Placed riprap, class 3 170 m3	\$ _____	\$ _____
30101-4000	Aggregate base grading C or D 6,770 t	\$ _____	\$ _____
30502-0700	Aggregate-topsoil course, 100mm depth 2,950 m2	\$ _____	\$ _____

Bid Schedule A

Project: TEA-21 SHIL 502(3)

SHILOH NATIONAL MILITARY PARK - SHERMAN / CAVALRY, WOOLF

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL , type III roughness (surface course) 1,200 t	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL (Base Course) 1,200 t	\$ _____	\$ _____
55201-0200	Structural concrete, class A (AE) (for structure) 65 m3	\$ _____	\$ _____
55201-0200	Structural concrete, class A (AE) (for footings) 50 m3	\$ _____	\$ _____
55201-0800	Structural concrete, class D (AE) (for bridge deck overlay) 5 m3	\$ _____	\$ _____
55202-1000	Structural concrete, class D (AE), for approach slabs, type 1 70 m2	\$ _____	\$ _____
55302-0400	Precast, prestressed concrete slabs, 36" voided 115 m	\$ _____	\$ _____
55401-1000	Reinforcing steel 5,659 kg	\$ _____	\$ _____
55401-2000	Reinforcing steel, epoxy coated 875 kg	\$ _____	\$ _____
55601-0700	Bridge railing, concrete, Natchez Trace Rail 38 m	\$ _____	\$ _____
56401-1000	Bearing device, elastomeric 16 Each	\$ _____	\$ _____
56501-0000	Drilled shafts , for 610 mm Diameter 275 m	\$ _____	\$ _____

Bid Schedule A

Project: TEA-21 SHIL 502(3)

SHILOH NATIONAL MILITARY PARK - SHERMAN / CAVALRY, WOOLF

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60201-0600	450mm pipe culvert 80 m	\$ _____	\$ _____
60504-0000	Geocomposite sheet drain system 96 m2	\$ _____	\$ _____
60801-0500	Paved waterway, type 5 330 m2	\$ _____	\$ _____
62011-0300	Stone masonry headwall for 450mm pipe culvert 12 Each	\$ _____	\$ _____
62401-0300	Furnishing and placing topsoil, 100mm depth 12,970 m2	\$ _____	\$ _____
62501-0000	Turf establishment 1.9 ha	\$ _____	\$ _____
62901-0500	Rolled erosion control product, type 2.A 2,155 m2	\$ _____	\$ _____
63304-0900	Signs, aluminum panels, type 3 sheeting 2 m2	\$ _____	\$ _____
63316-1000	Remove and reset sign 4 Each	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 8 Each	\$ _____	\$ _____
63503-0900	Temporary traffic control, snow fence 100 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 5 m2	\$ _____	\$ _____

Bid Schedule A

Project: TEA-21 SHIL 502(3)

SHILOH NATIONAL MILITARY PARK - SHERMAN / CAVALRY, WOOLF

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63701-0000	Field office 1 Each	\$ _____	\$ _____

**TOTAL**     \$ \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Name of Bidder

## Bid Schedule

Project: TEA-21 SHIL 502(3) - OPTION 1  
SHILOH NATIONAL MILITARY PARK - TENT HOSPITAL ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 610 m	\$ _____	\$ _____
15706-0200	Soil erosion control, check dam 6 Each	\$ _____	\$ _____
20101-0000	Clearing and grubbing 0.3 ha	\$ _____	\$ _____
20301-1100	Removal of gate 1 Each	\$ _____	\$ _____
20301-2400	Removal of sign 2 Each	\$ _____	\$ _____
20303-1600	Removal of pavement, asphalt 730 m2	\$ _____	\$ _____
20401-0000	Roadway excavation 620 m3	\$ _____	\$ _____
20402-0000	Subexcavation 50 m3	\$ _____	\$ _____

## Bid Schedule B

Project: TEA-21 SHIL 502(3) - OPTION 1  
SHILOH NATIONAL MILITARY PARK - TENT HOSPITAL ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20410-0000	Select borrow 50 m3	\$ _____	\$ _____
20701-1200	Earthwork geotextile, type IV-A 340 m2	\$ _____	\$ _____
20802-0000	Foundation fill 15 m3	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 250 m2	\$ _____	\$ _____
30101-4000	Aggregate base grading C or D 1,190 t	\$ _____	\$ _____
30502-0700	Aggregate-topsoil course, 100mm depth 450 m2	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL , type III roughness (surface course) 215 t	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL (base course) 215 t	\$ _____	\$ _____
60201-0600	450mm pipe culvert 30 m	\$ _____	\$ _____
60403-1200	Inlet, type 5A 2 Each	\$ _____	\$ _____
62011-0300	Stone masonry headwall for 450mm pipe culvert 2 Each	\$ _____	\$ _____
62401-0300	Furnishing and placing topsoil, 100mm depth 1,600 m2	\$ _____	\$ _____

## Bid Schedule B

Project: TEA-21 SHIL 502(3) - OPTION 1

SHILOH NATIONAL MILITARY PARK - TENT HOSPITAL ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62501-0000	Turf establishment 0.3 ha	\$ _____	\$ _____
62901-0500	Rolled erosion control product, type 2.A 210 m2	\$ _____	\$ _____
63304-0900	Signs, aluminum panels, type 3 sheeting 1 m2	\$ _____	\$ _____
63316-1000	Remove and reset sign 2 Each	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 2 Each	\$ _____	\$ _____
63503-0900	Temporary traffic control, snow fence 50 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 4 m2	\$ _____	\$ _____

**TOTAL** \$ \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Name of Bidder

## Bid Schedule

Project: TEA-21 SHIL 502(3) - OPTION 2  
 SHILOH NATIONAL MILITARY PARK - PITTSBURG LANDING ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 190 m	\$ _____	\$ _____
20101-0000	Clearing and grubbing 0.2 ha	\$ _____	\$ _____
20301-1400	Removal of inlet 1 Each	\$ _____	\$ _____
20302-0500	Removal of curb, concrete 35 m	\$ _____	\$ _____
20302-2100	Removal of pipe culvert 10 m	\$ _____	\$ _____
20303-1400	Removal of paved waterway, concrete 60 m2	\$ _____	\$ _____
20303-1600	Removal of pavement, asphalt 750 m2	\$ _____	\$ _____
20303-3200	Removal of sidewalk, concrete 130 m2	\$ _____	\$ _____

## Bid Schedule C

Project: TEA-21 SHIL 502(3) - OPTION 2  
 SHILOH NATIONAL MILITARY PARK - PITTSBURG LANDING ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20304-1000	Removal of structures and obstructions ALL	Lump Sum	\$ _____
20401-0000	Roadway excavation 120 m3	\$ _____	\$ _____
20403-0000	Unclassified borrow 820 m3	\$ _____	\$ _____
20420-0000	Embankment construction (Interface) 530 m3	\$ _____	\$ _____
20701-0200	Earthwork geotextile, type I-B (Interface) 1,350 m2	\$ _____	\$ _____
20802-0000	Foundation fill 2 m3	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 2 m3	\$ _____	\$ _____
25101-4000	Placed riprap, class 4 230 m3	\$ _____	\$ _____
30101-0000	Aggregate base (grading A or B, and No. 78 stone) Interface 50 t	\$ _____	\$ _____
30101-0000	Aggregate base (grading A & B) Interface 200 t	\$ _____	\$ _____
30101-4000	Aggregate base grading C or D 530 t	\$ _____	\$ _____
30502-0000	Aggregate-topsoil course (variable depth) 340 m2	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL , type VII smoothness (surface course)		

Bid Schedule C

Project: TEA-21 SHIL 502(3) - OPTION 2

SHILOH NATIONAL MILITARY PARK - PITTSBURG LANDING ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
	240 t	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL (base course) 240 t	\$ _____	\$ _____
40102-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL, wedge and leveling course 20 t	\$ _____	\$ _____
41410-1000	Crack, cleaning and sealing 75 m	\$ _____	\$ _____
60201-0600	450mm pipe culvert 4 m	\$ _____	\$ _____
60403-1700	Inlet, type 6A 1 Each	\$ _____	\$ _____
60902-1100	Curb and gutter, concrete, 325mm depth 180 m	\$ _____	\$ _____
61501-0100	Sidewalk, concrete 115 m2	\$ _____	\$ _____
62011-0300	Stone masonry headwall for 450mm pipe culvert 2 Each	\$ _____	\$ _____
62401-0200	Furnishing and placing topsoil, 75mm depth (Interface) 1,450 m2	\$ _____	\$ _____
62401-0300	Furnishing and placing topsoil, 100mm depth 980 m2	\$ _____	\$ _____
62501-0000	Turf establishment 0.3 ha	\$ _____	\$ _____

Bid Schedule C

Project: TEA-21 SHIL 502(3) - OPTION 2

SHILOH NATIONAL MILITARY PARK - PITTSBURG LANDING ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62901-0500	Rolled erosion control product, type 2.A 135 m2	\$ _____	\$ _____
63304-0900	Signs, aluminum panels, type 3 sheeting 1 m2	\$ _____	\$ _____
63401-0300	Pavement markings, type B, solid 25 m	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 2 Each	\$ _____	\$ _____

**TOTAL** \$ \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Name of Bidder

## Bid Schedule

Project: TEA-21 SHIL 502(3) - OPTION 3  
SHILOH NATIONAL MILITARY PARK - HAMBURG-SAVANNAH ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 1,230 m	\$ _____	\$ _____
15706-0200	Soil erosion control, check dam 4 Each	\$ _____	\$ _____
20101-0000	Clearing and grubbing 0.1 ha	\$ _____	\$ _____
20301-1200	Removal of headwall 4 Each	\$ _____	\$ _____
20301-1400	Removal of inlet 2 Each	\$ _____	\$ _____
20301-2400	Removal of sign 7 Each	\$ _____	\$ _____
20302-2100	Removal of pipe culvert 36 m	\$ _____	\$ _____
20303-1400	Removal of paved waterway, concrete 7 m2	\$ _____	\$ _____

## Bid Schedule D

Project: TEA-21 SHIL 502(3) - OPTION 3  
SHILOH NATIONAL MILITARY PARK - HAMBURG-SAVANNAH ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20303-1600	Removal of pavement, asphalt 4,210 m2	\$ _____	\$ _____
20401-0000	Roadway excavation 740 m3	\$ _____	\$ _____
20402-0000	Subexcavation 100 m3	\$ _____	\$ _____
20410-0000	Select borrow 110 m3	\$ _____	\$ _____
20701-1200	Earthwork geotextile, type IV-A 710 m2	\$ _____	\$ _____
20802-0000	Foundation fill 10 m3	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 1,240 m2	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 5 m3	\$ _____	\$ _____
30101-4000	Aggregate base grading C or D 1,960 t	\$ _____	\$ _____
30302-1000	Ditch reconditioning 5 m	\$ _____	\$ _____
30502-0000	Aggregate-topsoil course (variable depth) 3,250 m2	\$ _____	\$ _____
30502-0700	Aggregate-topsoil course, 100mm depth 940 m2	\$ _____	\$ _____

## Bid Schedule D

Project: TEA-21 SHIL 502(3) - OPTION 3

SHILOH NATIONAL MILITARY PARK - HAMBURG-SAVANNAH ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL , type VI roughness (surface course) 2,400 t	\$ _____	\$ _____
40101-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL (base course) 520 t	\$ _____	\$ _____
40102-0500	Superpave pavement, 12.5mm nominal maximum size aggregate, <0.3 million ESAL, wedge and leveling course 210 t	\$ _____	\$ _____
41410-1000	Crack, cleaning and sealing 75 m	\$ _____	\$ _____
41501-0000	Paving geotextile 320 m2	\$ _____	\$ _____
60201-0600	450mm pipe culvert 20 m	\$ _____	\$ _____
60705-0000	Reconditioning drainage structure 1 Each	\$ _____	\$ _____
60801-0400	Paved waterway, type 4 7 m2	\$ _____	\$ _____
60901-1700	Curb, concrete, 450mm depth 70 m	\$ _____	\$ _____
61501-0100	Sidewalk, concrete 100 m2	\$ _____	\$ _____
62011-0300	Stone masonry headwall for 450mm pipe culvert 2 Each	\$ _____	\$ _____

Bid Schedule D

Project: TEA-21 SHIL 502(3) - OPTION 3

SHILOH NATIONAL MILITARY PARK - HAMBURG-SAVANNAH ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62401-0300	Furnishing and placing topsoil, 100mm depth 1,190 m2	\$ _____	\$ _____
62501-0000	Turf establishment 0.6 ha	\$ _____	\$ _____
62901-0500	Rolled erosion control product, type 2.A 520 m2	\$ _____	\$ _____
63304-0900	Signs, aluminum panels, type 3 sheeting 3 m2	\$ _____	\$ _____
63502-0700	Temporary traffic control, cone 70 Each	\$ _____	\$ _____
63502-1300	Temporary traffic control, drum 40 Each	\$ _____	\$ _____
63503-0900	Temporary traffic control, snow fence 100 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 15 m2	\$ _____	\$ _____
63506-0500	Temporary traffic control, flagger 470 Hour	\$12.20	\$5,734.00

**TOTAL** \$ \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Name of Bidder

**BID SUMMARY**

Project TEA-21 SHIL 502(3)  
(Complete for Pages B-1 through B-16)

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**(1) Schedule A Bid Total (from Page B-5)** \$ \_\_\_\_\_

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**(2) Schedule B (Government Option 1) Bid Total (from Page B-8)** \$ \_\_\_\_\_

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**(3) Schedule C (Government Option 2) Bid Total (from Page B-12)** \$ \_\_\_\_\_

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**(4) Schedule D (Government Option 3) Bid Total (from Page B-16)** \$ \_\_\_\_\_

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**(5) Contract Administrative Cost for Schedule A**

Number of calendar days necessary to complete all Schedule A work from Notice to Proceed (or date specified in the Notice to Proceed) to construction completion. Government Option 1, Government Option 2, and Government Option 3 are considered to be constructed concurrently with Schedule A.

\_\_\_\_\_ calendar days x \$2,200 per calendar day = \$ \_\_\_\_\_

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**Total Price of Project (evaluation purposes only)**

(1) Bid Total for Schedule A \$ \_\_\_\_\_  
+ (2) Bid Total for Schedule B (Government Option 1) \$ \_\_\_\_\_  
+ (3) Bid Total for Schedule C (Government Option 2) \$ \_\_\_\_\_  
+ (4) Bid Total for Schedule D (Government Option 3) \$ \_\_\_\_\_  
+ (5) Contract Administrative Cost for Schedule A \$ \_\_\_\_\_

= **EVALUATION TOTAL PRICE OF PROJECT** \$ \_\_\_\_\_

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Does the Bidder claim the Price Evaluation Preference for HUBZone Small Business Concerns as defined in FAR Clause 52.219-4?

Yes

No

<b>BID BOND</b> <i>(See instruction on reverse)</i>	DATE BOND EXECUTED <i>(Must not be later than bid opening date)</i>	OMB NO.: 9000-0045
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Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (MVR), Federal Acquisition Policy Division, GSA, Washington, DC 20405.

PRINCIPAL <i>(Legal name and business address)</i>	TYPE OF ORGANIZATION <i>("X" one)</i> <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION STATE OF INCORPORATION
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SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND					BID IDENTIFICATION	
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS		
					FOR <i>(Construction, Supplies, or Services)</i>	

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL				
SIGNATURE(S)	1.	2.	3.	<i>Corporate Seal</i>
	<i>(Seal)</i>	<i>(Seal)</i>	<i>(Seal)</i>	
NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.	3.	

INDIVIDUAL SURETY(IES)		
SIGNATURE(S)	1.	2.
	<i>(Seal)</i>	<i>(Seal)</i>
NAME(S) <i>(Typed)</i>	1.	2.

CORPORATE SURETY(IES)			
<b>SURETY A</b>	NAME & ADDRESS	STATE OF INC.	LIABILITY LIMIT (\$)
	SIGNATURE(S)	1.	2.
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.

*Corporate Seal*

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		

## INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.
2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., (e.g., 20% of the bid price but the amount not to exceed \_\_\_\_\_ dollars).
4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. Where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designed "SURETY(IES)" on the face of the form, insert only the letter identification of the sureties.  
  
(b) Where individual sureties are involved, a completed Affidavit of Individual surety (Standard Form 28), for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.
6. Type the name and title of each person signing this bond in the space provided.
7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

# CONTRACT CLAUSES INDEX

## FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)

(Updated thru FAC 2005-26 on 06/12/2008)

### 52.252-2 Clauses Incorporated By Reference (Feb 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: [www.arnet.gov/far/](http://www.arnet.gov/far/)

(End of Clause)

### FAR & TAR CLAUSES INCORPORATED BY REFERENCE

CLAUSE	TITLE	DATE	REMARKS
52.202-01	DEFINITIONS	Jul-04	
52.203-03	GRATUITIES	Apr-84	
52.203-05	COVENANT AGAINST CONTINGENT FEES	Apr-84	
52.203-07	ANTI-KICKBACK PROCEDURES	Jul-95	
52.203-8	CANCEL. & RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	Jan-97	
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	Jan-97	
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	Sep-07	
52.204-04	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	Aug-00	
<b>52.204-07</b>	<b>CENTRAL CONTRACTOR REGISTRATION</b>	Aug-08	Contractor Mandatory Internet Data Input
52.209-06	PROTECTING GOV. INTEREST WHEN SUBCONTRACTING W/ CONT. DEB. SUSP. OR PROP. FOR DEB.	Sep-06	
52.214-26	AUDIT AND RECORDS--SEALED BIDDING	Oct-97	
52.214-27	PRICE REDUCTION FOR DEFECT. COST OR PRICING DATA-MODIFICATIONS -SEALED BIDDING	Oct-97	
52.214-28	SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS--SEALED BIDDING	Oct-97	
52.219-08	UTILIZATION OF SMALL BUSINESS CONCERNS	May-04	
52.219-09 ALT 1	SMALL BUSINESS SUBCONTRACTING PLAN (ALT 1 - (Oct 01))	Apr-08	Large Business Mandatory Submittal Requirement
52.219-14	LIMITATIONS ON SUBCONTRACTING	Dec-96	
52.219-16	LIQUIDATED DAMAGES - SUBCONTRACTING PLAN	Jan-99	
52.222-03	CONVICT LABOR	Jun-03	
52.222-04	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT--OVERTIME COMPENSATION	Jul-05	
52.222-06	DAVIS-BACON ACT	Jul-05	Contractor Mandatory Wage Rates Posting
52.222-07	WITHHOLDING OF FUNDS	Feb-88	
52.222-08	PAYROLLS AND BASIC RECORDS	Feb-88	Contractor Weekly Payroll Submittals
52.222-09	APPRENTICES AND TRAINEES	Jul-05	
52.222-10	COMPLIANCE WITH COPELAND ACT REQUIREMENTS	Feb-88	
52.222-11	SUBCONTRACTS (LABOR STANDARDS)	Jul-05	
52.222-12	CONTRACT TERMINATION--DEBARMENT	Feb-88	
52.222-13	COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS	Feb-88	
52.222-14	DISPUTES CONCERNING LABOR STANDARDS	Feb-88	
52.222-15	CERTIFICATION OF ELIGIBILITY	Feb-88	
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	Feb-99	
52.222-26	EQUAL OPPORTUNITY	Mar-07	
52.222-27	AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION	Feb-99	
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, & OTHER ELIGIBLE VETERANS.	Sep-06	

# CONTRACT CLAUSES INDEX

## FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)

(Updated thru FAC 2005-26 on 06/12/2008)

### FAR & TAR CLAUSES INCORPORATED BY REFERENCE

CLAUSE	TITLE	DATE	REMARKS
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	Jun-98	
52.222-37	EMPLOYMENT. REPORTS ON SPECIAL DISABLED VETS, VETS OF THE VIETNAM ERA, ETAL.	Sep-06	Contractor Annual Mandatory Reporting Requirement
52.222-39	NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING PAYMENT OF UNION DUES OR FEES	Dec-04	Contractor Mandatory Postings
52.223-05	POLLUTION PREVENTION AND RIGHT TO KNOW INFORMATION	Aug-03	
52.223-06	DRUG-FREE WORKPLACE	May-01	
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	Aug-03	Contractor Annual Contractor Reporting Requirement
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	Jun-08	
52.227-01	AUTHORIZATION AND CONSENT	Dec-07	
52.227-02	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	Dec-07	
52.227-04	PATENT INDEMNITY-CONSTRUCTION CONTRACTS	Dec-07	
52.228-02	ADDITIONAL BOND SECURITY	Oct-97	
52.228-5	INSURANCE - WORK ON A GOVERNMENT INSTALLATION	Jan-97	Contractor Submittal Requirement
52.228-11	PLEDGES OF ASSETS	Feb-92	
52.228-12	PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS	Oct-95	
52.228-14	IRREVOCABLE LETTER OF CREDIT	Dec-99	
52.228-15	PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION	Nov-06	Contractor Submittal Requirement
52.229-03	FEDERAL, STATE, AND LOCAL TAXES	Apr-03	
52.232-05	PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS	Sep-02	Contractor Submittal Requirement
52.232-17	INTEREST	Jun-96	
52.232-23	ASSIGNMENT OF CLAIMS	Jan-86	
52.232-27	PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS	Sep-05	
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION	Oct-03	
52.233-01 ALT I	DISPUTES (Alt-I, Dec-91)	Jul-02	
52.233-03	PROTEST AFTER AWARD	Aug-96	
52.233-04	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	Oct-04	
52.236-02	DIFFERING SITE CONDITIONS	Apr-84	
52.236-03	SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK	Apr-84	
52.236-05	MATERIAL AND WORKMANSHIP	Apr-84	
52.236-06	SUPERINTENDENCE BY THE CONTRACTOR	Apr-84	
52.236-07	PERMITS AND RESPONSIBILITIES	Nov-91	
52.236-08	OTHER CONTRACTS	Apr-84	
52.236-09	PROTECTION OF EXIST. VEGETATION., STRUCTURES., EQUIPMENT., UTILITIES, & IMPROVEMENTS	Apr-84	
52.236-10	OPERATIONS AND STORAGE AREAS	Apr-84	
52.236-11	USE AND POSSESSION PRIOR TO COMPLETION	Apr-84	
52.236-12	CLEANING UP	Apr-84	
52.236-13	ACCIDENT PREVENTION	Nov-91	

**CONTRACT CLAUSES INDEX**  
**FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)**  
**(Updated thru FAC 2005-26 on 06/12/2008)**

**FAR & TAR CLAUSES INCORPORATED BY REFERENCE**

CLAUSE	TITLE	DATE	REMARKS
52.236-15	SCHEDULES FOR CONSTRUCTION CONTRACTS	Apr-84	Contractor Submittal Requirement
52.236-17	LAYOUT OF WORK	Apr-84	
52.236-21	SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION	Feb-97	
52.236-26	PRECONSTRUCTION CONFERENCE	Feb-95	
52.242-13	BANKRUPTCY	Jul-95	
52.242-14	SUSPENSION OF WORK	Apr-84	
52.243-04	CHANGES	Jun-07	
52.244-06	SUBCONTRACTS FOR COMMERCIAL ITEMS	Mar-07	
52.245-02	GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)	Jun -07	
52.246-12	INSPECTION OF CONSTRUCTION	Aug-96	
52.248-03 ALT I	VALUE ENGINEERING-CONSTRUCTION (Alt-I, Apr-84)	Sep-06	
52.249-01	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE)(SHORT FORM)	Apr-84	
52.249-02 ALT I	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE) (Alt-I, Sep-96)	May-04	
52.249-10	DEFAULT (FIXED PRICE CONSTRUCTION)	Apr-84	
52.253-01	COMPUTER GENERATED FORMS	Jan-91	

**TAR CLAUSES INCORPORATED BY REFERENCE**

CLAUSE	TITLE	DATE	REMARKS
1252.211-70	INDEX FOR SPECIFICATIONS	Apr-05	
1252.242-73	CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE	Oct-94	

**FAR & TAR PROVISIONS INCORPORATED BY REFERENCE**

PROVISION	TITLE	DATE	REMARKS
52.217-03	EVALUATION EXCLUSIVE OF OPTION	Apr-84	
52.217-04	EVALUATION OF OPTIONS EXERCISED AT TIME OF CONTRACT AWARD	Jun-88	
52.217-05	EVALUATION OF OPTIONS	Jul-90	

# CONTRACT CLAUSES INDEX

## FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)

(Updated thru FAC 2005-26 on 06/12/2008)

### FAR & TAR CLAUSES INCORPORATED BY FULL TEXT

CLAUSE	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
52.211-10	COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK	Apr-84	H	CONSTR. CONTRACT REQS.	Government Fill In
52.211-12	LIQUIDATED DAMAGES-CONSTRUCTION	Sep-00	H	CONSTR. CONTRACT REQS.	Government Fill In
52.211-18	VARIATION IN ESTIMATED QUANTITY	Apr-84	H	CONSTR. CONTRACT REQS.	
52.219-4	NOTICE OF PRICE EVALUATION. PREFERENCE FOR HUBZONE SB CONCERNS	Jul-05	F	SOCIOECON PROG REQS	Contractor Fill-In
52.222-23	NOTICE OF REQ. FOR AFFIRMATIVE ACTION TO ENSURE E.E.O.	Feb-99	F	SOCIOECON PROG REQS	Contractor Reporting Requirements
52.223-03 ALT I	HAZARDOUS MAT. IDENT. & MATERIAL SAFETY DATA (Alt-I, Jul-95)	Jan-97	G	GEN'L CONTRACT REQS.	Contractor Submittal Requirements
52.223-09	EST. OF % OF REC. MAT. CONTENT FOR EPA DESIGN. PRODUCTS	May 08	G	GEN'L CONTRACT REQS	Contractor Reporting Requirement
52.225-09	BUY AMERICAN ACT-CONSTRUCTION MATERIALS	Jan 05	F	SOCIOECON PROG REQS	Government & Contractor Fill In's
52-236-01	PERFORMANCE OF WORK BY THE CONTRACTOR	Apr -84	H	CONSTR. CONTRACT REQS	Government Fill In
52.236-04	PHYSICAL DATA	Apr-84	H	CONSTR. CONTRACT REQS.	Government Fill In

### TAR CLAUSES INCORPORATED BY FULL TEXT

CLAUSE	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
FAR PT 22.9	NONDISCRIMINATION BECAUSE OF AGE POLICY	Feb-64	F	SOCIOECON PROG REQS	Policy Statement - Not A Clause

(End of Clauses Index)

**CONTRACT PROVISIONS INDEX**  
**FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)**  
**(Updated thru FAC 2005-26 on 06/12/2008)**

**52.252-1 Solicitation Provisions Incorporated by Reference**  
**(Feb 1998)**

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address: [www.arnet.gov/far/](http://www.arnet.gov/far/)

(End of Clause)

**FAR & TAR PROVISIONS INCORPORATED BY REFERENCE**

PROVISION	TITLE	DATE	REMARKS
52.211-06	BRAND NAME OR EQUAL	Aug-99	
52.214-03	AMENDMENTS TO INVITATIONS FOR BIDS	Dec-89	
52.214-04	FALSE STATEMENTS IN BIDS	Apr-84	
52.214-05	SUBMISSION OF BIDS	Mar-97	
52.214-06	EXPLANATION TO PROSPECTIVE BIDDERS	Apr-84	
52.214-07	LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS	Nov-99	
52.214-18	PREPARATION OF BIDS--CONSTRUCTION	Apr-84	
52.214-19	CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION	Aug-96	
52.225-10	NOTICE OF BUY AMERICAN ACT REQUIREMENT - CONSTRUCTION MATERIAL.	May-02	

**TAR PROVISIONS INCORPORATED BY REFERENCE**

PROVISION	TITLE	DATE	REMARKS
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**CONTRACT PROVISIONS INDEX**  
**FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)**  
**(Updated thru FAC 2005-26 on 06/12/2008)**

<b>FAR PROVISIONS INCORPORATED BY FULL TEXT</b>					
<b>PROVISION</b>	<b>TITLE</b>	<b>DATE</b>	<b>SECTION</b>	<b>SECTION TYPE</b>	<b>REMARKS</b>
52.204-08	<b>ANNUAL REPRESENTATIONS AND CERTIFICATIONS</b>	Jan 06	D	REPS. & CERTIFICATIONS	Mandatory Contractor On-Line Input
52.211-04	AVAILABILITY FOR EXAM. OF SPECS NOT LISTED IN GSA INDEX OF FED SPECS/STANDARDS & COM. ITEM DESCRIPTION	Jun-88	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.216-01	TYPE OF CONTRACT	Apr-84	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.228-01	BID GUARANTEE	Sep-96	E	INSTRUCTIONS TO BIDDERS	Contractor Submittal Requirement
52.233-02	SERVICE OF PROTEST	Aug-96	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.236-27	SITE VISIT (CONSTRUCTION)	Feb-95	E	CONSTR. CONTRACT REQS.	Government Fill In.
<b>OTHER PROVISIONS INCORPORATED BY FULL TEXT</b>					
<b>PROVISION</b>	<b>TITLE</b>	<b>DATE</b>	<b>SECTION</b>	<b>SECTION TYPE</b>	<b>REMARKS</b>
NONE					

(End of Provisions Index)

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION PROVISIONS

## REPRESENTATIONS AND CERTIFICATIONS

**Annual Representations and Certifications.** Prospective contractors shall complete electronic annual representations and certifications on-line at this web address: <http://orca.bpn.gov> (See FAR 4.1201) in conjunction with required registration in the Central Contractor Registration (CCR) database (see FAR 4.1102).

**Vets100 Form** must also be filled-in online at <http://vets100.cudenver.edu/> in accordance with FAR Clause 52.222-37.

*Contractors are **not eligible** for award without completing these requirements.*

and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

**Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.**

(End of Provision)

(End of Section D)

### 52.204-8

#### Annual Representations and Certifications (Jan 2005)

(a)

(1) If the **clause at 52.204-7**, Central Contractor Registration **is included** in this solicitation, **paragraph (b) of this provision applies.**

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

**(i) Paragraph (b) applies.**

(ii) Paragraph (b) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(b) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below **[offeror to insert changes, identifying change by clause number, title, date]**. These amended representation(s) and/or certification(s) are also incorporated in this offer

# FEDERAL ACQUISITION REGULATION & TRANSPORTATION ACQUISITION REGULATION PROVISIONS

## INSTRUCTIONS TO BIDDERS

### 52.211-4

#### AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (JUN 1988)

The specifications cited in this solicitation are not available for distribution. However, they may be examined at the following location(s):

FEDERAL HIGHWAY ADMINISTRATION  
EASTERN FEDERAL LANDS HIGHWAY DIVISION  
21400 RIDGETOP CIRCLE  
STERLING, VIRGINIA 20166-6511

Send an email to the following address to make an  
appointment: [eflhd.contracts@fhwa.dot.gov](mailto:eflhd.contracts@fhwa.dot.gov)

TIME(S) FOR VIEWING: 8 A.M. TO 4 P.M.

All documents are available for direct download from the  
following website:  
[www.efl.fhwa.dot.gov/procurement/procurement.htm](http://www.efl.fhwa.dot.gov/procurement/procurement.htm)

(End of Provision)

### 52.216-1

#### TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a **firm-fixed-price** contract resulting from this solicitation.

(End of Provision)

### 52.233-2

#### SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

FEDERAL HIGHWAY ADMINISTRATION  
EASTERN FEDERAL LANDS HIGHWAY DIVISION  
21400 RIDGETOP CIRCLE  
STERLING, VIRGINIA 20166-6511

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of Provision)

### 52.236-27

#### Site Visit (Construction). (Feb 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:

Name: Mr. Haywood S. Harrell,  
Superintendent, SHIL-NPS

Address: 1055 Pittsburg Landing Road,  
Shiloh, TN 38376

Telephone: 731) 689-5275,  
[Woody\\_Harrell@nps.gov](mailto:Woody_Harrell@nps.gov)

(End of Provision)

(End of Section E)

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

52.219-4

### Notice of Price Evaluation Preference for HUBZone Small Business Concerns.

(Oct 2004)

(a) *Definition.* HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) *Evaluation preference.*

(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except—

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) *Waiver of evaluation preference.* A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

#### Offer elects to waive the evaluation preference.

(d) *Agreement.* A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a non-manufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants;

(f) A HUBZone small business concern non-manufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

### FAR SUBPART 22.9

#### NONDISCRIMINATION BECAUSE OF AGE (FEB 96)

22.901 Policy. Executive Order 11141, February 12, 1964 (29 CFR 2477), states that the Government policy is as follows:

(a) Contractors and subcontractors shall not, in connection with employment, advancement, or discharge of employees, or the terms, conditions, or privileges of their employment, discriminate against persons because of their age except upon the basis of a bona fide occupational qualification, retirement plan, or statutory requirement.

(b) Contractors and subcontractors, or persons acting on their behalf, shall not specify in solicitations or advertisements for employees to work on Government contracts, a maximum age limit for employment unless the specified maximum age limit is based upon a bona fide occupational qualification, retirement plan, or statutory requirement.

FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

SOCIOECONOMIC PROGRAM REQUIREMENTS

(c) Agencies will bring this policy to the attention of contractors. The use of contract clauses is not required. (End of Policy Statement)

52.222-23

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction (Feb 1999)

(a) The offeror’s attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor’s aggregate workforce in each trade on all construction work in the covered area, are as follows:

Table with 2 columns: Goals for Minority Participation for Each Trade (26.5%), Goals for Female Participation for Each Trade (6.9%)

These goals are applicable to all the Contractor’s construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor’s compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on

- (1) its implementation of the Equal Opportunity clause,
(2) specific affirmative action obligations required by the clause entitled ‘Affirmative Action Compliance Requirements for Construction,’ and
(3) its efforts to meet the goals.

The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor’s goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the

Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
(2) Employer’s identification number of the subcontractor;
(3) Estimated dollar amount of the subcontract;
(4) Estimated starting and completion dates of the subcontract; and
(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the ‘covered area’ is as follows:

Hardin County, Tennessee

(End of Provision)

52.225-9

Buy American Act-Construction Materials. (Jan 2005)

(a) Definitions. As used in this clause-

‘Component’ means an article, material, or supply incorporated directly into a construction material.

‘Construction material’ means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site pre-assembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

‘Cost of components’ means-

- (1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Domestic construction material” means-

(1) An un-manufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which non-availability determinations have been made are treated as domestic.

“Foreign construction material” means a construction material other than a domestic construction material.

“United States” means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference.

(1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

**NONE**

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that-

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including-

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data*. To permit evaluation of requests under paragraph 2 of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

**FEDERAL ACQUISITION REGULATION AND  
TRANSPORTATION ACQUISITION REGULATION CLAUSES**

**SOCIOECONOMIC PROGRAM REQUIREMENTS**

<b>Foreign and Domestic Construction Materials Price Comparison</b>			
Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
<b>Item 1:</b>			
Foreign construction material			
Domestic construction material			
<b>Item 2:</b>			
Foreign construction material			
Domestic construction material			
[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]			
[Include other applicable supporting information.]			
[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]			

**(End of Clause)**

**52.225-10 -- Notice of Buy American Act Requirement—  
Construction Materials.**

As prescribed in [25.1102](#)(b)(1), insert the following provision:

**Notice of Buy American Act Requirement--Construction  
Materials (May 2002)**

(a) *Definitions.* “Construction material,” “domestic construction material,” and “foreign construction material,” as used in this provision, are defined in the clause of this solicitation entitled “Buy American Act--Construction Materials” (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) *Requests for determinations of inapplicability.* An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) *Evaluation of offers.*

(1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign

construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) *Alternate offers.*

(1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested—

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

*Alternate I (May 2002).* As prescribed in [25.1102](#)(b)(2), substitute the following paragraph (b) for paragraph (b) of the basic provision:

(b) *Requests for determinations of inapplicability.* An offeror requesting a determination regarding the inapplicability of the Buy American Act shall submit the request with its offer, including the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9.

**52.225-11**

**Buy American Act—Construction Materials under  
Trade Agreements.  
(Nov 2006)**

(a) *Definitions.* As used in this clause--

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

“Caribbean Basin country construction material” means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

“Component” means an article, material, or supply incorporated directly into a construction material.

“Construction material” means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Designated country” means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, or United Kingdom);

(2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, or Trinidad and Tobago).

“Designated country construction material” means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

“Domestic construction material” means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

“Free Trade Agreement country construction material means” a construction material that--

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

“Foreign construction material” means a construction material other than a domestic construction material.

“Least developed country construction material” means a construction material that--

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

“United States” means the 50 States, the District of Columbia, and outlying areas.

“WTO GPA country construction material” means a construction material that--

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials.*

(1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: **NONE**.

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient

and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier;

and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

**FEDERAL ACQUISITION REGULATION AND  
TRANSPORTATION ACQUISITION REGULATION CLAUSES**

**SOCIOECONOMIC PROGRAM REQUIREMENTS**

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data*. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *
<i>Item 1</i>			
Foreign construction material			
Domestic construction material			
<i>Item 2</i>			
Foreign construction material			
Domestic construction material			

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information. ]

[\* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]

(End of clause)

*Alternate I (Nov 2006)*. As prescribed in [25.1102\(c\)\(3\)](#), add the following definitions of “Bahrainian construction material” and “Mexican construction material” to paragraph (a) of the basic clause, and substitute the following paragraphs (b)(1) and (b)(2) for paragraphs (b)(1) and (b)(2) of the basic clause:

“Bahrainian construction material” means a construction material that—

(1) Is wholly the growth, product, or manufacture of Bahrain; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain into a new and different construction material distinct from the materials from which it was transformed.

“Mexican construction material” means a construction material that—

(1) Is wholly the growth, product, or manufacture of Mexico; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Mexico into a new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials*.

(1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the WTO GPA and all the Free Trade Agreements except NAFTA apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country construction materials other than Bahrainian or Mexican construction materials.

(2) The Contractor shall use only domestic, or designated country construction material other than Bahrainian or Mexican construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

**52.225-12  
Notice of Buy American Act Requirement—  
Construction Materials Under Trade  
Agreements.  
(Jan 2005)**

(a) *Definitions*. “Construction material,” “designated country construction material,” “domestic construction material,” and “foreign construction material,” as used in this provision, are defined in the clause of this solicitation entitled “Buy American Act--Construction Materials Under Trade Agreements” (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) *Requests for determination of inapplicability*. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

### *(c) Evaluation of offers.*

(1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

### *(d) Alternate offers.*

(1) When an offer includes foreign construction material, other than designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material, and the offeror shall be required to furnish such domestic or designated country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

*Alternate II (Nov 2006).* As prescribed in [25.1102\(d\)\(3\)](#), add the definitions of "Bahrainian construction material" and

"Mexican construction material" to paragraph (a) and substitute the following paragraph (d) for paragraph (d) of the basic provision:

### *(d) Alternate offers.*

(1) When an offer includes foreign construction material, except foreign construction material from a designated country other than Bahrain or Mexico, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material other than Bahrainian or Mexican construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material other than Bahrainian or Mexican construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

**(End of Section F)**

## MINIMUM WAGE SCHEDULE

U.S. Department of Labor  
Employment Standards Administration  
Wage and Hour Division

**GENERAL DECISION: TN20080017 02/08/2008 TN17**

Date: February 8, 2008

General Decision Number: **TN20080017** 02/08/2008

Superseded General Decision Number: TN20070057

State: Tennessee

Construction Types: Highway

Counties: Bedford, Benton, Bledsoe, Bradley, Campbell, Cannon, Carroll, Chester, Claiborne, Clay, Cocke, Coffee, Crockett, Cumberland, De Kalb, Decatur, Dyer, Fayette, Fentress, Franklin, Gibson, Giles, Greene, Grundy, Hamblen, Hancock, Hardeman, Hardin, Haywood, Henderson, Henry, Hickman, Houston, Humphreys, Jackson, Johnson, Lake, Lauderdale, Lawrence, Lewis, Lincoln, Loudon, Macon, Marshall, Maury, McMinn, McNairy, Meigs, Monroe, Moore, Morgan, Obion, Overton, Perry, Pickett, Polk, Putnam, Rhea, Roane, Scott, Smith, Stewart, Trousdale, Van Buren, Warren, Wayne, Weakley and White Counties in Tennessee.

### HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	02/08/2008
SUTN1992-003 03/11/1992	

	Rates	Fringes
Bricklayer.....	\$ 8.84	
Carpenter.....	\$ 8.58	
Concrete Finisher.....	\$ 8.35	
Drill Operator (Caisson).....	\$ 13.98	
Electrician.....	\$ 11.89	
Ironworkers:		
Reinforcing.....	\$ 8.41	
Structural.....	\$ 10.00	
Laborers:		
GROUP 1.....	\$ 5.93	
GROUP 2.....	\$ 7.54	
Mechanic		
Heavy Duty.....	\$ 9.00	
Light Duty.....	\$ 8.91	
Painter & Sandblaster (Blaster)	\$ 9.52	
Powder Person (Blaster).....	\$ 8.03	
Power equipment operators:		
GROUP 1.....	\$ 9.17	
GROUP 2.....	\$ 8.50	
GROUP 3.....	\$ 8.31	

GROUP 4.....	\$ 7.79
GROUP 5.....	\$ 10.18
GROUP 6.....	\$ 6.56
Truck drivers:	
2 or 3 axles.....	\$ 7.37
4 or 5 axles heavy duty.....	\$ 7.55

LABORER CLASSIFICATIONS

GROUP 1 - Unskilled Laborer; Flaggers

GROUP 2 - Skilled Laborers: Air tool operator, Asphalt raker, Chain saw operator, Concrete Mixer Operator (Less than 1 yard), Concrete Rubber/Edger, Fence Erector, Form Setter (Steel Road), Guard Rail Erector, Mechanic's Tender (Tire Changer or Oiler), Mortar Mixer, Nozzleman or Gun Operator (Gunit), Pipelayer, Sign Erector.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/Hydraulic Excavator (3/4 yard & over) Crane, End Loader (3 yards & over), Motor Patrol (Finish), Pile Driver, Dragline.

GROUP 2: Backhoe/Hydraulic Excavator (Less than 3/4 yard), Bull dozer or Push dozer, End Loader (Less than 3 yards), Motor Patrol operator (Rough), Tractor (Crawler/Utility), Scraper, Shovel, Trenching Machine.

GROUP 3: Asphalt Paver, Concrete Finishing Machine, Concrete Paver, Scale, Spreader (Self-Propelled), Concrete Grinder, Asphalt Milling Machine, Boring Machine Operator (Horizontal).

GROUP 4: Bobcat, Central Mixing Plant, Concrete Pump, Concrete Saw, Curb machine (Automatic or Manual), Dozer or Loader Operator, (Stockpile), Drill Operator (piling), Mulcher or Seeder, Rock Drill (truck mounted), Roller (asphalt), Roller (compaction self-propelled), Distributor Machine, Ditch Paving Machine, Pump, Track Drill, Striping Machine Operator.

GROUP 5: Sweeping Machine Operator

GROUP 6: Farm Tractor Operator.

-----  
 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====  
 Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

-----  
 In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.  
 -----

## WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## GENERAL CONTRACT REQUIREMENTS

### 52.223-3

#### Hazardous Material Identification and Material Safety Data. (Jan 1997) Alt I (Jul 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.
None	

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered non-responsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations

(including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to-

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document, which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

**(End of Clause)**

**52.223-9**

**Estimate of Percentage of Recovered Material Content  
for EPA-Designated Products.  
(MAY 2008)**

(a) *Definitions.* As used in this clause—

“Post consumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Post consumer material is a part of the broader category of “recovered material.”

“Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post consumer material content; and

(2) Submit this estimate to:

**Contracting Officer  
Eastern Federal Lands Highway Division  
21400 Ridgetop Circle  
Sterling, VA 20166.**

(End of Clause)

**52.228-15**

**Performance and Payment Bonds -- Construction  
(Nov 2006)**

(a) *Definitions.* As used in this clause --

“Original contract price” means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds.* Unless the resulting contract price is \$100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) *Performance Bonds (Standard Form 25).* The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) *Payment Bonds (Standard Form 25-A).* The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) *Additional bond protection.*

(i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) *Furnishing executed bonds.* The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) *Surety or other security for bonds.* The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier’s check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the *Federal Register* or may be obtained from the:

U.S. Department of Treasury  
Financial Management Service  
Surety Bond Branch  
3700 East West Highway, Room 6F01  
Hyattsville, MD 20782  
Or via the internet at  
<http://www.fms.treas.gov/c570/>.

(e) *Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)).* Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of Clause)

**52.248-3**

**Value Engineering – Construction.  
(Feb 2000)**

(a) *General.* The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP’s) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP’s, in accordance with paragraph (f) below.

(b) *Definitions.* “Collateral costs,” as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

“Collateral savings,” as used in this clause, means those measurable net reductions resulting from a VECP in the agency’s overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

“Contractor’s development and implementation costs,” as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

“Government costs,” as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

“Instant contract savings,” as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor’s development and implementation costs, including subcontractors’ development and implementation costs (see paragraph (h) below).

“Value engineering change proposal (VECP)” means a proposal that --

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change-
  - (i) In deliverable end item quantities only; or
  - (ii) To the contract type only.

(c) *VECP preparation.* As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (c)(1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

- (1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item’s function or characteristics are being altered, and the effect of the change on the end item’s performance.
- (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
- (3) A separate, detailed cost estimate for

- (i) the affected portions of the existing contract requirement and

- (ii) the VECP.

The cost reduction associated with the VECP shall take into account the Contractor’s allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

- (4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

- (5) A prediction of any effects the proposed change would have on collateral costs to the agency.

- (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

- (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) *Submission.* The Contractor shall submit VECP’s to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) *Government action.*

- (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP’s expeditiously; however, it will not be liable for any delay in acting upon a VECP.

- (2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

- (3) Any VECP may be accepted, in whole or in part, by the Contracting Officer’s award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral

decision made solely at the discretion of the Contracting Officer.

(f) *Sharing* --

(1) *Rates*. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by --

- (i) 45 percent for fixed-price contracts; or
- (ii) 75 percent for cost-reimbursement contracts.

(2) *Payment*. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to --

- (i) Accept the VECP;
- (ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and
- (iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) *Collateral savings*. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) *Subcontracts*. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; *provided*, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) *Data*. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering -- Construction clause of contract DTFH71-08-C-000XX, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information

contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

**(End of Section G)**

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## CONSTRUCTION CONTRACT REQUIREMENTS

### **52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)**

The Contractor shall be required to (a) commence work under this contract within (**SEE SF 1442, BLOCK 11 FOR NUMBER OF DAYS**) calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than (**THE TIME INDICATED IN THE CONTINUATION OF THE SF 1442, BLOCK 11**). The time stated for completion shall include final cleanup of the premises. **(End of Clause)**

### **52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEPT 2000)**

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of (**SEE SUBSECTION 108.04 OF THE FP AND/OR SPECIAL CONTRACT REQUIREMENTS FOR AMOUNT**) for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause. **(End of Clause)**

### **52.211-18 -- Variation in Estimated Quantity.**

As prescribed in [11.703\(c\)](#), insert the following clause in solicitations and contracts when a fixed-price construction contract is contemplated that authorizes a variation in the estimated quantity of unit-priced items:

#### **Variation in Estimated Quantity (Apr 1984)**

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an

extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified. **(End of Clause)**

### **52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR. (Apr 1984)**

The Contractor shall perform on the site, and with its own organization, work equivalent to at least **50** percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

**(End of Clause)**

### **52.236-4 PHYSICAL DATA (APR 1984)**

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations (**SEE CONTINUATION OF SF 1442, BLOCK 9**).

(b) Weather conditions: **CONTACT LOCAL OFFICE OF NATIONAL WEATHER SERVICE, U.S. DEPARTMENT OF COMMERCE.**

(c) Transportation facilities: **N/A**

(d) Other Information: **SEE CONTINUATION OF SF 1442, BLOCK 9.**

**(End of Clause)**

**(End of Section H)**

FEDERAL HIGHWAY ADMINISTRATION  
EASTERN FEDERAL LANDS HIGHWAY DIVISION  
SPECIAL CONTRACT REQUIREMENTS

**Project TEA-21 SHIL 502(3)**  
**SHILOH NATIONAL MILITARY PARK**  
**PMIS No. 88297**

The following Special Contract Requirements amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03) Metric Units, U. S. Department of Transportation, Federal Highway Administration.

### **Section 101.—TERMS, FORMAT, AND DEFINITIONS**

101.01. Delete the last paragraph.

### **Section 102.—BID, AWARD, AND EXECUTION OF CONTRACT**

102.04. Add the following:

Furnish documentary evidence as to the ownership and value of the assets pledged in support of the bond and details of the security interest in the assets by the individual sureties for the apparent low bidder within 14 calendar days after the opening of bids. Failure to submit evidence within the time required will be grounds for declaring the surety unacceptable.

In addition, the CO may, after reviewing the Affidavit of Individual Surety and documentary information on the security interest and the assets pledged, by certified mail to the surety's business or residence address (as shown on the bond), request the surety to provide further information and/or documents with respect to any of the documents provided. The CO may require such information to be furnished under oath. Failure of the surety to accept such mail, or failure of the surety to respond with the requested information or documents within 7 business days of receipt of the request, will be cause for rejection of the surety.

These requirements are in addition to the requirements in FAR Subpart 28.203, except where in conflict with the requirements in the FAR, in which case the FAR controls.

102.06. Add the following after the last paragraph:

Submit the documentary evidence for individual sureties at the same time as the Affidavit of Individual Surety and security interest in assets pledged. A Contractor submitting an unacceptable individual surety in satisfaction of a performance or payment bond before the issuance of the Notice to Proceed will be permitted one opportunity to substitute an acceptable surety or sureties within 7 business days of receipt of notification that the surety is unacceptable.

The Government's right to direct the substitution of sureties to ensure the continuing acceptability of the bonds during the performance of the Contract according to FAR Clause 52.228-2, Additional Bond Security, is not restricted.

These requirements are in addition to the requirements in FAR Subpart 28.203, except where in conflict with the requirements in the FAR, in which case the FAR controls.

### **Section 104. — CONTROL OF WORK**

104.03(a). Add the following to the third paragraph:

Drawings will be reviewed in the order they are received.

104.03(b). Add the following after 104.03(b):

**(c) As-built working drawings.** Furnish 2 sets of as-built working drawings. The Government will provide 2 sets of contract drawings to be used exclusively for recording the as-built details of the project.

Keep the as-built working drawings current on a weekly basis and have at least 1 set available on the jobsite at all times. Accurately and neatly record changes from the contract plans, which are made in the work, or additional information, which might be uncovered in the course of construction, as they occur by means of details and notes. Maintain a log of all changes made to the as-built working drawings, and monthly, at the estimate cutoff date, make the as-built working drawings and log available for review by the CO.

Note all additions or revisions to the location, character, and dimensions of the prescribed work shown on the contract drawings. Line out all details shown that are not applicable to the completed work. Use the red-line process (red pencil or red ink) to record on the as-built working drawings and final as-built drawings, as a minimum, but not limited to, the information described below:

**(1) Typical section(s)**

(a) Revisions in dimensions; and

(b) Revisions in materials.

**(2) Plan and profile**

(a) Plan

(1) Revisions to the alignment;

(2) Changes in the construction limits;

(3) Revisions in location, type, and grade of road approaches;

(4) Location and type of utilities;

(5) Location, size, and type of underdrains;

(6) Skew of culverts;

(7) Channel changes;

(8) Location of monuments and permanent references;

- (9) Elevations for all aerial and underground crossings of utilities; and
- (10) Location, length, and type of fencing.

**(b) Profile**

- (1) Revisions to grades, elevations, and stationing of intersection PIs;
- (2) Equations;
- (3) Culvert diameter, length, type, and stationing;
- (4) Length of culvert extension, and length of existing culvert;
- (5) Location, length, stationing, and type of retaining walls; and
- (6) Location, length, stationing, and end treatment of guardrail.

**(3) Bridge**

- (a) Stationing of bridge ends;
- (b) Elevations including footing, bearing pads, deck, and top of walls;
- (c) Pile driving record with pile length, size, type, and tip elevation;
- (d) Post-tensioning records including stressing sequence, jacking force, and duct size and layout;
- (e) Construction and concrete placement sequences;
- (f) Bearing details with orientation;
- (g) Expansion joints including actual clearance with atmospheric temperature; and
- (h) Any changes in plan or dimensions including any major changes in reinforcing.

**(4) Miscellaneous**

- (a) Revisions to parking areas or turnouts;
- (b) Final location, type and length of curbs, sidewalks, etc.;
- (c) Fencing type and limits; and
- (d) Landscaping and planting.

**(5) Special Contract Procedures**

(a) Method of excavation, concrete placement, girder erection, structure repairs, etc.

Prepare final as-built drawings after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The as-built working drawings and final as-built drawings will be jointly reviewed for accuracy and completeness by the CO and the Contractor prior to submission of each monthly pay estimate.

If the monthly review finds that the Contractor is not maintaining the as-built working drawings, payment of the Contractor’s invoice will be withheld until the as-built working drawings are brought up to date.

Furnish the as-built working drawings to the CO before the final inspection. Correct all details found during the final inspection that are not shown on the as-built working drawings and return to the CO within 5 working days for approval.

Once final as-built working drawings have been approved by the CO, provide final as-built drawings in the latest version of Adobe Acrobat (PDF) format (at the time of submission) on two sets of CD-R or DVD-R. Include the latest version Adobe Acrobat reader on the CD-R or DVD-R. Provide the final as-built drawings with a resolution quality such that the redlined drawings and notations are clearly discernable. Final payment per Subsection 109.09 will not be made until the CD-R or DVD-R of the final as-built drawings have been reviewed and approved by the CO.

No direct payment will be made for maintaining and furnishing as-built working drawings.

104.05. Add the following:

When hauling on National Park Service roads, do not exceed the following load restrictions:

	<u>Gross Vehicle Weight – kilograms</u>
<u>Single Units</u>	
2 axles	18,100
3 axles	21,800
4 or more axles	23,600
 <u>Combination Units</u>	
3 axles	25,900
4 axles	28,100
5 or more axles	29,900

Where the ground is saturated with water or during periods of freezing and thawing, the CO may impose further load restrictions or suspend hauling.

Operate loaded vehicles hauling material at speeds not exceeding 65 kilometers per hour and spaced at 150-meter minimum intervals. Do not exceed 40 kilometers per hour or operate more than 1 loaded hauling vehicle at a time on a bridge.

### **Section 105.—CONTROL OF MATERIAL**

105.02(b). Add the following:

If any material is to be excavated from any material source outside the construction limits, other than commercially operated sites, before work begins provide a certification from the State Historic Preservation Officer or Indian Tribal Council, if applicable, stating:

- (1) That a cultural resource survey (a survey for historical sites and archeological remains) has been performed at the proposed site, and
- (2) That no significant cultural resources exist in the area that will be disturbed by the Contractor.

### **Section 106.—ACCEPTANCE OF WORK**

106.03. Delete the first sentence of the second paragraph and substitute the following:

Other than references in or to the FAR or Federal Law, when these Standard Specifications or Supplemental Contract Requirements reference certifications; certificates; or certified documents, equipment, or individuals, these references are not certifications under Section 4301 of Public Law 104-106, National Defense Authorization Act for Fiscal Year 1996.

These references simply refer to documentation of peripheral contract requirements, which is required to be validated by an individual or organization having unique knowledge or qualifications to perform such validation.

106.05(a) Add the following:

At the Preconstruction Conference, the Government will provide a copy of the computer program "QL-PAY," along with instructions. QL-Pay is a Windows based program that computes the quality levels and pay factors as described in this Subsection. Two versions are available: one that runs on MS-DOS operating systems, and one that runs on Windows 3.1/95/98/NT/ME/2000.

**Section 107.—LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

107.01. Add the following:

The following permits may be required for this project:

Hauling Permit

This list of permits may not be all inclusive of those required for construction. No time or damages, including impact damages, will be allowed for failure to obtain necessary permits or agreements. Provide copies of these permits and agreements upon request.

107.01. Delete the second sentence of the third paragraph and substitute the following:

Obtain all additional permits or agreements and modifications to Government-obtained permits or agreements that are required.

107.02. Add the following after the third paragraph:

For the full duration of construction, protect the existing trees that are tagged by the CO in the following manner:

- (a) Install and maintain a 1.2-meter high wood slat fence with steel posts around the perimeter of the root protection area, per Subsection 619.06. The root protection area is defined as an area equal to 3 meters outside the dripline.
- (b) All construction which takes place within the root protection area must be approved by the CO. Do not store or locate construction materials, vehicles, staging areas, topsoil, disposal areas, or trailers within the root protection area. Protect the area from flooding, erosion, sedimentation, and potentially harmful materials through run-off or spillage.
- (c) Remove all tree protection prior to final acceptance.

Since the project is located in a national battlefield park and national historic landmark, artifacts of historic or archaeological significance may be encountered. When artifacts of historic or archaeological significance are encountered, suspend operations in accordance with this Section.

A National Park Service archaeologist will be available on an on-call basis if any artifacts are encountered. Two (2) workdays prior to clearing and grubbing inside the park, and then again 2 workdays prior to excavation inside the park, notify the CO and:

Mr. Woody Harrell  
 Park Superintendent  
 Shiloh National Military Park  
 (731) 689-5275 Ext. 24

107.02. Delete the first sentence of the fifth paragraph and substitute the following:

Notify the Park 2 workdays in advance of any work, in order for them to locate their utilities.  
The contact person is:

Mr. Marcus Johnson  
Resource Management Specialist  
Shiloh National Military Park  
(731) 689-5275 Ext. 33

107.02. Add the following after the sixth paragraph:

Notify the CO in writing at least 48 hours in advance of any scheduled utility shutdown, investigation, and /or related work.

107.05. Add the following after the second paragraph:

Submit all claims to the insurance company for investigation, regardless of deductible, unless the Contractor has chosen to pay the claim directly. Provide the results of any investigations and subsequent actions to the CO within 1 week of receipt from the insurance company or of action. Determination by the insurance company that the claim is not covered by the policy is not an adequate basis for the Contractor to fail to meet its obligations under the requirements of this Section.

107.10. Add the following:

The project lies within the boundaries of a National Park. Maintain all equipment, office, and material staging or repair areas in a neat and orderly condition at all times. Store all fuel and oil in accordance with all applicable federal, state, and local regulations. Clean up fuel and oil spills immediately and dispose of contaminated material in a manner consistent with all environmental regulations. Immediately notify the Park Superintendent of any spills that have occurred. The Contractor's personnel are strictly prohibited from depositing trash or construction debris within areas of the project or within the park boundaries, unless in Contractor furnished trash bins located in the staging area.

107.11. Add the following:

Confine all operations to the work limits of the project. Prevent damage to natural and cultural surroundings. Repair or replace, at no expense to the Government, any monuments, historical markers, trees, or other items damaged due to the Contractor's operations.

### **Section 108.—PROSECUTION AND PROGRESS**

108.01. Add the following:

Weekly coordination meetings between the Government and the Contractor will be held for the duration of the project.

108.01 Add the following:

Construction operations are limited as follows:

No work will be permitted on weekends, National legal holidays, or the weekday immediately before or after a National legal holiday without prior written approval from the CO. A weekend is defined as beginning at 7 p.m. Friday, and ending at 5 a.m. Monday. Request approval from the CO in writing at least 7 days before any planned weekend or holiday work.

Minimize construction traffic on Park roads. To the greatest extent possible, use only portland cement concrete roadways, such as Corinth-Pittsburg Landing Road and Hamburg-Purdy Road, to access sites inside Park boundaries. Submit a construction access plan with proposed haul routes to the CO for approval prior to beginning of construction. Do not operate construction vehicles on asphalt or unpaved roads within the Park, except work areas, without prior approval from the CO.

Concrete trucks will not be allowed to clean or waste concrete on Government property.

No construction activity, including any lane closures, will be permitted during Memorial Day weekend, or the Shiloh National Battlefield Anniversary Weekend, which is held in early April.

Hauling will only be permitted from the nearest point of public access to the work site. Minimize hauling over completed pavement.

Begin paving operations at the furthest location from the asphalt plant and proceed towards the plant.

Limitations of operations for temporary traffic control are specified in Subsection 156.06.

### **Section 109.—MEASUREMENT AND PAYMENT**

109.06 **Pricing of Adjustments.** Add the following:

**(c) Asphalt cement price adjustment provision.**

**(1) General.** The Asphalt Cement Price Adjustment Provision provides for a price adjustment, in the form of payment to the Contractor or a rebate to the Government, for fluctuations in the cost of virgin asphalt cement consumed in the performance of applicable

- 40101-0500 Superpave pavement, 12.5 mm nominal maximum size aggregate, <0.3 million ESAL, Type III pavement roughness (surface course)
- 40101-0500 Superpave pavement, 12.5 mm nominal maximum size aggregate, <0.3 million ESAL, Type VI pavement roughness (surface course)
- 40101-0500 Superpave pavement, 12.5 mm nominal maximum size aggregate, <0.3 million ESAL, Type VII pavement smoothness (surface course)
- 40101-0500 Superpave pavement, 12.5 mm nominal maximum size aggregate, <0.3 million ESAL (base course)
- 40102-0500 Superpave pavement, 12.5 mm nominal maximum size aggregate, <0.3 million ESAL, wedge and leveling course

**(2) Price Adjustments.** The unit price for eligible contract pay items will be evaluated for adjustment each month using the "Monthly Bituminous Adjustment Factor". The "Monthly Bituminous Adjustment Factor" is the difference (+/-) between the "Basic Bituminous Material Index" and the "Monthly Bituminous Material Index", which are defined below. The "Monthly Bituminous Adjustment Factor" shall be applied provided the increase or decrease differs 5% or more from the "Basic Bituminous Material Index".

The "Monthly Bituminous Material Index" is the average of the current quotations on PG 64-22 from suppliers furnishing asphalt cement to contractors in the State of Tennessee. These quotations are the cost per ton freight on board (f.o.b.) at the supplier's terminal. The Tennessee Department of Transportation (TDOT) establishes the "Monthly Bituminous Material Index" on the first day of each month. The bituminous index is posted on the TDOT website at <http://www.tdot.state.tn.us/construction/indices/bituminousindex.pdf>

The "Basic Bituminous Material Index" is the "Monthly Bituminous Material Index" in effect on the day the bid documents are made available on the Federal Business Opportunities website at <https://www.fbo.gov>. The "Basic Bituminous Material Index" will remain fixed throughout the duration of the contract.

The "Basic Bituminous Material Index" for this project is \$541.40 per metric ton.

The unit price for the eligible contract pay items used after the expiration of the allocated working time as set forth in the contract, or as extended by contract modification, will revert to the original contract unit bid price or the adjusted unit price as set forth herein, whichever is less.

The price adjustment for increases and decreases in the contractor's cost for virgin asphalt cement will be calculated as follows when the percent change in price indexes is five or greater:

$$PA = [Ic - Ib] \times \frac{BA}{100} \times Tm$$

Where,

PA = Price Adjustment for Adjustment Month  
 Ib = Basic Bituminous Material Index  
 Ic = Monthly Bituminous Material Index  
 BA = Percent virgin asphalt specified by approved mix design  
 Tm = Tons asphalt mix placed for adjustment month

**(3) Price adjustment compensation.** Monthly adjustments will be accrued. The final price adjustment will be paid, or rebated, after completion of all work for eligible pay items. The Contractor may request in writing a partial price adjustment payment once every 12 months, or when the unpaid accrued increase exceeds \$10,000. The Government will take a rebate when the deductive accrual exceeds \$10,000.

109.08(b). Add the following:

Submit invoices by the 7th day after the closing date. Invoices received after the 16th day following the closing date will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

109.08(c). Add the following:

The government's designated billing office is:

Federal Highway Administration  
 Eastern Federal Lands Highway Division  
 Loudoun Tech Center  
 21400 Ridgetop Circle  
 Room 200  
 Sterling, Virginia 20166-6511  
 ATTN: CONSTRUCTION DIVISION

### **Section 151.—MOBILIZATION**

151.01. Add the following:

This work also includes providing staging areas for storing materials and equipment.

Construct staging areas at the locations designated in the plans, or as directed by the CO. Where shown in the plans, place geotextile fabric and crushed stone (25 mm minimum size), in order to prevent rutting and provide a stable working surface. Protect trees within the staging area in accordance with Subsection 107.02. Do not injure or remove any trees for staging area construction without prior approval of the CO.

Maintain the area inside the staging area by removing litter and mowing grass. Mow grass when it reaches a height of 75 mm.

Upon completion of the work, remove all equipment, excess material, stone bedding, and geotextile from within the staging area.

### **Section 152.—CONSTRUCTION SURVEY AND STAKING**

152.02. Delete the eighth paragraph and substitute the following:

Staking for horizontal alignments in realignment areas must be approved by the CO prior to the start of grading operations. The Government may make minor adjustments, as necessary, to maintain historic alignments or minimize disturbance to cultural resources. The Contractor will be responsible for any resurvey work that may be required to stake revised horizontal alignments.

The Contractor is responsible for establishing initial control and performing all centerline and edge of pavement staking at the Hamburg-Savannah Road full-width reconstruction area, from 80+000 to 80+400 (Option 3 work). The Contractor also is responsible for submitting the proposed profile for this section to the CO for approval prior to roadway reconstruction work. The proposed final pavement grade will be 100 mm higher than the existing pavement grade.

152.03. Delete the text of paragraphs **(i)** and **(k)**.

152.03**(a)**. Add the following:

Set benchmarks (at least every 300 meters of roadway). Replace any missing control points.

152.03**(l)(9)** and **(10)**. Delete the subsections and replace with the following:

**(9)** Traffic control (both permanent and temporary) signs, signals, markings, delineators, object markers, etc.

152.03**(l)**. Add the following:

**(10)** Excavation limits for various drainage, walls, structures, and other pertinent items.

**(11)** Landscaping work.

**(12)** Sidewalk.

### **Section 154.—CONTRACTOR SAMPLING AND TESTING**

154.03. Add the following:

Furnish test results to the CO immediately after completing the test. The requirements for furnishing test results do not include sample aging or curing time; therefore, reporting times will be extended accordingly.

Submit proposals for using alternate AASHTO or State approved test methods in writing for approval. Alternate methods may be allowed based on documented equivalence to the method specified.

154.04. Add the following:

On a weekly basis, submit a copy of all current Contractor test results and pay factor calculations based on those tests for items accepted under Subsection 106.05. When large quantities are produced, calculate pay factors as soon as possible. Use this information to make any necessary adjustments to operations to achieve acceptable pay factors. The Government may use the Contractor's test results to determine final pay factors for acceptance according to Subsection 154.05.

### **Section 155.—SCHEDULES FOR CONSTRUCTION CONTRACTS**

155.02 through 155.09. Delete the Subsections and substitute the following:

#### **155.02A Weather Delays.**

##### **(1) Weather Delay Definitions.**

**(a) Reasonably Predictable Weather.** The number of workdays that can expected to be lost in any month due to rainfall based on 10-year historical weather data.

**(b) Rain Day.** A potentially lost workday on which rainfall is equal to or greater than 2.5 millimeters.

**(c) Drying Day.** A work day(s) immediately following a rainfall equal to or greater than 2.5 centimeters which is potentially lost because of wet ground conditions.

**(d) Workday.** A day not excluded from work by Section 108 of the Special Contract Requirements.

**(e) Unusually Severe Weather.** When the number of Actual Workdays Lost is greater than the calculated Total Lost Days for the month in question.

##### **(2) Reasonably Predictable Weather.** Determine Reasonably Predictable Weather for this contract by completing Table 155-1. Calculate data for Table 155-1 as follows:

**(a)** Using the last 10 years of historical weather data from the nearest NOAA weather data collection station, compute the average number of workdays lost (rain days plus drying days) for each month and the standard deviation from the average. Add the average number of workdays lost to the standard deviation.

(b) The Total number of Lost Days (Average Workdays Lost plus one Standard Deviation, rounded to whole days) will be considered normal for each month.

(c) Submit a completed Table 155-1 with the initial construction schedule.

**(3) Unusually Severe Weather** Under FAR Clause 52.249-10, Default (Fixed-Price Construction), the Contractor can request time for a delay due to Unusually Severe Weather.

The number of Actual Workdays Lost is calculated by first totaling the actual Rain Days plus the actual Drying Days occurring in the month in question. From this total, deduct any workdays meeting the following conditions:

(a) The Rain Day or Drying Day occurred on a non-work weekday such as a holiday.

(b) Rainfall occurred at a time when no weather dependent work was in progress or occurred during planned or unplanned shutdowns due to other circumstances such as equipment failure, strikes, material supplies, delays, etc.

(c) The Contractor was still working or able to work on weather dependent activities to the extent that less than 50 percent of the workday was lost due to weather.

If the net number of Actual Workdays Lost is greater than the Total Lost Days, then Unusually Severe Weather occurred during the month in question.

**(4) Time Adjustments for Rain Delays.** If the net number of Actual Workdays Lost to rain is less than the Total Lost Days for the month in question, no time adjustments will be made. If the net number of Actual Workdays Lost is more, then an excusable time extension may be granted. The Contractor must submit a Weather Time Impact Analysis supporting any alleged delays due to Unusually Severe Weather.

**(6) Delays Due To Other Weather Conditions.** Delays due to other unusually severe weather conditions (snow, extreme cold or heat, high winds, etc.) must be supported with a Weather Time Impact Analysis using historical weather data.

155.02. Delete the last paragraph and substitute the following:

The Construction Contract Time shown on the construction schedule for contract completion or for any interim completion dates shall be the calendar dates established in the contract.

155.04. Add the following to the first paragraph:

For a computer-generated CPM, use Primavera software or software that is file-compatible with Primavera.

Add the following at the end of the Subsection:

TABLE 155-1

Project Number \_\_\_\_\_

Location of NOAA Data Collection Station \_\_\_\_\_

Data Years (10-year history): 19\_\_ through 20\_\_

REASONABLY PREDICTABLE WEATHER

MONTH	AVERAGE WORKDAYS LOST	STANDARD DEVIATION	TOTAL LOST DAYS
JANUARY			
FEBRUARY			
MARCH			
APRIL			
MAY			
JUNE			
JULY			
AUGUST			
SEPTEMBER			
OCTOBER			
NOVEMBER			
DECEMBER			

**Section 156.—PUBLIC TRAFFIC**

156.03. Delete the first paragraph and substitute the following:

Sherman/Cavalry Road, McClernand Road, Woolf Field Road, Tent Hospital Site (Option 1 work), and Pittsburg Landing Road (Option 2 work) may be closed for construction. These roads may be closed simultaneously, except that McClernand Road must remain open to traffic until Sherman/Cavalry Road is complete and has been opened to traffic. Do not close any road until work is ready to begin on that road, and reopen each road once construction is completed, or as directed by the CO.

Accommodate public traffic on Hamburg-Savannah Road (Option 3 work), and roads open to the

public that are adjacent to work areas, according to the contract traffic control narrative, MUTCD, Section 108, Section 635, and this Section. Submit traffic control proposals according to Subsection 104.03 for acceptance by the CO at least 14 days before intended use. After the initial proposal has been approved, submit any changes to the traffic control plan to the CO for approval at least 7 days before the expected implementation of the revised plan.

156.03. Add the following:

The Contractor is advised that there is a potential bald eagle nest site on Hamburg-Savannah Road near the intersection of Brown's Landing Road, at approximately 81+750 (Rt). Visitor traffic in this area may be unusually heavy during the bald eagle nesting season, which typically runs from mid-fall through early summer. Adjust construction activities for Option 3 work as directed by the CO to minimize delays to visitor traffic. Provide additional flaggers to direct traffic through the work zone in the vicinity of the nest site when directed by the CO.

156.04. Add the following:

(g) Ensure that all drains and inlets within the project limits are fully functional throughout the duration of the project.

156.05. Add the following:

During non-work periods, all work areas on or adjacent to roads open to the public must be left at grade and flush with the surrounding pavement.

156.06(b). Delete the second sentence and substitute the following:

For shoulder drop-offs in excess of 7.5 centimeters, provide a 1V:3H fillet with "Low Shoulder" warning signs.

156.06(d). Add the following:

The field office will be located at the Livingston House, near the intersection of Highway 22 and Highway 142. Two staging areas have been identified, at the following locations:

- a. Livingston House
- b. Tilghman Branch Bridge

156.07. Delete the Subsection and substitute the following:

**156.07 Nighttime Operations.** Nighttime operations are not permitted. Perform construction operations during the hours of daylight (½ hour after sunrise to ½ hour before sunset).

156.08. Delete the second sentence of the first paragraph and substitute the following:

The traffic safety supervisor may be the superintendent.

### **Section 157.-- SOIL EROSION CONTROL**

157.02. Add the following:

Water filtration bag	713.20
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157.04(d)(1). Delete the text and substitute the following:

Following initial soil disturbance or redisturbance, complete permanent or temporary stabilization within seven (7) calendar days on the surface of all perimeter controls, dikes, swale, ditches, perimeter slopes, and all slopes greater than 1 vertical to 3 horizontal (1:3); and within fourteen (14) calendar days on all other disturbed or graded areas on the project site.

157.09. Add the following:

Pump water from disturbed areas enclosed within temporary diversion berms into water filtration bags before discharging it off-site. Determine the size and number of water filtration bags required according to the site conditions and assumptions shown in the plans, and the manufacturer's instructions. Place water filtration bags on well-vegetated areas, and discharge onto a stable, erosion-resistant surface.

157.15. Add the following to the second paragraph:

Measure silt fence (non-intrusive) and silt fence (hooked) by the meter as silt fence.

### **Section 201.—CLEARING AND GRUBBING**

201.03. Add the following:

Since the project is located in a national battlefield park and national historic landmark, artifacts of historic or archaeological significance may be encountered. A National Park Service archaeologist will be available on an on-call basis for all clearing and grubbing operations. At least 2 workdays prior to beginning clearing and grubbing inside the park, notify the CO and:

Mr. Woody Harrell  
 Park Superintendent  
 Shiloh National Military Park  
 (731) 689-5275 Ext. 24

### Section 203.—REMOVAL OF STRUCTURES AND OBSTRUCTIONS

203.03. Add the following:

Salvage all removed sign panels and posts and deliver them to the NPS Maintenance Yard, as directed by the CO.

Where possible, salvage stone from removed headwalls for use in constructing new headwalls.

203.04. Add the following:

Remove the existing asphalt pavement on McClermand Road within the limits shown in the plans, and grade the shoulders down to the base stone elevation on Corinth-Pittsburg Landing Road to ensure positive drainage. Do not grade beyond the roadway shoulders on McClermand Road. Place topsoil in accordance with Section 624, and establish turf in accordance with Section 625. Prior to any grading work on McClermand Road, coordinate with the CO and:

Mr. Robert Felker  
National Park Service  
(662) 680-4018

203.05(a). Add the following:

Dispose of all materials designated for removal, and not reused or salvaged, legally off Government property.

203.05(b). Delete the Subsection and substitute the following:

**(b) Burn.** Burning is prohibited. Dispose of material according to Subsection 203.05(a).

203.05(c). Delete the Subsection and substitute the following:

**(c) Bury.** Burying debris is prohibited. Dispose of material according to Subsection 203.05(a).

203.07. Add the following:

Measurement of removal of pipe culverts includes the removal of end sections attached to the pipe culvert.

### Section 204.—EXCAVATION AND EMBANKMENT

204.02(c). Delete the text and substitute the following:

Excavated material conserved from the roadway excavation and embankment foundation areas that is free from hard soil, rock, clay, toxic substances, litter, or other deleterious material, and is

suitable for growth of grass, cover crops, or native vegetation. Topsoil refers to the uppermost soil horizon, usually 100 – 300 mm deep, which includes organic duff and other materials capable of supporting vegetation.

204.04. Add the following:

Since the project is located in a national battlefield park and national historic landmark, artifacts of historic or archaeological significance may be encountered. A National Park Service archaeologist will be available on an on-call basis for all excavation operations. Two (2) workdays prior to any excavation inside the park, notify the CO and:

Mr. Woody Harrell  
Park Superintendent  
Shiloh National Military Park  
(731) 689-5275 Ext. 24

204.05. Delete the text of this subsection and substitute the following:

**204.05 Conserved Topsoil.** Conserve topsoil from roadway excavation and embankment foundation areas, except do not conserve topsoil from the locations with severe concentrations of noxious weeds, as designated by the CO. Completely remove topsoil before all other grading operations. Remove the topsoil (including duff and litter) in one pass if possible. Use equipment capable of excavating small isolated pockets of topsoil. Manually rake topsoil in areas where topsoil cannot be removed mechanically. Do not mix topsoil with subsoil. Do not compact or drive upon topsoil during removal.

Stockpile topsoil removed from the left and right sides of the road separately. Stockpile topsoil in windrows less than 900 mm high immediately beyond the rounding limits of cut or embankment slopes. If it is impractical to windrow the topsoil adjacent to the disturbed area, remove the topsoil and stockpile it in other approved locations within the same soil isolation zone that it was removed from. Identify topsoil removal areas and stockpiles with stakes so that topsoil may be replaced in the same locations. Provide diagrams of the stockpile storage areas to the CO so they can be identified if the stakes are lost or removed.

Do not stockpile topsoil for longer than three months unless approved by the CO. Stockpiling topsoil over the winter will not be permitted. Place conserved topsoil according to Section 624. Haul excess topsoil to the nearest area requiring additional topsoil as directed by the CO.

204.09(a). Delete the first sentence and substitute the following:

Completely break up the cleared ground surface to a minimum depth of 100 mm by plowing or scarifying.

204.13(d). Add the following:

Flush the exposed faces of rock embankment with soil conserved from the excavation.

**Section 208.—STRUCTURE EXCAVATION AND BACKFILL FOR SELECTED MAJOR STRUCTURES**

208.13 Delete the two paragraphs after paragraph (e) and substitute the following:

Measure foundation fill by the cubic meter in place. Limit the volume measured to that placed inside vertical planes located 450 millimeters outside and parallel to the neat lines of footings or foundations. Use these vertical planes to determine pay quantities regardless of the amount of material placed outside these planes.

**Section 211.--ROADWAY OBLITERATION**

211.01(a). Delete this subsection and substitute the following:

Regrade and shape designated existing roadbeds, ditches, and side slopes to restore them to surrounding natural ground contours. Grading limits extend between existing slope break points to allow restoration to natural slope along the roadway section. Prior to any grading work, coordinate with the CO and:

Mr. Robert Felker  
National Park Service  
(662) 680-4018

211.05. Add the following:

Measure roadway obliteration by the square meter before obliteration.

Measure the square meter area on a horizontal plane. The limits of measurement will be within the existing roadway edges of pavement. Do not measure isolated areas less than 20 m<sup>2</sup> for payment. No separate measurement will be made for the removal of asphalt, or for earthwork required for roadway obliteration.

**Section 251.—RIPRAP**

251.02. Add the following:

Topsoil (furnished)	713.01(a)
Seed	713.04

251.03. Add the following:

Place topsoil to a 100 mm minimum depth above riprap surface, in accordance with Section 624, on all exposed surfaces of placed riprap. Apply seed to all riprap areas covered with topsoil in

accordance with Section 625.

251.08. Add the following:

Do not measure topsoil and seeding in riprap placement areas.

### **Section 301.—UNTREATED AGGREGATE COURSES**

301.03. Add the following after the second paragraph:

Submit the representative 150-kilogram sample to the EFLHD Central Laboratory in Sevierville, Tennessee.

301.03. Add the following:

If an alternate State gradation is produced as provided in Subsection 703.05, notify the CO in writing. If the target values with respect to the State gradation are not identified, they will be the midpoint of the allowable State specification band.

### **Section 303.—ROAD RECONDITIONING**

303.10. Delete the second paragraph and substitute the following:

Measure ditch reconditioning by the meter, measured along the outlet ditch from outlet pipe.

### **Section 305.—AGGREGATE-TOPSOIL COURSE**

305.04. Delete the fourth sentence of the second paragraph and substitute the following:

Remove all clods and stones greater than 13 millimeters in the longest dimension.

### **Section 401.—SUPERPAVE HOT ASPHALT CONCRETE PAVEMENT**

401.01. Add the following:

Asphalt binder is designated as performance grade PG 64-22.

401.03(b). Add the following:

For State Department of Transportation mixes, submit a job-mix formula that is currently approved and has been tested by the State within a year of the date of intended use. Include documentation from a State highway official certifying that it is an approved State mix.

401.03(b). Add the following:

For percentages of recycled asphalt pavement greater than 15 percent, the contractor must submit a quality control plan showing sufficient control of the recycled asphalt pavement.

Submit all materials and information to the EFLHD Central Laboratory in Sevierville, Tennessee.

401.03(c). Add the following:

Allow a minimum of 21 calendar days for verification of each job-mix formula after receipt of all materials and information at the EFLHD Central Laboratory.

401.13. Add the following:

Begin paving operations at the furthest location from the asphalt plant and proceed towards the plant.

401.13. Add the following after the last sentence of the fifth paragraph:

In curve widened areas, place the surface pavement joint midway between the pavement edges.

401.16. Delete the text of Subsection 401.16, Table 401-3, and Table 401-4, and substitute the following:

**401.16 Pavement Smoothness/Roughness.** Measure the smoothness/roughness of the final paved surface course after final rolling, within 14 days of completing roadway paving, before placing a surface treatment, and according to the designated type below. In addition, construct all pavement surfaces to meet the requirements of (c) below.

**(a) Profile ride index (PRI).** For type I or II pavement smoothness, furnish a California type profilograph and personnel to operate the profilograph. The CO will direct and observe its operation. Operate the profilograph in the “mode” such that the continuous plot produced can be reduced according to FLH T 504. Measure in the middle portion of each lane and exclude areas according to FLH T 504. Measure excluded areas according to (c) below. Submit the trace to the CO.

A PRI will be calculated for each 0.1 lane-kilometer of traveled way using a zero blanking-band. The PRI will be determined according to FLH T 504. Bumps will be located using a 10-millimeter bump template.

**(1) Type I pavement smoothness (PRI measurements for reconstructed and new roads).** Measure the smoothness of the final paved surface course. The upper specification limit is 380 millimeters per kilometer for reconstructed and new roads. Defective areas are bumps in excess of 10 millimeters in 7.62 meters, 0.1- kilometer

profile ride index greater than 450 millimeters per kilometer, or surfaces with a pay factor less than 0.75 as determined under Subsection 106.05.

**(2) Type II pavement smoothness (PRI measurements for overlay, recycle with overlay, or milling with overlay projects).** Before construction traffic, measure the smoothness of the existing surface. The existing surface is the original surface before overlaying, recycling, or milling. The existing profile ride index and standard deviation will be used to determine the upper specification limit.

For one-lift placement of the final surface:

$$USL_1 = 0.71 * PRI_0 + 0.39 * Sd_0, \text{ but not less than } 380 \text{ mm/km}$$

For two-lift placement of the final surface:

$$USL_2 = 0.50 * PRI_0 + 0.30 * Sd_0, \text{ but not less than } 380 \text{ mm/km}$$

Where:

$USL_1$  = Upper specification limit for one lift rounded to the nearest whole number (mm/km)

$USL_2$  = Upper specification limit for two lifts rounded to the nearest whole number (mm/km)

$PRI_0$  = Existing surface profile ride index (mm/km)

$Sd_0$  = Existing surface profile standard deviation

Measure the smoothness of the final paved surface course. Defective areas are bumps in excess of 10 millimeters in 7.62 meters, 0.1-kilometer profile ride index greater than 1.5 times the calculated upper specification limit, or surfaces with a pay factor less than 0.75 as determined under Subsection 106.05.

**(b) International Roughness Index (IRI).** Furnish an inertial profiler conforming to AASHTO MP 11 and capable of meeting certification requirements of AASHTO PP 49. Provide a trained and qualified operator to operate the inertial profiler equipment. All equipment will be validated against a government profiler at the time of use. A cross correlation value will be determined for at least one random segment of at least 160 meters in length. Contractor and Government profilers will be cross-correlated on the same day prior to the start of paving operations. Coordinate the profile verification date through the CO. At the preconstruction conference, provide the CO with a list of three or more possible dates in three or more different weeks that the profiler and operator will be available for cross correlation verification. The CO will determine the cross correlation segments. The minimum acceptable cross correlation value is 0.90. Do not use equipment failing to obtain a cross correlation value of at least 0.90. Operate the inertial profiler in accordance with

manufacturer's recommendations and AASHTO PP 50. Provide a lead-in distance, after reaching the testing speed, of at least 50 meters. Furnish personnel to provide flagging operations as required.

For all pavement roughness types, measure the pavement profile in both wheel paths and use an average IRI value. Immediately after obtaining the profile measurements, provide the CO with an electronic file containing the profile data. The file shall be in an ERD format per AASHTO PP 50. Analysis of the profile data will be made using the latest version of the Profile Viewer and Analysis (ProVAL) software. The most current version can be downloaded from [www.roadprofile.com](http://www.roadprofile.com).

Areas of localized roughness will be identified using a report of continuous IRI with a base length of 7.62 meters. This will yield the IRI of every possible 7.62-meter segment. Any area for which the continuous report exceeds an IRI of 2.21 meters/kilometer will be considered a defective area requiring correction in accordance with 401.16(d).

A report of continuous IRI is defined as the roughness profile from "Profiles from Roughness", TRR 1260, by M.W. Sayers. Its use for detection of localized roughness, as required here, is demonstrated in "Using a Ride Quality Index for Construction Smoothness Specifications", TRR 1861, by M. Swan and S. Karamihas.

An IRI value will be determined for each 0.1 lane-kilometer of traveled way. Cattle guards, bridges, driveways, parking areas, and turning or passing lanes, side roads and ramps less than 100 meters in length will be excluded from the calculation of IRI and determination of localized roughness. Measure excluded areas according to 401.16(c).

**(1) Type III pavement roughness (IRI measurements for reconstructed and new roads).** Measure the roughness of the final paved surface course. Defective areas are 0.1-kilometer segments with IRI values greater than 150 millimeters per kilometer, or areas of localized roughness.

The pay adjustment factor for each 0.1-kilometer segment will be determined from Table 401-3.

**Table 401-3 Type III Pavement Roughness**

<b>IRI (millimeters/km)</b>	<b>Pay Factor for Roughness (PF<sub>IRI</sub>)</b>
Less than 47	PF <sub>IRI</sub> = 1.05
47.1 to 94.9	PF <sub>IRI</sub> = 1.0900 - 0.0008457(IRI)
95	PF <sub>IRI</sub> = 1.00
95.1 to 149.9	PF <sub>IRI</sub> = 1.4029 - 0.0043557(IRI)
Greater than 149.9	Defective Area

Where:

PF<sub>IRI</sub> = Pay factor for roughness.  
 IRI = International Roughness Index.

**(2) Type IV, V, and VI pavement roughness (IRI measurements for overlay, recycle with overlay, or milling with overlay projects).** Measure the roughness of the existing surface no more than 30 days prior to the start of construction. The existing surface is the original surface before overlaying, recycling, or milling. The existing IRI will be used to determine the percent improvement for each 0.1 lane-kilometer segment. Measure the roughness of the final paved surface course. Defective areas are areas of localized roughness, 0.1 lane-kilometer segments having IRI values greater than the defective limits in Table 401-4, and surfaces with a pay factor less than 0.75 as determined under Subsection 401.19.

**Table 401-4  
 Pavement Roughness**

Pavement Roughness Type	IRI (millimeters/km)	
	Upper Specification Limit	Defective Limit
IV	94.7	149.9
V	110.5	157.8
VI	126.3	165.7

The pay factor for roughness will be determined for each 0.1-kilometer segment length according to the following formula:

$$PF_{IRI} = (1.0 + 0.0045290(USL)) - 0.0045290(IRI) \leq 1.05$$

Where:

PF<sub>IRI</sub> = Pay factor for roughness.  
 IRI = International Roughness Index.  
 USL = Upper Specification Limit.

The maximum pay factor for roughness for any 0.1 lane-kilometer segment will be 1.05. For overlay, recycle with overlay, and milling with overlay projects, determine the percent improvement. Determine the percent improvement in IRI for each 0.1 lane-kilometer segment length according to the following formula:

$$\text{Percent Improvement} = [(Original\ IRI - Final\ IRI) / Original\ IRI] \times 100$$

If the percent improvement for a 0.1 lane-kilometer segment is less than zero, then the maximum pay factor for roughness will be 1.0. When only one lift of asphalt concrete pavement is placed, if the percent improvement for a 0.1 lane-kilometer segment is 25

percent or greater, then the minimum pay factor for roughness for that segment will be 1.0. When multiple lifts of asphalt concrete pavement are placed, if the percent improvement for a 0.1 lane-kilometer segment is 35 percent or greater, then the minimum pay factor for roughness for that segment will be 1.0.

**(c) Type VII pavement smoothness/roughness (straightedge measurement).** Use a 3-meter metal straightedge to measure at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 6 millimeters in 3 meters between any two contacts of the straightedge with the surface.

**(d) Defective area correction.** Correct defective areas from (a), (b), and (c) above. Obtain approval for the proposed method of correction. If no corrections are allowed, then bumps as defined by 401.16(a), and areas of localized roughness as defined by 401.16(b), will be assessed an additional deduction of \$500 per incident. For areas of localized roughness and bumps within 7.62 meters of each other longitudinally and in the same lane, only one deduction of \$500 will be assessed. If corrections of the defective areas defined in 401.16(b) are not allowed, then the pay factor will be 0.75. No other adjustments or deductions will be made if corrections are not allowed.

Re-measure corrected areas according to the specified type of pavement smoothness/roughness. The smoothness/roughness value obtained will replace the original value.

401.17. Delete the text in the last row of Table 401-6, in the column titled **Characteristic**, and substitute the following:

Type III, IV, V, and VI roughness.

401.19. Delete the last paragraph and substitute the following:

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type III, IV, V, or VI pavement roughness, a separate pay adjustment will be made for pavement roughness according to the following formula:

$$A2 = 25,000(PF_{AVE} - 1.00)(L)$$

Where:

A2 = Adjustment to contract payment in dollars for pavement roughness.

L = Total project length in lane-kilometers of traveled way minus excluded areas. Measure the project length to 3 decimal places.

PF<sub>AVE</sub> = Average Pay Factor for roughness determined according to Subsection 401.16(b) after completion of corrective work. The formula for PF<sub>AVE</sub> is as follows:

$$PF_{AVE} = (PF_{IRI1} + PF_{IRI2} + PF_{IRI3} + \dots + PF_{IRIn})/n$$

Where:

$PF_{IRI\#}$  = Pay Factor for roughness for each 0.1 lane-kilometer segment determined according to Subsection 401.16(b).

n = Number of 0.1 lane-kilometer segments tested.

### **Section 415.— PAVING GEOTEXTILE**

415.01. Delete the text and substitute the following:

This work consists of placing a fiberglass pavement reinforcement geogrid between pavement layers at the locations designated in the plans.

415.02. Add the following material:

Paving Geotextile (fiberglass reinforced geogrid)	714.03
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415.03. Delete the text and substitute the following:

Prior to laying the geogrid, sweep or vacuum clean the pavement surface to remove all dirt, oil, vegetation, or other debris.

415.04. Delete the text and substitute the following:

Place the geogrid on a dry surface. Place the geogrid only when the pavement surface temperature is between  $-5^{\circ}\text{C}$  and  $60^{\circ}\text{C}$ .

415.06. Delete the text and substitute the following:

Place the geogrid either by hand or by mechanical means under sufficient tension to eliminate ripples.

Lap transverse joints a minimum of 150 mm in the direction of the paver. Overlap longitudinal joints by a minimum of 50 mm.

Following installation, roll the surface of the geogrid with one or two passes of a rubber coated drum roller or pneumatic tired roller, or until the mesh adheres to the pavement. Clean the tires regularly with an asphalt cleaning agent.

Do not allow traffic to run on the installed geogrid, except construction and emergency vehicles. Keep the geogrid free of dirt or other debris. Remove and patch damaged sections.

Cover all geogrid with a minimum of 40 mm of asphalt concrete pavement the same day the geogrid is installed. Compact the asphalt pavement in accordance with Section 401.

Store the geogrid covered in a dry, dust free location. Store the rolls arranged vertically to avoid misshaped rolls.

### **Section 552.—STRUCTURAL CONCRETE**

552.03(g). Add the following:

Use Type I or II portland cement in all concrete.

Use Type I, II, or III portland cement in all Class P concrete.

552.03(v). Add the following:

Provide Class D(AE) concrete for parapets and approach slabs with a minimum 28-day compressive strength of 28 MPa.

Provide Class A(AE) for all other concrete with a minimum 28-day compressive strength of 28 MPa.

Provide Class P concrete for the prestressed cored slab units with a minimum 28-day compressive strength of 42 MPa.

552.09(b)(4). Add the following:

Provide for compressive strength testing of the concrete cylinders by an independent laboratory, qualified to perform the testing, and as approved by the CO.

552.11(f). Delete the first sentence and substitute the following:

**(f) Concrete railings, parapets, and curbs.**

552.19. Add the following:

The maximum pay factor for structural concrete compressive strength will be 1.0.

Measure structural concrete for approach slabs by the square meter of the top surface.

Do not measure the aggregate base under the bridge approach slabs.

Measure reinforcing steel under Section 554, except do not measure reinforcing steel in approach slabs.

### Section 554.—REINFORCING STEEL

554.08. Delete the first sentence of the first paragraph and substitute the following:

Place, fasten, and support the bars according to the *CRSI Manual of Standard Practice*. Use precast concrete blocks or metal supports.

### Section 556.-BRIDGE RAILING

556.11 Delete the first paragraph and add the following:

Measure bridge railing by the meter. Measure along top of railing from end to end of wingwalls. Measurement includes all work constructed above top of the bridge deck, and all reinforcing steel designated as railing and curb reinforcement.

### Section 562. -- TEMPORARY WORKS

562.02. Delete the second sentence and substitute the following:

Furnish factory fabricated components of vertical shoring towers complying with the Certification Program for Bridge Temporary Works (FHWA-RD-93-033).

562.03. Delete the third from the last paragraph and substitute the following:

Do not use deck overhang form brackets for girder bridges that require holes to be cast or drilled into the girder webs.

562.07. Delete this Subsection and substitute the following:

**562.07 Maintenance and Inspection.** Inspect and maintain temporary works in an acceptable condition throughout the period of use.

In the presence of the CO, perform an in-depth inspection of temporary works not more than 24 hours before beginning each concrete placement or before allowing people to enter a cofferdam or excavation support structure. Inspect other temporary works at least once a month to ensure they are functioning properly. Use a registered professional engineer to inspect cofferdams, shoring, support of excavation structures, and support systems for load tests before loading.

Furnish written results of the inspections to the CO before placing concrete, allowing people to enter a cofferdam or excavation support structure, or loading temporary works. Include a certification that the system meets the requirements of the contract and drawings.

Clearly mark the capacity of factory fabricated components of vertical shoring towers according to the Certification Program for Bridge Temporary Works (FHWA-RD-93-033). Make

inspections and certifications for factory fabricated components of vertical shoring towers according to the Certification Program for Bridge Temporary Works (FHWA-RD-93-033).

### **Section 602.—CULVERTS AND DRAINS**

602.03. Add the following:

Furnish culvert pipe from the following groups:

Reinforced concrete pipe, Class II.

### **Section 605.—UNDERDRAINS, SHEET DRAINS, AND PAVEMENT EDGE DRAINS**

605.02. Delete the first and sixth materials and substitute the following:

Aluminum alloy corrugated pipe, Type III	707.03
Metallic coated corrugated steel pipe, Type III	707.02

605.02. Add the following:

Polymer-coated steel pipe	707.08
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**605.03 General.** Add the following after the second paragraph:

Do not install drain material until the CO has accepted the final location and length.

605.08. Add the following:

Do not measure the 100 mm diameter perforated/non-perforated pipes.

### **Section 609.—CURB AND GUTTER**

609.05(a). Add the following:

Steel forms will not be permitted.

609.10. Add the following:

Measure curb height transition sections as Portland cement concrete curb, 450 mm depth.

### **Section 620.—STONE MASONRY**

620.03. Add the following:

Masonry is designated as Class A masonry with a 2.0 RF finish for stone masonry headwalls.

Provide stone masonry for headwalls, as approved by the CO, which matches the stone kind, color, texture, relief, dimension, and pattern of masonry headwalls along Reconnoitering Road in the Park. Headwalls constructed on a skew should match the headwall along Pittsburg Landing Road near its intersection with Welker Battery Road.

620.04 . Add the following after the first paragraph:

Set each stone on a full mortar base.

Lay all stones with the longest dimension horizontal. Square stones will not be permitted in the work. Break vertical joints after no more than two courses and break horizontal joints after no more than five joints. Do not place stones such that four corners meet at one location. Joint thickness and variance from the neat line along the horizontal and vertical face of the stone masonry structure shall be similar to the specified sample for each structure.

620.11. Add the following:

Measure stone masonry headwalls by the each.

### **Section 624.—TOPSOIL**

624.04. Add the following after the second paragraph:

Where topsoil will be placed on slopes on which the character of the subsoil will not blend with the topsoil, work the topsoil into the subsoil to eliminate any slip-plane between the 2 materials and leave a sufficient cover of topsoil to ensure germination of the seed.

624.04. Delete the third sentence of the second paragraph and substitute the following:

Remove and dispose of clods that will not break down, stones larger than 13 millimeters in the longest dimension, stumps, roots, and other litter according to Subsection 203.05.

### **Section 625.—TURF ESTABLISHMENT**

625.01. Add the following:

The work does not include areas previously protected by soil erosion control measures according to Section 157, and upon which permanent suitable vegetation has started growth.

625.02. Add the following:

Ammonium nitrate	713.19
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Use straw, hay, or wood cellulose fiber mulch.

625.03. Add the following:

Where directed by the CO, cover slopes with a straw erosion control blanket and water.

625.06. Add the following:

Apply limestone, fertilizer, and ammonium nitrate at the following rates per hectare:

<u>Item</u>	<u>Rate</u>
Agricultural Limestone (85% CaCO <sub>3</sub> )	4000 kg
Fertilizer	1400 kg
Ammonium nitrate	110 kg

Apply ammonium nitrate in one application after growth has begun in areas designated by the CO.

625.07. Add the following:

Apply seed at the rates for each season as follows:

<u>Name of Seed</u>	<u>Rates and Seeding Seasons</u>
	<u>September through February</u>
Bermuda grass, common (unhulled)	20 kg/hectare
White clover	30 kg/hectare
K31-Tall fescue	40 kg/hectare
Kentucky bluegrass	25 kg/hectare
Ryegrass, annual	<u>20 kg/hectare</u>
Total seed	135 kg/hectare
	<u>March through August</u>
Bermuda grass (hulled)	35 kg/hectare
White clover	30 kg/hectare
K31-Tall fescue	25 kg/hectare
Kentucky bluegrass	25 kg/hectare
Ryegrass, annual	<u>25 kg/hectare</u>
Total seed	140 kg/hectare

625.08. Add the following:

Use straw mulch.

625.08. Add the following:

Apply mulch at the following rates:

<u>Mulch</u>	<u>Rate kilograms/hectare</u>
Straw	5600 (2.5 to 5 centimeter mat)

### **Section 633.—PERMANENT TRAFFIC CONTROL**

633.01. Delete the second paragraph and substitute the following:

Sign panels are designated as aluminum.

633.03. Add the following:

Paint supports, backs and edges of sign panels with Benjamin Moore, Moorgard, exterior latex low luster paint, Federal Standard 595B Color No. 20059 (brown), or approved equal.

Furnish aluminum sign panels.

Furnish weathering steel posts.

### **Section 634.—PERMANENT PAVEMENT MARKINGS**

634.03. Add the following to the first paragraph:

Place traffic markings before a winter suspension of paving operations.

### **Section 635.—TEMPORARY TRAFFIC CONTROL**

635.02. Delete the Construction sign panels Section reference and substitute the following:

Construction sign panels	633.02
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635.03. Add the following:

For all signs and other devices requiring orange color, use fluorescent red-orange or fluorescent yellow-orange color.

635.03(i). Add the following:

Submit a certification that the devices have been successfully crash tested to meet the requirements of NCHRP 350 and/or have been accepted by the FHWA.

**635.07** Delete the last sentence and substitute the following:

Remove or completely cover all unnecessary signs, or signs that conflict with the construction signing or Traffic Control Plan. Cover signs that are not removed so that no part of the covered sign is visible to traffic. Provide sign covers for temporary signs meeting the following requirements:

- a) Large enough to completely cover the sign.
- b) Easy to attach to and remove from the sign without damaging the sign face. Do not use adhesives, glues, tapes, or mechanical fasteners that mar the sign face.
- c) Black, non-reflective, and opaque.
- d) Made of plywood (minimum of 10 millimeters thick), aluminum (minimum of 1 millimeter thick), or sheet metal of a sufficient thickness that the covering will not be lifted, bent or damaged by wind.
- e) Durable enough to resist deterioration due to weathering and atmospheric conditions for the duration of the project.

635.07. Add the following:

Furnish 40 by 40-centimeter flags for high level warning devices that are orange or fluorescent red orange in color.

### **Section 637. — FACILITIES AND SERVICES**

637.02. Add the following:

Locate the Government field office at the Livingston House, near the intersection of Highway 22 and Highway 142, as directed by the CO. Provide high-speed Internet access, as described in Subsection 637.03(a)(7).

After removal of the facilities and services, apply permanent turf establishment to the disturbed area according to Section 625.

The Contractor is responsible for reestablishing all existing utility connections upon removal of the facilities.

637.03. Delete the third and fourth sentences of the first paragraph and substitute the following:

Provide local and long distance telephone services. The Government will be responsible for the

cost of long distance calls made by Government employees for Government business and charged against this phone service. Bill the Government separately for these charges.

637.03(a) Add the following:

Divide the field office into 3 areas by permanent walls with hinged doors. If window air conditioning is provided, provide a separate unit for each room.

Clean the field office weekly to the approval of the CO.

Supply the following equipment in the field office:

**(1) Copy machine.** One self-feeding plain paper photo copying machine with the following minimum capabilities:

(a) Automatic document feeder capable of making at least 8 copies per minute;

(b) Reproducing copies at standard sizes up to and including 11 x 17 inches (297 x 420 millimeters); and

(c) Reducing 11 x 17 inches (297 x 420 millimeters) plan sheets to 8 ½ x 14 inches (210 x 358 millimeters) legal size and to 8 ½ x 11 inches (210 x 297 millimeters) letter size.

Furnish all necessary supplies, except paper. Paper will be supplied by the Government.

**(2) Printer.** One plain paper printing machine with printing capabilities of standard sizes up to and including 11 x 17 inches (297 x 420 millimeters). The printer must be capable of printing from direct personal computer (PC) and local area network (LAN) hookups. The printer may be one machine in combination with the copy machine. Furnish all necessary supplies, except paper. Paper will be supplied by the Government.

**(3) Facsimile (FAX) machine.** One FAX machine with the following minimum capabilities:

(a) Automatic document feeder with a minimum capacity of 20 pages;

(b) Sending standard size documents up to and including 11 x 17 inches (297 x 420 millimeters);

(c) Printing on plain paper; and

(d) Automatic dial/redial.

The FAX machine may be one machine in combination with the copy machine. Furnish all necessary supplies, except paper. Paper will be supplied by the Government.

**(4) Telephone.** Two dual line telephones (touch tone, hold button, intercom, and conference calling capabilities) with 2 separate lines, for the exclusive use of the CO.

**(5) Answering machine.** One digital answering device capable of answering, recording, storing, and playing back messages at least 30 minutes in length.

**(6) Cellular telephone.** Provide two durable, hand held digital/cellular wireless telephones, manufactured by Motorola/Nextel, or approved equal, for the use of the CO. Furnish cellular telephones that are similar or compatible with the Contractor's key field personnel (Project Superintendent, and Traffic Control Supervisor) to enable the direct communication between the CO and the Contractor's key field personnel. Furnish each of the cellular telephones with the following minimum capabilities:

(a) Direct Connect feature, or equivalent, to communicate onsite with Contractor's key field personnel;

(b) Voicemail capable of answering, recording, storing, and playing back messages at least 30 minutes in length;

(c) Hands free device that can be used safely and effectively while driving, and is acceptable by the local law enforcement agencies;

(d) Customized communication configuration, independent of the other units, so that the CO may limit any features if necessary;

(e) Carrying case that can be worn on the belt and is appropriate for use on construction projects; and

(f) Other necessary cellular telephone accessories including a cigarette lighter power adapter/charger.

The cellular telephone plan shall provide the necessary amount of monthly Direct Connect airtime and monthly Digital/Cellular airtime for use on the project. Ensure that each unit has unlimited Direct Connect capabilities and each unit is equipped with a minimum of 600 minutes per month of local and long distance airtime for official business only.

**(7) High-speed Internet access.** Provide, install, and maintain high-speed Internet access service having at least 768kbps download and 256kbps upload speed. The high-speed Internet access service can be provided via DSL, FIOS, a dedicated T1 line, or cable. Alternate Internet access service options may be submitted to the CO for approval. The system must include a modem and a router with a firewall or a router and a firewall appliance. The system must have the capability to support simultaneous Internet access of at least 3 workstations connected by Category 6 RJ45 LAN office drop cables. If the router supports wireless Internet access, this feature must be disabled. Wireless Internet

If any equipment supplied becomes defective, is stolen, or for any other reason does not function as intended, replace the equipment with an equal or better unit at no additional cost to the Government. Replace any defective equipment within eight hours after being notified by the CO.

The Contractor will retain ownership of all equipment supplied by the Contractor. The CO will notify the Contractor when the equipment is no longer needed and request its removal.

### **Section 702.—ASPHALT MATERIAL**

702.01. Delete the first sentence and substitute the following:

Asphalt binders, including those with antistripping additives and binder blends with hot recycled mixtures, shall conform to AASHTO M 226, Table 2, for viscosity graded binders and AASHTO MP 1 for performance graded binders.

### **Section 703.—AGGREGATE**

703.02. Add the following:

Gravel and crushed river gravel will not be permitted.

703.05(a). Delete items (3) and (4).

703.05(b). Add the following:

**(3)** Plasticity Index, AASHTO T90

3 Max

703.05(b). Add the following:

Material shall have a minimum California Bearing Ratio of 70 percent, as determined by AASHTO T 193 at 95 percent of maximum dry density in accordance with AASHTO T 180 (Method D).

703.05(b)(1) Add the following:

At the option of the Contractor, the gradation only of the aggregate base may conform to the requirements of Section 903.-AGGREGATES, Subsection 903.05, Grading Table for Type A and Type B Aggregate for Mineral Aggregate Base and Surface Courses, Grading B or C, as

specified in the March 1, 2006 Edition of the Standard Specifications for Road and Bridge Construction of the Tennessee Department of Transportation.

### **Section 705.—ROCK**

705.03(a). Delete the text and substitute the following:

Do not use rock with depressions or projections that might weaken it or prevent it from being properly embedded.

In the wall face, no stone shall be less than 2 inches in vertical dimension, 15 centimeters in horizontal dimension, or 4 inches 10 centimeters in depth dimension.

On the top of the wall, no stone shall be less than 10 centimeters in least dimension.

Submit stone samples representing every color to be used on the project to the CO for approval.

### **Section 709.—REINFORCING STEEL AND WIRE ROPE**

709.01(b). Delete the text of this subsection and substitute the following:

**(b) Reinforcing bars.** Furnish deformed, grade 240 bars conforming to AASHTO M 31M.

709.01(d). Delete text of this subsection and substitute the following:

**(d) Tie bars.** Furnish deformed, grade 240 bars conforming to AASHTO M 31M.

709.01(e). Delete the first sentence of text in this subsection and substitute the following:

Furnish plain, grade 240 bars conforming to AASHTO M 31M with M14M rolled threads or M16M cut threads.

709.01 Add the following after 709.01(l):

**(m) Spiral Reinforcement.** Conform to AASHTO M32, or to the strength and elongation requirements of AASHTO M31, Grade 60.

### **Section 713.—ROADSIDE IMPROVEMENT MATERIAL**

713.01. Add the following:

For furnished topsoil, submit a soil analysis report from the State University Agricultural

Extension Service or other approved soil testing laboratory. Include in the report the soil textural classification (percentage of sand, silt, clay and organic matter) and additive recommendations.

713.01(a)(1)(d). Delete text and substitute the following:

(d) Clay, AASHTO T 88	5 to 15%
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Furnish topsoil for aggregate-topsoil course from Contractor sources.

713.02. Add the following:

Use a maximum of 0.3 kilograms of limestone per cubic meter)of topsoil in order to adjust an acidic condition.

713.03. Add the following:

Furnish fertilizer containing the following minimum available nutrients, unless soil analysis indicates higher concentrations are required:

Total nitrogen	10 percent
Available phosphoric acid	10 percent
Water-soluble potash	10 percent

Add the following after Subsection 713.18:

**713.19 Ammonium Nitrate.** Furnish a standard manufactured product containing at least 33.5% nitrogen.

**713.20 Water Filtration Bag.** Furnish prefabricated water filtration bags made from non-woven geotextile fabric with a minimum surface area of 20 square meters (225 square feet) per side. Provide water filtration bags that have all structural seams sewn with a double stitch using a double needle machine with high strength thread. Seam strength must withstand 20 kg/cm (100 lb./in.) using ASTM D-4884 test method.

#### **Section 714.--GEOTEXTILE AND GEOCOMPOSITE DRAIN MATERIAL**

Add the following after Subsection 714.02:

**714.03 Paving Geotextile (fiberglass reinforced geogrid).** Furnish a reinforcement geogrid constructed of a knitted glass fiber strand grid with the following characteristics:

1. Tensile strength of 200 kN/m x 100 kN/m component strand lengths.
2. Area weight of 650 g/m<sup>2</sup>.
3. Elongation at break of 4% maximum.
4. Melt point above 450°C.

5. The mesh shall be self-adhesive, with sufficient bond to allow normal construction traffic and paving operations.

**Section 725.—MISCELLANEOUS MATERIAL**

725.19. Add the following:

Furnish a 6-mil polyethylene lining that is serviceable for the duration of the installation.

**MINUTE-MEMO****SUBJECT: TEA-21 SHIL 502(3) – Applicable Geotechnical Reports/Memorandums**

TO	MESSAGE/COMMENT	FROM/DATE
R. Satsiya Highway Engineer	This memorandum is written to clarify the documents to be included in the PS&E package for Project TEA-21 SHIL 502(3) – Rehabilitation of Roadways, Bridge Replacement at Tilghman Branch, Intersection Improvements, and Other Miscellaneous Work.	<i>BKL</i> B. Lawrence Geotechnical Engineer
S. Arnold PS&E Engineer	Include Geotechnical Report No. 24-99, dated July 2000, and Amendment No. 2, dated August 14, 2002. Do not include Amendment 1 to the Geotechnical Report since it is not applicable to this project.	<i>Dem</i> Through: K. Mohamed Division Geotechnical Engineer
		06/30/2008

cc: Geotech, TS Reading, Highway Design (J.J.)