

Contract No.:



**U S DEPARTMENT OF TRANSPORTATION**

**FEDERAL HIGHWAY ADMINISTRATION**

**EASTERN FEDERAL LANDS HIGHWAY DIVISION**

**PROJECT: HEHO 10(1), 100(1)  
HERBERT HOOVER NATIONAL  
HISTORIC SITE**

**PMIS NO.: 93437**

**SOLICITATION**

**IFB NO.: DTFH71-08-B-00008**

**This Contract Cites  
Standard Specifications FP- 03  
U.S. Customary Units**

**CONTRACTOR:  
ADDRESS:**

**STATE:** Iowa

**COUNTY:** Cedar

**PARK:** National Park Service

<b>ROADWAYS:</b>	<b>STATIONS</b>	<b>FEET</b>
Parkside Drive Bridge		70.67
Second Street Bridge		62.00
<b>PROJECT LENGTH TOTAL:</b>		<b>132.67</b>

**TYPE OF IMPROVEMENT:**

**Parkside Drive:** Hydrodemolish Parkside Drive Bridge deck and construct concrete overlay, replace sidewalk at the southeast and northeast bridge approaches, construct southwest concrete sidewalk extension, clean and paint existing bridge railing, reconstruct settled sections along Parkside Drive, drainage, and other misc. work.

**Second Street:** Replace Bridge expansion joints seals and install railing end caps at the southeast and northeast corners.

# TABLE OF CONTENTS

	<u>Page</u>
Notice to Bidders	1 through 2
Checklist for Bid Submission	1 through 2
<b>*New Questionnaire Form on Calendar Days</b>	<b>1 Page</b>
<b>*SF-1442 Solicitation, Offer, and Award</b>	<b>A-1 through A-2</b>
Continuation of SF 1442	A-3 through A-4
Bid Schedule Instructions	1 through 2
<b>*Bid Schedule</b>	<b>B-1 through B-4</b>
<b>*SF-24 Bid Bond</b>	<b>C-1 through C-2</b>

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

Index to Federal and Transportation Acquisition Regulations	1 through 6
Representations and Certifications (OCRA online)	D-1
Instructions to Bidders	E-1
<b>*Socioeconomic Program Requirements</b>	<b>F-1 through F-8</b>
Minimum Wage Schedule	F-9 through F-14
<b>*General Contract Requirements</b>	<b>G-1 through G-4</b>
Construction Contract Requirements	H-1

## SPECIFICATIONS

Special Contract Requirements	J-1 through J-47
Plans	43 Pages

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

## **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:

[http://www.fbo.gov/spg/DOT/FHWA/71/postdatePrevDays\\_1.html](http://www.fbo.gov/spg/DOT/FHWA/71/postdatePrevDays_1.html)

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-4)

- 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-00008</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>03/14/08</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>PRA-HEHO 10(1), 100(1)</b>
-----------------	-------------------------------------	---

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>
---	------------	--

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>
--	---------------------------------	--

<b>SOLICITATION</b>
See Continuation of SF 1442
<b>NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"</b>

10. The Government requires performance of the work described in these documents (title, identifying no., date):  
This Invitation for Bids is for the **Herbert Hoover National Historic Site located in Cedar County, Iowa** 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-4.
  - \* Special Contract Requirements, Section J - pages J-1 through J-47.
  - \* Plans (Drawings), Sheets 1 through 43.

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
---	--

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 **04/15/08**. 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.

**OFFER (Must be fully completed by offeror)**

14. Name and Address of Offeror (Include ZIP code)	15. Telephone No. (Include area code)
	16. Remittance Address (Include only if different than Item 14)
CODE	FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation if this offer is accepted by the Government in writing within \_\_\_ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.

**AMOUNTS ➡ See Bid Schedule - Section "B" Pages**

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGEMENT OF AMENDMENTS  
*(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)*

AMENDMENT NO.								
DATE								

20a. Name and title of person authorized to sign offer (Type or print)	20B. Signature	20C. Offer Date
--	----------------	-----------------

**AWARD (To be completed by Government)**

21. Items Accepted:

22. Amount	23. Accounting and appropriation data
------------	---------------------------------------

24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM <b>See Block 26</b>	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 15 USC 637(a) ) <input type="checkbox"/> 41 USC 253(c) ( )
---	-----------------------------	---

26. ADMINISTERED BY Federal Highway Administration Eastern Federal Lands Highway Division 21400 Ridgetop Circle Sterling, Virginia 20166-6511	27. PAYMENT WILL BE MADE BY: Federal Highway Administration Eastern Federal Lands Highway Division Finance Division, Room 357 21400 Ridgetop Circle Sterling, Virginia 20166-6511
---	--

**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return ___ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
---	---

30a. Name and Title of Contractor or Person Authorized to Sign (Type or print)	31a. Name of Contracting Officer (Type or print)
30b. Signature	31b. United States of America BY
30C. Date	31C. Date

# 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>.

## 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 and/or questions concerning this construction project to must be emailed to

[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 completion of the contract is \* **110** calendar days. 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.

The work requires contractor design or construction experience per Sections 562 and 563 of the SCR's. To perform quality control functions, provide a competent person as defined in SSPC-QP 2 with the following:

- (1) An SSPC Competent Person Certificate. **Certificate must be current and submitted with bid package.**
- (2) A certificate of completion of 29 CFR 1926.62 Lead in Construction training.
- (3) Minimum of 2 years industrial field painting experience.
- (4) Minimum of 90 days of field supervisory or management experience in paint removal projects.
- (5) Documentation of the individual's qualifications including records of training and experience.

# CONTINUATION OF SF 1442

**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 **\$250,000 to \$500,000**.

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:** PRA-HEHO 10(1), 100(1)

**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, and show in the space provided on Page B-3. 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-03 regarding scope of payment for direct and indirect payment work.

### SCHEDULE OF WORK

The Bid Schedule is comprised of the following:

**Schedule A – Consists of the rehabilitation of the Parkside Drive and Second Street Bridges; the work includes hydrodemolition of bridge deck and concrete bridge deck overlay, excavating and replacing roadway approaches, replacing sidewalk and curb, installing drainage inlets and pipes, resealing expansion joints, repainting bridge railings, and other miscellaneous work.**

### BIDDING OF CALENDAR DAYS

Determine the number of calendar days necessary to complete Schedule A work from Notice to Proceed to contract completion. 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 B-4). Failure to specify a number of calendar days for contract completion indicates the bidder accepts the maximum contract completion 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. Specific work limitations may be (but are not limited to): holidays and weekends; rush hours; night work; no work periods; traffic control or other work phasing. Bidders are also 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, plants). The total calendar days bid should 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 \$500 per calendar day bid. The Contract Administrative Cost is only used to determine the 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 **Total Price of Project** in the space provided on the **Bid Summary** (Page B-4).

#### BASIS FOR AWARD

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

**Bid Total of Schedule A + Contract Administrative Cost of Schedule A**

**The number of calendar days specified by the successful bidder for the completion of Schedule A work will become the performance period for the contract.**

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

## Bid Schedule

Project: PRA-HEHO 10(1), 100(1)  
HERBERT HOOVER NATIONAL HISTORIC SITE

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		
	500		
	LNFT	\$ _____	\$ _____
15706-1200	SOIL EROSION CONTROL, INLET PROTECTION TYPE B		
	2		
	EACH	\$ _____	\$ _____
20303-0300	REMOVAL OF CONCRETE		
	135		
	SQYD	\$ _____	\$ _____
20303-3200	REMOVAL OF SIDEWALK, CONCRETE		
	12		
	SQYD	\$ _____	\$ _____
20315-0000	SAWCUTTING PAVEMENT		
	300		
	LNFT	\$ _____	\$ _____
20401-0000	ROADWAY EXCAVATION		
	54		
	CUYD	\$ _____	\$ _____
25101-3000	PLACED RIPRAP, CLASS 3		
	4		
	CUYD	\$ _____	\$ _____
30102-2000	AGGREGATE BASE GRADING C OR D, 6-INCH DEPTH		
	135		
	SQYD	\$ _____	\$ _____

Bid Schedule A

Project: PRA-HEHO 10(1), 100(1)  
HERBERT HOOVER NATIONAL HISTORIC SITE

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30502-0300	AGGREGATE-TOPSOIL COURSE, 2-INCH DEPTH 30 SQYD	\$ _____	\$ _____
50101-0900	REINFORCED RIGID PAVEMENT, 8-INCH DEPTH, TYPE C SMOOTHNESS 135 SQYD	\$ _____	\$ _____
55201-0200	STRUCTURAL CONCRETE, CLASS A (AE) , FOR BRIDGE SIDEWALK EXTENSION 2 CUYD	\$ _____	\$ _____
55202-4000	STRUCTURAL CONCRETE, FOR OVERLAY (CLASS HPC(O)) 135 SQYD	\$ _____	\$ _____
55205-0000	REPAIR CONCRETE , (PARTIAL DEPTH) 2 SQYD	\$ _____	\$ _____
55211-0000	CLEAN AND RESEAL JOINTS 216 LNFT	\$ _____	\$ _____
55601-0100	BRIDGE RAILING, ALUMINUM (RAIL END CAP) 2 LNFT	\$ _____	\$ _____
56001-0000	REMOVAL OF CONCRETE BY HYDRODEMOLITION 135 SQYD	\$ _____	\$ _____
56301-2000	PAINTING, STEEL STRUCTURE (Parkside Drive Bridge Railing) ALL	Lump Sum	\$ _____
60201-0600	18-INCH PIPE CULVERT 60 LNFT	\$ _____	\$ _____
60210-0600	END SECTION FOR 18-INCH PIPE CULVERT 2 EACH	\$ _____	\$ _____
60403-1200	INLET, TYPE 5A 2 EACH	\$ _____	\$ _____

Bid Schedule A

Project: PRA-HEHO 10(1), 100(1)

HERBERT HOOVER NATIONAL HISTORIC SITE

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61501-0100	SIDEWALK, CONCRETE 12 SQYD	\$ _____	\$ _____
62401-0100	FURNISHING AND PLACING TOPSOIL, 2-INCH DEPTH 10 SQYD	\$ _____	\$ _____
62502-0000	TURF ESTABLISHMENT 30 SQYD	\$ _____	\$ _____
63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID 3,500 LNFT	\$ _____	\$ _____
63502-0600	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 3 10 EACH	\$ _____	\$ _____
63502-1300	TEMPORARY TRAFFIC CONTROL, DRUM 100 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 100 EACH	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 330 SQFT	\$ _____	\$ _____
63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER 56 HOUR	\$34.50	\$1,932.00
63708-0000	CELLULAR PHONE SERVICE 4 MO	\$ _____	\$ _____
64502-0000	LOCATE UTILITIES 2 EACH	\$ _____	\$ _____

**TOTAL**      \$ \_\_\_\_\_

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

Bid Schedule A

Project: PRA-HEHO 10(1), 100(1)  
HERBERT HOOVER NATIONAL HISTORIC SITE

**BID SUMMARY**

Project PRA-HEHO 10(1), 100(1)  
(Complete for Pages B-1 through B-3)

---

**(1) Schedule A Bid Total (from Page B-3)** \$ \_\_\_\_\_

**Contract Administrative Cost**

Number of calendar days necessary to complete all Schedule A work  
from Notice to Proceed (or date specified in the Notice to Proceed) to  
completion of Schedule A.

**(2) \_\_\_\_\_ calendar days x \$500 per calendar day =** \$ \_\_\_\_\_

---

---

**Total Price of Project**

(1) Bid Total for Schedule A . . . . . (1) \$ \_\_\_\_\_

+ (2) Contract Administrative Cost for Schedule A . . . . . (2) \$ \_\_\_\_\_

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

---

---

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
--	---	--------------------

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
--	--

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

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 2005-20 on 09/06/2007)

### 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>	Jul-06	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))	Sep-07	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 2005-20 on 09/06/2007)

### 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	Feb-06	
52.227-01	AUTHORIZATION AND CONSENT	Jul-95	
52.227-02	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	Aug-96	
52.227-04	PATENT INDEMNITY-CONSTRUCTION CONTRACTS	Apr-84	
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 2005-20 on 09/06/2007)**

**FAR & TAR CLAUSES INCORPORATED BY REFERENCE**

<b>CLAUSE</b>	<b>TITLE</b>	<b>DATE</b>	<b>REMARKS</b>
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**

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

**FAR & TAR PROVISIONS INCORPORATED BY REFERENCE**

<b>PROVISION</b>	<b>TITLE</b>	<b>DATE</b>	<b>REMARKS</b>
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 2005-20 on 09/06/2007)

### 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	Aug-00	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 2005-20 on 09/06/2007)**

**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**

<b>PROVISION</b>	<b>TITLE</b>	<b>DATE</b>	<b>REMARKS</b>
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**

<b>PROVISION</b>	<b>TITLE</b>	<b>DATE</b>	<b>REMARKS</b>
------------------	--------------	-------------	----------------

**CONTRACT PROVISIONS INDEX**  
**FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)**  
**(Updated thru FAC 2005-20 on 09/06/2007)**

<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.**

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 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)

### 52.204-8

**52.204-8 – Annual Representations and Certifications.**

As prescribed in 4.1202, insert the following provision:  
Annual Representations and Certifications (Jan 2006)

- (a)
  - (1) The North American Industry classification System (NAICS) code for this acquisition is 237310.
  - (2) The small business size standard is **\$31,000,000**.
  - (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b)
  - (1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) 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 (c) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:
    - (i) Paragraph (c) applies.
    - (ii) Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.
- (c) 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

**(End of Section D)**

# 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. Frank Mobley, Facility Manager

Address: Herbert Hoover National Historic Site  
110 Parkside Drive, West Branch, Iowa 52358-0607

Telephone: 319-643-7874

E-mail: [Frank.Mobley@nps.gov](mailto:Frank.Mobley@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:

Goals for Minority Participation for Each Trade	Goals for Female Participation for Each Trade
<b>1.5%</b>	<b>6.9%</b>

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:

### Cedar County, Iowa

(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

Foreign and Domestic Construction Materials Price Comparison			
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--

“Caribbean Basin 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 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--

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

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

(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.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign

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

**SOCIOECONOMIC PROGRAM REQUIREMENTS**

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 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

# FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

## SOCIOECONOMIC PROGRAM REQUIREMENTS

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: **IA20080001** 02/08/2008 IA1

Date: February 8, 2008

General Decision Number: **IA20080001** 02/08/2008

Superseded General Decision Number: IA20070001

State: Iowa

Construction Types: Heavy and Highway

Counties: Iowa Statewide.

STATEWIDE EXCEPT SCOTT COUNTY HEAVY CONSTRUCTION PROJECTS  
(Does not include work on or pertaining to the Mississippi or  
Missouri Rivers or on Water and Sewage Treatment Plants), AND  
HIGHWAY PROJECTS (does not include building structures in rest  
areas)

Modification Number	Publication Date
0	02/08/2008

\* SUIA2002-003 12/01/2007

	Rates	Fringes
Carpenter & Piledrivermen		
ZONE 1.....	\$ 22.17	7.83
ZONE 2.....	\$ 20.08	7.83
ZONE 3.....	\$ 20.08	7.83
ZONE 4.....	\$ 19.80	5.70
ZONE 5.....	\$ 19.25	4.30
Concrete Finisher		
ZONE 1.....	\$ 20.77	6.00
ZONE 2.....	\$ 20.77	6.00
ZONE 3.....	\$ 20.77	6.00
ZONE 4.....	\$ 18.55	4.20
ZONE 5.....	\$ 16.95	4.20
Electricians: (STREET AND HIGHWAY LIGHTING AND TRAFFIC SIGNALS)		
ZONE 1, ZONE 2 AND ZONE 3...	\$ 19.55	4.20
ZONE 4.....	\$ 18.25	4.20
ZONE 5.....	\$ 16.00	4.20

Ironworkers: (SETTING OF  
STRUCTURAL STEEL)

ZONE 1 AND 2.....	\$ 24.05	6.85
ZONE 3.....	\$ 23.75	7.15
ZONE 4.....	\$ 19.65	5.85

## Laborers:

ZONE 1 AND ZONE 2		
GROUP A.....	\$ 18.43	7.60
GROUP AA.....	\$ 19.20	7.60
GROUP B.....	\$ 16.58	7.60
GROUP C.....	\$ 13.50	7.60
ZONE 3		
GROUP A.....	\$ 18.43	7.60
GROUP AA.....	\$ 19.20	7.60
GROUP B.....	\$ 16.58	7.60
GROUP C.....	\$ 13.50	7.60
ZONE 4		
GROUP A.....	\$ 17.60	4.85
GROUP B.....	\$ 16.28	4.85
GROUP C.....	\$ 13.80	3.80
ZONE 5		
GROUP A.....	\$ 16.55	4.20
GROUP B.....	\$ 13.55	4.20
GROUP C.....	\$ 12.95	4.20

## Power equipment operators:

ZONE 1		
GROUP A.....	\$ 24.90	12.10
GROUP B.....	\$ 23.30	12.10
GROUP C.....	\$ 20.80	12.10
GROUP D.....	\$ 20.80	12.10
ZONE 2		
GROUP A.....	\$ 24.15	12.10
GROUP B.....	\$ 22.55	12.10
GROUP C.....	\$ 19.80	12.10
GROUP D.....	\$ 19.80	12.10
ZONE 3		
GROUP A.....	\$ 24.90	12.20
GROUP B.....	\$ 23.10	12.20
GROUP C.....	\$ 22.10	12.20
GROUP D.....	\$ 22.10	12.20
ZONE 4		
GROUP A.....	\$ 24.50	6.40
GROUP B.....	\$ 23.36	6.40
GROUP C.....	\$ 21.28	6.17
GROUP D.....	\$ 21.28	6.17
ZONE 5		
GROUP A.....	\$ 21.07	4.40
GROUP B.....	\$ 20.03	4.40
GROUP C.....	\$ 18.70	4.40
GROUP D.....	\$ 17.70	4.40

TRUCK DRIVER (AND PAVEMENT  
MARKING DRIVER/SWITCHPERSON)

ZONE 1.....	\$ 18.90	7.85
ZONE 2.....	\$ 18.90	7.85

ZONE 3.....	\$ 18.90	7.85
ZONE 4.....	\$ 18.80	4.20
ZONE 5.....	\$ 16.85	4.20

ZONE DEFINITIONS

ZONE 1 - The Counties of Polk, Warren and Dallas for all Crafts, and Linn County Carpenters Only.

ZONE 2 - The Counties of Dubuque for all crafts and Linn County for all Crafts except Carpenters.

ZONE 3 - The Cities of Burlington, Clinton, Fort Madison Keokuk, and Muscatine (and abutting municipalities of any such cities).

ZONE 4 - Story, Black Hawk, Cedar, Jasper, Jones, Jackson, Madison and Marion Counties; Clinton County (except the City of Clinton), Johnson County, Muscatine County (except the City of Muscatine), the City of Council Bluffs, Lee County and Des Moines County.

ZONE 5 - All areas of the state not listed above.

LABORER CLASSIFICATIONS - ALL ZONES

GROUP AA: Skilled pipelayer (sewer, water and conduits) and tunnel laborers (zones 1, 2 and 3)

GROUP A - Carpenter tender on bridges and box culverts; curb machine (without a seat); deck hand; diamond and core drills; drill operator on air tracs, wagon drills and similar drills; form setter/stringman on paving work; gunnite nozzleman; joint sealer kettleman; laser operator; pipelayer (sewer water and conduits) Zone 4 & 5; powderman tender; powerman/blaster; saw operator; tunnel laborer (zones 4 and 5).

GROUP B - Air, gas, electric tool operator; barco hammer; carpenter tender; caulker; chain sawman; compressor (under 400cfm); concrete finisher tender; concrete processing materials and monitors; cutting torch on demolition; drill tender; dumpmen; electric drills; fence erectors; form line expansion joint assembler; form tamper; general laborer; grade checker; handling and placing metal mesh, dowel bars, reinforcing bars and chains; hot asphalt laborer; installing temporary traffic control devices; jackhammerman; mechanical grouter; painter (all except strippers); paving breaker; planting trees, shrubs and flowers; power broom (not self/propelled); power buggyman; rakers; rodman (tying reinforcing steel); sandblaster; seeding and mulching; sewer utility topman/bottom man; spaders; stressor or stretcherman on pre or post tensioned concrete; stringman on re/surfacing/no grade control; swinging stage, tagline or block and tackle; tampers; timberman; tool room men and

checkers; tree climber; tree groundman; underpinning and shoring caissons over twelve feet deep; vibrators; walk behind trencher; walk behind paint stripers; walk behind vibrating compactor; water pumps (under three inch); work from bosun chair.

GROUP C - Scale weigh person; traffic control/flagger, surveillance or monitor, water carrier.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS - ALL ZONES

GROUP A - Asphalt Breakdown Roller (vibratory), Asphalt laydown machine; asphalt plant; Asphalt Screed, bulldozer finish); central mix plant; concrete pump; crane; crawler tractor pulling scraper; directional drill (60,000(lbs) pullback and above); dragline and power shovel; dredge engineer; excavator (over 1/2 cu. yd.) front end loader (4 cy and over); horizontal boring machine; master mechanic; milling machine (over 350 hp); motor grader (finish); push cat; rubber tired backhoe (over 1/2 cu. yd.) scraper (12 cu. yd. and over or finish); Self-propelled rotary mixer/road reclaimer; sidebroom tractor; slipform portland concrete paver; tow or push boat; trenching machine (Cleveland 80 or similar).

GROUP B - Articulated off road hauler, asphalt heater/planer; asphalt material transfer vehicle; Asphalt Roller; belt loader or similar loader; bulldozer (rough); churn or rotarydrill; concrete curb machine, crawler tractor pulling ripper, disk or roller; deck hand/oiler directional drill (less than 60,000(lbs) pullback); distributor; excavator 1/2 cu. yd. and under); form riding concrete paver; front end loader (2 to less than 4 cu. yd.); group equipment greaser; mechanic; milling machine (350hp. and less); paving breaker; portland concrete dry batch plant; rubber tired backhoe 1/2 cu. yd. and under); scraper (under 12 cy), screening, washing and crushing plant (mobile, portable or stationary); shoulder machine; skid loader (1 cu. yd and over); subgrader or trimmer; trenching machine; water wagon on compaction.

GROUP C - Boom & winch truck, concrete spreader/belt placer, deep wells for dewatering; farm type tractor (over 75 hp.) pulling disc or roller; forklift; front end loader (under 2 cu. yd.); motor grader (rough); pile hammer power unit; pump (greater than three inch diameter); pumps on well points; safty boat; self-propelled roller (other than asphalt); self-propelled sand blaster or shot blaster, water blaster or striping grinder/remover; skid loader (under 1 cu. yd.); truck mounted post driver.

GROUP D - Boiler, compressor, cure and texture machine; dow box; farm type or utility tractor (under 75 hp.) pulling disk, roller or other attachments; group greaser tender; light plants; mechanic tender; mechanical broom; mechanical

heaters; oiler; pumps (under three inch diameter); tree chipping machine; truck cranedriver/oiler.

CARPENTERS AND PILEDRIVERMEN (ZONE 5)

Setting of structural steel; any welding incidental to bridge or culvert construction; setting concrete beams.

-----  
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.

=====

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.  
(AUG 2000)**

(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 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-96/FP-03 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 judgement 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 PRA-HEHO 10(1), 100(1)**  
**Herbert Hoover National Historic Site**

The following Special Contract Requirements amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03) U. S. Customary 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 & layout;
- (e) Construction and concrete placement sequences;
- (f) Bearing details with orientation;
- (g) Expansion joints including actual clearance with atmospheric temperature;
- (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>Single Units</u>	<u>Gross Vehicle Weight – pounds</u>
2 axles	40,000
3 axles	48,000
4 or more axles	52,000
<u>Combination Units</u>	
3 axles	57,000
4 axles	62,000
5 or more axles	66,000

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

104.05. Add the following:

Operate loaded vehicles hauling material at speeds not exceeding 40 miles per hour, or the posted speed limit whichever is lower, and spaced at 500-foot minimum intervals. Do not exceed 25 miles per hour, or the posted speed limit whichever is lower, 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.

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

107.01. Add the following:

The following permits may be required for this project:

- (a) Disposal Permit or Agreement

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 4-foot 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 10 feet 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.

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.

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

108.01. Add the following:

Construction operations are limited as follows:

No work will be permitted on Sundays or National legal holidays.

No work will be permitted on Hometown Days on June 20-21 and Hooverfest days on August 1-2

Maintain one lane of traffic at all times through the construction sites along Parkside Drive and Second Street Bridge. Provide Flaggers as needed and when necessary. Maintain and shift traffic using temporary channalization devices.

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

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 152.—CONSTRUCTION SURVEY AND STAKING**

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

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

Set benchmarks (at least every 1,000 feet 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.

### **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. Add the following after the third paragraph:

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

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

**(1) 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.

**(2) Rain Day.** A potentially lost workday on which rainfall is equal to or greater than 0.10 inches.

**(3) Drying Day.** A work day(s) immediately following a rainfall equal to or greater than 1.00 inch which is potentially lost because of wet ground conditions.

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

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

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

**(1)** 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.

**(2)** The Total number of Lost Days (Average Workdays Lost plus 1 Standard Deviation, rounded to whole days) will be considered normal for each month.

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

**(c) 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:

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

(2) 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.

(3) 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.

**(d) 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.

**(e) 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. Add the following:

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

156.04. Add the following:

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

156.06(d) Add the following:

Use the parking area on the right side at the north end of Parkside Road Bridge and the parking

area on the left side at the north end of 2<sup>nd</sup> Street Bridge for construction staging areas. Clean and restore the staging area, including any damage to curb. Provide turf establishment and aggregate topsoil, as directed by the CO, at the completion of the project to repair any damage to the circle.

156.06(i) Add the following:

(i) Trucks or heavy equipment must use the closest access to the project site in the vicinity of Parkside Road 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 203.—REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

203.04. Add the following:

**(a) Concrete Removal by Mechanical Impact Methods.** Furnish equipment that complies with the following:

**(1)** Use power-driven hand tools for removal of existing concrete with the following restrictions:

*(a)* Do not use jackhammers heavier than 10 pounds.

*(b)* Do not operate 10 pound jackhammers and mechanical chipping tools at an angle in excess of 45 degrees measured from the surface of the slab.

*(c)* Do not use chipping hammers heavier than a nominal 5 pound class to remove concrete from beneath any reinforcing bar.

**(2)** Use hand tools (hammers and chisels) for removal of final particles of concrete or to achieve the required depth.

**(b) Reinforcing Steel.** Clean all reinforcing steel that is to remain in place and has been exposed by removal operations. Remove all rust and corrosive products, including oil, dirt, concrete fragments, laitance, loose scale, and other coating of any character that would destroy or inhibit the bond with the new concrete.

When cleaned reinforcing steel will be exposed for more than 7 calendar days before placing the concrete, protect the steel from corrosion and contamination. Clean and/or replace all reinforcing steel corroded or contaminated because of the Contractor's failure to protect the

steel.

Prevent cutting or damaging reinforcing steel designated to remain in place. Repair or replace any damaged bars.

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

301.01. Add the following:

Crushed recycled concrete may be used for aggregate courses under concrete pavements.

301.02 Add the following:

If an alternate State gradation is produced as provided in Subsection 703.05, notify the CO in writing. The target values with respect to the State gradation will be the midpoint of the allowable State specification band. The allowable deviation (D) will be ½ the State specification band width, and the maximum allowable pay factor under subsection 301.08 will be 1.0.

301.08. Delete the text and substitute the following:

Aggregate for untreated aggregate courses will be evaluated and accepted under Subsection 106.04. The upper and lower specification limits for gradation are the approved target values plus or minus the allowable deviations. The aggregate will be tested for acceptance on samples taken from its final location immediately prior to compaction. Obtain and test three samples in accordance with AASHTO T 27 and T 11. The CO will determine sampling locations.

Construction of untreated aggregate courses will be evaluated under Subsections 106.02 and 106.04. Preparation of the surface on which the aggregate course is placed will be evaluated under Section 204 or 303 as applicable.

301.10. Delete the first paragraph and substitute the following:

The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay items listed below that are shown in the bid schedule. Payment will be full compensation for the work prescribed in this Section.

### **Section 501.—RIGID PAVEMENT**

Furnish steel plates and keep available on the project for emergency use.

501.03. Add the following:

**Accelerated Full-depth Patching.** Design the concrete mix according to Subsection 552.03 and conform to Table 501-1a. Make test specimens according to AASHTO T 23, except that specimens shall remain in molds until tests are conducted after a 7-hour cure.

**Table 501-1a  
Rigid Pavement Composition**

Water/Cement Ratio (maximum)	Temperature of Concrete	Slump	Air Content (%)	Aggregate Size (AASHTO M 43)	7-Hour Minimum Compressive Strength
0.42	70±20 °F	5.0±0.75 inches	5½±1½	No. 57	1,200 psi

Replace new or existing slabs that are chipped, spalled, or damaged during the removal or placement operation. Replace the damaged slabs by full depth patching methods according to Subsection 501.13

501.06 Add the following:

The requirements set forth in this subsection for the concrete pavement using a paver apply to other methods of placing concrete, which have been approved by the CO.

Construct all concrete pavement and full depth pavement repair to match in elevation with adjacent slabs. Construct pavement slabs, in areas of vertical profile adjustment, to match existing superelevation and cross slope at the elevations shown on the plans.

Add the following after subsection 501.08(d).

**(e) Drilling of holes for reinforcement or dowels into existing slabs.**

Locate the holes as indicated on the plans. When specified, drill holes, with diameters only slightly larger than the dowels or rebar specified on the plans, into the face of the existing slab, with an alignment tolerance of 1/8 inch in 12 inches. Blow out the holes with compressed air prior to placing the grout or epoxy material.

Completely fill the holes with epoxy or non-shrink grout by injecting the material to the rebar of the hole and dispersing it along the entire length until the bars are completely covered, and no voids exist. Securely fix the bar into place by dipping the bars in the epoxy or grout, and then working back into the holes for complete coverage around the bars. Fit the bars with circular disks, by inserting with a twisting motion, then sealing in place by tapping. Push the disk against the face of the slab to prohibit material from leaking. Obtain approval from the CO for all procedures prior to starting the work. Lightly grease the ends of the dowels (not deformed rebars) sticking out into the patched area.

501.11. Add the following to the first paragraph:

Seal joints within 5 calendar days after patching to prevent spalling.

501.13. Add the following:

Schedule the patching operation so that all areas where the pavement has been removed are repaired during the same work period and the roadway opened to traffic according to Section 156. Furnish curing drums with Type A warning lights to close lanes, while concrete is curing. Complete all concrete operations sufficiently before opening the lane to traffic to allow the concrete to have attained sufficient strength to support traffic according to Subsection 501.14. In case of emergency, temporarily fill and plate the repair areas according to

Subsection 501.14.

501.14 Add the following:

If an emergency or unforeseen circumstance prevents the completion of a pavement patch before opening the roadway, backfill and compact the excavation with aggregate base and cover with a steel plate so that the lane can be immediately opened to traffic. At the beginning of the next day's work, completely remove the aggregate, in a manner which will not disturb the subgrade or any dowels, load transfer tie bars, or load transfer assemblies which may have been previously placed.

Place steel plates over concrete patches only if the concrete has not developed sufficient strength as determined by the CO.

501.15. Delete the third paragraph, the last sentence in both (a) and (b), and all of (c). Substitute the following for the third paragraph:

Concrete compressive strength, pavement thickness, and pavement smoothness, will be evaluated under Subsection 106.04. Determine pavement smoothness according to Subsection 501.12. See Table 501-3 for minimum sampling and testing requirements for compressive strength and pavement thickness.

### **Section 552.--STRUCTURAL CONCRETE**

552.01 Add the following:

This work includes the removal and disposal of deteriorated concrete from around the scuppers along the underside of the Parkside Drive Bridge. As part of this work include surface preparation and cleaning, placing, finishing, and curing repair concrete.

This work includes furnishing, placing, finishing, and curing high performance concrete for the bridge deck overlay at Parkside Drive Bridge according to Section 572.

552.02. Add the following:

Furnish information on any proprietary materials to be used to the CO for review and approval during the shop drawings submittal phase of the project. Include the manufacturer's name, the product name, product data that shows it is suitable for the specific application on this project, and the manufacturer's requirements for surface preparation, mixing, placing, finishing, and curing the material.

552.03(g). Add the following:

Use Type I or II portland cement in all concrete.

552.03(v). Add the following:

Provide Class HPC(O) concrete with a minimum 28-day compressive strength of 5,000

pounds per square inch .

Provide Class A(AE) concrete with a minimum 28-day compressive strength of 4,000 pounds per square inch .

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

Dispose of mortar, debris, foreign material and excess concrete according to Section 203.

552.11(a). Add the following:

Before placing new concrete, clean the existing concrete surface and any exposed reinforcement of all loose material, dust, etc., by shotblasting and thoroughly flushing with clean water under pressure or compressed air. If compressed air is used provide a filter in the air line to ensure that the air is oil-free.

If there is an interval of more than 24 hours between cleaning of the sound concrete surface and placement of new concrete, or there are previously prepared concrete surfaces that have been contaminated by any substance detrimental to good bonding, clean or remove the concrete.

Saw cut approximately 0.50 inches deep along all boundaries of the repair areas. Point saw cuts, extending beyond the limits of repair areas, flush with the surface with portland cement or epoxy mortar.

Where the bond between existing concrete and reinforcing steel has been destroyed, remove the concrete adjacent to the steel to a depth that will permit new concrete to bond to the entire periphery of the exposed steel. Provide a minimum of 0.75 inches clearance behind the steel.

Remove and replace all badly deteriorated reinforcing steel.

After removal of deteriorated or unsound concrete, shotblast exposed structural steel, reinforcing steel and any concrete surfaces which will be in contact with repair material until free of rust and foreign material. Clean the sound concrete surface by flushing with clean water from a high pressure water jet or compressed air.

For all vertical and overhead concrete repairs, and those horizontal repairs to areas less than 5 inches in depth, use a high strength concrete patching compound placed according to the manufacturer's recommendations.

552.19. Add the following:

Materials used for concrete repair will be evaluated under Subsection 106.03.

### Section 556. – BRIDGE RAILING

560.01 Add the following:

This work consists of furnishing and installing aluminum bridge railing end caps for the Second Street Bridge. Fabricate end caps according to as-built drawings.

### Section 560. – REMOVAL OF CONCRETE BY HYDRODEMOLITION

560.01 Add the following:

This work includes removing the portion of the deck slab concrete to 1-inch below the top mat of steel on the Parkside Drive Bridge.

### 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).

562.07. 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 563. – PAINTING

560.01 Add the following:

This work consists of cleaning and painting all exposed bridge railing steel surfaces for the Parkside Drive Bridge.

This work consists of containment and collection of surface preparation debris and disposal of surface preparation debris.

Any damages caused to the bridge structure during these operations will be corrected at the Contractor's expense.

**563.03(b)** Delete the last sentence and substitute the following:

Include details of attachment that do not require welding or drilling holes in the existing structure. Make connections with clamps or other approved devices.

**563.03(g)** Delete the paragraph and substitute the following:

**(g)** To perform quality control functions, provide a competent person as defined in SSPC-QP 2 with the following:

- (1) An SSPC Competent Person Certificate.
- (2) A certificate of completion of 29 CFR 1926.62 Lead in Construction training.
- (3) Minimum of 2 years industrial field painting experience.
- (4) Minimum of 90 days of field supervisory or management experience in paint removal projects.
- (5) Documentation of the individual's qualifications including records of training and experience.

563.07(a)(1). Delete the second sentence and substitute the following:

Obtain all coatings from the same manufacturer and according to the following requirements.

Furnish the top coat for paint to match color No. 37030 of Federal Standard 595B Colors.

Prepare top coat paint sample panel not less than 10 ft X 10 ft for the CO's approval prior to ordering paint.

### Materials

#### **Paints and Thinner:**

The paint system to be used shall be an active calcium sulfonate system supplied by one of the following manufacturers (listed below), or an approved equal.

- |    |                        |                |
|----|------------------------|----------------|
| 1. | Termarust Technologies | 1-888-279-5497 |
| 2. | CPC Corp.              | 1-800-544-6845 |

The following coating systems have been approved for use on this project. Performance characteristics of alternative products submitted shall meet or exceed those of the coating systems listed within this specification. In addition, any request for use of an “Or Equal” material will require the manufacturer to provide references that document that the candidate system has been successfully applied to similar structures in similar climates for a period of not less than five (5) years; without a warranty claim for coating system failure.

Lighting shall be equipped with explosion-proof fixtures.

Do not permit the accumulation of empty paint cans, combustibles, and other debris.

Material Safety Data Sheets (MSDS) for all materials shall be maintained on file and provided to the CO prior to receipt of the material from the manufacturers.

**Paint Schedule:**

**A. Termarust Technologies - RAVCS® coating system**

	<u>Product(s)</u>	<u>Dry Film Thickness (DFT)</u>
SPOT- Apply as directed by the manufacturer’s representative to crevices and joints and/or spaces where a gap has been created between plates and around bolts, nuts and washers-allow material to soak into spaces, brush out any excess material.	2200	NA
SPOT- Liberally apply a stripe or caulk coat – to crevice corroded and pack rusted joints and connections, provide extra material to bolts, nuts and any gaps around rivets.	2100	15-18 mils (wet) 10-12 mils (dry)
SPOT- Over exposed metal areas and areas of tightly adhered contaminate free rust or flash rust apply a spot prime of 5 to 7 mils DFT of Topcoat including areas mentioned in previous SPOT application.	2100	7-10 mils (wet) 5-7 mils (dry)
FULL (100%)- Apply an additional 5 to 7 mils DFT over the entire structure including the joints and connections.	2100	7-10 mils (wet) 5-7 mils (dry)

**B. CPC Corporation**

	<u>Product(s)</u>	<u>Dry Film Thickness (DFT)</u>
SPOT- Apply as directed by the manufacturer’s representative to crevices and joints and/or spaces where a gap has been created between plates and around bolts, nuts and washers-allow	5200	NA

material to soak into spaces, brush out any excess material.

SPOT- Liberally apply a stripe or caulk coat – to crevice corroded and pack rusted joints and connections, provide extra material to bolts, nuts and any gaps around rivets.	4100	15-18 mils (wet) 10-12 mils (dry)
SPOT- Over exposed metal areas and areas of tightly adhered contaminate free rust (flash rust) apply a spot prime of 5 to 7 mils DFT of Topcoat including areas mentioned in previous SPOT application.	4100	7-10 mils (wet) 5-7 mils (dry)
FULL (100%)- Apply additional 5 to 7 mils DFT over the entire structure including the joints and connections.	4100	7-10 mils (wet) 5-7 mils (dry)

#### **Water Used in Surface Preparation:**

All water to be used in the surface preparation shall initially be potable water prior to capture and recycle.

### **Construction Requirements**

#### **Contractor Qualifications:**

The Contractor or Subcontractor who will perform the cleaning and painting shall have done minimum of one similar cleaning and painting job using the same materials specified above.

The Contractor or Subcontractor who will perform the cleaning and painting shall provide evidence of their qualifications in accordance with the requirements of SSPC-QP P1 and QP P2. A certificate from the SSPC's Painting Contractor Certification Program (PCCP) shall be provided as satisfactory evidence.

The Contractor shall supervise and direct the work using the best skill and attention, and shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor will be responsible to see that the finished work complies with the Contract Documents.

#### **Manufacturer's Instructions:**

At least ten working days prior to the start of work the Contractor shall provide the CO with one copy of the paint manufacturer's current technical and safety data sheets for the materials/paints furnished. Instructions, suggestions, and precautions contained in the data sheets shall be followed to the extent that they do not contradict the provisions of this specification.

A manufacturer's representative shall be on site during the steel cleaning and during the various stages of paint application.

#### **Atmospheric Conditions:**

The temperature limitations of both the substrate to be painted and the ambient air shall be as

recommended by the paint manufacturer. However, in no case shall painting work be performed when the substrate temperature is less than 35.6°F (2°C) or greater 104°F (40°C).

No coating materials shall be applied when the relative humidity, in the immediate area to be painted, exceeds 99% or a 35.6°F (2°C) temperature-Dew Point temperature spread.

**Cleaning:**

Cleaning of the substrate will occur prior to the application of any stripe/primer.  
High Pressure Water Cleaning (HPWC):

1. The structure (or portions of it to be coated) shall be cleaned using a 5,000 psi, at 5 gallons per minute (gpm), HPWC unit – with a zero degree rotating tip (at a maximum of a 4 in. (100 mm) standoff distance from the steel surface). The surface cleaning shall meet the requirements of SSPC-SP12 WJ4-NV2, to remove loose paint and loose rust. SSPC SP2 or SP3 (hand or power tool cleaning) may be used in inaccessible areas or when water cleaning is not possible. The HPWC water shall include a soluble salt removing chemical such as Chlor\*Rid<sup>®</sup> (manufactured by CHLOR\*RID International. www.chlor-rid.com (800-442-3217), or equal.
2. In some cases, after HPWC, there may be areas of tightly adhered black oxide which was not removed. Although this tightly adhered black oxide “technically” meets the WJ4 standard – the active corrosion under it is highly contaminated with Chlorides and/or Sulfates and/or Nitrates. If such salts are allowed to remain – they will ultimately result in delamination of the black oxide scale and any coating applied to it. Any black oxide scale shall be removed, unless otherwise directed by the CO.

It is required that even if the joints and connections look dry – that they be blown dry with clean, dry, oil free, high pressure (100 psi) compressed air.

Use the white blotter test in accordance with ASTM D4285 to verify the cleanliness of the compressed air used for blowout of “Limited Access” areas and drying. Conduct the test at least once per shift for each compressor system. Sufficient freedom from oil and moisture is confirmed if soiling and/or discoloration are not visible on the paper.

If air contamination is evidenced, change filters, clean traps, add moisture separators or filters, or make adjustments as necessary to achieve clean, dry air.

Pack rust shall be removed as much as possible from crevices or seams along the edges of metal to metal; contact surfaces. Removal shall be done by hand tool cleaning per requirements of the Society for Protective Coatings’ SSPC-SP 2, power tool cleaning per SSPC-SP 3, or a combination of these test methods. After water cleaning, these locations shall be dried thoroughly by means of (dry) compressed air.

If there is a question of whether all loose paint has been removed, adhesion testing of the remaining “tightly adhered” paint shall be done in accordance with ASTM D 4541-02 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers, with a

minimum value of 300 psi.

Prior to placing the subsequent coats, the Contractor will insure that the prior coat is clean of all foreign matter, such as grease, dirt, bird waste, etc., before application of the subsequent coat.

Surface preparation found to be deficient will be repeated at the Contractor's expense as directed by the CO.

Fully enclose all surface preparation operation to eliminate surface preparation debris (paint, rust, etc.) from falling onto ground, or into any streams below the bridge.

Handle all waste materials (surface preparation debris) as hazardous waste until tested and proven to be non-hazardous. Collect, contain and dispose of any accumulated debris in a manner that will prevent it's release into the environment and in an effective way to protect workers from exposure to hazardous materials. Immediately correct any visible emissions from the containment enclosure. Any emissions from the containment enclosure shall meet Federal and the Iowa air quality standards.

Take a minimum of four representative soil samples, one at each corner of the work site, in accordance with SSPC Guide 6. Take samples and perform test analysis on samples prior to work start-up, during surface preparation and paint application operations, and after work operations are completed. Particularly if elevated levels of toxic heavy metals (e.g., lead, chrome, cadmium) are found in baseline soil samples, additional samples may be obtained and retained for future analysis if any questions arise regarding the integrity of the containment during the project.

Clean up any spilled waste materials immediately and take all necessary actions to remedy resulting soil and water contamination.

Obtain all necessary permits for storage, transport, characterization and disposal of waste from the project.

Store contaminated debris in accordance with the Iowa requirements. Store drums containing contaminated debris in a locked sea cargo trailer within a secured staging area. Obtain the approval of the CO prior to storing drums in trailer. Prevent the entry of unauthorized persons, livestock, or wildlife onto the staging area and the lead work area. Post warning signs with clearly visible legends, "DANGER - AUTHORIZED PERSONNEL ONLY," easily visible from all routinely used approaches to the staging area and lead work area and make signs obvious both to the Contractor or any bystanders.

Sample and test the waste material, to determine if it is hazardous, according to the Toxicity Characteristic Leaching Procedure (TCLP), EPA Method 1311 of SW 846. Test waste for lead and other elements listed in Table 1, Toxicity Levels For Metals, in the SSPC - Guide 7. Supply the CO with a split of each waste material sample.

If waste material is determined to be hazardous, obtain the EPA Identification Number from the CO, and prepare a manifest of all hazardous waste to be transported off the approved waste storage site. Prepare the manifest according to all Federal and the Iowa regulations. Furnish the CO with a certificate or manifest indicating the weight and the number of drums of waste to be

disposed. Provide proof of acceptance, at an approved disposal site, including all information required by the Iowa and local regulations. Ensure that the hazardous waste hauler is licensed and has an EPA Identification Number. Conform with the Iowa regulations regarding the maximum volume of hazardous waste which may be stored on the site. Do not store the waste materials on the site for over 90 days. Do not treat hazardous waste on site.

If lead or any of the elements listed in Table 1, Toxicity Levels for Metals, in the SSPC - Guide 7 does not meet or exceed the permissible level of concentration, as measured by TCLP, dispose of the waste material as an industrial solid waste according to all applicable Federal and the West Virginia regulations. Dispose of waste at an approved facility. Provide the CO with an authorization prior to disposal.

If the waste material is transported outside Iowa for disposal, conform to applicable Federal, state, and local regulations.

Train all workers and persons exposed to painting and/or cleaning operations.

Provide documentation of workers safety training and education that requires instruction in recognizing and avoiding unsafe conditions and hazards, conforming to OSHA 29 CFR 1910 and OSHA 29 CFR 1926.

**Mixing:**

If required, paint shall be mixed with mechanical mixers in accordance with the paint manufacturer's recommendations.

**Thinning:**

The primer, stripe and other coats may be thinned only if recommended by the manufacturer, done in compliance with the manufacturer's instructions, approved by the CO, and mixed in the presence of the CO. If recommended by the manufacturer and approved by the CO, a measuring cup shall be used in the addition of thinner to any paint and have graduation in ounces. No "eye balling" during addition of thinner to paint will be allowed. Paint mixed with thinner by "eye balling" will be subject to rejection by the CO as ruined material.

**Paint Application:**

Provide paint brushes, rollers, and spray equipment to conduct the work as specified in this Section.

Provide specialized equipment as required for the painting of "Limited Access" areas and for the other difficult-to-clean areas. Specialized equipment may include, but is not limited to:

1. Pole guns for spray painting.
2. Mitts, daubers, or other methods to supplement brush application.

Paint may be applied using spray, brush or roll methods, except that all stripe painting shall be completed using a brush.

Complete protection from paint spatter, spillage, overspray, wind blown paint, or similar releases of paint shall be provided. Covers, tarps, mesh, and similar materials shall be placed around the work area to protect public and private property, pedestrian, vehicular, marine or other traffic, all

portions of the bridge, highway appurtenances, waterways, and similar surrounding areas and property, upon, beneath, or adjacent to the structure.

Spray painting will be permitted only within a containment that will contain all of the sprayed material, as approved by the CO.

Penetrant/Sealer shall be applied liberally to all joints and connections, including around bolts, nuts and rivets where gaps exist. Care should be taken to minimize putting penetrant on surfaces other than in and around joints and connections. Excess penetrant (on the surface) must be brushed out, primarily because excess penetrant on the surface may retard curing of the topcoat and/or make the surface look cosmetically poor.

Stripe painting will be required on the following surfaces that have been cleaned: edges of plates, angles, lattice, connections (rivets and bolt heads) or other shapes, corners, crevices, back-to-back angles and built-up edges. The stripe coat shall have a band width of at least 4 in. (101.6 mm) to each side of the adjoining edges and is to completely coat the interior of all crevices. All stripe painting will be performed using a brush only. No other method of paint application will be allowed for stripe painting.

As soon as the penetrant/sealer has been applied, the self-priming topcoat may be applied into joints and connections, bolts, nuts and gaps around rivets. This application may be immediately followed by spot priming over bare steel and tightly adhered contaminant free rust.

As soon as the caulk coat and spot prime has been applied, the 'finish' coat may be applied over all surfaces including tightly adhered, contaminant free, paint.

Equipment – All of the following shall be provided throughout the duration of the work:

1. Sling Psychrometer & Tables
2. Inspection Mirror
3. VIS 1-3 and 4 Standards
4. Illuminated Magnifier
5. Hypodermic Needle Pressure Gauge
6. Calibration Standards (NIST Traceable)
7. Air Thermometer, pocket type, 30°F to 100°F (-1°C to 38°C) (2)
8. Surface Thermometer, 30°F to 150°F (-1°C to 66°C) (2)
9. Wet Film Thickness, prong type (1)
10. Positector 6000 F3 or equivalent fixed probe DFT (2)

Film Thickness:

1. Stripe, spots, sealer, and finish coats shall be applied in sufficient quantity so as to produce the minimum specified Wet Film Thickness (WFT).
2. Because of the nature of active calcium sulfonate coatings, it is suggested that wet film measurements be used as criteria for acceptance of the coating. WFT measurements shall be determined as the job progresses and corrections shall be made during paint application.

3. Dry film thicknesses may be determined using SSPC-PA2 – using a digital film thickness gage and a shim once the coating has cured sufficiently to allow accurate measurements.

#### Recoating and Over-coating:

1. Areas failing to meet the specified wet film thickness (WFT) range shall be over-coated with the same paint to produce at least the total WFT required. Paint applied containing unauthorized thinners, paint applied to contaminated surfaces, and paint applied contrary to this Specification shall result in the re-cleaning and re-painting of the surface. The work of re-cleaning, re-painting or over-coating, if required, shall be performed within 10 days following notification by the CO and shall be done by the Contractor to the satisfaction of the CO at no additional cost to the Owner.

Furnish the top coat for paint to match color No. 37030 of Federal Standard 595B Colors.

Prepare top coat paint sample panel not less than 10 ft X 10 ft for the CO's approval prior to ordering paint.

#### **Material Storage:**

Paint in storage shall be protected from damage and maintained between 40°F and 100°F. Paint shall be stored covered and off the ground to prevent damage by elements such as rain, etc... Any coating material found to be damaged or beyond its expiration date shown on the container shall be immediately removed from the project site and will be considered as ruined material.

#### Testing of Paint Samples:

1. The Owner reserves the right to conduct tests of the materials at any time, and any number of times during the period of field painting.
2. If the laboratory test results show that the material being used does not comply with the requirements specified in this Section, the Contractor may be directed to stop painting work and remove non-complying paint; pay for testing; re-paint surfaces coated with rejected paint; or remove rejected paint from previously painted surfaces if, upon re-painting with specified paint, the two coatings are not compatible.

#### **Repair of Damaged Coatings:**

All damaged coatings, new or existing, shall be repaired prior to project completion and acceptance in accordance with the above specifications for Re-Coating and Over-coating and as directed by the CO, at no additional cost to the Owner.

#### **Engineering and Inspection:**

The CO or his designated representative will inspect all phases of the work to ensure that it is in accordance with these Specifications. The Contractor shall provide and maintain OSHA compliant access for the CO's inspectors. The presence of the CO/Inspector(s) shall not relieve the Contractor of the responsibility to provide adequate inspections of their own to assure compliance with this Specification.

**Staging & Safety:**

Nothing in any paragraph of this Specification shall be construed as relieving the Contractor from full responsibility for safe execution of the work at all times.

The Contractor shall confine apparatus, storage of materials, and work operations to the limits prescribed by ordinances or permits, or as may be directed by the Owner and shall not unreasonably encumber the premises or any other functions or activities.

The Contractor shall not load any structure or permit any part thereof to be loaded to such an extent as to endanger its safety, in accordance with the Contract Documents.

The Contractor shall comply with and enforce any instruction of the Owner, or local laws regarding signs, advertising, fire, and smoking.

The Contractor shall keep the premises clean of trash and combustible materials. Upon completion of the work, Contractor shall remove all temporary construction facilities and unused materials provided for the work.

The Contractor shall provide all electrical services needed.

**Warranty:**

The Coating Manufacturer and the Contractor/Applicator shall jointly warrant the coating and its application against all defects in material and workmanship for the entire project, which will commence on the date indicated on the Certificate of Substantial Completion.

The Contractor/Applicator shall supply a letter from the coating Manufacturer stating that the Manufacturer will jointly execute an agreement to provide a Five-Year Coating System Failure Warranty. Proposals without the letter from the coating manufacturer will not be accepted.

Upon completion and final acceptance of the work (or) project, the CO/Owner will receive from the Contractor/Applicator the "Joint Five-Year Coating System Failure Warranty." The warranty, jointly executed by the Contractor/Applicator and the coating system Manufacturer, will be forwarded to the Owner before final payment by the Owner is released.

Intermediate inspections by the Owner may be made and warranty repairs claimed and completed by the Contractor/Applicator each year of the Five-Year Warranty period. However, at least sixty (60) days prior to the warranty's expiration, the Owner will inspect the coating system and advise the Contractor/Applicator and the Manufacturer, in writing, of any defects or repairs that may be required.

Failure of the coating system shall include, but not be limited to:

- Any disbonding or failure of adhesion of the coating either to the structural steel or inter-coat adhesion
- The appearance of any rust stains on the structure due to loss of paint or due to leaking from joints between coated structural members
- Failure of the coating to resist chipping due to traffic-thrown sand or road debris
- Any loss of normal gloss or rapid change in color of the coating

- Damage to the coating due to vehicle impact, snow removal equipment, other mechanical devices and chemical spills will not constitute failure of the system
- Within the first two (2) years of completion of the work, any sign of rust bleeding through existing intact paint film
- From years three (3) through five (5) of the warranty period, any surface rusting greater than 0.03% (SSPC Vis. 2 Rust Grade 9) of the total area of any structural element or component, i.e., floorbeam, truss chord segment between panel points, truss vertical, truss diagonal, etc.

Repair under warranty includes the material, labor and equipment costs necessary to restore the coating to acceptable condition.

Warranty repairs shall be completed within 45 days of notification, or if this would place the repair in winter weather conditions, by May 30 of the following year.

### **Measurement**

Measure the Section 563 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Surface preparation and painting will be measured by the lump sum. Containment system will not be measured for payment.

### **Payment**

The accepted quantities will be paid at the contract price per unit of measurement for the Section 563 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Add the following section:

## **Section 572. — HPC CONCRETE OVERLAYS**

### **Description**

**572.01** This work consists of furnishing, placing, finishing, and curing high performance concrete for bridge deck overlays.

### **Material**

**572.02** Conform to the following Subsections:

Air-entraining admixture	711.02
Chemical admixtures	711.03
Coarse aggregate	703.02
Color coating	725.24
Curing material	711.01
Elastomeric bearing pads	717.10

Elastomeric compression joint seals	717.16
Fiber reinforcement	711.05
Fine aggregate	703.01
Fly ash	725.04
Ground iron blast-furnace slag	725.04
Hydraulic cement	701.01
Joint fillers and sealants	712.01
Linseed oil	725.14
Masonry cement	701.02
Silica fume (microsilica)	725.04
Water	725.01

**572.02 Qualifications.** The Contractor or subcontractor performing the high performance concrete overlay work shall have completed at least 2 high performance concrete overlay projects within the last 3 years. Submit a brief description of each project including the owning agency's name and current telephone number.

Provide an on-site supervisor with at least 1 year experience constructing high performance concrete overlays. At least 30 days before starting the high performance concrete overlay work, identify the on-site supervisor assigned to the project and submit a summary of the individual's experience.

**572.03 Definitions.**

**(a) High Performance Concrete (HPC).** Concrete that meets specified performance characteristics in addition to standard structural concrete properties. The class of concrete for HPC overlays is designated as HPC(O).

**(b) HPC performance characteristics.** Specified concrete properties in addition to standard structural concrete properties of freeze thaw durability, compressive strength, slump and plastic air content. HPC performance characteristics consist of the following:

**(1) Maximum Chloride Permeability.** Measured value, of total charge passed, in coulombs, over a specified period of time, determined according to AASHTO T 277 with the following provisions: Sample specimens at the point of discharge. Cure chloride permeability specimens for seven days according to AASHTO M 201. Then cure at  $100^{\circ}\text{F} \pm 10^{\circ}\text{F}$  in saturated lime water until AASHTO T 277 sample conditioning. Test for chloride permeability at 28 days. The value will be the result of the average of tests on three specimens. If pigment is used in the concrete mixture, sample concrete at the batch plant before and after adding pigment. Test a minimum of three specimens with and without pigment. Determine the average difference between the pigmented and nonpigmented test results. Adjust production test result by the average difference. Report both initial and adjusted test results.

**(2) Drying Shrinkage.** Measured value, of percent drying shrinkage, in microstrains, determined according to ASTM C 157 with the following provisions: Use 3-inch x 3-inch x 11-inch prisms for drying shrinkage specimens. Moist Cure drying shrinkage specimens the duration of the specified moist curing period for HPC elements. The zero measurement for percent drying shrinkage is the initial measurement taken at demolding of the specimens at  $23 \frac{1}{2} \pm \frac{1}{2}$  hours after introduction of mixing water to the concrete

mixture. Measure percent drying shrinkage at the end of specified moist curing period for the structural elements, 1 day, 4 days, 7 days, 14 days, 28 days, and 56 days after the end of the specified field moist curing period. Drying shrinkage 28 days after the termination of moist curing (28 days drying) cannot exceed 60 percent of the maximum specified value.

**(3) Average Bond Strength of Overlay by the Tensile Pull Off Method.** Measured value, of average tensile bond strength, in pounds per square inch, determined according to ASTM C 1583 with the following provisions: Core and test the specimens in situ. Cure specimens the same length of time as the HPC overlay. Core 2-inch diameter specimens through the overlay and 1-inch into the substrate concrete. Attach loading disk with fast setting, high strength epoxy. The bond strength test value is the average bond strength from three test specimens. The locations for each test will be randomly determined by the CO.

**572.04 Composition (Concrete Mix Design).** For Class HPC(O) concrete produce a concrete mixture with a maximum Water/Cementitious (W/C) ratio of 0.38, a nominal maximum aggregate size of ½ inches, and a total cementitious content within the range of 564 to 846 pounds per cubic yard. Use only type I or II Portland cement. Include the water contained in the aggregates above the amount of absorbed water in the calculation of the W/C ratio. Shrinkage reducing admixtures may be used to reduce drying shrinkage of HPC. Confirm compatibility with air entraining admixtures. Do not use gravel or ASR reactive aggregates. The total cementitious content includes Portland cement and any pozzalons added to the concrete mixture, such as, ground granulated blast furnace slag, fly ash, silica fume, metakaolin, and rice hull (husk). Determine design strength values according to ACI 318. Structural concrete shall also conform to the following ACI specifications:

- ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavy Weight and Mass Concrete;
- ACI 211.2 Standard Practice for Selecting Proportions for Structural Light Weight Concrete;

Class HPC(O) concrete shall also conform to the following:

- (a) **Plastic Properties.** Conform to Table 572-1. Slump can be adjusted using a high range water reducer (superplasticizer) as long as the maximum W/C ratio is not exceeded. If the plastic air content is low when the concrete arrives on-site, additional air entraining agent may be added to the concrete and mixed provided that 300 revolutions of the mixer has not been exceeded.

**Table 572-1  
Plastic Properties of HPC(O) Concrete**

Property	Specification
Slump, AASHTO T 119	2 to 8 inches
Air Content, AASHTO T 152 or AASHTO T 196	5.0 to 8.0 %

(b) **HPC Performance Characteristics.** Conform to Table 572-2.

**Table 572-2**  
**Performance Characteristics of HPC(O) Concrete**

Performance Characteristic	Specification
Chloride Permeability, AASHTO T 277	1,200 coulombs maximum
Drying Shrinkage, ASTM C 157 <sup>(1)</sup>	500 microstrains maximum
Average Bond Strength, ASTM C 1583	150 psi minimum
Compressive Strength, AASHTO T 22	4,000 psi minimum

(1) Drying Shrinkage testing is not required if the concrete mixture contains 1.5 gallons per cubic yard of an approved Shrinkage Reducing Admixture (SRA).

Submit concrete mix designs on FHWA Form 1608.

Verify mixture design with trial mixes prepared according to ACI 318 from proposed source(s) or with previous concrete production data for the mixture design submitted from proposed source(s). Verify HPC performance characteristics that are specified in Table 572-2. Submit written concrete mix designs for approval at least 36 days before production. Each mix design submittal shall include the requirements of 552.03(a) through (x).

**572.05 Strength-Maturity Relationship.** Develop a strength-maturity relationship of the approved concrete mixture according to AASHTO T 325. Submit strength-maturity relationship for approval at least 14 day prior to production. Note that the developed strength-maturity relationship is dependent upon mix constituents. The use of a hydration stabilizer in the concrete mixture will have a significant effect on the strength-maturity relationship since it will effect when initial and final set occurs. The dosage of the hydration stabilizer needs to reflect anticipated field conditions. If the actual dosage used during placement changes drastically from what was used to develop the strength-maturity relationship, a new strength-maturity relationship will need to be developed.

Provide a concrete maturity meter during the test placement and production. Provide a concrete maturity meter that conforms to AASHTO T 325 and is rugged, waterproof, and can withstand the construction environment, able to operate without an external power source for a minimum of 14 days, able to collect and store temperature and maturity data for a minimum of 14 days, and is able to determine equivalent maturity hours according to the Arrhenius function.

**572.06 Test Placement.** Fabricate a 9 ft x 9 ft test panel using the approved concrete mixture. Place the test panel on the substrate concrete at the same thickness as the bridge deck overlay. Prepare the substrate concrete surface using the same methods as intended for the actual

placement. Construct the test panel using the same methods of handling, placing, finishing and curing as intended for the actual placement. Sample for specified properties listed in Table 572-3.

Demonstrate the maturity meter operation during the test placement. Install maturity meter probes according to AASHTO T325. Measure the concrete temperature and calculate the in-place maturity. Using the strength-maturity relationship developed for the approved concrete mixture determine the in-place concrete compressive strength of the HPC Overlay. Verify that the test placement concrete has a similar time temperature relationship as the submitted concrete mixture.

Monitor the maximum temperature differential from the center of the concrete mass to the surface of the concrete. Provide means of internal cooling, external heating, or insulation to insure the temperature differential does not exceed 35°F during the test placement, curing, and immediately after form stripping or curing ends. Demonstrate methods chosen to keep maximum temperature differential less than 35°F.

Furnish a new mix design for approval if there is a change in a source of material or when the fineness modulus of the fine aggregate changes by more than 0.20.

Test methods to clean any staining or efflorescence after curing of test panels if directed by the CO to provide a uniform color to the concrete surface.

Begin production only after the test placement has been evaluated and accepted.

**572.04 Storage and Handling of Material.** See subsection 552.04.

**572.05 Measuring Material.** See subsection 552.05.

**572.06 Batching Plant, Mixers, and Agitators.** See subsection 552.06.

For HPC Overlay concrete, furnish ready-mixed concrete produced and delivered in conformance with AASHTO M 157. Regulate the delivery of the concrete to the site so that the placing and finishing operations can proceed at a uniform rate.

**572.07 Mixing.** See subsection 552.07.

**(a) Central-mix plant.** See subsection 552.07(a).

Remove the contents of an individual mixer before a succeeding batch is charged into the drum.

**(b) Truck mixer.** See subsection 552.07(b).

Mix each batch of concrete according to AASHTO M 157. Add fibers to concrete mixture following manufacturer's recommendations. Mix until uniformly distributed in the concrete mixture.

**572.08 Delivery.** See subsection 552.08, except nonagitating equipment will not be allowed.

Do not add additional water to concrete mixture if workability is reduced after the addition of synthetic fibers. Increased addition of a Water Reducing Admixture meeting AASHTO M 194 or the use of a High Range Water Reducing Admixture is acceptable provided if directed by CO.

**571.09 Quality Control of Mix.** See subsection 552.09.

(a) **Mixing.** See subsection 552.09(a).

(b) **Delivery and sampling during actual placement.** See subsection 552.09(b), except make at least 14, 4-in by 8-in compressive strength test cylinders. Ten of the cylinders will be used for 1, 3, 7, 14 and 28-day compressive strength tests. Make at least 3, 4-in by 8-in cylinders for maximum chloride permeability testing at 28 days. Make at least 3 prisms for drying shrinkage testing.

Provide for compressive strength testing, Chloride Permeability, Direct Tension (Pull-off Method), by an independent laboratory, qualified to perform the testing, and as approved by the CO.

**572.10 Temperature and Weather Conditions.** Maintain the temperature of the HPC overlay concrete mixture just before placement between 45 and 80 °F. Monitor concrete temperatures according to AASHTO T 325. Monitor the maximum temperature differential from the center of the concrete mass to the surface of the concrete during placement. Provide means of internal cooling, external heating, or insulation to insure the temperature differential does not exceed 35 °F during placement, curing and immediately after form stripping or curing ends.

Using the strength-maturity relationship developed for the approved concrete mixture determine in-place concrete compressive strength of structural elements. Measure concrete temperature and calculate in-place maturity.

(a) **Cold weather.** See subsection 552.10(a), except during cold weather, protect all concrete until concrete maturity data indicates that the minimum compressive strength has been achieved.

Do not remove curing materials and insulation until the minimum compressive strength has been achieved and the moist curing period is complete. During the cooling period do not allow the maximum temperature differential from the interior of the concrete to the surface to exceed 35 °F and do not allow the concrete surface temperature to exceed the values shown in Table 552-5. To prevent rapid convective heat loss from the surface, do not start the cooling period if the average windspeed exceeds 10 mph as measured 3 feet from the concrete surface.

Place Overlay concrete only when the ambient air temperature is 45°F and rising. Place overlay concrete at night or early morning if temperatures are greater than 80 °F, unless otherwise approved by the CO.

(b) **Hot weather.** See subsection 552.10(b).

Do not remove curing materials until the minimum compressive strength has been achieved and the moist curing period is complete. During the cooling period do not allow the maximum allowable temperature differential from the interior of the concrete to the surface

to exceed 35 °F and do not allow the concrete surface temperature to exceed the values shown in Table 552-5. To prevent rapid evaporative cooling from the moist concrete surface, do not start the cooling period if the calculated evaporation rate exceeds 0.15 pound per square foot per hour as determined by Figure 552-1.

**(c) Evaporation.** Take care to prevent plastic shrinkage cracking during concrete placement and finishing operations by monitoring and maintaining the expected evaporation rate within acceptable limits. Fog all freshly placed overlay concrete. Identify personnel assigned to operate the fogging equipment during the overlay concrete placement and install and demonstrate fogging equipment for approval prior to placing overlay concrete. Use pressure sprayers or atomizers to maintain a moist surface. Do not apply moisture under pressure directly to the concrete surface and do not allow water to accumulate sufficiently enough to cause a flow or wash on the concrete surface. Continue fogging the concrete surface until all finishing operations are complete and the surface has been covered. Do not wait until final set to cover the concrete surface.

Monitor relative humidity, air temperature, and wind speed at the project site. Measure wind speed two feet above the concrete surface using an anemometer with  $\pm 4\%$  full scale accuracy. Measure percent relative humidity two feet above the concrete surface using a psychrometer or hygrometer with  $\pm 2\%$  full scale accuracy. Use windbreaks and other protective measures, as necessary, in addition to fogging to limit the expected evaporation rate to less than 0.1 pound per square foot per hour as determined by Figure 552-1. However, do not place bridge deck or overlay concrete if the expected evaporation rate, determined without fogging and other protective measures, is greater than 0.15 pound per square foot per hour as determined by Figure 552-1.

When finishing operations are complete, cover surface with selected water curing systems of wet burlap/polyethylene sheeting, cotton mats/polyethylene sheeting or wet burlene sheeting.

**(d) Rain.** See subsection 552.10(d).

#### **572.11 Handling and Placing Concrete.** See subsection 552.11.

**(a) General.** Place concrete continuously without interruption between planned construction or expansion joints. The delivery rate, placing sequence, and methods shall be such that fresh concrete is always placed and consolidated against previously placed concrete before initial set has occurred in the previously placed concrete. Do not allow the time between the placement of successive batches to exceed 30 minutes.

**(b) Surface Preparation.** Prior to placement of HPC concrete overlay, remove any asphalt concrete overlay and asphaltic membrane without damaging the concrete bridge deck. Sound bridge deck and repair all badly deteriorated areas on the deck prior to performing hydrodemolition.

**(1) Concrete Repairs.** Determine location of unsound concrete. Develop and submit a repair plan for review and approval prior to repairing unsound concrete.

Remove unsound concrete per means and methods outlined in approved repair plan. Saw cut approximately 0.50 inches deep along all boundaries of the repair areas. Point saw

cuts, extending beyond the limits of repair areas, flush the surface with portland cement or epoxy mortar.

After removal of the deteriorated or unsound concrete, abrasive shot blast exposed structural steel, reinforcing steel, and any concrete surfaces that will be in contact with repair material until free of rust and foreign material. Remove and replace all badly deteriorated reinforcing steel.

Where the bond between the existing concrete and reinforcing steel has been destroyed, remove the concrete adjacent to the steel to a depth that will permit new concrete to bond to the entire periphery of the exposed steel. Provide a minimum of 0.75 inches of clearance behind the steel.

Clean the sound concrete surface by flushing with clean water from a high pressure water jet or compressed air. If compressed air is used provide a filter in the air line to ensure that the air is oil-free.

Less the 24 hours before placing the repair concrete, clean the existing concrete surface and any exposed reinforcement of all loose material, dust, etc., by abrasive shot blasting and thoroughly flushing with clean water under pressure or compressed air. If compressed air is used provide a filter in the air line to ensure that the air is oil-free.

For concrete repairs with areas greater than 2 square feet and less than 4 square feet in which the reinforcing steel is exposed, install a pair of pre-packaged zinc sacrificial anodes on the clean, exposed reinforcing steel. Install anodes within 6 inches of the edge of the repair. Install the anodes at opposite sides of the repair. For repairs greater than 4 square feet, install an additional pair of anodes per each incremental increase of 4 square feet of repair area. Install on reinforcing steel according to manufacturer's recommendations. Use a Sika Galvishield XP, Euclid Sentinel GL, or equivalent pre-package zinc sacrificial anode from another manufacturer.

For concrete repairs that contain installed pre-packaged zinc sacrificial anodes use a Class A(AE) concrete except use a ½ inch nominal maximum size aggregate. For all other concrete repairs use a Class D(AE) concrete except use a ½ inch nominal maximum size aggregate, or an approved high strength concrete patching compound such as Five Star Highway Patch or equivalent placed in accordance with the manufacturer's recommendations.

Sample repair concrete for compressive strength. Fill concrete patches such that the surface of the patch is level with the surface of the sound concrete deck. Moist cure patches using wet burlap and covering with polyethylene sheeting. Moist cure repair areas until compressive strength of 3000 psi is obtained.

**(2) Hydrodemolition.** After all concrete repairs have been made develop a profile for bonding of HPC Overlay to the substrate concrete by hydrodemolition.

Use a computerized self-propelled hydrodemolition machine with ultra high pressure water and a high speed rotating nozzle jet system capable of producing a surface profile with an amplitude of ½ the nominal maximum size aggregate of the substrate concrete.

The pressure of water exiting the nozzle shall be in excess of 30,000 psi. The nozzle jet system shall rotate at 1,000 RPM or greater. Use hand held high pressure lances in areas that are inaccessible to the self-propelled machine. Use caution with hand held lances to avoid gouging of the substrate concrete. Use potable water in the hydrodemolition operation. Do not use stream or lake water. Take care during the hydrodemolition operations to prevent damage to surrounding property and traffic. Do not discharge waste water into a stream. Block all drains on the deck and install aggregate dams, 6 inches high by 1 foot wide, or filter sock equivalent every 150 feet, minimum to filter run-off. Use the deck as a settlement basin within itself. Use a settlement basin outside the structure or at the end of the structure if further filtering is required to produce visibly clear water.

Prior to the commencement of the removal operation, the equipment shall be calibrated on an area of representative, sound concrete as designated by the Engineer. The CO shall verify the following settings:

- (a) Water pressure gauge;
- (b) Machine Staging control (step);
- (c) Nozzle size; and
- (d) Nozzle speed (RPM).

The hydrodemolition surface preparation production may begin after the Engineer has approved the above settings. The calibration and production settings shall be maintained and given to the Engineer prior to and during hydrodemolition surface preparation production by the contractor.

A non-working technical field representative shall be present on the project site during the calibration and hydrodemolition surface preparation operations unless waived by the Engineer.

The depth of removal and at least every 50 linear feet along the cutting path, the readings shall be documented and the equipment re-calibrated, if necessary, to insure the proper depth of removal is achieved.

Thoroughly clean and remove all dirt, foreign materials and loose concrete from the removal area to the extent necessary to produce a firm solid surface for adherence of new concrete. Clean with a vacuum system capable of removing wet debris and water in the same pass. Blow dry the deck with air to remove excess water. Clean in a timely manner, before debris and water are allowed to dry on the deck surface.

Take care to avoid damaging exposed reinforcing steel. Provide adequate support and protect reinforcing steel that is left unsupported from the hydrodemolition process. Repair or replace all damaged or dislodged reinforcing steel with bars of the same size.

Pressure wash the surface after completion of hydrodemolition to remove any remaining fines from the prepared surface. Capture all material and debris and properly dispose of

it off site.

Determine the thickness of the overlay concrete by measuring the elevation of the prepared substrate concrete at a minimum of ten locations, identified by the CO, for every 3,000 square feet or for one day's planned HPC overlay placement and measuring the finish surface of the overlay concrete at the same locations. . The CO will randomly select locations for tensile bond pull off testing from these measured locations.

**(3) Saturation.** Water soak the clean concrete surface thoroughly for a period of not less than 12 hours prior to placing the overlay concrete. Cover the prepared surface with polyethylene sheeting to prevent contamination. Do not use burlap. Just prior to placing the overlay concrete remove puddles of standing water using a vacuum, leaf blower, or other approved equipment. Do not use compressed air to remove water.

**(c) Placing methods.** See subsection 552.11(c).

Do not broom mortar from the HPC Overlay concrete from the front edge of the placement. Install a construction dam or a bulkhead in case of major delay in the placement operation. During minor delays of 1 hour or less, protect the end of the placement from drying with several layers of wet burlap.

Form the vertical edge at construction joints by bulkhead or sawcut. Make all construction joints straight and vertical.

**(d) Consolidation.** Refer to 552.11(d). Spud vibrate the concrete at edges and adjacent to expansion joints.

**572.12 Construction Joints.** Refer to 552.12.

**572.13 Expansion and Contraction Joints.**

**(a) Open joints.** Refer to 552.13(a).

**(b) Filled joints.** Refer to 552.13(b).

**(c) Steel joints.** Refer to 552.13(c).

**(d) Compression joint seals.** Refer to 552.13(d).

**(e) Elastomeric expansion joint seal.** Refer to 552.13(e).

**572.14 Finishing Plastic Concrete.** See subsection 552.14.

For bridge decks, top slabs of structures serving as finished pavement, or deck overlays, use a self-propelled rotating cylinder machine, either single or double roller that is capable of forward or reverse movement under positive control. The machine shall be equipped with an oscillating screed and any other devices required to continuously spread, consolidate, and finish the plastic concrete. The screed shall extend the full width of the deck.

**(a) Striking off and floating.** Refer to 552.14(a).

**(b) Straightedging.** Refer to 552.14(b).

**(c) Texturing.** Produce a skid-resistant surface texture on all driving surfaces by grooving. Do not groove until curing and tensile bond strength testing have been completed. Mechanically saw-cut the grooves perpendicular to the centerline of the bridge. Do not use hand-held saws to cut the grooves. Grooves are to be 1/8-inch (nominal) wide by 3/16-inch deep. Space grooves with a three quarter inch center to center spacing. Do not groove overlay within 18 inches of the curbs or within 3 inches of expansion joints. Continuously remove all slurry or other residue from the overlay by vacuum pickup or other approved methods. Remove all residue from the finished surface . Properly dispose of slurry and other residue off site.

Clean any staining or efflorescence after curing if directed by the CO to provide a uniform color to the concrete surface.

**572.15 Concrete Curing.** Immediately after screeding and until the application of moist curing do not allow the surface of the freshly placed concrete to dry. Use extra care to prevent plastic shrinkage cracking and crusting of the surface prior to the end of finishing operations. Immediately after finishing, cover the overlay concrete with wet burlap and polyethylene sheeting, cotton mats and polyethylene sheeting or wet burlene sheeting. Do not wait until final set to cover the overlay concrete. Within four hours after the concrete has achieved final set, apply soaker hoses, or other approved methods of keeping the coverings saturated.

Install maturity meter probes according to AASHTO T 325. Monitor the maximum temperature differential from the center of the concrete mass to the surface of the concrete. Using the strength-maturity relationship developed for the approved concrete mixture determine the in-place concrete compressive strength of the overlay concrete.

Wet cure the overlay concrete for a minimum of 14 days. Keep the overlay concrete saturated and covered for the entire curing period. During wet curing, maintain the concrete temperature above 45 °F at the outer most surfaces of the concrete mass. Provide a means of internal cooling, external heating, or insulation to ensure that the temperature differential does not exceed 35 °F during wet curing and just prior to removing the curing system. Opaque and transparent sheeting may be used when the air temperature falls below 40 °F. Do not remove the wet curing system until the in-place concrete compressive strength of the overlay concrete has reached a minimum of 80 percent of the minimum compressive strength specified in Table 572-2 at all measured locations.

**572.16 Acceptance.** See Table 572-3 for sampling and testing requirements and the acceptance quality characteristic category.

Material for overlay concrete will be evaluated under Subsections 106.02 and 106.03. Furnish a production certification for the hydraulic cement.

The overlay concrete mixture's slump, air content, unit mass, and temperature will be evaluated under Subsections 106.02 and 106.04.

Overlay concrete compressive strength will be evaluated under Subsection 106.05. The lower specification limit is the minimum required compressive strength ( $f_c'$ ) at 28 days as specified in Table 572-2. A single compressive strength test result is the average result from 2 cylinders cast from the same load and tested at 28 days.

Remove and replace concrete represented by cylinders having a compressive strength less than 90 percent of the minimum 28 days compressive strength ( $f_c'$ ).

Maximum chloride permeability will be evaluated under Subsection 106.05. The upper specification limit is the maximum specified chloride permeability value as specified in Table 572-2. A single chloride permeability test result is the average result from 2 samples cast from the same load and tested.

Drying shrinkage will be evaluated under Subsection 106.04. The upper specification limit is the maximum specified drying shrinkage value as specified in Table 572-2. If the concrete mixture contains 1.5 gallons per cubic yard of an approved Shrinkage Reducing Admixture (SRA), drying shrinkage testing is not required and drying shrinkage will be evaluated under Subsection 106.03.

The bond strength of the overlay will be evaluated under Subsection 106.05. The lower specification limit is the minimum required bond strength at 14 days. The average of the three test result values will be considered the bond strength test value. Tests that result in a failure in the base concrete at a depth of  $\frac{1}{4}$  inch or more over greater than 50 percent of the test area and a test value of less than 150 psi shall be assigned a value of 150 psi when computing the average. When more than 50 percent of the tests result in a failure in the base concrete at a depth of  $\frac{1}{4}$  inch or more over greater than 50 percent of the test area and a test value of less than 150 psi the PWL shall be the greater of 55 or the calculated value.

Materials used for concrete repair will be evaluated under Subsection 106.03.

### **Measurement**

**572.17** Measure the Section 552 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Measure overlay concrete by the square yard.

### **Payment**

**572.18** The accepted quantities will be paid at the contract price per unit of measurement for the Section 552 pay items listed in the bid schedule except the overlay concrete unit bid price will be adjusted according to Subsection 106.05. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for overlay concrete will be made at a price determined by multiplying the unit bid price by the overlay concrete pay factor.

**Table 572-3  
Sampling and Testing Requirements**

<b>Material or Product</b>	<b>Type of Acceptance (Subsection)</b>	<b>Characteristic</b>	<b>Category</b>	<b>Test Methods or Specifications</b>	<b>Sampling Frequency</b>	<b>Point of Sampling</b>	<b>Split Sample</b>	<b>Reporting Time</b>
Aggregate source quality (703.02)	Measured and tested for conformance (106.04)	Quality	---	AASHTO M 80 & M 6	1 per material type	Source of material	Yes	Before producing
Concrete composition (mix design)	Measured and tested for conformance (106.04)	All	---	Subsection 572.03	1 per mix design	Source of material	Yes	Before producing
Produced aggregate (fine & coarse)	Measured and tested for conformance (106.04)	Gradation	---	AASHTO T 27 & T 11	1 per day	Flowing aggregate stream (bin, belt, discharge conveyor belt, or stockpile)	Yes, when requested	Before batching
		Fineness modulus	---	AASHTO T 27	---	“	“	“
		Moisture test	---	AASHTO T 255	---	“	“	“

**Table 572-3 (continued)**  
**Sampling and Testing Requirements**

HPC(O) (test placement)	Measured and tested for conformance (106.04)	Maximum <sup>(2)</sup> chloride permeability		AASHTO T 277	1 set per test placement	Discharge stream at point of placement	Yes, when requested	Upon completing tests
		Compressive strength		AASHTO T 23 & 22	“	“	“	“
		Drying <sup>(3)</sup> shrinkage		ASTM C 157	“	“	“	“
		Tensile bond strength		ASTM C 1583	5 cores per test placement	In-place after curing is complete	“	“
HPC(O) (all)	Measured and tested for conformance (106.04)	Unit mass	---	AASHTO T 121	1 per load	Point of discharge	---	Upon completing tests
		Air content	---	AASHTO T 152 or AASHTO T 196	“	“	---	“
		Slump <sup>(4)</sup>	---	AASHTO T 119	“	“	---	“
		Temperature	---	Field measured	“	“	---	“

**Table 572-3 (continued)**  
**Sampling and Testing Requirements**

HPC(O) (production)	Statistical (106.05)	Maximum chloride permeability	II	AASHTO T 277	1 set per 30 yd <sup>3</sup> but not less than 1 per day	Discharge stream at point of placement	Yes, when requested	Upon completing tests
		Compressive strength	II	AASHTO T 23 & T 22	“	“	“	“
		Tensile bond strength	II	ASTM C 1583	1 set per 3,000 ft <sup>2</sup> of overlay but not less than 1 per day	In-place after curing is complete	---	“

- (1) Sample according to AASHTO T 141 except composite samples are not required.
- (2) When pigment is used in the mixture, sample an additional set of cylinders at the batch plant before and after adding pigment. Cast a minimum of 3 cylinders with and without pigment.
- (3) Drying shrinkage testing is not required if the concrete mixture contains 1.5 gallons per cubic yard of an approved Shrinkage Reducing Admixture (SRA).
- (4) If fibers are used at an addition rate greater than 0.3% by volume, measure slump at the batch plant prior to the addition of fibers.
- (5) Cast at least 14, 4-in by 8-in compressive strength cylinders per set and carefully transport the cylinders to the job site curing facility. A single compressive strength test result is the average result from 2 cylinders cast from the same load.
- (6) Cast at least 3, 4-in by 8-in maximum chloride permeability cylinders per set and carefully transport the cylinders to the job site curing facility. A single maximum chloride permeability test result is the average result from 3 cylinders cast from the same load.
- (7) Cast at least 3 drying shrinkage prisms per set and carefully transport the prisms to the job site curing facility. A drying shrinkage test result is the average result from 3 prisms cast from the same load.
- (8) Deliver cylinders to designated laboratory for testing.

### Section 602.—CULVERTS AND DRAINS

602.03. Add the following:

Furnish culvert pipe from the following groups:

Reinforced concrete pipe, Class (II)

**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.

**Section 625.—TURF ESTABLISHMENT**

625.07. Add the following:

Apply seed at the rates for each season as follows:

<u>Name of Seed</u>	<u>Seeding Seasons and Rates (pounds per acre)</u>
	<u>March and April</u>
Ryegrass, Italian, perennial	15
Bermuda grass, common (hulled)	10
Fescue, Tall, Kentucky 31	<u>25</u>
Total Seed	50
	<u>May through August</u>
Ryegrass, Italian, perennial	25
Bermuda grass, common (hulled)	<u>15</u>
Total Seed	40
	<u>September and October</u>
Ryegrass, Italian, perennial	10
Fescue, Tall, Kentucky 31	25
Clover, Crimson, inoculate	<u>15</u>
Total Seed	50
	<u>November through February</u>
Ryegrass, Italian, perennial	21
Bermuda grass, common (hulled)	21
Fescue, Tall, Kentucky 31	25
Clover, Crimson, inoculated	<u>15</u>
Total Seed	82

### **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
--------------------------	--------

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 3/8-inches thick), aluminum (minimum of 0.040 inches 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.

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

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

**Cellular telephone:** Provide one durable hand held digital/cellular wireless phone, manufactured by Motorola/Nextel, or approved equal, for the use of the CO. The cellular phone shall be 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 field personnel. The cellular phone shall have a minimum of the following:

- (a) Direct Connect feature, or equivalent to communicate onsite with contractor personnel;
- (b) Hands free device that can be used safely and effectively while driving, and is acceptable by the local law enforcement agencies;
- (c) Capability of a customized communication configuration, independent of the other units, so that the CO may limit any features if necessary;
- (d) Necessary telephone accessories including a cigarette lighter power adapter/charger;
- (e) Carrying case that can be worn on the belt, and is appropriate for use on construction projects.

The cellular phone 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.

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 retains 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 645.—LOCATING UTILITIES**

### **Description**

**645.01** This work consists of locating and marking existing utilities by excavating test pits to, or using electromagnetic devices, where a physical conflict with proposed construction is suspected and the location is ordered by the CO.

### **Material**

**645.02** Materials for restoring the test pit area to its original condition shall be replacement of the materials excavated or their equivalent in newly furnished materials meeting the various applicable sections of this specification.

## Construction Requirements

**645.03 General.** Notify Iowa One Call 48 hours prior to any excavation, at 1-800-292-8989 to have the utilities marked in the field. Notify the CO 48 hours prior to any excavation.

Exercise special care and extreme caution in order to protect and avoid damage to any utility company facilities. Existing utilities have been generally located and shown on the plans as they are believed to exist. The Government assumes no responsibility for the accuracy of locations shown on the plans. Locate and ensure the safety of all existing utilities. Repair any damage resulting from Contractor's operations at no additional expense to the Government.

Locate by test pit any utility that may be in conflict with the proposed work. If a conflict appears to exist, then notify the CO in writing immediately and provide information on the location and elevation of the utility so that the CO can adjust the proposed work.

**645.04 Locating Utility.** Use electromagnetic devices to establish alignment of utilities where applicable. When necessary, thread a metal rod through non-metallic utility pipes to locate them. Where neither method is feasible, locate the utility by perpendicular trench or test pits.

**645.05 Excavation.** Excavate carefully so as not to disturb utility at its assumed depth. When excavating within roadway pavements where traffic is being maintained, excavate by air-vacuum methods or equivalent, keeping the area of disturbance to a minimum. Uncover the utility sufficiently to make accurate measurements.

**645.06 Record.** Describe the utility found (size, material, function), determine the elevation of the top of utility, and prepare a field sketch of the pit. Indicate the date and the station and offset of the utility, noting whether the baseline or the centerline of proposed facility is being referenced. Submit 1 copy to the CO within 24 hours.

**645.07 Marking.** Mark the utility location by flags or paint. Maintain the markings, including repainting faded or damaged markings as ordered by the CO, for the duration of the project, or until the CO determines that the markings are no longer needed.

**645.08 Restoration.** Backfill with original material, thoroughly compacting the material with a mechanical tamper. Restore aggregate base courses and pavement using equivalent materials and thicknesses. For portland cement concrete pavements, use fast setting concrete. For asphalt concrete pavements, cold patch, resurfacing of pit will be permitted so long as, in the opinion of the CO, it is thoroughly compacted.

**645.09 Acceptance.** Locating utilities will be evaluated under Subsection 106.02.

## Measurement

**645.10** Measure the Section 645 items listed in the bid schedule according to Subsection 109.02.

For markings, do not measure maintaining the markings.

**Payment**

**645.11** The accepted quantities will be paid at the contract price per unit of measurement for the Section 645 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

**Section 703.—AGGREGATE**

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 4121 – Granular Subbase, Gradation 12a (Crushed Stone), as specified in the 2007 Edition of the Iowa Department of Transportation Standard Specifications, Aggregate Gradation Table which is as follows:

Iowa DOT Grading 12a- Granular Subbase

Sieve Designation	Target Value Range Grading 12a (Percent Passing)	Target Value (Percent Passing)	Allowable Deviation (Percent)	Specification Limit (Percent Passing)
1 1/2 in.	100	100	---	100
3/8 in	40 – 80	60	± 20	40 – 80
No. 8	5 – 25	15	± 10	5 – 25
No. 200	0.0 – 6.0	3.0	± 3.0	0 – 6

**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.

Furnish topsoil for aggregate-topsoil course from Contractor sources.

713.02. Add the following:

Use a maximum of 0.17 pounds of limestone per cubic foot 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

713.05. Add the following after 713.05(h):

**(i) Shredded Hardwood Mulch.** Furnish aged hardwood mulch, dark brown to black in color, with a particle size of less than 3 inches, a neutral pH, and free of sticks, stones, clay, or other matter which may injure plants.

713.06(b). Add the following:

The genus, species, and cultivar names shall agree with the nomenclature of the most current edition of "Hortus Third" by L.H. Bailey, Hortorium, Cornell University.