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# INVITATION FOR BIDS

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Solicitation No. DTFH70-07-B-00016

**Bid Opening Date:**

See Page A-3, Block 13A

**ID PFH 80-1(1)  
Fernan Lake Road**

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**A-1 Notice to Bidders**

## BID REMINDERS

**Electronic bids will not be accepted. Submit printed copy of bid to the address listed on the enclosed SF 1442. Before submitting your bid, please review the following:**

- Have you rechecked your bid figures?
- Have you completed the bid schedule?
- Have you completed and signed the SF 1442, Solicitation, Offer & Award?
- Have you acknowledged all amendments?
- Have you completed the Representations & Certifications (Page B-1)?
- Is your bid guarantee enclosed in proper form and amount (see FAR Clause 52.228-1), including Power of Attorney affidavit?
- Does the lower left corner of the proposal envelope state "Bid Enclosed"?
- Does the lower left corner include the Solicitation Number and the project number/name?

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**Solicitation, Offer & Award, Bid Schedule, Contract Clauses,  
Minimum Wage Schedule, Special Contract Requirements, and Plans**

This solicitation cites

***Standard Specifications for Construction of Roads and Bridges  
on Federal Highway Projects, FP-03 U.S. Customary***

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**ISSUING OFFICE:**



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
610 EAST FIFTH STREET  
VANCOUVER, WA 98661-3801  
Phone: (360) 619-7520 – FAX: (360) 619-7932  
Web site: [www.wfl.fhwa.dot.gov/edi/](http://www.wfl.fhwa.dot.gov/edi/)  
e-mail: [contracts@mail.wfl.fhwa.dot.gov](mailto:contracts@mail.wfl.fhwa.dot.gov)**

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**PROJECT NAME** ID PFH 80-1(1), FERNAN LAKE ROAD

**BEGINNING AT**                      **BASE**                      **OPTION A**  
10+00.00                      283+74.00

**ENDING AT**                      **283+74.00**                      **556+69.67**

**NATIONAL FOREST** IDAHO PANHANDLE NATIONAL FOREST

**COUNTY** KOOTENAI COUNTY

**STATE** IDAHO

**LENGTH**                      **5.184 MILES**                      **5.170 MILES**

**FIXED COMPLETION DATE** See FAR Clause 52.211-10  
(clauses begin on page C-1)

## Bid Submittal Checklist

Before submitting your bid, please review the following:	Done?	Is this in the envelope?
<b>Bid Envelope</b>		
Did I correctly address the envelope? (See page A-3, blocks 7 & 8)		
Does the lower left corner of the envelope include the Solicitation Number and the project name/number?		
<b>Pages A-3 &amp; A-4 (SF 1442, Solicitation Offer &amp; Award)</b>		
Did I include our firm name and address in block 14?		
Did I include our firm's phone number in block 15?		
Did I include our firm's remittance address in block 16? (Use when different than block 14)		
Did I include my DUNS number?		
Did I include the number & date of <u>all</u> amendments in block 19?		
Did the appropriate official sign/date in block 20A, 20B & 20C?		
<b>Bid Schedule (see page A-7)</b>		
Did I insert "Unit Bid Price" and "Amount Bid" for each bid item?		
Did the appropriate official initial corrections?		
Did I include the "Total" on the last page of each bid schedule?		
Did I include the firm's name on the last page of each bid schedule?		
When applicable, did I include the totals for each schedule in the summary page? (see last page of bid schedules.)		
<b>Bid Bond (Standard Form 24)</b>		
<b>Bids received without a valid bid bond will be rejected.</b>		
Did I complete my bid bond correctly?		
Did I attach the Power of Attorney to the bid bond?		
<b>Authority to Sign</b>		
Did I include a completed form for <u>each</u> person signing the SF1442 and Bid Bond?		
<b>Representations &amp; Certifications &amp; other fill-ins</b>		
Did I include the completed B-pages (beginning on B-1)?		
Did I include the completed clause <i>1252.228-73 Notification of Miller Act Payment Bond Protection</i> (clauses begin on page C-1)?		
<b>Online Representations &amp; Certifications Application (ORCA) <a href="http://orca.bpn.gov">http://orca.bpn.gov</a></b>		
Do we have up-to-date data in ORCA ?		
<b>Central Contractor Registration (CCR) <a href="http://www.ccr.gov">http://www.ccr.gov</a></b>		
Did I ensure our firm is currently registered in CCR?		
<b>Vets100 Reporting <a href="http://vets.dol.gov/vets100/">http://vets.dol.gov/vets100/</a></b>		
Did I ensure our firm has completed this annual report?		

**NOTE:** The Contractor is fully responsible to verify that all data is correct each time a bid package is submitted. Failure to properly input and/or update your data may cause the bid to be rejected.

**Bid Submittal Checklist  
Reserved**

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INSTRUCTIONS: When the offeror/principal is a corporation, include this certification with your offer/bid.

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### Corporate Certificate

I, \_\_\_\_\_ (name), certify that I am the  
\_\_\_\_\_(title), of the corporation named as  
the Offeror/Principal herein;

that \_\_\_\_\_(name), who signed this  
offer and/or bid bond on behalf of \_\_\_\_\_ (company name) is  
\_\_\_\_\_(title) of this corporation;

that the offer was duly signed for and on behalf of said corporation by authority and  
scope of its governing body, and within the scope of its corporate powers.

\_\_\_\_\_(signature) Affix Corporate Seal  
\_\_\_\_\_(title)

INSTRUCTIONS: When the offeror/principal is a limited liability company, include this certification with your offer/bid.

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## Limited Liability Certificate

I, \_\_\_\_\_ (name), certify that I am the

\_\_\_\_\_ (title), of the limited liability company

named as the Offeror/Principal herein;

that \_\_\_\_\_ (name), who signed this

offer and/or bid bond on behalf of \_\_\_\_\_ (company name) is

\_\_\_\_\_ (title) of this company;

that the offer was duly signed for and on behalf of said company by authority and

scope of its governing body, and within the scope of its powers.

\_\_\_\_\_ (signature)

\_\_\_\_\_ (title)

Affix Company Seal  
(as applicable)

INSTRUCTIONS: When the offeror/principal is a partnership, include this certification with your offer/bid.

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**Authority to Bind Partnership**

This certifies that the names and signatures of all partners are listed below, and that the person signing the proposal has the authority to actually bind the partnership pursuant to its partnership agreement. Each of the partners individually has full authority to enter into and execute contractual instruments on behalf of said partnership, except as follows:

(State "None" or describe limitations, if any)

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This authority shall remain in full force and effect until such time as the revocation of authority by any cause whatsoever has been furnished in writing to and acknowledge by the Contracting Officer.

(Include names and signatures of all partners)

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INSTRUCTIONS: When the offeror/principal is a joint venture, include this certification with your offer/bid.

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## **Authority to Bind Joint Venture**

This certifies that the person signing the proposal has the authority to actually bind the joint venture pursuant to its joint venture agreement, and that each of the named persons listed below individually has full authority to enter into and execute contractual instruments on behalf of said joint venture, except as follows:

(State "None" or describe limitations, if any)

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This authority shall remain in full force and effect until such time as the revocation of authority by any cause whatsoever has been furnished in writing to and acknowledge by the Contracting Officer.

(Include names and signatures of all applicable individuals)

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INSTRUCTIONS: When the offeror/principal is a sole proprietorship, the signature on the offer/bid and on the bonds must be as follows:

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## **Sole Proprietorship Requirement**

An Offeror/Principal that is a sole proprietorship must submit an offer/bid and a bond signed by the sole proprietor, or by one duly authorized to sign for the sole proprietor. If the signature is by someone other than the sole proprietor, a copy of the power of attorney authorizing the individual to sign must be provided with the offer/bid.

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

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

PENAL SUM OF BOND				BID IDENTIFICATION		
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS	FOR <i>(Construction, Supplies, or Services)</i>	ID PFH 80-1(1) FERNAN LAKE ROAD

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

<b>SURETY B</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.		
<b>SURETY C</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.		
<b>SURETY D</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.		
<b>SURETY E</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.		
<b>SURETY F</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.		
<b>SURETY G</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.		

#### 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."

Subcontracting Plan – A-6a

**Subcontracting Plan**

**For Information Only. Do not submit with your bid.**

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

This plan is submitted in accordance with Federal Acquisition Regulations Contract Clause 52.219-9, *Small Business Subcontracting Plan*, and will be applicable to any contract awarded as result of this solicitation.

Use the following table to indicate:

1. Goals, express in terms of percentages of total planned subcontracting dollars (column 4)
2. Planned subcontracting dollars (column 2).

<b>1 Business Type</b>	<b>2 Planned Subcontracting (Dollars)</b>	<b>3 Calculating Goal percent</b>	<b>4 Goal (Percent)</b>
(i) <u>Total</u> planned for Subcontracting, include businesses of all sizes (large, small, vet owned, etc.).	2(i)	n/a	<b>100%</b>
(ii) Small business concerns (including ANCs & Indian tribes)	2(ii)	2(ii) / 2(i)	
(iii) Veteran-owned small business concerns	2(iii)	2(iii) / 2(i)	
(iv) Service-disabled veteran-owned small business concerns	2(iv)	2(iv) / 2(i)	
(v) HUBZone small business concerns.	2(v)	2(v) / 2(i)	
(vi) Small disadvantaged business concerns (including ANCs & Indian tribes)	2(vi)	2(vi) / 2(i)	
(vii) Women-owned small business concerns	2(vii)	2(vii) / 2(i)	

3(i). Supplies and services (work) to be subcontracted to small business concerns:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Subcontracting Plan – A-6b

3(ii). Supplies and services (work) to be subcontracted to veteran-owned small business concerns:

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3(iii). Supplies and services (work) to be subcontracted to service-disabled veteran-owned small business concerns:

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3(iv). Supplies and services (work) to be subcontracted to HUBZone small business concerns\_

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3(v). Supplies and services (work) to be subcontracted to small disadvantaged business concerns (including ANCs & Indian tribes):

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3(vi). Supplies and services (work) to be subcontracted to women-owned small business concerns:

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4. The following method was used to develop the subcontracting goals:

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5. The following method(s) was/were used to identify potential sources [e.g., existing company source lists, the Central Contractor Registration database (CCR)), veterans service organizations, the National Minority Purchasing Council Vender Information Service, the Research & Information Division of the Minority Business Development Agency in the Department of Commerce, or small,

Subcontracting Plan – A-6c

HUBZone, small disadvantaged and women-owned small business trade associations]. A firm may rely on the information contained in CCR as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of CCR as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

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6. Indirect or overhead costs ( )have ( )have not been included in the goals specified above. If costs have been included, describe the method used to determine the proportionate share of costs to be incurred with each type of business.

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7. The following individual will administer this subcontracting program:

Name: \_\_\_\_\_

Describe the individual's duties relating to the accomplishment of this subcontracting program:

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8. Describe the efforts the Contractor will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

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9. The Contractor agrees that FAR Contract Clause 52.219-8, *Utilization of Small Business Concerns*, will be included in all subcontracts that offer further subcontracting opportunities, and that the Contractor will require all subcontractors (except small business concerns) who receive subcontracts in excess of \$550,000 (\$1,000,000 if construction) to adopt a subcontracting plan that complies with the requirements of FAR Contract Clause 52.219-9, *Small Business Subcontracting Plan*.

10. The Contractor agrees to: (i) Cooperate in any studies or surveys as may be required; (ii) Submit periodic reports so that the Government can determine the extent of compliance with the subcontracting plan; (iii) Submit the Individual Subcontract Report (ISR) and/or the Summary

Subcontracting Plan

Project: ID PFH 80-1(1) Fernan Lake Road

## Subcontracting Plan – A-6d

Subcontract Report (SSR), using the Electronic Subcontracting Reporting System (eSRS) at <http://www.esrs.gov>; (iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS; (v) Provide its prime contract number, its DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their reports; and (vi) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to its subcontractors with subcontracting plans.

11. The Contractor agrees to maintain records to demonstrate procedures adopted to comply with the requirements and goals of this plan. These records shall describe the Contractor's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to these concerns. At a minimum, the records shall include the following:
  - (i) Source lists (e.g. CCR), guides, and other data used to identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
  - (ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
  - (iii) Records on each subcontract award of more than \$100,000. These records shall indicate:
    - (A) Whether small business concerns were solicited and, if not, why not.
    - (B) Whether veteran-owned small business concerns were contacted and, if not, why not.
    - (C) Whether service-disabled veteran-owned small business concerns were contacted and, if not, why not.
    - (D) Whether HUBZone small business concerns were contacted and, if not, why not.
    - (E) Whether small disadvantaged business concerns (including ANCs & Indian tribes) were contacted and, if not, why not.
    - (F) Whether women-owned small business concerns were contacted and, if not, why not.
    - (G) If applicable, the reason award was not made to a small business.
  - (iv) Records of outreach efforts to contact trade associations, business development organizations, and conferences/trade fairs in an attempt to locate small, HUBZone small, small disadvantaged and women-owned small business concerns. Records of efforts to contact veterans service organizations.
  - (v). Records of internal guidance/encouragement provided to buyers through workshops, seminars, training, etc., and monitoring performance to evaluate compliance with the program's requirements.

## Subcontracting Plan – A-6e

- (vi). On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor.

The Contractor agrees to:

1. Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.
2. Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.
3. Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
4. Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the Central Contractor Registration (CCR) database or by contacting SBA.
5. Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in this subcontracting plan.

The Contractor acknowledges that a failure of the Contractor or subcontractor to comply in good faith with clause 52.219-8, *Utilization of Small Business Concerns*, or this approved subcontracting plan shall be considered a material breach of the contract.

Subcontracting Plan – A-6f

**Contractor:**

Submitted By: \_\_\_\_\_  
Name and Title of Signer (Type or Print)

\_\_\_\_\_  
Signature of Person Authorized to Sign

Date: \_\_\_\_\_

**Federal Highway Administration:**

Accepted by: \_\_\_\_\_  
Julee McTaggart, Contracting Officer

Date: \_\_\_\_\_

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## SPECIAL CONTRACT REQUIREMENTS (SCR's)

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.

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Project: ID PFH 80-1(1), Fernan Lake Road

## NOTICE TO BIDDERS

### I. Project Location.

The project work is located approximately 0.4 miles northeast of the Sherman Avenue interchange (Exit 15) with Interstate 90 (I-90) at Coeur d'Alene, Idaho in Kootenai County. Project milepost (MP) 0.0 is located at the intersection of Fernan Lake Road with Lakeview Drive and Fernan Court. Reconstruction of the roadway is from MP 0.0 to MP 5.0 and resurfacing continues from there to MP 10.7 which is at the Fernan Saddle.

Approximate Global Positioning System(GPS) Coordinates for the beginning of the project are Latitude 47.67539, Longitude -116.74271

Signs have not been erected to identify the project limits. No Government personnel will be available for show-me tours.

### II. Pre-bid Information.

**TECHNICAL QUESTIONS REGARDING PROPOSED WORK FOR THIS PROJECT WILL NOT BE ACCEPTED AFTER THE CLOSE-OF-BUSINESS ON JULY 14, 2008.**

Questions can be submitted and answers viewed by going to project information at <http://www.wfl.fha.dot.gov/edi/current.htm>

**This solicitation includes electronic plan sheets.** Plan sheets can be found at <http://www.wfl.fhwa.dot.gov/edi/plans/fernanlake/> and viewed by individual sections, downloaded by individual sections, or the entire plan set downloaded in a zip file. A paper copy of the plan sheets is available by submitting the form included in this solicitation.

**Requests for technical information** (Plan and Division 100 –700 Specification questions only) about this project will only be accepted in writing (see Block 9 on page A-5)

**REPS & CERTS.** Submit or update Representations and Certifications online at <http://orca.bpn.gov> prior to bid submittal. For more details go to FAR Provision 52.204-8 *Annual Representations and Certifications* (see page B-2). If you have previously registered on-line and the NAICS code for this solicitation is different than the code listed in your online file, please note the amended changes on the lines provided in FAR 52.204-8.

**This solicitation contains a Price Evaluation Factor.** We will apply a factor of 10% to an apparent low bid submitted by a large business when we also receive a bid from a HUBZone small business; the 10% factor does not apply to apparent low bids submitted by a small business. See FAR Clause 52.219-4. To verify which firms are currently HUBZone certified see: <https://eweb1.sba.gov/hubzone/internet/general/approved-firms.cfm>.

Notice to Bidder

Project: ID PFH 80-1(1), Fernan Lake Road

If the contract is awarded after applying the price preference for HUBZone small business concerns under FAR clause 52.219-4; at least 50 percent of the cost of the contract performance incurred for personnel must be spent on the prime Contractor's employees or the employees of other qualified HUBZone small business concerns. See Subsection 108.02A.

**Base & Option.** Bids for the construction of this project are being invited under two bid schedules, designated Base Schedule and Option A. Option A is an additional amount of work and NOT an alternate method of completing the work. Complete both Bid Schedules and the Bid Summary page (see A-23) according to Subsection 102.02 of the Special Contract Requirements. The apparent low bidder will be determined by the lowest bid for the total of the Base and Option A schedules. **The successful bidder will be awarded all items in the Base schedule and may be awarded Option A.** See Subsection 102.05A of the Special Contract Requirements.

**Particular attention should be paid to Standard Form 1442**, Solicitation, Offer and Award, to assure that Blocks 14, 15, 16, 19, 20A, and 20C are completed correctly. Sign Block 20B according to the instructions in Subsection 102.02. You must submit a completed 'Authority to Sign' document (see 'Bidder's packet). You must also complete the representations and certifications contained in the Contract Provisions beginning on page B-1. Failure to furnish or complete any of the above may result in your bid being considered non-responsive and being rejected.

**Facsimile** bids are not authorized for this solicitation. Bids may be modified or withdrawn by facsimile, if such notice is received by the time specified for receipt of bids. The Government will not be responsible for any failure attributable to the transmission or receipt of facsimile data. See FAR Provision 52.214-5, Submission of Bids. FAX 360.619.7932.

**Notice of CCR Registration.** You must register in the Central Contract Registration (CCR) prior to award of this contract. Failure to register prior to contract award will require award to be offered to the next successful registered Offeror. See FAR Subpart 4.1103(c). Register online at [www.ccr.gov](http://www.ccr.gov) or call toll free: 888.227.2423.

### **III. Post Award Information.**

**Insurance requirements** are set forth in Subsection 107.05.

**Contractor Performance Evaluations.** FHWA is now posting evaluations in the National Institutes of Health's Contractor Performance System (CPS) for completed projects. Register at <https://cps.nih.gov/infopage.asp> (Click on "CPS Info" tab, then click on "Contractor Information" button) to view and comment on evaluations. System registration is only required once. Review the evaluation and submit comments within 30 days of notification. Reviewing the evaluation and submitting comments is limited to one entry. If unable to register, call 360.619.7520 for assistance or a copy of the evaluation. You can also access the Contractor User Manual from this web link.

Notice to Bidder

Project: ID PFH 80-1(1), Fernan Lake Road

#### **IV. Specifications and Permits.**

This solicitation and subsequent contract are governed by the Federal Acquisition Regulation (FAR), agency supplemental regulations, and the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 U.S. Customary Units. Obtain paper copies of the FP-03 by calling 360.619.7520, e-mailing at [plans\\_spec@fhwa.dot.gov](mailto:plans_spec@fhwa.dot.gov), or writing Federal Highway Administration, 610 East Fifth Street, Vancouver, WA 98661, Attention: Specification Engineer. An electronic version may be found at

<http://www.wfl.fha.dot.gov/design/specs/fp03.htm>.

Geotechnical, hydraulic, bridge, and design data applicable to this project is listed in FAR Clause 52.236-4, Physical Data.

The Government offers to make available to the Contractor a laboratory trailer with test equipment. See Subsection 154.04A, Laboratory Trailer and Testing Equipment.

The Government has changed the manner in which it measures the roughness of hot asphalt concrete pavement. The International Ride Index will now be used to determine a Pay Adjustment Factor for pay item number 40101. See Subsection 401.16.

There is no longer two separate pay items for hot asphalt concrete pavement and asphalt binder under Section 401, they have been combined. The Government has changed the formula for the Material Pay Factor for Section 401. See Subsection 401.19.

**An adjustment for the price of fuel and asphalt binder** has been included in this contract. See Subsection 109.06A.

Material sources, water sources, and haul roads have not been identified for this project. Secure all permits and clearances for Contractor-located sites and sources. See Subsection 105.02(b) and 107.10. Waste areas have been identified near Sta. 279+00 to 280+75 LT and 275+14 to 282+94 RT for the disposal of excess excavation. See plan sheets for site preparation and reclamation requirements. Areas for storing and handling of materials are identified in Subsection 105.04.

Carefully review Section 153 Contractor Quality Control of the Special Contract Requirements. New requirements have been included that substantially change work required for this Section compared to previous versions.

After contract award, the Government anticipates incorporating (by contract modification) work associated with the development of a 2.5-acre wetland mitigation site in the project area. We estimate approximately 10,000 cu yd of excavation, hauling, and disposal at the waste sites included in the contract. The work would also require establishing access to the site and additional erosion control measures at the site. This mitigation site work, if added by contract modification, is considered work within the scope of the original contract.

Notice to Bidder

Project: ID PFH 80-1(1), Fernan Lake Road

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<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>		1. Solicitation No. DTFH70-07-B-00016		2. Type of Solicitation		3. Date Issued 6/18/08		Page A-3	
				<input checked="" type="checkbox"/> Sealed Bid (IFB) <input type="checkbox"/> Negotiated (RFP)					
IMPORTANT – The “offer” section on the reverse must be fully completed by offeror.									
4. Contract No. -				5. Requisition/Purchase Request No. N/A			6. Project No. ID PFH 80-1(1) Fernan Lake Road		
7. Issued By U.S. Department of Transportation Federal Highway Administration 610 East Fifth Street Vancouver WA 98661-3801				Code: N/A		8. Address Offer to <b>Attn: Contracts Section</b> Code: N/A			
9. For Information Call:		A. Name See page A-5.			B. Telephone No. <i>(Include area code) (No Collect Calls)</i> 360.619.7520				
<b>SOLICITATION</b>									
<b>NOTE: In sealed bid solicitation “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 solicitation is designated **ID PFH 80-1-(1), Fernan Lake Road, Idaho Panhandle National Forest, Kootenai County, Idaho**

IN STRICT ACCORDANCE WITH:

Bid Schedule

Federal Acquisition Regulations (FAR) and Transportation Acquisition Regulations (TAR)

General Wage Decision

Special Contract Requirements

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 (US Customary)

11. The Contractor shall begin performance within 10 calendar days and complete it within \* calendar days after receiving the  award,  notice to proceed. This performance period is  mandatory  negotiable. ( See \*see page A-5 .)

12A. The Contractor must furnish any required performance and payment bonds?

*(If “YES”, indicate within how many calendar days after award in item 12B.)*

Yes  No

12B. Calendar Days

10

13. Additional Solicitation Requirements:

A. Sealed 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

**7/18/08**. If this is a sealed bid solicitation, offers must 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 <i>(Include ZIP Code)</i>	15. Telephone No. <i>(Include are code)</i>
16. Remittance Address <i>(Include on it different than Item 14)</i>	

**DUNS number:**

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 is accepted by the Government in writing within 60 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.)*

<b>AMOUNTS</b>	See Bid Schedule
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18. The offeror agrees to furnish any required performance and payment bonds.

**19. ACKNOWLEDGEMENT OF AMENDMENTS**

*(The offeror acknowledges receipt of amendment to the solicitation - give number and date of each)*

AMENDMENT No.	DATE								

20A NAME, TITLE OF PERSON AUTHORIZED TO SIGN OFFER <i>(Type or Print)</i>	20B. SIGNATURE	20c. OFFER DATE
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**AWARD (to be completed by Government)**

21. ITEM(S) ACCEPTED  
 All items on Bid Schedule.

22. Amount	23. Accounting and Appropriation Data
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24. Submit Invoices to Address shown in <i>(4 copies unless otherwise specified)</i>	Item See Page A-5	25. Other Than full and open competition pursuant to	<input type="checkbox"/> 10 U.S.C. 2304(c) (____) <input type="checkbox"/> 41 U.S.C 253 (c) (____)
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26. Administered by Federal Highway Administration Western Federal Lands Highway Division 610 East Fifth Street Vancouver WA 98661-3801	Payment will be made by Finance Section Western Federal Lands Highway Division 610 East Fifth Street Vancouver WA 98661-3801
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**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT <i>(Contractor is required to sign this document and return _____ copies to issuing office)</i> 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 checked="" type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> 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.
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30A. Name and Title of Contractor or Person authorized to sign <i>(Type or Print)</i>	31A. Name of Contracting Officer <i>(Type or Print)</i>		
30b. Signature	30C. Date	31B. United States of America	31C. Award Date
		By	

**Block 9**      **FOR GENERAL INFORMATION**, call **360.619.7520** from the hours of 8:00 a.m. to 4:00 p.m. local time or e-mail us at [contracts@mail.wfl.fhwa.dot.gov](mailto:contracts@mail.wfl.fhwa.dot.gov). You can also submit questions online from our Western Federal Lands webpage as described below.

**FOR TECHNICAL INFORMATION (plan and specification questions only)**, requests for technical information about this project will only be accepted in writing. Submit questions via fax (360.619.7932) or e-mail at [plans\\_spec@fhwa.dot.gov](mailto:plans_spec@fhwa.dot.gov) ([plans\\_spec@fhwa.dot.gov](mailto:plans_spec@fhwa.dot.gov)). You can also submit questions online from our Western Federal Lands webpage as described below.

**FOR DAVIS-BACON WAGE RATE INFORMATION** call the Department of Labor at **415.848.6616**.

**FOR PHYSICAL DATA**, See FAR Contract Clause 52.236-4, Physical Data, (clauses begin on page C-1) for a listing of available data. To obtain copies of Physical Data, submit a written request to the Contracts Section, **FAX 360.619.7932** or e-mail us at [contracts@mail.wfl.fhwa.dot.gov](mailto:contracts@mail.wfl.fhwa.dot.gov). Requests should be made early to assure timely arrival.

**FOR BID RESULTS**, call **360.619.7773**. Bid tabulations will be available on our website approximately 3 work days after the bid opening. Our website is located at: [www.wfl.fhwa.dot.gov/edi/](http://www.wfl.fhwa.dot.gov/edi/).

**Block 11**      **COMPLETION DATE:** Work shall be completed on or before the date specified in FAR Clause *52.211-10, Commencement, Prosecution, and Completion of Work*, subject to such extensions as may be authorized by the terms of the contract and the specifications made a part thereof. Contract Clauses begin on pages C-1.

**Block 12A**      **PERFORMANCE & PAYMENT BONDS:** See FAR Clause, *52.228-15, Performance and Payment Bonds - Construction* (clauses begin on page C-1) and Subsection 102.06 of the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 U.S. Customary Units*.

**Block 13B**      **BID BOND AMOUNT:** See FAR Clause 52.228-1, Bid Guarantee (clauses begin on page C-1).

**ADDITIONAL INFORMATION:** See Subsections 102.03 and 102.04 of *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03, U.S. Customary Units*.

**Block 24**      **SUBMITTING INVOICES:** See Subsection 109.08 of the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 U.S. Customary Units*.

**ESTIMATED PRICES.** The price range of the project work is between **\$15,000,000.00 and \$20,000,000.00**.

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**RESERVED**

## Bid Schedule

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Bidder please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

The quantities for the following items of work are Contract Quantities (see FP-03 Subsection 109.02):

20101-0000, 20401-0000, 21101-1000, 55201-0200, 55302-3200, 55401-1000, 55601-1100, 56401-1000, 62012-2000, 62012-2000, 62402-0200, 62406-0200, 63302-0000

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	\$ _____
15301-0000	CONTRACTOR QUALITY CONTROL		
	ALL	Lump Sum	\$ _____
15401-0000	CONTRACTOR TESTING		
	ALL	Lump Sum	\$ _____
15701-0000	SOIL EROSION CONTROL , TURBIDITY CURTAIN		
	ALL	Lump Sum	\$ _____
15702-1000	SOIL EROSION CONTROL, TEMPORARY DIVERSION CHANNEL		
	ALL	Lump Sum	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15703-1000	SOIL EROSION CONTROL, SOIL STABILIZATION 18.74 ACRE	\$ _____	\$ _____
15705-0100	SOIL EROSION CONTROL, SILT FENCE 3,235 LNFT	\$ _____	\$ _____
15705-1500	SOIL EROSION CONTROL, SEDIMENT WATTLE 26,100.0 LNFT	\$ _____	\$ _____
15705-1600	SOIL EROSION CONTROL, ABSORBENT BOOM 500.0 LNFT	\$ _____	\$ _____
15706-0400	SOIL EROSION CONTROL, SEDIMENT TRAP 9 EACH	\$ _____	\$ _____
15801-0000	WATERING FOR DUST CONTROL 9,800 MGAL	\$ _____	\$ _____
20101-0000	CLEARING AND GRUBBING 44.7 ACRE	\$ _____	\$ _____
20301-0300	REMOVAL OF BOX CULVERT (WOODEN) 3 EACH	\$ _____	\$ _____
20301-1600	REMOVAL OF MAILBOX 14 EACH	\$ _____	\$ _____
20301-1900	REMOVAL OF PIPE CULVERT 7 EACH	\$ _____	\$ _____
20301-2400	REMOVAL OF SIGN 18 EACH	\$ _____	\$ _____
20302-0700	REMOVAL OF FENCE 8,100.0 LNFT	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20401-0000	ROADWAY EXCAVATION 234,358 CUYD	\$ _____	\$ _____
20402-0000	SUBEXCAVATION (STABILIZATION TYPE I) 11,000 CUYD	\$ _____	\$ _____
20402-0000	SUBEXCAVATION (STABILIZATION TYPE II) 455 CUYD	\$ _____	\$ _____
20411-0000	SELECT BORROW 7,439 TON	\$ _____	\$ _____
20465-0000	CONSERVE AND PLACE BOULDER 110 EACH	\$ _____	\$ _____
20501-0000	CONTROLLED BLAST HOLE 19,000 LNFT	\$ _____	\$ _____
20504-0000	BLASTING CONSULTANT ALL	Lump Sum	\$ _____
20701-0100	EARTHWORK GEOTEXTILE, TYPE I-A 15,800 SQYD	\$ _____	\$ _____
20701-1000	EARTHWORK GEOTEXTILE, TYPE III-A 31,000 SQYD	\$ _____	\$ _____
20701-1200	EARTHWORK GEOTEXTILE, TYPE IV-A 120 SQYD	\$ _____	\$ _____
20703-2000	GEOGRID, BIAXIAL 11,000 SQYD	\$ _____	\$ _____
20810-0000	SHORING AND BRACING ALL	Lump Sum	\$ _____
20815-0000	COFFERDAMS ALL	Lump Sum	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
21101-1000	ROADWAY OBLITERATION, METHOD 1 2,616 SQYD	\$ _____	\$ _____
25101-2000	PLACED RIPRAP, CLASS 2 1,000 CUYD	\$ _____	\$ _____
25101-2000	PLACED RIPRAP, CLASS 2 , (ENERGY DISSIPATOR) 150 CUYD	\$ _____	\$ _____
25101-4000	PLACED RIPRAP, CLASS 4 6,600 CUYD	\$ _____	\$ _____
25101-5000	PLACED RIPRAP, CLASS 5 8,400 CUYD	\$ _____	\$ _____
25101-6000	PLACED RIPRAP, CLASS 6 100 CUYD	\$ _____	\$ _____
25120-1000	RIPRAP DITCH, CLASS 1 300 LNFT	\$ _____	\$ _____
25120-2000	RIPRAP DITCH, CLASS 2 190 LNFT	\$ _____	\$ _____
25205-0000	ROCK BUTTRESS 80 CUYD	\$ _____	\$ _____
25501-3000	MECHANICALLY STABILIZED EARTH WALL, MODULAR BLOCK FACE 5,050 SQFT	\$ _____	\$ _____
25510-0000	SELECT GRANULAR BACKFILL 4,300 CUYD	\$ _____	\$ _____
30101-2000	AGGREGATE BASE GRADING D 45,200 TON	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30302-1000	DITCH RECONDITIONING 124 LNFT	\$ _____	\$ _____
40101-1000	SUPERPAVE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL , TYPE III ROUGHNESS 17,610 TON	\$ _____	\$ _____
40101-1000	SUPERPAVE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL , TYPE IV ROUGHNESS 720 TON	\$ _____	\$ _____
40105-3000	ANTISTRIP ADDITIVE, TYPE 3 190 TON	\$ _____	\$ _____
41101-1000	PRIME COAT, GRADE CMS-2 90 TON	\$ _____	\$ _____
41105-0000	BLOTTER 1,435 TON	\$ _____	\$ _____
41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H 22 TON	\$ _____	\$ _____
55101-0200	CONCRETE FILLED STEEL PIPE PILES, IN PLACE 2,469 LNFT	\$ _____	\$ _____
55101-1100	STEEL H-PILES, IN PLACE 228 LNFT	\$ _____	\$ _____
55116-0000	SPLICE 8 EACH	\$ _____	\$ _____
55201-0200	STRUCTURAL CONCRETE, CLASS A (AE) 664 CUYD	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
55302-3200	PRECAST, PRESTRESSED CONCRETE GIRDERS , 42" 1,717 LNFT	\$ _____	\$ _____
55401-1000	REINFORCING STEEL 142,800 LB	\$ _____	\$ _____
55601-1100	BRIDGE RAILING, STEEL, TWO RAIL 876 LNFT	\$ _____	\$ _____
56401-1000	BEARING DEVICE, ELASTOMERIC 8 EACH	\$ _____	\$ _____
57502-0000	TEMPORARY BRIDGE WORKPADS ALL	Lump Sum	\$ _____
60201-0600	18-INCH PIPE CULVERT 425 LNFT	\$ _____	\$ _____
60201-0800	24-INCH PIPE CULVERT 2,055 LNFT	\$ _____	\$ _____
60201-1000	36-INCH PIPE CULVERT 105 LNFT	\$ _____	\$ _____
60201-1200	48-INCH PIPE CULVERT 55 LNFT	\$ _____	\$ _____
60201-1800	84-INCH PIPE CULVERT 230 LNFT	\$ _____	\$ _____
60202-0800	48-INCH EQUIVALENT DIAMETER ARCH OR ELLIPTICAL PIPE CULVERT 80 LNFT	\$ _____	\$ _____
60210-0800	END SECTION FOR 24-INCH PIPE CULVERT 20 EACH	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60211-1000	END SECTION FOR 36-INCH EQUIVALENT DIAMETER ARCH OR ELLIPTICAL PIPE CULVERT 1 EACH	\$ _____	\$ _____
60212-0600	ELBOW, 18-INCH 2 EACH	\$ _____	\$ _____
60212-0800	ELBOW, 24-INCH 1 EACH	\$ _____	\$ _____
60220-4400	14 FEET SPAN, 7 FEET RISE PRECAST REINFORCED CONCRETE BOX CULVERT 42 LNFT	\$ _____	\$ _____
60220-4450	14 FEET SPAN, 8 FEET RISE PRECAST REINFORCED CONCRETE BOX CULVERT 96.0 LNFT	\$ _____	\$ _____
60220-4550	14 FEET SPAN, 10 FEET RISE PRECAST REINFORCED CONCRETE BOX CULVERT 42 LNFT	\$ _____	\$ _____
60404-1000	CATCH BASIN, TYPE 1 5 EACH	\$ _____	\$ _____
60409-0200	INLET TOP, METAL FRAME AND GRATE TYPE B 5 EACH	\$ _____	\$ _____
60502-0000	GEOCOMPOSITE UNDERDRAIN SYSTEM 800 LNFT	\$ _____	\$ _____
60510-0300	4-INCH COLLECTOR PIPE , PERFORATED 1,474 LNFT	\$ _____	\$ _____
60510-0400	4-INCH OUTLET PIPE , SOLID 312 LNFT	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60802-0400	PAVED WATERWAY, TYPE 4 16 LNFT	\$ _____	\$ _____
60902-1000	CURB AND GUTTER, CONCRETE, 12-INCH DEPTH 2,825 LNFT	\$ _____	\$ _____
60915-1000	WHEELSTOP, CONCRETE 8 EACH	\$ _____	\$ _____
61102-1700	2-INCH WATERLINE, POLYVINYL CHLORIDE (PVC) 110 LNFT	\$ _____	\$ _____
61701-1200	GUARDRAIL SYSTEM G4, TYPE 2, CLASS A STEEL POSTS 413 LNFT	\$ _____	\$ _____
61702-0800	TERMINAL SECTION TYPE TANGENT , STEEL POST 4 EACH	\$ _____	\$ _____
61707-0000	STRUCTURE TRANSITION RAILING , STEEL POST 42 LNFT	\$ _____	\$ _____
61711-0000	IMPACT ATTENUATOR 2 EACH	\$ _____	\$ _____
61801-0000	CONCRETE BARRIER 90 LNFT	\$ _____	\$ _____
61804-1000	TERMINAL SECTION, TYPE 1 2 EACH	\$ _____	\$ _____
61901-0000	FENCE , STEEL PANEL 3,207 LNFT	\$ _____	\$ _____
61901-0900	FENCE, BARBED WIRE, 4 STRAND 10,700 LNFT	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61901-2253	FENCE, RAIL, 4 RAIL , WHITE VINYL 2,220 LNFT	\$ _____	\$ _____
61902-1200	GATE, METAL, 12 FEET WIDTH 12 EACH	\$ _____	\$ _____
61902-1300	GATE, METAL, 14 FEET WIDTH 6 EACH	\$ _____	\$ _____
61902-1400	GATE, METAL, 16 FEET WIDTH 6 EACH	\$ _____	\$ _____
62012-2000	STONE MASONRY SIGN BASE , HISTORIC 1 CUYD	\$ _____	\$ _____
62012-2000	STONE MASONRY SIGN BASE , USFS 3 CUYD	\$ _____	\$ _____
62101-0000	MONUMENT 185 EACH	\$ _____	\$ _____
62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY 100 HOUR	\$ _____	\$ _____
62201-1000	WHEEL LOADER, 4 CUBIC YARD MINIMUM RATED CAPACITY 100 HOUR	\$ _____	\$ _____
62201-2000	BULLDOZER, UNIVERSAL BLADE AND RIPPER, 300HP MINIMUM 100 HOUR	\$ _____	\$ _____
62201-2800	MOTOR GRADER, 8 FOOT MINIMUM BLADE 40 HOUR	\$ _____	\$ _____
62201-3150	HYDRAULIC EXCAVATOR, CRAWLER MOUNTED, 1.0 CUBIC YARD MINIMUM CAPACITY WITH THUMB ATTACHMENT 200 HOUR	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62301-0000	GENERAL LABOR 250 HOUR	\$ _____	\$ _____
62402-0200	FURNISHING AND PLACING TOPSOIL, 3-INCH DEPTH 13.4 ACRE	\$ _____	\$ _____
62406-0200	PLACING CONSERVED TOPSOIL, 3-INCH DEPTH 2.5 ACRE	\$ _____	\$ _____
62541-4000	SEEDING SUPPLEMENTS, MULCH (CUYD) 1,500 TON	\$ _____	\$ _____
62901-1400	ROLLED EROSION CONTROL PRODUCT, TYPE 5.C 3,000 SQYD	\$ _____	\$ _____
63302-0000	SIGN SYSTEM 113 SQFT	\$ _____	\$ _____
63309-0100	DELINEATOR, TYPE 1 400 EACH	\$ _____	\$ _____
63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID 195,000 LNFT	\$ _____	\$ _____
63401-0400	PAVEMENT MARKINGS, TYPE B, BROKEN 11,400 LNFT	\$ _____	\$ _____
63401-0450	PAVEMENT MARKINGS, TYPE B, DOTTED 2,450 LNFT	\$ _____	\$ _____
63502-0500	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 2 6 EACH	\$ _____	\$ _____
63502-0600	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 3 6 EACH	\$ _____	\$ _____

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63502-0900	TEMPORARY TRAFFIC CONTROL, CONE, TYPE 28-INCH 300 EACH	\$ _____	\$ _____
63502-1300	TEMPORARY TRAFFIC CONTROL, DRUM , TYPE 3 FOOT 80 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 10 EACH	\$ _____	\$ _____
63502-1700	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE C 15 EACH	\$ _____	\$ _____
63502-3100	TEMPORARY TRAFFIC CONTROL, TRAFFIC SIGNAL SYSTEM 2 EACH	\$ _____	\$ _____
63503-0400	TEMPORARY TRAFFIC CONTROL, CONCRETE BARRIER 200 LNFT	\$ _____	\$ _____
63503-0700	TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKINGS 52,800 LNFT	\$ _____	\$ _____
63503-1000	TEMPORARY TRAFFIC CONTROL, PLASTIC FENCE 1,000 LNFT	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 441 SQFT	\$ _____	\$ _____
63506-0600	TEMPORARY TRAFFIC CONTROL, PILOT CAR 1,000 HOUR	\$ _____	\$ _____
63506-0700	TEMPORARY TRAFFIC CONTROL, TRAFFIC AND SAFETY SUPERVISOR 359 HOUR	\$ _____	\$ _____
63509-1000	TEMPORARY TRAFFIC CONTROL, FLAGGER 10,000 FIX HR RATE	43.00	430,000.00

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63610-1600	CONDUIT, 2-INCH, PVC 110 LNFT	\$ _____	\$ _____
63610-2800	CONDUIT, 4-INCH, PVC 420 LNFT	\$ _____	\$ _____
63610-3200	CONDUIT, 6-INCH, PVC 540 LNFT	\$ _____	\$ _____
64603-0200	FIXTURE, MAILBOX 19 EACH	\$ _____	\$ _____
64703-1000	MITIGATION, LANDSCAPING LOG 95 EACH	\$ _____	\$ _____
64703-5000	MITIGATION, ROOT WAD 55 EACH	\$ _____	\$ _____
64704-1000	MITIGATION, STREAMBED MATERIAL 960 CUYD	\$ _____	\$ _____
65101-1000	DRAPED ROCKFALL PROTECTION, WIRE MESH 3,000 SQYD	\$ _____	\$ _____

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

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

Bid Schedule - Base

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Bid Schedule

Project: ID PFH 80-1(1)  
 FERNAN LAKE ROAD

Bidder please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

The quantity for the following item of work is a Contract Quantity (see FP-03, Subsection 109.02):

41101-1000

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	\$ _____
15301-0000	CONTRACTOR QUALITY CONTROL ALL	Lump Sum	\$ _____
15401-0000	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15705-1500	SOIL EROSION CONTROL, SEDIMENT WATTLE 2,500 LNFT	\$ _____	\$ _____
20402-0000	SUBEXCAVATION , (STABILIZATION TYPE II) 5,199 CUYD	\$ _____	\$ _____

Bid Schedule - Option A

Project: ID PFH 80-1(1)  
 FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20411-0000	SELECT BORROW 1,701 TON	\$ _____	\$ _____
20701-1000	EARTHWORK GEOTEXTILE, TYPE III-A 2,500 SQYD	\$ _____	\$ _____
20701-1200	EARTHWORK GEOTEXTILE, TYPE IV-A 24 SQYD	\$ _____	\$ _____
25101-2000	PLACED RIPRAP, CLASS 2 3,450 CUYD	\$ _____	\$ _____
25101-2000	PLACED RIPRAP, CLASS 2 (ENERGY DISSIPATOR) 8 CUYD	\$ _____	\$ _____
30101-2000	AGGREGATE BASE GRADING D 570 TON	\$ _____	\$ _____
30302-1000	DITCH RECONDITIONING 21,600 LNFT	\$ _____	\$ _____
40101-1000	SUPERPAVE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL , TYPE IV ROUGHNESS 8,400 TON	\$ _____	\$ _____
40105-3000	ANTISTRIP ADDITIVE, TYPE 3 85 TON	\$ _____	\$ _____
41101-1000	PRIME COAT, GRADE CMS-2 3 TON	\$ _____	\$ _____
41105-0000	BLOTTER 47 TON	\$ _____	\$ _____
41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H 18 TON	\$ _____	\$ _____

Bid Schedule - Option A

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
41410-2000	CRACK, CLEANING ROUTING AND SEALING 15,500 LNFT	\$ _____	\$ _____
60201-0800	24-INCH PIPE CULVERT 64 LNFT	\$ _____	\$ _____
62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY 20 HOUR	\$ _____	\$ _____
62201-1000	WHEEL LOADER, 4 CUBIC YARD MINIMUM RATED CAPACITY 20 HOUR	\$ _____	\$ _____
62201-2000	BULLDOZER, UNIVERSAL BLADE AND RIPPER, 300HP MINIMUM 20 HOUR	\$ _____	\$ _____
62201-2800	MOTOR GRADER, 8 FOOT MINIMUM BLADE 20 HOUR	\$ _____	\$ _____
62201-3150	HYDRAULIC EXCAVATOR, CRAWLER MOUNTED, 1.0 CUBIC YARD MINIMUM CAPACITY WITH THUMB ATTACHMENT 20 HOUR	\$ _____	\$ _____
62301-0000	GENERAL LABOR 20 HOUR	\$ _____	\$ _____
63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID 109,184 LNFT	\$ _____	\$ _____
63502-0500	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 2 6 EACH	\$ _____	\$ _____
63502-0600	TEMPORARY TRAFFIC CONTROL, BARRICADE TYPE 3 6 EACH	\$ _____	\$ _____
63502-0900	TEMPORARY TRAFFIC CONTROL, CONE, TYPE 28-INCH 100 EACH	\$ _____	\$ _____

Bid Schedule - Option A

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63502-1300	TEMPORARY TRAFFIC CONTROL, DRUM , TYPE 3 FOOT 40 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 4 EACH	\$ _____	\$ _____
63502-1700	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE C 4 EACH	\$ _____	\$ _____
63503-0400	TEMPORARY TRAFFIC CONTROL, CONCRETE BARRIER 100 LNFT	\$ _____	\$ _____
63503-0700	TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKINGS 26,000 LNFT	\$ _____	\$ _____
63503-1000	TEMPORARY TRAFFIC CONTROL, PLASTIC FENCE 1,000 LNFT	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 441 SQFT	\$ _____	\$ _____
63506-0600	TEMPORARY TRAFFIC CONTROL, PILOT CAR 500 HOUR	\$ _____	\$ _____
63506-0700	TEMPORARY TRAFFIC CONTROL, TRAFFIC AND SAFETY SUPERVISOR 75 HOUR	\$ _____	\$ _____
63509-1000	TEMPORARY TRAFFIC CONTROL, FLAGGER 750 FIX HR RATE	43.00	32,250.00

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

Submitted by: \_\_\_\_\_

Name of Bidder

Bid Schedule - Option A

Project: ID PFH 80-1(1)  
FERNAN LAKE ROAD

Subject: **ID PFH 80-1(1)**  
**Fernan Lake Road**

<b>SCHEDULE</b>	<b>SCHEDULE AMOUNT</b>
BASE (Page A-7)	
OPTION A (Page A-19)	
<b>Total Bid</b>	

Submitted by: \_\_\_\_\_

Bid Schedule Summary  
Project: ID PFH 80-1(1)  
Fernan Lake Road

## SOLICITATION PROVISIONS

### A. Provisions Incorporated by Reference

#### 52.252-1 Solicitation Provisions Incorporated by Reference

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; phone (360) 619-7520 and FAX (360) 619-7932. 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 site: [www.arnet.gov/far/](http://www.arnet.gov/far/).

#### I. Representations, Certifications and Other Statements of Offeror (by reference)

- 52.203-11 Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (Sep 2007)
- 52.222-23 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction (Feb 1999)
- (b) **Goals for minority participation for each trade 3%**  
**Goals for female participation for each trade 6.9%**
- (e) **As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Kootenai County, Idaho.**

#### II. Instructions, Conditions and Notices to Offeror (by reference)

- 52.204-6 Data Universal Numbering System (DUNS) Number (Oct 2003)
- 52.214-3 Amendments to Invitations for Bids (Dec 1989)
- 52.214-4 False Statements in Bids (Apr 1984)
- 52.214-5 Submission of Bids (Mar 1997)
- 52.214-6 Explanation to Prospective Bidders (Apr 1984)
- 52.214-7 Late Submissions, Modifications, and Withdrawals of Bids (Nov 1999)
- 52.214-18 Preparation of Bids - Construction (Apr 1984)
- 52.214-19 Contract Award - Sealed Bidding - Construction (Aug 1996)
- 52.214-34 Submission of Offers in the English Language (Apr 1991)
- 52.214-35 Submission of Offers in U.S. Currency (Apr 1991)
- 52.217-5 Evaluations of Options (Jul 1990)
- 52.236-27 Site Visit (Construction) (Feb 1995)
- There will be no government arranged site visits. The site is readily available for inspection. Prospective offerors are encouraged to make their own arrangements to inspect the site.**

**B. Full Text Provisions**

**I. Representations, Certifications & Other Statements of Bidders (full text)**

**Completing FAR provision 52.204-8 Annual Representation and Certifications.**

- This solicitation is issued under **NAICS 237310 – Highway, Street & Bridge Construction** with a small business size standard of **\$31 million**. If **your average annual gross receipts for the past 3 years are above \$31.0 million** you are a large business for this solicitation. If they are **below \$31.0 million** you are a small business. Please complete the certification listed in paragraph (b).
- Your small business information is pulled into ORCA from the Central Contractor Registration (CCR). Please include NAICS **237310** in the Central Contractor Registration (CCR) at <http://www.ccr.gov>. Please note that if you are currently using a NAICS code beginning in **234**, you are using an **outdated** code. Please update your files to **237310 – Highway, Street & Bridge Construction**.
- Before submitting bids, please ensure you have completed your annual representations and certifications electronically at the ORCA website, <http://orca.bpn.gov>.

**52.204-8 Annual Representation and Certifications (Jan 2006)**

(a) (1) The North American Industry Classification (NAICS) code for this solicitation is **237310 – Highway, Street & Bridge construction** [*insert NAICS code*].

(2) The small business size standard is **\$31 million** [*insert size standard*].

(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 certifications 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 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
<u>52.219-1</u>	<u>Small Business Program Representations</u>	_____	<u>Under NAICS Code 237310 the offeror represents as part of its offer that it ( ) is, ( ) is not a small business.</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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.

**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 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.

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### **Use of Recovered Materials on Federal Lands Highway Projects**

Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, as amended (42 U.S.C. 6901 *et seq.*), requires Federal, State, and local procuring agencies using appropriated Federal funds to purchase items composed of the highest percentage of recovered materials practical. Use of recovered materials is strongly encouraged on Federal Lands Highway Projects. Highway construction items covered by the Environmental Protection Agency's *Comprehensive Guidelines for Procurement of Products Containing Recovered Materials* include fly ash, ground granulated blast furnace slag, traffic barricades, traffic cones, hydraulic mulch and compost for mulch.

Use of **fly ash** and ground **granulated blast furnace slag** and construction materials containing fly ash and ground granulated blast furnace slag on Federal Lands Highway Projects:

- It is the policy of the United States Government that fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag shall have maximum practicable opportunity for incorporation into its construction projects.
- The Contractor agrees to investigate the use of fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag to the fullest extent consistent with the efficient performance of this contract. Both the contractor and the subcontractors are urged to seek out suppliers of fly ash and ground granulated blast furnace slag, cement and concrete containing fly ash and ground granulated blast furnace slag and to solicit bids for these materials.
- Names of firms that supply fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag are available from the American Coal Ash Association and the National Slag Association.

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### **THE FOLLOWING IS NOT A SOLICITATION PROVISION**

#### **PARTNERING**

A Partnership recognizes the Government and the Contractor are both responsible for and can affect the successful completion of this project. Partnering is a vehicle to ensure the partnership has structure and quality. It recognizes the strengths of each party and uses those strengths to identify and achieve shared goals. One of the primary objectives of Partnering is to facilitate the resolution of disputes in a timely, professional, and non-adversarial manner with the outcome focused on achieving those shared goals.

WFLHD supports the concepts and tenets of Partnering and as such is encouraging the Contractor and it's Subcontractors to establish a Partnering relationship on this project.

A formal Partnering meeting can help facilitate this relationship by helping to document the parties' common purpose and goals, and ensuring alignment. The goals are mutually agreed to and address effective and efficient performance within the scope of the contract.

Participation in a formal Partnering meeting is voluntary. Costs of implementing and maintaining the partnership would be agreed to by both parties and shared equally. These costs would be in addition to the contract amount.

Please indicate your desire to participate in a formal partnering meeting on this project.

We would like to participate in a formal partnering meeting.

We do not want to participate in a formal partnering meeting.

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**THE FOLLOWING ARE REQUESTED FOR REPORTING PURPOSES ONLY:**

1. Your firm's Dun & Bradstreet Number: \_\_\_\_\_

2. Your firm's U.S. Representative \_\_\_\_\_ (insert representative's name)

3. Your Firm's U.S. Representative District \_\_\_\_\_ (insert the district number)

(To obtain a Dun & Bradstreet number call 800.333.0505.)

(Access US Representative information on-line at [www.house.gov/writerep/](http://www.house.gov/writerep/). Enter your State and zip code to obtain your representative's name and district number.)

**II. Instructions, Conditions, and Notices to Bidders - (full text)**

**52.211-1 Availability of Specifications Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29 (Aug 1998)**

(a) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to—

GSA Federal Supply Service  
Specifications Section, Suite 8100  
470 East L'Enfant Plaza, SW  
Washington, DC 20407  
Telephone: (202) 619-8925  
Facsimile: (202) 619-8978.

(b) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (a) of this provision. Additional copies will be issued for a fee.

**52.211-3 Availability of Specifications Not Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions (Jun 1988)**

The specifications cited in this solicitation may be obtained from:

*Activity:* **Federal Highway Administration, Western Federal Lands Highway Division**  
*Complete Address:* **610 East Fifth Street, Vancouver, WA 98661-3801**  
*Telephone Number:* **(360) 619-7520**  
*Contact:* **Contracts Section**

The request should identify the solicitation number and the specification requested by date, title, and number, as cited in the solicitation.

**52.216-1 Type of Contract (Apr 1984)**

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

**52.222-5 Davis-Bacon Act—Secondary Site of the Work (July 2005)**

(a)(1) The offeror shall notify the Government if the offeror intends to perform work at any secondary site of the work, as defined in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Davis-Bacon Act, of this solicitation.

(2) If the offeror is unsure if a planned work site satisfies the criteria for a secondary site of the work, the offeror shall request a determination from the Contracting Officer.

(b)(1) If the wage determination provided by the Government for work at the primary site of the work is not applicable to the secondary site of the work, the offeror shall request a wage determination from the Contracting Officer.

(2) The due date for receipt of offers will not be extended as a result of an offeror's request for a wage determination for a secondary site of the work.

**52.233-2 Service of Protest (Sep 2006)**

(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 Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from **Contracting Officer, Contracts Section, Federal Highway Administration, 610 East Fifth Street, Vancouver, WA 98661-3801.**

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

## CONTRACT CLAUSES

### 1. Clauses Incorporated by Reference

Federal Acquisition Regulation (FAR) clauses begin with “52” and are available online at: [www.arnet.gov/far/](http://www.arnet.gov/far/). Transportation Acquisition Regulation (TAR) clauses begin with “1252” and are available online at: <http://www.dot.gov/ost/m60/tamtar/tar.htm>.

#### 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; phone (360) 619-7520 and FAX (360) 619-7932. Also, you may access the full text of a clause electronically at this site: [www.arnet.gov/far/](http://www.arnet.gov/far/).

- 52.202-1 Definitions (Jul 2004)
- 52.203-3 Gratuities (Apr 1984)
- 52.203-5 Covenant Against Contingent Fees (Apr 1984)
- 52.203-6 Restrictions on Subcontractor Sales to the Government (Sep 2006)
- 52.203-7 Anti-Kickback Procedures (Jul 1995)
- 52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (Jan 1997)
- 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (Jan 1997)
- 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (Sep 2007)
- 52.203-13 Contractor Code of Business Ethics and Conduct (Dec 2007)
- 52.204-4 Printed or Copied Double-Sided on Recycled Paper (Aug 2000)
- 52.204-7 Central Contractor Registration (Apr 2008)
- 52.209-6 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Sep 2006)
- 52.211-12 Liquidated Damages-Construction (Sep 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 Special Contract Requirements, Subsection 108.04.**
- 52.211-18 Variation in Estimated Quantity (Apr 1984)
- 52.214-26 Audit and Records - Sealed Bidding (Oct 1997)
- 52.214-27 Price Reduction for Defective Cost or Pricing Data-Modifications-Sealed Bidding (Oct 1997)
- 52.214-28 Subcontractor Cost or Pricing Data-Modifications-Sealed Bidding (Oct 1997)
- 52.217-7 Option for Increased Quantity – Separately Priced Line Item (Mar 1989)
  - ...The Contracting Officer may exercise the option by written notice to the contractor by April 30, 2009. ...**
- 52.219-4 Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jul 2005)
  - (See note in FAR Clause 52.236-1.) (See special contract requirement 108.02A, which incorporates increased minimum work requirements.)*
  - (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.**
  - ( ) Offeror elects to waive the evaluation preference.**
- 52.219-8 Utilization of Small Business Concerns (May 2004)

52.219-9	Small Business Subcontracting Plan (Apr 2008) - Alternate 1 (Oct 2001)
52.219-16	Liquidated Damages-Subcontracting Plan (Jan 1999)
52.222-3	Convict Labor (Jun 2003)
52.222-4	Contract Work Hours and Safety Standards Act-Overtime Compensation (Jul 2005)
52.222-6	Davis-Bacon Act (Jul 2005)
52.222-7	Withholding of Funds (Feb 1988)
52.222-8	Payrolls and Basic Records (Feb 1988)
52.222-9	Apprentices and Trainees (Jul 2005)
52.222-10	Compliance with Copeland Act Requirements (Feb 1988)
52.222-11	Subcontracts (Labor Standards) (Jul 2005)
52.222-12	Contract Termination-Debarment (Feb 1988)
52.222-13	Compliance with Davis-Bacon and Related Act Regulations (Feb 1988)
52.222-14	Disputes Concerning Labor Standards (Feb 1988)
52.222-15	Certification of Eligibility (Feb 1988)
52.222-21	Prohibition of Segregated Facilities (Feb 1999)
52.222-26	Equal Opportunity (Mar 2007)
52.222-27	Affirmative Action Compliance Requirements for Construction (Feb 1999)
52.222-35	Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sep 2006)
52.222-36	Affirmative Action for Workers with Disabilities (Jun 1998)
52.222-37	Employment Reports on Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sep 2006)
52.222-50	Combating Trafficking in Persons (Aug 2007)
52.223-3	Hazardous Material Identification and Material Safety Data (Jan 1997) Alternate I (July 1995)
52.223-6	Drug-Free Workplace (May 2001)
52.223-14	Toxic Chemical Release Reporting (Aug 2003)
52.225-13	Restrictions on Certain Foreign Purchases (June 2008)
52.227-1	Authorization and Consent (Dec 2007)
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (Dec 2007)
52.227-4	Patent Indemnity-Construction Contracts (Dec 2007)
52.228-1	Bid Guarantee (Sep 1996)
	<b>(c) The amount of the bid guarantee shall be <u>20 percent of the bid price or \$3 million, whichever is less.</u></b>
	<b>(d) ...furnish execute bonds within <u>10</u> days after receipt of the forms.....</b>
52.228-2	Additional Bond Security (Oct 1997)
52.228-11	Pledges of Assets (Feb 1992)
52.228-12	Prospective Subcontractor Requests for Bonds (Oct 1995)
52.228-14	Irrevocable Letter of Credit (Dec 1999)
52.228-15	Performance and Payment Bonds-Construction (Nov 2006)
52.229-3	Federal, State, and Local Taxes (Apr 2003)
52.232-5	Payments under Fixed-Price Construction Contracts (Sep 2002)
52.232-17	Interest (Jun 1996)
52.232-23	Assignment of Claims (Jan 1986)
52.232-27	Prompt Payment for Construction Contracts (Sep 2005)
52.232-34	Payment by Electronic Funds Transfer – Other than Central Contractor Registration (May 1999)

- 52.232-35 Designation of Office for Government Receipt of Electronic Funds Transfer Information (May 1999)
- Name: **Contracts Section**  
Mailing Address: **Federal Highway Administration, 610 East Fifth Street, Vancouver, WA 98661-3801**  
Telephone Number: **360.619.7520**  
Person to Contact: **Julee McTaggart**  
Electronic Address: **contracts@mail.wfl.fhwa.dot.gov**
- 52.233-1 Disputes (July 2002) - Alternate 1 (Dec 1991)
- 52.233-3 Protest After Award (Aug 1996)
- 52.233-4 Applicable Law for Breach of Contract Claim (Oct 2004)
- 52.236-1 Performance of Work by the Contractor (Apr 1984)  
(NOTE: This clause does not apply when award is made to other than the low bidder after applying the price evaluation preference for HUBZone small business concerns under FAR clause 52.219-4, in which case the percentage at SCR 108.02A will control.)  
**The Contractor shall perform on the site, and with its own organization, work equivalent to at least forty (40) percent of the total amount of work to be performed under the contract.**
- 52.236-2 Differing Site Conditions (Apr 1984)
- 52.236-3 Site Investigation and Conditions Affecting the Work (Apr 1984)
- 52.236-5 Material and Workmanship (Apr 1984)
- 52.236-6 Superintendence by the Contractor (Apr 1984)
- 52.236-7 Permits and Responsibilities (Nov 1991)
- 52.236-8 Other Contracts (Apr 1984)
- 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities and Improvements (Apr 1984)
- 52.236-10 Operations and Storage Areas (Apr 1984)
- 52.236-11 Use and Possession Prior to Completion (Apr 1984)
- 52.236-12 Cleaning up (Apr 1984)
- 52.236-13 Accident Prevention (Nov 1991) - Alternate 1 (Nov 1991)
- 52.236-15 Schedules for Construction Contracts (Apr 1984)
- 52.236-17 Layout of Work (Apr 1984)
- 52.236-21 Specifications and Drawings for Construction (Feb 1997) Alt II (Apr 1984)
- 52.236-26 Preconstruction Conference (Feb 1995)
- 52.242-13 Bankruptcy (Jul 1995)
- 52.242-14 Suspension of Work (Apr 1984)
- 52.243-4 Changes (June 2007)
- 52.244-2 Subcontracts (June 2007)
- 52.244-6 Subcontracts for Commercial Items (Sep 2006)
- 52.245-1 Government Property (June 2007) Alt I (June 2007)
- 52.245-9 Uses and Charges (June 2007)
- 52.246-12 Inspection of Construction (Aug 1996)
- 52.247-64 Preference for Privately Owned U.S. Flag Commercial Vessels (Feb 2006)
- 52.248-3 Value Engineering-Construction (Sep 2006) Alternate 1 (Apr 1984)
- 52.249-2 Termination for Convenience of the Government (Fixed Price) (May 2004)-- Alternate 1 (Sep 1996)
- 52.249-10 Default (Fixed-Price Construction) (Apr 1984)
- 52.253-1 Computer Generated Forms (Jan 1991)
- 1252.211-70 Index for Specifications (Apr 2005)
- 1252.216-70 Evaluation of Offers Subject to an Economic Price Adjustment Clause (Oct 1994)
- 1252.223-71 Accident and fire Reporting (Apr 2005)
- 1252.223-73 Seat Belt Use Policies and Programs (Apr 2005)

- 1252.228-73 Notification of Miller Act Payment Bond Protection (Apr 2005)  
(c) **The surety which has provided the payment bond under the prime contract is:**  
\_\_\_\_\_  
(Name)  
\_\_\_\_\_  
(Street Address)  
\_\_\_\_\_  
(City, State, Zip Code)  
\_\_\_\_\_  
(Contact & Telephone number)
- 1252.242-73 Contracting Officer's Technical Representative (Oct 1994)  
1252.245-70 Government property reports (Oct 1994)

## 2. Full Text Clauses

### 52.204-1 Approval of Contract (Dec 1989)

This contract is subject to the written approval of the Western Federal Lands' Division Engineer (or delegate) or one level above the Contracting Officer, and shall not be binding until so approved.

### 52.211-10 Commencement, Prosecution, and Completion of Work (Apr 1984) Alternate I (Apr 1984)

The Contractor shall be required to (a) commence work under this contract within 10 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 **July 29, 2011**, subject to such extensions as may be authorized. The time stated for completion shall include final cleanup of the premises.

The completion date is based on the assumption that the successful offeror will receive the notice to proceed **by September 2, 2008**. The completion date will be extended by the number of calendar days after the above date that the contractor receives the notice to proceed, except to the extent that the delay in issuance of the notice to proceed results from the failure of the contractor to execute the contract and give the required performance and payment bonds within the time specified in the offer.

### 52.219-28 Post-Award Small Business Program Re-Representation (June 2007)

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

“Long term contract” means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause 52.217-8, Option to Extend Services, or other appropriate authority.

“Small business concern” means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall re-represent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts ---

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the exercise date specified in the contract for any option thereafter.

(c) The Contractor shall re-represent its size status in accordance with the size standard in effect at the time of this re-representation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at <http://www.sba.gov/services/contractingopportunities/sizestandardsttopics/>.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the re-representation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure they reflect current status. The Contractor shall notify the contracting office by email, or otherwise in writing, that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause,

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following re-representation and submit it to the contracting office, along with the contract number and the date on which the re-representation was completed:

(NOTE: Do not complete this clause at time of initial offer/bid.)

The Contractor represents that it ()is ()is not a small business concern under NAICS Code [237310 \(Highway/Bridge construction\)](#) assigned to contract number \_\_\_\_\_.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

[Contractor to sign and date and insert authorized signer's name and title.]

## 52.222-39 Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004)

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

“United States” means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

### Notice to Employees

Under Federal law, employees cannot be required to join a union or maintain membership in a union in order to retain their jobs. Under certain conditions, the law permits a union and an employer to enter into a union-security agreement requiring employees to pay uniform periodic dues and initiation fees. However, employees who are not union members can object to the use of their payments for certain purposes and can only be required to pay their share of union costs relating to collective bargaining, contract administration, and grievance adjustment.

If you do not want to pay that portion of dues or fees used to support activities not related to collective bargaining, contract administration, or grievance adjustment, you are entitled to an appropriate reduction in your payment. If you believe that you have been required to pay dues or fees used in part to support activities not related to collective bargaining, contract administration, or

grievance adjustment, you may be entitled to a refund and to an appropriate reduction in future payments.

For further information concerning your rights, you may wish to contact the National Labor Relations Board (NLRB) either at one of its Regional offices or at the following address or toll free number:

National Labor Relations Board  
Division of Information  
1099 14th Street, N.W.  
Washington, DC 20570  
1-866-667-6572  
1-866-316-6572 (TTY)

To locate the nearest NLRB office, see NLRB's website at <http://www.nlr.gov>.

(c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR Part 470, and orders of the Secretary of Labor.

(d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR Part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR Part 470, which implements Executive Order 13201, or as are otherwise provided by law.

(e) The requirement to post the employee notice in paragraph (b) does not apply to—

(1) Contractors and subcontractors that employ fewer than 15 persons;  
(2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;

(3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;

(4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that—

(i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and

(ii) Such a waiver will not interfere with or impede the effectuation of the Executive order; or

(5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.

(f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The Contractor shall—

(1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Download a copy of the poster from the Office of Labor-Management Standards website at <http://www.olms.dol.gov>; or

(3) Reproduce and use exact duplicate copies of the Department of Labor’s official poster.

(g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR Part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

**52.225-11 Buy American Act—Construction Materials under Trade Agreements (Aug 2007)**

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

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

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

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

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

“Cost of components” means—

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

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

“Designated country” means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, 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, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, or United Kingdom);

(2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, Dominican Republic, 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, 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.

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

“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.

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

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

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

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

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

(b) Construction materials.

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

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

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows:

NONE

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

- (i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
- (ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

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

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

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

- (A) A description of the foreign and domestic construction materials;
- (B) Unit of measure;
- (C) Quantity;
- (D) Price;
- (E) Time of delivery or availability;
- (F) Location of the construction project;
- (G) Name and address of the proposed supplier; and
- (H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

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

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

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

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

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

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

**Foreign and Domestic Construction Materials Price Comparison**

<u>Construction Material Description</u>	<u>Unit of Measure</u>	<u>Quantity</u>	<u>Price (Dollars)*</u>
<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).]

**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 by: N/A.

(b) Weather conditions: N/A.

(c) Transportation facilities: N/A.

(d) Hydrological data consisting of flow rates, water surface elevations, velocities, and hydraulic permit information may be inspected at Western Federal Lands Highway Division, Contracts Section, 610 East Fifth Street, Vancouver, Washington 98661.

(e) Geotechnical data, subsurface investigation information, and design data, consisting of the following, may be obtained upon request. Written requests are required and may be submitted to the Contracts Section at the above address, by FAX at (360) 619-7932, or by e-mail at *contracts@mail.wfl.fhwa.dot.gov*.

(1) Geotechnical Report No. 04-01, Fernan Lake Road Idaho Forest Highway 80 (ID PFH 80) Location Design Phase Geotechnical Report.

(2) Geotechnical Report No. 02-02, Fernan Lake Road Idaho Forest Highway 80 (ID PFH80) Preliminary Design Phase Geotechnical Investigation Report

(3) Geotechnical Report No. 26-06, Fernan Lake Road Bridge, Kootenai County, Idaho, ID PFH 80-1(1), Geotechnical Investigation Report.

(4) Earthwork spreadsheet.

(5) Cross Sections.

D-1

GENERAL DECISION: **ID20080015** 06/13/2008 ID15

Date: June 13, 2008

General Decision Number: **ID20080015** 06/13/2008

Superseded General Decision Number: ID20070022

State: Idaho

Construction Type: Highway

Counties: Adams, Bear Lake, Benewah, Bingham, Blaine, Bonner, Bonneville, Boundary, Butte, Camas, Caribou, Cassia, Clark, Clearwater, Custer, Elmore, Fremont, Gooding, Idaho, Jefferson, Jerome, Kootenai, Latah, Lemhi, Lewis, Lincoln, Madison, Minidoka, Nez Perce, Oneida, Payette, Shoshone, Teton, Twin Falls, Valley and Washington Counties in Idaho.

Modification Number	Publication Date
0	02/08/2008
1	04/25/2008
2	06/06/2008
3	06/13/2008

CARP0001-011 06/01/2007

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NORHT OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 25.01	9.30

ZONE PAY:

ZONE 1	0-40 MILES	FREE
ZONE 2	41-65 MILES	\$2.25/PER HOUR
ZONE 3	66-100 MILES	\$3.25/PER HOUR
ZONE 4	OVER 100 MILES	\$4.75/PER HOUR

DISPATCH POINTS:

PASCO (2819 W. SYLVESTER) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

Wage Determination

ID PFH 80-1(1), Fernan Lake Road

MOSCOW (302 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

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CARP0808-007 01/01/2008

ADAMS, BEAR LAKE, BINGHAN, BUTTE, BONNEVILLE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FRANKLIN, FREMONT, GOODING, IDAHO (SOUTH OF THE 46TH PARALLEL), JEFFERSON, JEROME, LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY AND WASHINGTON COUNTIES.

	Rates	Fringes
CARPENTER.....	\$ 23.92	8.10

If a project is located in more than one zone the lower zone rate shall apply

Zone Differential (add to Zone 1 rate): Zone 2 - \$1.50

Zone 1: That area within the State of Idaho located within 30 miles on either side of I-84 from the Oregon-Idaho State Line on the West to the Intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 to Idaho Falls, then following State Highway #20 - 10 miles north to the intersection with Moody Road then following I-15 south from the city of Pocatello to a point 10 miles South of the Southern Boundary of Bannock County extended to the West.

Zone 2: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 as described above.

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ELEC0073-007 07/01/2007

IDAHO (SOUTH OF THE 46TH PARALLEL) COUNTY

	Rates	Fringes
Cable splicer.....	\$ 25.87	3%+12.03
ELECTRICIAN.....	\$ 25.47	3%+12.03

-----  
ELEC0073-008 07/01/2007

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO(NORTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE COUNTIES

	Rates	Fringes
Cable Splicer.....	\$ 25.87	3%+12.03
ELECTRICIAN.....	\$ 25.47	3%+12.03

-----  
Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

D-3

ELEC0291-009 06/01/2007

ADAMS, ELMORE, PAYETTE, VALLEY AND WASHINGTON COUNTIES

	Rates	Fringes
Cable Splicer.....	\$ 29.88	3%+\$9.04
ELECTRICIAN.....	\$ 27.16	3%+\$9.04

\* ELEC0449-006 06/01/2008

BLAINE, CAMAS, CASSIA, GOODING, JEROME, LINCOLN, MINIDOKA AND TWIN FALLS COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 22.50	5% + \$7.90

ELEC0449-008 06/01/2008

BEAR LAKE, BINGHAM, BONNEVILLE, BUTTE, CARIBOU, CLARK, CUSTER, FRANKLIN, FREMONT, JEFFERSON, LEMHI, MADISON, ONEIDA AND TETON COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 26.80	5%+\$9.50

ENGI0370-001 01/01/2008

ADAMS, BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FREMONT, GOODING, IDAHO (SOUTH OF THE 46TH PARALLEL), JEFFERSON, JEROME, LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY AND WASHINGTON COUNTIES

AREA 2:(Anyone working on HAZMAT jobs working with supplied air shall receive \$1.00 per hour above classification)

THERE IS A HAZMAT CLASSIFICATION INCLUDED IN EACH GROUP

POWER EQUIPMENT OPERATORS:

ZONE 1:

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 23.01	8.35
GROUP 2.....	\$ 23.17	8.35
GROUP 3.....	\$ 23.54	8.35
GROUP 4.....	\$ 23.85	8.35
GROUP 5.....	\$ 24.02	8.35
GROUP 6.....	\$ 24.19	8.35
GROUP 7.....	\$ 24.56	8.35
GROUP 8.....	\$ 24.79	8.35
GROUP 9.....	\$ 25.02	8.35

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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GROUP 10.....\$ 25.27 8.35

If a project is located in more than one zone the lower zone rate shall apply

Zone Differential (Add to Zone 1 rate): Zone 2 - \$1.50

Zone 1: That area within the State of Idaho located within 30 miles on either side of I-84 from the Oregon-Idaho State Line on the West to the Intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 to Idaho Falls, then following State Highway #20 - 10 miles north to the intersection with Moody Road then following I-15 south from the city of Pocatello to a point 10 miles South of the Southern Boundary of Bannock County extended to the West.

Zone 2: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 as described

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Brakeman; Crusher Plant Feeder (Mechanical); Deckhand; Grade Checker; Heater Tender; Land Plane; Pumpman; Rear Chainman

GROUP 2: Air Compressor; Assistant Refrigeration Plant Operator; Bell Boy; Bit Grinder Operator; Blower Operator (cement); Bolt Threader Machine Operator; Broom; Cement Hog; Concrete Mixer; Concrete Saw multiple cut; Discing - Harrowing or Mulching (regardless of motive power); Distributor Leverman; Drill Steel Threader Machine Operator; Fireman-all; Hoist-single drum; Hydraulic Monitor Operator-skid mounted; Oiler (single piece of equipment); Crusher Oiler; Pugmixer-Box Operator; Spray Curing Machine; Tractor-rubber tired farm type using attachments

GROUP 3: A-Frame Truck (hydra lift, Swedish Cranes, Ross Carrier, Hyster on construction jobs); Battery Tunnel Locomotive; Belt Finishing Machine; Cable Tenders (underground); Chip Spreader Machine (self-propelled); Hoist-2 or more drums or Tower Hoist; Hydralift-Fork lift & similar (when hoisting); Oilers (underground); Power Loader (bucket elevator conveyors); Rodman; Road Roller (regardless of motive power)

GROUP 4: Boring Machines (earth or rock); Quarrymaster-Joy-tractor mounted, Drills: Churn-Core-Calyx or Diamond; Front End & Overhead Loaders and similar machines-(up to and including 4 yds)(rubber-tired); Grout Pump; Hydra-Hammer; Locomotive Engineer; Longitudinal Float Machine; Mobilemixer; Spreader Machine; Tractor-rubber tired-using Backhoe, Transverse Finishing Machine; Trenching Machines; Waggoner Compactor and similar; Asphalt Spreaders; Groundman on Rotomill

Wage Determination

ID PFH 80-1(1), Fernan Lake Road

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GROUP 5: Concrete Plant Operator; Concrete Road Paver (dual); Elevating Grader Operator; Euclid Elevating Loader; Generator Plant Operator-Mechanic (diesel electric); Post Hole Auger or Punch Operator; Power Shovels, Backhoes and Draglines (under 3/4 yd); Pumpcrete; Refrigeration Plant Operator(1000 tons and under; Road Roller(finishing high type pavement); Service Equipment Oiler; Skidder-rubber tired; Sub Grader; Multiple Station Beltline Operator; Screed Operator

GROUP 6: Asphalt Pavers-self propelled; Asphalt Plant Operator; Blade Operator (motor patrol); Concrete Slip Form Paver; Cranes - up to and including 50 ton; Crusher Plant Operator; Derrick Operator; Drilling Equipment (bit under 8 inches) - Robbins Reverse Circulation and similar; Front End and Overhead Loaders and similar machines-over 4 yds to and including 7 yds; Koehring Scooper; Heavy Duty Mechanic or Welder; Mucking Machine (underground); Multi-batch Concrete Plant Operator; Piledriver Engineer; Power Shovels, Backhoes and Draglines (3/4 yd to and including 3 1/2 yds), Tractor-crawler type-including all attachments; Refrigeration Plant Operator (over 1,000 tons); Trimmer Machine Operator; Concrete Pump Boom Truck; All Scrapers up to and including 40 yards; Rotomill; Vacuum or Super-Sucker or Vactor Operator

GROUP 7: Cableway Operator; Continuous Excavator (Barber Greene WL-50); Cranes-over 50 tons; Dredges; Drilling Equipment (bit 8 inches and over)-Robbins Reverse Circulation & similar; Fine Grader-CMI or equivalent; Front End & Overhead Loaders & similar machines-(over 7 yards); Power Shovels & Draglines over 3 1/2 yards; Quad type Tractors with all attachments; all Scrapers, pulling wagons, belly dumps and attachments (over 40 yards to and including 60 yards); Multiple Scraper Units; Tower Crane Operator

GROUP 8: Scrapers - Euclid & similar, pulling wagons, belly dumps and attachments, over 60 yards to and including 80 yards; Dozer or Blade (Motor Patrol) when remote grade control device (GPS or Laser or similar) is used

GROUP 9: Scrapers - Euclid and similar, pulling wagons, belly dumps and attachments, over 80 yards to and including 100 yards

GROUP 10: Scrapers - Euclids and similar, pulling wagons, belly dumps and attachments, over 100 yards

BOOM PAY: All Cranes and Concrete Pump Boom Trucks  
100 ft to 150 ft           \$.15 over scale  
150 ft to 200 ft           \$.30 over scale  
Over 200 ft               \$.45 over scale

NOTE: In computing the length of the boom on Tower Cranes, they shall be measured from the base of the tower to the

### Wage Determination

ID PFH 80-1(1), Fernan Lake Road

point of the boom.

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ENGI0370-003 06/01/2008

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NOUTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE COUNTIES.

AREA 1: (Anyone working on HAZMAT jobs working with supplied air shall receive \$1.00 per hour above classification)

ZONE 1:

	Rates	Fringes
Power equipment operators:		
GROUP 1A.....	\$ 23.21	9.80
GROUP 1.....	\$ 23.76	9.80
GROUP 2.....	\$ 24.08	9.80
GROUP 3.....	\$ 24.69	9.80
GROUP 4.....	\$ 24.85	9.80
GROUP 5.....	\$ 25.01	9.80
GROUP 6.....	\$ 25.29	9.80
GROUP 7.....	\$ 25.56	9.80
GROUP 8.....	\$ 26.66	9.80

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - \$2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1A: Boat Operator; Crush Feeder; Oiler; Steam Cleaner

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Drillers Helper (Assist driller in making drill rod connections, service drill engine and air compressor, repair drill rig and drill tools, drive drill support truck to and on the job site, remove drill cuttings from around bore hole and inspect drill rig while in operation); Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled); Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment (8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operatr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

### Wage Determination

ID PFH 80-1(1), Fernan Lake Road

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GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Roller (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel (under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragline; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly and Similar); Ultra High Pressure Waterjet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead, rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)  
180 ft to 250 ft \$ .50 over scale  
Over 250 ft \$ .80 over scale

NOTE:

In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:

Anyone working on HAZMAT jobs, working with supplied air shall receive \$1.00 an hour above classification.

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Wage Determination

ID PFH 80-1(1), Fernan Lake Road

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IRON0014-003 07/01/2007

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO(NORTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE

	Rates	Fringes
Ironworker, Rebar.....	\$ 28.22	15.52
IRONWORKER, STRUCTURAL.....	\$ 28.22	15.52

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IRON0014-007 07/01/2007

ADAMS (REMAINDER OF COUNTY), IDAHO (SOUTH OF THE 46TH PARALLEL), LEMHI (NORTHWEST CORNER), VALLEY (NORTHEASTERN 1/3) AND WASHINGTIN (NORTHWESTERN 1/2) COUNTIES

	Rates	Fringes
IRONWORKER		
REBAR.....	\$ 28.22	15.52
STRUCTURAL.....	\$ 28.22	15.52

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IRON0732-007 06/01/2008

ADAMS (EAST CORNER), BEAR LAKE, BINGHAM, BLAINE, BUTTE, BONNEVILLE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FRANKLIN, FREMONT, GOODING, JEFFERSON, JEROME, LINCOLN, LEMHI (REMAINDER OF COUNTY), MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY (SOUTHEAST 2/3), AND WASHINGTON (SOUTHEAST 1/2) COUNTIES.

	Rates	Fringes
IRONWORKER		
Rebar.....	\$ 23.69	12.65
STRUCTURAL.....	\$ 23.69	12.65

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LABO0155-001 01/01/2008

ADAMS, BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FRANKLIN, FREMONT, GOODING, IDAHO (SOUTH OF THE 46TH PARALLEL), JEFFERSON, JEROME, LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY AND WASHINGTON COUNTIES

AREA 2: (Anyone working on HAZMAT jobs working with supplied air shall receive \$1.00 per hour above classification)

ZONE 1:

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 22.23	7.40
GROUP 2.....	\$ 22.33	7.40
GROUP 3.....	\$ 22.43	7.40
GROUP 4.....	\$ 22.53	7.40

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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GROUP 5.....	\$ 22.58	7.40
GROUP 6.....	\$ 22.83	7.40
GROUP 7.....	\$ 23.08	7.40
GROUP 8.....	\$ 22.48	7.40
GROUP 9.....	\$ 22.63	7.40
GROUP 10.....	\$ 22.73	7.40

THERE IS A HAZMAT CLASSIFICATION IN EACH GROUP

If a project is located in more than one zone the lower zone rate shall apply

Zone Differential (Add to Zone 1 rate): Zone 2 - \$1.50

Zone 1: That area within the State of Idaho located within 30 miles on either side of I-84 from the Oregon-Idaho State Line on the West to the Intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 to Idaho Falls, then following State Highway #20 - 10 miles north to the intersection with Moody Road then following I-15 south from the city of Pocatello to a point 10 miles South of the Southern Boundary of Bannock County extended to the West.

Zone 2: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 as described above.

LABORERS CLASSIFICATIONS

GROUP 1: General laborers; Sloper, cleaning and grading; Form stripper; Concrete crew; Concrete curing crew; Carpenter tender; Asphalt laborer; Hopper tender; Flagman (including Pilot car); Watchman; Heater Tender; Stake jumper; Choker setters; Spreader and weighman; Scouring concrete; Rip Rap Man (hand placed); Crusher tender; Cribbing and shoring (in open ditches); Machinery and parts cleaner; Leverman, manual or mechanical; Demolition, salvage; Landscaper; Tool roomman; Traffic Stripping Crew; Asbestos Abatement Laborers; Janitor (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Chuck tender; Driller tender; Air tampers; Gunnite nozzleleman tender; Pipewrapper; Tar pot tender; Concrete sawyer; Concrete Grinder; Signalman, handling cement; Dumpman; Steam nozzleleman; Air and water nozzleleman (Green Cutter, Concrete); Vibrator (less than 4"); Pumpcrete and grout pump crew; hydraulic Monitor; Hydro Blaster

GROUP 3: Pipelayer, including sewer, drainage, sprinkler systems and water lines; Free Air Caisson; Jackhammer; Paving Breaker; Chipping Gun Concrete; Powderman Tender; Asphalt Raker; Gasoline powered Tamper; Electric Ballast Tamper; Sand Blasting; Form Setter, airport paving; Gunman (Gunitite); Manhole Setter; Hand guided machines, such as

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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Roto Tillers, Trenchers, Post-Hole Diggers, Walking Garden Tractors, etc.; Cutting Torch

GROUP 4: Hod Carrier; Mason Tender; Plaster Tender; Mason Tender (concrete); Terrazzo-Tile Tender

GROUP 5: Highscaler; Wagon Drill; Grade Checker; Gunnite Nozzleman; Timber faller and buckler

GROUP 6: Diamond Drills; Drillers on Drills with Manufacturers rating 3" or over

GROUP 7: Powderman

UNDERGROUND WORK:

GROUP 8: Reboundman; Chucktender; Nipper; Dumpman; Vibrator (less than 4"); Brakeman; Mucker; Bullgang

GROUP 9: Form Setter and Mover

GROUP 10: Miners; Machineman; Timbermen; Steelmen; Drill Doctors; Spaders and Tuggers; Spilling and/or Caisson Workers; Vibrator (over 4")

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LAB00238-001 06/01/2008

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NOUTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE COUNTIES.

AREA 1:

ZONE 1:

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 20.56	7.70
GROUP 2.....	\$ 22.66	7.70
GROUP 3.....	\$ 22.93	7.70
GROUP 4.....	\$ 23.20	7.70
GROUP 5.....	\$ 23.48	7.70
GROUP 6.....	\$ 24.85	7.70

Zone Differential (Add to Zone 1 rates): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: 45 radius miles and over from the main post office

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer, Scaleman; Traffic Control Maintenance Laborer (to include erection and

Wage Determination

ID PFH 80-1(1), Fernan Lake Road

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maintenance of barricades, signs, and relief of flagperson); Window Washer; Washer/Cleaner(Detail cleanup, such as but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Cleanup laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine, 6 inches and smaller); Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker; Miner, Class "A" (to include bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly and dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Form Setter, paving; Grader Checker Using Level; Jackhammer Operator Miner, Class B (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi-plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow, power driven

GROUP 4: Air and Hydraulic Track Drill; Asphalt Raker; Brush Machine (to include, horizontal construction joint clean-up brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when working on free standing concrete stacks for smoke or fume control above 40 feet high); Gunnite (to include operation of machine and nozzle); High Scaler; Miner, Class C (to include miner, nozzleman for concrete, laser beamoperator and operator and rigger on tunnels); Monitor Operator, air track or similar mounting; Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power-propelled, sandblast nozzle); Pavement Breaker, 90 lbs. and over Pipelayer (to

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include working topman, caulker, collerman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer, tamper); Pipewrapper; Plasterer Tenders; Vibrators, all

GROUP 5 - Drills with dual masts; Hazardous Waste Worker, Level A; Miner Class "D" (to include raise and shaft miner, laser beam operator on raises and shafts)

GROUP 6 - Powderman

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PAIN0005-015 06/01/2006

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NORTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEX PERCE AND SHOSHONE COUNTIES.

	Rates	Fringes
PAINTER (Traffic Control Striper).....	\$ 22.74	9.16

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\* PAIN0005-016 07/01/2007

BOUNDARY, BONNER, BENEWAH, CLEARWATER, IDAHO (NORTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEX PERCE AND SHOSHONE COUNTIES.

	Rates	Fringes
Painters:		
Application of Cold Tar Products, Epoxies, Polyurethanes, Acids, Radiation Resistant Material, Water and Sandblasting, Bridges, Towers, Tanks, Stacks, Steeples, Lead Abatement, Asbestos Abatement.....	\$ 20.84	7.38
Over 30'/Swing Stage Work..	\$ 21.54	7.38
Brush, Roller, Striping, Steam-cleaning and Spray....	\$ 15.09	6.18
TV Radio, Electrical Transmission Towers.....	\$ 21.59	7.38
TV, RADIO, ELECTRICAL TRANSMISSION TOWERS Over 30'/Swing Stage Work..	\$ 22.29	7.38

\*\$.70 shall be paid over and above the basic wage rates listed for work on swing stages and high work of over 30 feet.

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PAIN0005-017 06/01/2006

BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CARIBOU, CASSIA, CLARK, CUSTER, FREMONT, JEFFERSON, LEMHI, MADISON, MINIDOKA, ONEIDA AND TETON COUNTIES.

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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	Rates	Fringes
PAINTER.....	\$ 9.58	6.90

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PAIN0477-003 06/01/2006

ADAMS, ELMORE, IDAHO (SOUTH OF THE 46TH PARALLEL), PAYETTE,  
VALLEY AND WASHINGTON COUNTIES.

	Rates	Fringes
PAINTER (Traffic Control Stripers).....	\$ 20.60	4.67

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PAIN0477-004 05/01/2006

ADAMS, CAMAS, ELMORE, GOODING, JEROME, LINCOLN, PAYETTE, TWIN  
FALLS, VALLEY AND WASHINGTON COUNTIES.

	Rates	Fringes
PAINTER.....	\$ 13.01	4.05

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PAIN0764-003 06/01/2006

BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CAMAS, CARIBOU,  
CASSIA, CLARK, CUSTER, FREMONT, GOODING, JEFFERSON, JEROME,  
LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, TETON, AND TWIN  
FALLS COUNTIES.

	Rates	Fringes
PAINTER (Traffic Control Stripers).....	\$ 20.60	4.67

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PLAS0072-001 06/01/2007

BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NORTH OF THE 46TH  
PARALLEL), KOOTENAI, LATAH, LEWIS AND NEZ PERCE AND SHOSHONE  
COUNTIES

ZONE 1:

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 24.68	7.98

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00

BASE POINTS: Spokane, Moses Lake, Pasco, and Lewiston

Zone 1: 0-45 radius miles from the main post office

Zone 2: Over 45 radius miles from the main post office

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PLAS0219-004 01/01/2008

Wage Determination  
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ADAMS, BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FRANKLIN, FREMONT, GOODING, IDAHO (SOUTH OF THE 46TH PARALLEL), JEFFERSON, JEROME, LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY AND WASHINGTON

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
GROUP 1.....	\$ 16.88	14.28
GROUP 2.....	\$ 17.08	14.28

If a project is located in more than one zone the lower zone rate shall apply

Zone Differential (add to Zone 1 rate): Zone 2 - \$1.50

Zone 1: That area within the State of Idaho located within 30 miles on either side of I-84 from the Oregon-Idaho State Line on the West to the Intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 to Idaho Falls, then following State Highway #20 - 10 miles north to the intersection with Moody Road then following I-15 south from the city of Pocatello to a point 10 miles South of the Southern Boundary of Bannock County extended to the West.

Zone 2: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 as described above.

CEMENT MASONS CLASSIFICATIONS

GROUP 1: - JOURNEYMAN CEMENT MASON (including but not limited to hand chipping and patching, all types grouting and pointing of all concrete constructions, screed setting including screed pins, dry packing of all concrete including Embecco, plugging and filling all voids, etc., concrete construction, waterproofing of concrete with Thoroseal or similar materials.

GROUP 2: - CEMENT MASON (magnesite terazzo and mastic composition, two component epoxies, Clary and similar type screed operator, sandblasting of concrete for architectural finished only, Power chipping and bushhammer, all color concrete work, Power Trowel Operator, Power Grinder Operator, Gunnite and Composition Floor Layer).

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ADAMS, BEAR LAKE, BINGHAM, BLAINE, BONNEVILLE, BUTTE, CAMAS, CARIBOU, CASSIA, CLARK, CUSTER, ELMORE, FREMONT, GOODING, IDAHO (SOUTH OF THE 46TH PARALLEL), JEFFERSON, JEROME, LEMHI, LINCOLN, MADISON, MINIDOKA, ONEIDA, PAYETTE, TETON, TWIN FALLS, VALLEY AND WASHINGTON COUNTIES

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AREA 2: (Anyone working on HAZMAT jobs working with supplied air shall receive \$1.00 per hour above classification)

ZONE 1

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 20.00	11.15
GROUP 2.....	\$ 20.37	11.15
GROUP 3.....	\$ 20.60	11.15
GROUP 4.....	\$ 20.78	11.15
GROUP 5		
CLASS A.....	\$ 20.60	11.15
CLASS B.....	\$ 20.78	11.15
CLASS C.....	\$ 21.01	11.15
CLASS D.....	\$ 21.52	11.15
CLASS E.....	\$ 21.75	11.15
CLASS F.....	\$ 22.19	11.15

THERE IS A HAZMAT CLASSIFICATION INCLUDED IN EACH GROUP

If a project is located in more than one zone the lower zone rate shall apply

Zone Differential (Add to Zone 1 Rate): Zone 2 - \$1.50

Zone 1: That area within the State of Idaho located within 30 miles on either side of I-84 from the Oregon-Idaho State Line on the West to the Intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 to Idaho Falls, then following State Highway #20 - 10 miles north to the intersection with Moody Road then following I-15 south from the city of Pocatello to a point 10 miles South of the Southern Boundary of Bannock County extended to the West.

Zone 2: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 as described above.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Leverman Loading at Bunkers; Pilot Car or Escort Driver Flat Bed-2 Axle and Pickup Hauling material; Water Truck (1,000 gallons and under); Ambulance Driver; Flat Bed-3 Axle; Fuel Truck (1,000 gallons and under); Greaser; Tireman; Serviceman; Buggymobile; Manhaul (Shuttle Truck or Bus)

GROUP 2: Slurry or Concrete Pumping Truck; Flat Bed using Power Takeoff; Semi Trailer-Low Boy (up to 96,000 lbs. GVW); Bulk Cement Tanker (up to 96,000 lbs. GVW); Fork Lift (Bull Lift, Hydro Lift), Ross Hyster and similar Straddle equipment; "A" Frame Truck (Swedish Crane, Iowa 3,000 Hydro

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Lift); Transit Mix Truck (0-10 yds); Warehouseman Loading and Unloading

GROUP 3: Water Tank Truck; Fuel Truck (over 1,000 gallons); Transit Mix Trucks (10 yards & over), Dumptors; Distributor or Spreader Truck; Field Tireman-Serviceman; Snow Plow (Truck Mounted); Warehouseman; Counteraman, Shipping Receiving, Cardex.

GROUP 4: Low Boy (96,000 lbs. GVW & over); Bulk Cement Tanker (96,000 lbs. GVW & over); Transit Mix Trucks (over 10 yards); Turnarocker & similar equipment; Warehouseman General

GROUP 5:

CLASS:

- A - Truck - Side, end and bottom dump, 0-16 yards, inclusive.
- B - Truck - Side, end and bottom dump, 16-30 yards, inclusive.
- C - Truck - Side, end and bottom dump, 30-50 yards, inclusive, and Truck Mechanic.
- D - Truck - Side, end and bottom dump, 50-75 yards, inclusive.
- E - Truck - Side, end and bottom dump, 75-100 yards inclusive.
- F - Truck - Side, end and bottom dump, over 100 yards.

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BENEWAH, BONNER, BOUNDARY, CLEARWATER, IDAHO (NORTH OF THE 46TH PARALLEL), KOOTENAI, LATAH, LEWIS, NEZ PERCE AND SHOSHONE COUNTIES

AREA 1: (ANYONE WORKING ON HAZMAT JOBS SEE FOOTNOTE A BELOW)

ZONE 1:

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 19.27	10.55
GROUP 2.....	\$ 21.54	10.55
GROUP 3.....	\$ 22.04	10.55
GROUP 4.....	\$ 22.37	10.55
GROUP 5.....	\$ 22.48	10.55
GROUP 6.....	\$ 22.65	10.55
GROUP 7.....	\$ 23.18	10.55
GROUP 8.....	\$ 23.51	10.55

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00)

BASE POINTS: Spokane, Moses Lake, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office

Zone 2: 45 radius miles and over from the main post office

TRUCK DRIVERS CLASSIFICATIONS

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GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraulic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver; Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yards); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yds. to & including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank Truck (0-8000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self-loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom & articulated end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled), up to 14 ton; Vacuum truck (super sucker, guzzler, etc.); Water Tank Truck (8,001-14,000 gallons)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Lowboy (over 50 tons); Mechanic (Field); Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom & articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DW's & similar, with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater; Water Tank Truck (8001-14,000 gallons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable operated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom & articulated end dump(over 40 yds. to & including 100 yds.); Truck mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons)

Wage Determination  
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GROUP 8: Prime Movers & Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

FOOTNOTE A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR - This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR - Uses supplied air in conjunction with a chemical splash suit or fully encapsulated suit with self-contained breathing apparatus.

NOTE: Trucks Pulling Equipment Trailers: shall receive \$.15/hour over applicable truck rate

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

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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 (29 CFR 5.5(a)(1)(ii)).

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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.

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WAGE DETERMINATION APPEALS PROCESS

Wage Determination  
ID PFH 80-1(1), Fernan Lake Road

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

**Wage Determination**  
ID PFH 80-1(1), Fernan Lake Road

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

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RESERVED



# ATTENTION

The following Special Contract Requirements (SCRs) are only a portion of the specifications for this project. These SCRs amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03. The FP-03 U.S. Customary Units is a separately published book. In order to understand the solicitation properly you need to have the FP-03 U.S. Customary Units as well as this packet. Pay particular attention to the provisions of Subsection 104.04 in the FP-03. This Subsection explains how each of the many contract documents fit together.

If you would like to view the FP-03 U.S. Customary Units electronically, go to:  
<http://www.wfl.fha.dot.gov/design/specs/fp03.htm>

If you would like a printed copy of the FP-03 U.S. Customary Units, contact the:

Contracts Section  
Federal Highway Administration  
Western Federal Lands Highway Division  
610 East Fifth Street  
Vancouver, WA 98661  
Phone: 360.619.7520  
Fax: 360.619.7520  
E-mail: [contracts@mail.wfl.fha.dot.gov](mailto:contracts@mail.wfl.fha.dot.gov)

(printed copies of the FP-03 will be distributed to the successful bidder)

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

**101.04 Definitions.** Add the following:

**Holidays** — Holidays occur on the following days:

- 1st day of January - New Year's Day;
- 3rd Monday of January - Martin Luther King, Jr. Day;
- 3rd Monday in February – Presidents' Day;
- Last Monday in May - Memorial Day;
- 4th day of July - Independence Day;
- 1st Monday in September - Labor Day;
- 2nd Monday in October - Columbus Day;
- 11th day in November - Veterans Day;
- 4th Thursday in November - Thanksgiving Day;
- 25th day in December - Christmas Day;
- Other days declared holidays by the Congress or the President;
- If a holiday falls on a Saturday, the preceding Friday is also a legal holiday. If a holiday falls on a Sunday, the Monday following is also a legal holiday.

**Riparian Area** – Those lands adjacent to streams or rivers that form a transition zone between aquatic and upland systems and are typically dominated by woody vegetation that is of a noticeably different growth from adjacent vegetation.

**SE/P<sub>75</sub> Index (SEP)** — SE/P<sub>200</sub> Index (SEP) is a measure of a material's ability to perform based on the quality and quantity of fines present. The quality is represented by the sand equivalent (SE) and quantity is represented by the percent passing the No. 200 (P<sub>200</sub>). The SEP is computed as follows:

$$\text{For an } SE \geq 29, SEP = \frac{SE}{P_{200} + 25}$$

$$\text{For an } SE < 29, SEP = \frac{SE + 4}{SE + P_{200}}$$

Where:

SE = Plastic fines in graded aggregates and soils by using the sand equivalent test AASHTO T 176, Alternate Method No.2, Referee Method

P<sub>200</sub> = Material finer than No. 200 Sieve in mineral aggregates by washing AASHTO T 11

Special Contract Requirements

Project: ID PFH 80-1(1), Fernan Lake Road

**Section 102.— BID, AWARD, AND EXECUTION OF CONTRACT****102.02 Preparation of Bids.** Amend as follows.Add the following:

Submit bids for construction under two bid schedules, designed Base Schedule and Option A. These schedule are not alternate bids. Compute both schedules and the bid summary page.

**102.05A Contract Award.** (Added Subsection.)

FAR Provision 52.214-19, Contract Award - Sealed Bidding - Construction is supplemented as follows.

This contract contains options for additional work. Acceptable bids must include pricing for Base, and Option A schedules. The base schedule will be awarded upon execution of the contract. Any exercise of Option A will be made any time from contract award date through April 30, 2009.

The apparent low bidder will be determined by the lowest bid for the total of Base, plus Option A schedules. The successful offeror will be awarded all pay items in the Base schedule. The contract amount will be the bid total for the Base schedule. If the Government exercises Option A; the contract amount will increase by the bid total for Option A schedule.

**102.06 Performance and Payment Bonds.** Delete the text of the first paragraph and substitute with the following:

Follow the requirements of FAR Clause 52.228-15 Performance and Payment Bonds – Construction. Furnish a performance bond and a payment bond each in the penal amount of 100 percent of the original contract price.

## **Section 103.— SCOPE OF WORK**

### **103.01 Intent of Contract.** Add the following:

Additional work on sites within or in the vicinity of the project may be requested by the CO. Such work generally will be in response to natural disasters. This paragraph does not affect the respective responsibilities of the parties under Subsection 107.06. Provide cost proposals and perform work as ordered by the CO.

### **103.06 Issue Resolution.** (Added Subsection.)

Resolve project issues at the lowest authorized level and in the most expedient manner possible. Escalate unresolved issues to the next higher level in a timely manner to avoid adverse impacts to costs, risks, or time. Either party may request an issue be escalated. Submit requests in writing. Upon the request of either party, both parties must escalate the issue. An exception to escalating an issue may be observed when both parties agree extra time is needed for the development of facts.

Decision making is encouraged to be made at the lowest authorized level. Recommendations, options, and ideas by all team members are requested. Decisions made at the lowest level possible will be supported by all management levels. Countermands of decisions will not be permitted, except where there is a conflict with code, regulation, law, the contract, or a change of critical facts or information which causes a re-evaluation of the resolution. Support of a countermand by the original decision team is critical. All Contractor and Government team members must understand why the change is necessary and must be able to support it.

## Section 104.— CONTROL OF WORK

### 104.03 Specifications and Drawings. Add the following paragraph:

**(c) As-built working drawings.** Furnish as-built working drawings. The Government will provide two set(s) of contract drawings to be used exclusively for recording the as-built details of the project. Use red pencil or red ink to record the information described below.

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. Check off details shown that were incorporated into the completed work without change.

Retain the drawings at the project site and, as work progresses, continuously update them to reflect the as-built details. Upon request, make the drawings available to the CO to review for compliance with these specifications.

As a minimum, show the following types of changes on the as-built drawings:

**(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) Location, length, stationing, and type of retaining walls; and
- (5) Location, length, stationing, and end treatment of guardrail.

**(3)** Bridge

- (a)* Stationing of bridge ends;
- (b)* Revisions to footing and seal elevations;
- (c)* Pile length, size, type, and tip elevation; and
- (d)* Any changes in plan or dimensions including any major changes in reinforcing.

**(4)** Miscellaneous

- (a)* Revisions to parking areas or turnouts; and
- (b)* Final location, type, and length of curbs, etc.

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 drawings and return to the CO within 5 working days.

**104.06 Other Contracts.** (Added Subsection.)

The U.S. Forest Service will be administering a revegetation contract for this project during the construction seasons. Coordinate and schedule construction activities with the Forest Service contractor to assure minimal delays as stated under Subsection 156.03. Provide temporary traffic control and flaggers as needed. The contact for the Forest Service is Scott Riley at phone number (541) 969-7683.

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

### **105.02 Material Sources.** Amend as follows:

**(a) Government-provided sources.** Add the following:

There are no Government-provided sources for this project.

**(b) Contractor-located sources.** Add the following to the first paragraph:

Obtain permits and clearances according to Subsection 107.10.

Material sources shall be certified weed-free. Submit documentation to the CO certifying that all Contractor-furnished material is free of weeds, and describing the methods use to determine weed-free condition.

### **105.04 Storing and Handling Material.** Delete the text of the second paragraph and substitute with the following:

Use approved portions of the right-of-way for staging or storing of materials such as culverts, geotextile fabric, temporary traffic control devices; and for equipment parking. Provide additional space as needed. Do not use private property for staging or storage without written permission of the owner or lessee. Furnish copies of all agreements. Secure all permits and clearances for use of the storage area and provide copies of the documents. Obtain permits and clearances according to Subsection 107.10. Restore all Government-provided storage sites to their pre-construction condition.

The following areas may be used for storing and handling of materials within the right-of-way:

49+00 to 51+00 RT

89+00 to 91+00 RT

103+50 to 106+00 RT

124+00 to 126+00 RT

279+00 to 280+75 LT

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

### **106.01 Conformity with Contract Requirements.** Amend as follows:

Delete the second paragraph and substitute with the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids. Use the 26<sup>th</sup> edition of the AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, and Appendix A and B of the Federal Lands Highway Field Materials Manual for this project. Use the modified AASHTO procedures for sampling and testing contained in Appendix B of the Federal Lands Highway Field Materials Manual; except, when a specified sampling or test method is not included in Appendix B, sample and test according to the referenced AASHTO test procedure. Appendix A of the Federal Lands Highway Field Materials Manual contains several sampling and testing methods which may be required for this project that are not found in AASHTO.

Delete the eighth paragraph and substitute with the following:

Remove, repair, or replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted. Removing, repairing, or replacing work; providing temporary traffic control; and any other related work to accomplish conformity will be at no cost to the Government.

Add the following:

Obtain copies of the following documents by going to our webpage at:

<http://www.wfl.fha.dot.gov/construction/cmr/>

- Appendices A and B of the Federal Lands Highway Field Materials Manual, dated 02/10/97;
- Standard WFLHD Method of Test for Accelerated Weathering of Aggregate by Use of Dimethyl Sulfoxide (DMSO);
- Highway Research Board Bulletin No. 319, “The Humphres Method of Granular Soils”, dated 1962;
- Form FHWA-1641, “Worksheet for Superpave Asphalt Concrete Mix Design, AASHTO R 35”;
- Standard WFLHD Test Method for Determining Asphalt Content in Asphalt Paving Mixtures by the Ignition Method;
- Field Note Samples, dated April 2004.

Special Contract Requirements

Project: ID PFH 80-1(1), Fernan Lake Road

**106.02 Visual Inspection.** Delete the text of this Subsection and substitute with the following:

Acceptance is based on visual inspection of the work for compliance with the specific contract requirements. In the absence of specific contract requirements or tolerances, prevailing industry standards may be used.

**106.03 Certification.** Add the following after the second paragraph:

Maintain records of all required certifications according to Subsections 103.04, 153.04, and 154.04. Submit certifications to the CO when requested.

Check certifications, prior to incorporating the materials into the work, to ensure that the requirements of the contract have been met. Mark the certifications with the following information: project name, project number, contract item number, item description, Contractor's signature, and date.

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

**107.01 Laws to be Observed.** Delete the third paragraph and substitute with the following:

Comply with the terms and conditions included in all permits and agreements obtained by the Government for performing the work included in this contract (See Section H). Notify the CO immediately of any changes, including modifications to government-obtained permits, or any additional permits or agreements that are required by the Contractor's methods of operation. Allow adequate time in the construction schedule for any additional permits or changes to government-obtained permits. Furnish copies of all acquired permits and agreements not in the contract.

Comply with the terms and conditions included in the Storm Water Pollution Prevention Plan (See Section I). Submit the Certification Statement in the Storm Water Pollution Prevention plan to the CO at least 2 days before beginning construction operations.

Comply with the requirements of the Fire Protection and Suppression Plan included in this contract (See Section J).

Perform work in accordance with the Water Quality Notification (See Section K).

**107.02 Protection and Restoration of Property and Landscape.** Insert the following after the fourth paragraph:

The discovery site area is defined in the Cultural Resource Monitoring and Unanticipated Discovery Plan found in Section L as being within 50 feet of the discovery. If the discovery is a bone that may be human, or any funerary object, the discovery site area is expanded to an area of 150 feet from the discovery or any area with a line of site to the discovery. No photography of human remains, suspected human remains, or funerary objects is allowed by anyone and the discovery will be hidden from view according to Section L. Clear the discovery site area of all unnecessary personnel and secure the area until the discovery can be properly addressed.

Delete the fifth paragraph and substitute the following:

The contractor will be responsible for the coordination, facilitation, and scheduling of all utility verification, location, and temporary or permanent relocation or any other utility related actions on the project.

The Government has notified the utility companies affected by necessary relocations or adjustments to their facilities, and has provided construction plans and cross sections for their use in identifying utility conflicts.

The following utility contacts shall be consulted prior to performing work that may affect their facilities:

Special Contract Requirements

Project: ID PFH 80-1(1), Fernan Lake Road

Williams Gas Pipeline – West 1022 East Hawthorne Road Spokane, WA 99218 Contact: Mike Moore, Operations (509)466-6650 or Paulette Warren (509)466-6650 (509)990-5916	Yellowstone Pipeline Co. 6317 East Sharp Ave. Spokane, WA 99212 Contact: Kim Barre Office (509)536-8414 Cell (509)220-1885
Kootenai Electric Cooperative 2415 West Dakota Ave Hayden Lake, ID 83853 Contact: Oral Hamilton, (208)765-1200 Cell (208)660-3431 (208)292-3290	Avista Utilities (10+00 to 13+50 only) 1735 North Coeur d Alene, ID 83814 Contact: Tom Burke (208)769-1341
Verizon 2115 Government Way PO Box 600 Coeur d Alene, ID 83814 Contact: Mike Busse, Network Engineer (208)765-7955	Time Warner Cable 2305 West Kathleen Ave Coeur d Alene, ID 83815 Contact: Tom Howe (208)667-1785

Negotiate any necessary utility relocation with an affected utility company prior to commencing construction activities. Provide the utility relocation plan and activities developed through these negotiations to the CO prior to beginning work in that area and include them in the construction schedules for the project.

Items to be addressed in the relocation plan are:

Number of days “Advance Notice” that the utility company will require to begin utility relocation.

Schedule of areas where the utility company will be working, and the duration of activities in those areas.

Impacts the utility relocation may have on the Contractor’s operations.

- (1) Disturbance of compacted and/or groomed areas. (clarify responsibilities)
- (2) Potential conflicts with construction taking place in the same area, i.e. traffic plans, safety issues, etc.

Contact Williams Gas Pipeline – West and Yellowstone Pipeline Company as listed above prior to working over or around their high pressure gas lines located at 184+60 and 192+55. The gas companies require that they have an inspector present during all construction activities over or

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adjacent to their lines. Do not perform any work at these locations without prior approval of the individual company. Take all necessary precautions to protect these lines during construction. Provide the CO with a written plan a minimum of 14 days prior to beginning work near these lines and describe what precautions will be taken to assure no damage to these lines will result from the contractor's activities.

**107.03 Bulletin Board.** Add the following:

- (g) The "Beck" poster, according to FAR Clause 52.222-39 Notification of Employee Rights Concerning Payment of Union Dues or Fees.

**107.03A Public Notice.** (Added Subsection.)

Publish notices of the road work in local newspapers and on local radio stations. Include a description of the work, expected delays, and periods when the road is open to traffic without delays in accordance with Subsection 156.03. Issue the notice at least 5 days before beginning work on the project or beginning work after a winter suspension, and weekly thereafter.

**107.08 Sanitation, Health, and Safety.** Add the following after the first paragraph:

Submit an accident prevention plan for implementing safety and health standards at the Preconstruction Conference. Use the Government furnished Form WFLHD-28, *Guide Outline of Contractor's Accident Prevention Plan*.

Provide temporary, approved toilet facilities as necessary on site for construction personnel during construction. Locate all temporary toilet facilities at least 50 feet from the lake or stream and so that, if disturbed, no discharges would reach a water body.

**107.10 Environmental Protection.** Delete the text of this Subsection and substitute with the following:

Conform to the following:

**(a) The Federal Water Pollution Control Act (33 USC § 1251 et seq.).**

(1) Except as authorized by this contract, do not operate mechanized, discharge or place material within the boundaries of any U.S. waters as identified by the ordinary high water mark, high tide line, or edge of the wetland. This includes wetlands, unless authorized by a permit issued by the U.S. Army Corps of Engineers according to 33 USC § 1344, and if required by the state agency having jurisdiction over the discharge of material into the waters of the U.S. In the event of an unauthorized discharge:

- (a) immediately prevent further contamination;
- (b) immediately notify appropriate authorities and the CO; and
- (c) mitigate damages as required.

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(2) Separate work areas, including material sources by the use of a suitable barrier that prevents sediment, petroleum products, chemicals, other liquids, or solid materials from entering the waters of the U.S. Construct and remove barriers to avoid discharge of material into the waters of the U.S. Remove and properly dispose of sediment or other material collected by the barrier.

**(b) Construction Activities Outside Construction Limits.** Before beginning construction activities outside the construction limits (such as material sources, disposal sites, waste areas, access roads, water sources, stockpiles and staging areas) that will require ground disturbance, occupation, clearing, or other environmental impacts provide the following documents.

The requirements below do not apply to commercial sources that are established, have provided material to public and private entities on a regular basis over the last two years, have appropriate State and local permits, and do not require expansion outside their currently established and permitted area.

**(1) Proposed Activity Description.** Submit a description, schedule, and location of the proposed activities for approval of the CO. Include maps of the area and other relevant information.

**(2) Cultural Resources.** Submit written documentation satisfactory to the CO for a finding of either “no historic properties affected” or “no effect” according to 36 CFR 800.4(d)(1) for historic properties on or eligible for listing to the National Register of Historic Places. Provide either:

(a) Documentation showing there are no cultural resources present, and a finding of either “no historic properties affected” or “no effect” according to 36 CFR 800.4(d)(1). Documents must be prepared by an individual qualified under the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation, 48 FR 44716-44740.

Documentation must be satisfactory to the State Historic Preservations Officer (SHPO) or Tribal Historic Preservations Officer (THPO) as appropriate, according to 36 CFR 800.3(c).

The CO will forward the documentation to the SHPO or THPO. Anticipate a minimum of 30 days from receipt of the documentation by the SHPO or THPO before use of the site may be approved; or

(b) Documentation showing a finding of either “no historic properties affected” or “no effect” according to 36 CFR 800.4(d)(1) has been previously obtained for the proposed activities from the State, Tribal Government or Federal Land Management Agency responsible for the land. Include attached copies of SHPO concurrence, or Memorandum of Agreement (MOA) where concurrence is not required.

**(3) Species Protected Under the Endangered Species Act of 1973.** Submit written documentation satisfactory to the CO that the proposed action will have no effect to any threatened or endangered species or their critical habitat. Provide either:

(a) A current list of all threatened or endangered species in the site of proposed activities from the U.S. Fish and Wildlife Service; and a recommendation of a “no effect” determination according to Section 7 of the Endangered Species Act prepared by a biological specialist with a minimum of 3 years of experience in Endangered Species Act compliance or other qualifications acceptable to the CO. Allow up to 30 days to obtain the current list of all threatened or endangered species from the U.S. Fish and Wildlife Service; or

(b) Documentation showing the proposed activities have previously been determined to comply with the Endangered Species Act and this determination remains valid. This documentation must be from the State, Tribal Government or Federal Land Management Agency responsible for the land. Attach evidence of compliance, including correspondence with the U.S. Fish and Wildlife Service.

**(4) Wetlands as Defined by the U.S. Army Corps of Engineers’ 1987 Wetland Delineation Manual (WDM).** Submit written documentation satisfactory to the CO, that the proposed action will comply with Section 404 of the Clean Water Act, Executive Order 11990, and will not affect any wetlands. Documentation must be prepared by a wetland specialist with a minimum of 3 years of experience in wetland delineation using WDM or other qualifications acceptable to the CO.

**(5) Federal Lands.** Before use of sites on federal lands, submit a copy of the Letter of Approval or Special Use Permit from the applicable federal agency allowing use of the site for intended purposes.

**(6) Tribal, State and Local Approvals.** Comply with applicable laws regarding the proposed activities. Submit copies of required clearances, including hazardous waste compliance, tribal, State and local permits and approvals.

Allow 12 days (in addition to other agency time requirements) for approval of documents submitted to the CO.

**(c) Oil and Hazardous Substances.** Submit a Spill Prevention, Control, and Countermeasure (SPCC) plan for sites that meet the requirements of 40 CFR Part 112. Owners and operators must comply by July 1, 2009.

At present, a SPCC plan is required on or before July 1, 2009 for sites in operation after July 1, 2009 that store petroleum and synthetic oil products with a maximum above-ground combined capacity greater than 1,320 gallons (5,000 liters). This includes bulk storage containers (including tanks on trucks and construction equipment used to store and transfer oil products) with a capacity greater than 55 gallons (210 liters). It does not include tanks used primarily to power the movement of the motor vehicle or ancillary onboard oil-filled operational equipment.

Submit the SPCC plan by June 28, 2009.

Submit and follow a Hazardous Spill Plan when a SPCC plan is not in effect. Submit the plan at least 2 days before beginning work. Develop a plan describing what actions will be taken in case of a spill and incorporate preventative measures to be implemented (such as the placement of refueling facilities, storage and handling of hazardous materials, etc). Address spill containment for equipment working above or in the immediate vicinity of the water.

Do not use equipment that is leaking fluids. Repair leaks on equipment immediately. Keep a supply of absorbent materials at the job site in the event of spills. Acceptable absorbent materials are those manufactured specifically for the containment and clean up of hazardous materials. Maintain equipment regularly to limit the potential for leaks to occur.

Immediately notify the CO of all hazardous spills.

**(d) Additional Environmental Commitments.**

**(1) Wetlands and Waters:**

*(a)* Perform all work within the ordinary high water mark of streams and in wetlands during periods of low flow. Generally, low flow conditions exist between June 1 and October 15.

*(b)* Perform work in streams after July 15 and the lake during times that will avoid critical fish windows. Perform in-water work in Lily Pad Bay and fish spawning and egg laying areas after July 1. Notify the CO at least 21 days prior to beginning any work in sensitive areas such as creeks, wetlands, and lakes to provide time assess potential fish impacts and coordinate with other agencies.

*(c)* Deflect live water from the work area by using sandbags, inflatable bags, turbidity curtains, etc. to minimize the potential for sediment transport.

*(d)* Prevent construction debris from falling into the lake, any stream or wetland area. Place excavation materials in locations where they cannot enter the lake, streams or wetland areas. Do not stockpile the native streambed materials excavated during pipe replacements at streams within the stream channel.

*(e)* Immediately remove any material that falls into the lake or stream during construction in a manner that has minimum impact on the lake or stream water quality.

*(f)* Do not track mud and debris onto the roadway and prevent any material being transported from entering the lake or streams.

*(g)* Do not apply soil binder, mulch, or fertilizer within 30 feet of the lake, stream or wetland system.

*(h)* Submit a Spoil and Wastewater Containment Plan that describes in further

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detail how the construction activities will be conducted in accordance with the Water Quality Notification found in Section K at least 30 days prior to beginning construction work below the ordinary high water mark. Detail how the existing road and fill will be removed from the lake and where the material will be disposed. Also detail how the proposed realigned channel will be constructed and how and where the wastewater from the site will be treated.

(i) Specify in the Spoil and Wastewater Containment Plan how the cofferdams will be installed and dewatered and ensure all the requirements of Section H and K are met. Do not use earth filled cofferdams in the lake or stream.

(j) Do not allow fresh concrete to come into contact with surface waters at any time.

(k) Use only clean, inert material when placed in contact with water bodies.

(l) If there is a spill or release of a hazardous material, immediately contact the State Communications Center at 1-800-632-8000. Ensure this number is posted at the project office and is readily available.

(m) Each field supervisor of every contractor in water-related work shall read the IDEQ 401 Certification located in Section H.

(n) Minimize lakebed disturbance. Avoid disturbance to large woody debris 8 inches in diameter and eight feet or longer in Fernan Lake unless approved by the CO. Debris that must be moved for construction work shall be slowly moved lake-ward a minimum distance to complete construction work. The purpose of this practice is to minimize turbidity and protect the integrity of the debris. Large woody debris shall be securely roped to shore if drifting is a concern or marked with buoys to allow for easy retrieval when placing it in the new construction. Roadside trees shall not be used to rove or cable large woody debris to shore. Damaged woody debris shall be replaced with wood of similar size and shape.

**(2) Eagles, Osprey and Herons:**

(a) Note any presence of bald eagles to the CO. Do not disturb eagles.

(b) Do not perform any work within 1500 feet of active or new found eagle or osprey nests between March 1 and May 31, except for hauling of material. There is an active eagle nest located at the east end of Fernan Lake (between 90+00 and 160+00).

(c) If a new nest is found, the CO will notify the contractor to suspend work (except hauling material). See Subsection 108.06.

(d) If the eagle nest is active with fledglings, do not blast or drive pile within 1 mile of the eagle nest between January 1 and August 15.

(e) Do not blast west of MP 0.5 prior to May 1 to avoid disturbance during the egg-laying period of the Great Blue Herons that nest on the south hillside across Fernan Lake.

### **(3) General Construction Requirements**

(a) Provide construction equipment and vehicles that meet applicable U.S. Environmental Protection Agency emission and noise standards. Provide muffled exhaust on all equipment, and sound control devices no less effective than those provided on the original equipment. Provide mufflers on all drill rigs during all drilling operations. See Subsection 108.01 for additional-noise related requirements and restrictions.

(b) Store all stockpiles of materials outside of the 100-year floodplain. Do not refuel equipment within the 100-year floodplain.

(c) Do not side cast old asphalt. Reuse in accordance with Subsection 204.09 (b) or 204.10 (b). Otherwise remove the asphalt from the project.

(d) Complete all clearing and grubbing in accordance with 201.03.

(e) Do not idle equipment during periods of inactivity.

(f) Locate areas for fuel and other hazardous materials storage, equipment storage (wheeled and non-wheeled), servicing of equipment and vehicles (including refueling, changing fluids, and other maintenance) as far as possible from streams, lakes, and wetlands. A minimum distance of 100 feet as measured from the top of stream bank, lake or edge of wetland is required and controls must be provided to ensure materials will not enter reach surface waters or wetlands. See Subsection 105.04 for additional requirements and restrictions for staging, storage and handling sites.

(g) In limited cases and only where necessary, overnight storage of non-wheeled construction equipment and machinery equipped with shut off valves is allowed within the riparian area at active work sites between July 1st and October 1st. Check equipment daily for leaks and make any repairs prior to commencing work.

(h) Maintain hazmat booms (both absorbent and containment) on-site in locations where there is potential for a toxic spill into stream, lake or wetland systems, and use as necessary to cleanup and contain spills. Provide personnel who are trained in using hazardous spill response material and hazmat booms.

(i) All vehicles and equipment will be inspected by the CO before their entry onto the project for mud, weeds and other unwanted substances. Steam clean all earth-moving equipment (including hauling vehicles) of mud and weeds before entering the project. Subsequent entries of hauling vehicles will not require cleaning unless requested. Notify the CO a minimum of 48 hours before the entry of vehicles and equipment to the project.

(j) Do not park or drive construction equipment in the water. Perform all in-water work without driving or parking construction equipment in the water. Clean all equipment that is used for in-stream or lake work prior to use. Remove external oil and grease along with dirt and mud.

(k) Do not wash or rinse vehicles within the project boundaries, which includes the area between the beginning and ending stations. Do not permit wash water to enter streams, lakes or rivers.

(l) Collect, haul and dispose of all garbage created during construction to an approved solid waste disposal facility. To prevent food attractants to wild animals and birds: no food, garbage, drinks, trash, or food and drink containers will be placed outside vehicles, pickups, trailers, or buildings except during actual use. Dispose of and/or store promptly all food items and garbage after use.

(m) Do not use oils or emulsions for dust control. Use water in accordance with section 158. Water cannot be drawn from Fernan Creek for this purpose.

(n) Place Item 63503-1000, Plastic Fence, at Station 222+00 to 228+00 RT and at Station 277+00 to 278+00 LT and RT, prior to beginning construction and as directed by the CO.

(o) Allow for the Cultural Resource Monitor to safely conduct the monitoring as required in the Cultural Resource Monitoring and Unanticipated Discovery Plan found in Section L.

(p) Ensure that the construction schedule required under Section 155 contains a level of detail sufficient for the Cultural Resource Monitor to schedule monitoring activities. If the sufficient detail can not be provided in the construction schedule, or if changes to the schedule are necessary, provide two week updates as described in Section L. Notify the CO of any changes to the daily schedule of work by 6 a.m. the day of the scheduled work.

**Section 108.— PROSECUTION AND PROGRESS****108.01 Commencement, Prosecution, and Completion of Work.** Add the following:

Furnish at least 48 hours advance notice before changing the current work schedule. Work schedule changes that include additional shifts require 14 days notice.

Perform work under this contract according to the following:

- (a) Limit work as provided in Subsection 107.10.
- (b) Limit work as provided for in Subsection 156.06.
- (c) In any calendar year, schedule construction activities to ensure the following:

Placement of hot asphalt concrete pavement is completed to final grade in any areas that the existing pavement has been removed, prior to October 15<sup>th</sup>

Placement of asphalt prime coat is completed in any areas that the existing pavement has been removed, prior to September 15<sup>th</sup>. These areas require completion of hot asphalt concrete pavement to final grade during the following construction season.

- (d) Suspend construction activities from November 15 of any year through April 15 of the succeeding year, unless otherwise approved by the CO. Ensure erosion control features are in place prior to shutdown and maintained properly during the shutdown period per Section 157.
- (e) From October 15 to November 15, do not perform activities that, during rain events and wet weather, may cause erosion or sedimentation to occur. These activities include, but are not limited to, hauling activities that track dirt or mud, work in or near the water, and ground disturbing activities such as excavation, blasting, placing fill, placing riprap, clearing and grubbing, and shaping subgrade. Any areas requiring soil stabilization will be stabilized by October 15 and not be disturbed until April 15.
- (f) Contact utility companies prior to construction to coordinate line relocation in accordance with Subsection 107.10.
- (g) Do not perform construction operations between 6 p.m. Friday and 6 a.m. the following Tuesday of the Memorial Day and Labor Day weekends.
- (h) Mitigate noise from rock crushing and screening operations performed within 3000 feet of any occupied residence by strategic placement of material stockpiles between the operation and the affected residence or by other means approved by the CO.

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(i) Do not perform construction activities on legal holidays or between the hours of 10 pm and 7 am unless approved by the CO..

(j) Do not perform blasting operations between the hours of 8 pm and 8 am.

(k) If the CO provides notice of a specific noise complaint occurring during construction, perform one or more of the following measures identified by the CO:

- Locate stationary construction equipment as far from nearby noise sensitive properties as possible;
- Turn off equipment when not in use. Do not idle equipment;
- Reschedule construction operations to avoid periods of noise annoyance identified in complaint;
- Notify nearby residence when extremely noisy work will be occurring.

(l) Do not perform grubbing operations in any area more than two weeks ahead of excavation and embankment operations in the respective area, as provided in Subsection 201.03

(m) Do not work from station 18+80 to station 21+70 until June 2009 unless permission is granted in writing by the CO.

**108.01A Labor.** (Added Subsection.)

Follow the requirements of FAR Clause 52.222-6 Davis Bacon Act.

Adjacent or virtually adjacent work sites are defined to be work sites within ½ mile of the project. Application of the Davis-Bacon Act for work sites beyond ½ mile of the project will be determined by the CO.

**108.02 Subcontracting.** Amend as follows:

Delete the first paragraph and substitute with the following:

FAR clauses 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns, 52.222-11 Subcontracts (Labor Standards), and 52.236-1, Performance of Work by the Contractor are supplemented as follows.

Delete the fourth paragraph and substitute with the following:

In FAR Clauses 51.219-8, Utilization of Small Business Concerns and 52.237-27, Prompt Payment for Construction Contracts, the subcontracts include both on-site work and supply contracts.

Evaluate the percentage of the cost of contract performance incurred for personnel in FAR Clause 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns, according to the following formula:

$$P = H / T$$

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Where:

P = Percent of the cost of contract performance incurred for personnel working for HUBZone firms

T = Total wages/benefits paid during the life of the contract. Certified payrolls will be used to determine Davis-Bacon wages and benefits paid. Submit certified statements at least monthly declaring the wages and benefits paid to non-Davis Bacon personnel under this contract.

H = Total wages/benefits paid to employees working for HUBZone firms (prime and subcontractors)

In FAR Clause 52.236-1, Performance of Work by the Contractor, the percentage of work performed on-site by the Contractor will be computed as 100% less the combined initial dollar amount of all subcontracts involving on-site labor as a percent of the original dollar amount of the contract.

**108.02A Subcontracting for HUBZone firms. (Added Subsection.)**

Follow the requirements of §126.700 of Title 13 of the Code of Federal Regulations (13 CFR 126.700). In addition to the requirements in paragraph (d)(3) of FAR Clause 52.219-4 Notice of Price Evaluation Preference for HUBZone Small Business Concerns (SBCs) comply with the following:

- At least 50 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other qualified HUBZone small business concerns;
- The above requirement may be met by expending at least 50% of the cost of the contract incurred for personnel on the contractor's employees or it may subcontract up to 35% of the cost of the contract performance incurred for personnel to one or more qualified HUBZone SBCs;
- A qualified HUBZone SBC may not subcontract more than 50% of the cost of the contract incurred for personnel to non-qualified HUBZone SBCs.

**108.04 Failure to Complete Work on Time. Delete the text and table of this Subsection and substitute with the following:**

Follow the requirements of FAR Clause 52.211-12 Liquidated Damages — Construction.

Liquidated damages in the amount specified in Table 108-1 will be assessed for each calendar day beyond the time specified in the contract until substantial completion of the work.

Liquidated damages will not be assessed for the following:

- (a) The day of the final inspection.

- (b) Days required to perform work added to the contract after substantial completion including items identified during the final inspection that were not required before that time.
- (c) Delays by the Government after all work is complete and before a formal acceptance is executed.
- (d) Periods of time when all work is complete but acceptance is delayed pending the plant establishment period or similar warranty period.
- (e) During winter shutdown periods ordered by the CO.

**Table 108-1**  
**Charge for Liquidated Damages for Each Day**  
**Work Is Not Substantially Completed**

Original Contract Price		Daily Charge
From More Than —	To and Including —	
\$ 0	\$ 1,000,000	\$ 500
1,000,000	2,000,000	1,100
2,000,000	5,000,000	2,200
5,000,000	10,000,000	2,700
10,000,000	and more	3,300

**108.06 Suspension.** (Added Subsection.)

Follow the requirements of FAR Clause 52.242-14 - Suspension of Work.

Suspend work, either in whole or in part, for such periods deemed necessary due to a nesting eagle at the east end of Fernan Lake. See Subsection 107.10.

## Section 109.— MEASUREMENT AND PAYMENT

**109.01 Measurement of Work.** Delete the first sentence of paragraph six and substitute with the following:

Prepare pay item measurement notes on “Record of Miscellaneous Items” (Form FHWA 17348). For an electronic version of the form go to:

<http://www.wfl.fha.dot.gov/other/it/forms/17348.pdf>

**109.02 Measurement Terms and Definitions.** Amend the following:

Delete the second paragraph (b) designator and substitute with the following:

**(c) Cubic yard.**

Delete the text of paragraph (m) and substitute with the following:

**(m) Square yard.** 9 square feet. Longitudinal and transverse measurements for area computations will be made horizontally. No deductions from the area computation will be made for individual fixtures having area of 9 square feet or less. Do not measure overlaps.

Add the following:

**(p) Fixed hourly rate.** Measure the actual number of hours ordered by the CO and performed by the Contractor.

**109.06A Adjustments for Price Fluctuations.** (Added Subsection.)

Price adjustments for pay items listed in Table 109-1 will be made when the price fluctuation for products used in the performance of the work exceed specified limits. Adjustments are not intended to compensate for normal day-to-day fluctuations, seasonal changes, or to serve as a guarantee of full compensation for price fluctuations. It does provide for sharing in a portion of the risk, which could result from unusual price fluctuations. No price adjustments will be made for work performed beyond the fixed completion date.

**Table 109-1  
Pricing Adjustment Pay Items**

<b>Pay Item Number</b>	<b>Pay Item Description</b>	<b>Product</b>
20401	Roadway excavation	Fuel
20402	Subexcavation	Fuel
30101	Aggregate base	Fuel
40101	Superpave pavement	Asphalt binder/fuel

Monthly adjustments will be accrued with the payment or rebate to be made in the final voucher. A partial price adjustment payment may be made once every 12 months or when the unpaid accrued increase exceeds \$10,000 when requested in writing. The Government will withhold a rebate when the deductive accrual exceeds \$10,000.

The maximum allowable monthly and final adjustment for payment to the Contractor or rebate to the Government is limited to 50% of the Base Price Index.

**(a) Asphalt Binder Adjustment.** The Government will determine price indexes using price data obtained from the “Asphalt Weekly Monitor<sup>®</sup>” by Poten and Partners, Inc. The weekly high and low selling price data for “Primarily PG 64-22 paving grades” reported for the West Coast (Spokane, Washington area) will be averaged and used to establish a Base Price Index (BPI) and a Monthly Performance Price Index (MPPI). These indexes are defined as follows:

**(1) Base Price Index.** The Base Price Index (BPI) is a price index determined by the arithmetic average for prices in the four “Asphalt Weekly Monitor<sup>®</sup>” publications immediately preceding the bid opening.

$$BPI_{(\text{Asphalt Binder})} = \$ [\text{PRICE TO BE INSERTED AT AWARD}] \text{ per ton}$$

**(2) Monthly Performance Price Index.** The Monthly Performance Price Index (MPPI) is the arithmetic average of the weekly price data from four “Asphalt Weekly Monitor<sup>®</sup>” publications issued before the last Wednesday of the month in which the work was performed.

The BPI and MPPI will be posted at

<http://www.wfl.fhwa.dot.gov/construction/escalation/>

Price adjustments to asphalt binder will be calculated by the Government using a ratio of the MPPI/BPI to determine price adjustments as follows:

- No Price Adjustment – When the ratio MPPI/BPI falls within the range of 0.90 to 1.10, no price adjustment will be made for asphalt binder used in construction work performed during the relevant month.
- Government Rebate – When the ratio MPPI/BPI is calculated to be less than 0.90, the Government is due a rebate as follows:  
Government Rebate =  $(0.90 - \text{MPPI/BPI}) (\text{BPI}) (Q)$
- Contractor Payment - When the ratio MPPI/BPI is calculated to be greater than 1.10, the Contractor is due additional payment as follows:

$$\text{Contractor Payment} = (\text{MPPI/BPI} - 1.10) (\text{BPI}) (Q)$$

Where:

Q = Table 109-1 pay item quantity (tons) x (% Asphalt Binder/100). The percentage of asphalt binder as determined from the approved job-mix formula.

**(b) Fuel Price Adjustment.** The Government will determine price indexes for fuel using price data obtained from the Oil Price Information Service (OPIS) which publishes a daily report (Monday through Friday) on gasoline and distillate reseller prices. Gross No. 2 Distillate rack average price data for Ultra Low Sulfur No. 2 Diesel fuel reported for Spokane, WA, Code 970, PADD #5 will be averaged and used to establish a Base Price Index (BPI) and a Monthly Performance Price Index (MPPI). These indexes are defined as follows:

**(1) Base Price Index.** The Base Price Index (BPI) is a price index determined by the arithmetic average as specified above, reported in the OPIS publications for the four weeks immediately preceding the bid opening.

$\text{BPI}_{(\text{LOW SULFUR, NO. 2 DIESEL FUEL})} = \$ [\text{PRICE TO BE INSERTED AT AWARD}]$  per U.S. gallon

**(2) Monthly Performance Price Index.** The Monthly Performance Price Index (MPPI) is the arithmetic average of the weekly price data from OPIS publications issued before the last Wednesday of the month in which the work was performed.

The BPI and MPPI will be posted at

<http://www.wfl.fhwa.dot.gov/construction/escalation/>

Price adjustments to fuel will be calculated by the Government using a ratio of the MPPI/BPI to determine price adjustments as follows:

- No Price Adjustment – When the ratio MPPI/BPI falls within the range of 0.90 to 1.10, no price adjustment will be made for fuel used in construction work performed during the relevant month.
- Government Rebate – When the ratio MPPI/BPI is calculated to be less than 0.90, the Government is due a rebate as follows:

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Government Rebate =  $(0.90 - \text{MPPI/BPI}) (\text{BPI}) (\text{Q}) (\text{FUF})$

- Contractor Payment - When the ratio MPPI/BPI is calculated to be greater than 1.10, the Contractor is due additional payment as follows:

Contractor Payment =  $(\text{MPPI/BPI} - 1.10) (\text{BPI}) (\text{Q}) (\text{FUF})$

Where:

Q = Quantity of work on the project during the progress payment period for pay items shown in Table 109-2.

FUF = Fuel Usage Factor shown in Table 109-2.

**Table 109-2**

**Fuel Usage Factors**

Pay Items	Fuel Usage Factor
<b>Section 204 – Excavation and Embankment</b> 20401 Roadway excavation 20402 Subexcavation 20411 Select borrow	0.30 gallons/yard <sup>3</sup>
<b>Section 301 – Untreated Aggregate Courses</b> 30101 Aggregate base	0.70 gallons/ton
<b>Section 401 – Superpave Hot Asphalt Concrete Pavement</b> 40101 Superpave pavement	2.40 gallons/ton

(1) The Government will convert pay item quantities to match Fuel Usage Factor units.

**109.08 Progress Payments.** Amend as follows:

Delete the text of paragraph (b) and substitute with the following:

**(b) Closing date and invoice submittal date.** The closing date for progress payments will be designated by the CO. Include work performed after the closing date in the following month's invoice. For work performed between September and July of any year, submit invoices to the designated billing office by the 7th day after the closing date. Invoices received by the designated billing office after the 16th day following the closing date, for work included in the September through July invoices, will not be accepted for payment processing that month. For work included in the August invoice, submit the invoice to the designated billing office by the 5<sup>th</sup> day after the closing date. Invoices received by the designated billing office after the 5<sup>th</sup> day following the closing date, for work included in the August invoice, will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

Delete the text of paragraph (e) and substitute with the following:

**(e) Processing progress payment requests.** No payment will be made for work unless field note documentation for the work was provided by the closing date.

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**(1) Work performed between September and July.***(a) Invoices received by the 7th day following the closing date.*

*(1) Proper invoices.* If the invoice meets the requirements of Subsection 109.08(c), and the quantities and unit prices shown on the contractor's invoice agree with the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be paid.

*(2) Defective invoices.* If the invoice does not meet the requirements of Subsection 109.08(c), or if any of the quantities or unit prices shown on the contractor's invoice exceed the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be deemed defective and the Contractor so notified according to FAR Clause 52.232-27(a)(2). Defective invoices will not be corrected by the Government and will be returned to the contractor within 7 days after the Government's designated billing office receives the invoice.

Revise and resubmit returned invoices by the 18th day following the closing date. The CO will evaluate the revised invoice. If the invoice still does not meet the requirements of Subsection 109.08(c), the contractor will be so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the revised invoice meets the requirements of Subsection 109.08(c), but still has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing by the 23rd day following the closing date. The contractor will be notified by the 23rd day following the closing date of the reasons for any changes to the invoice.

*(b) Invoices received between the 8th and 16th day following the closing date.*

*(1) Proper invoices.* If the invoice meets the requirements of Subsection 109.08(c), and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

*(2) Defective invoices.* If the invoice does not meet the requirements of Subsection 109.08(c), the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08(c), but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing within 7 days after receiving the invoice. The contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

**(2) Work performed during August.**

*(a) Proper invoices.* If the invoice meets the requirements of Subsection 109.08(c), and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

*(b) Defective invoices.* If the invoice does not meet the requirements of Subsection 109.08(c), the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08(c), but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing within 7 days after receiving the invoice. The contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

Delete the text of paragraph (f) and substitute with the following:

**(f) Partial payments.** Invoices may include the following:

**(1)** Progress payments may include partial payment for material to be incorporated in the work, provided the material meets the requirements of the contract and is delivered on, or in the vicinity of, the project site or stored in acceptable storage places.

Partial payment for material does not constitute acceptance of such material for use in completing items of work. Partial payments will not be made for living or perishable material until incorporated into the project.

**(2) Partial payment for preparatory work.** Partial payment for preparatory work does not constitute acceptance of work.

Individual and cumulative partial payments for preparatory work and material will not exceed the lesser of:

- 80 percent of the contract bid price for the item; or

- 100 percent of amount supported by copies of invoices submitted.

The quantity paid will not exceed the corresponding quantity estimated in the contract.

Submit pay notes according to Section 153. Provide a cost breakdown of the bid item components and submit invoices or other documents supporting the partial payment.

The CO may adjust partial payments as necessary to protect the Government.

## Section 152.— CONSTRUCTION SURVEY AND STAKING

### Construction Requirements

**152.02 General.** Delete the text of this Subsection and substitute with the following:

At the preconstruction conference, submit a cost breakdown of the individual items included in the lump sum item for use in making progress payments.

**(a) Survey schedule.** Include staking activities in the construction schedule submitted according to Section 155. Include the dates and sequence of each staking activity.

**(b) Government set reference lines and points.** The Government has set horizontal and vertical control points for the project. The location and identity of each control point are shown on the plans.

Before beginning construction, notify the CO of any missing control points or stakes. The Government will reestablish control points and stakes missing before the beginning of construction.

**(c) Government furnished information.** The Government will furnish the following data relating to horizontal and vertical alignment and theoretical slope stake catch points, and other design data:

- (1) Computer listings containing horizontal alignment, vertical profile, superelevation, excavation and embankment slope ratios, and earthwork quantities;
- (2) Computer generated construction staking notes showing theoretical slope stake catch points and reference points;
- (3) Computer generated clearing notes (based on theoretical catch points);
- (4) X, Y, Z coordinates (horizontal and vertical control points);
- (5) X, Y, Z coordinates (subgrade centerline and shoulders);
- (6) X, Y, Z coordinates (top of aggregate base centerline and shoulders); and
- (7) Plotted cross sections (earthwork).

Perform additional calculations for convenient use of Government-furnished data. Provide immediate notification of apparent errors in the initial staking or in the furnished data.

**(d) Pre-survey meeting.** Before surveying or staking, discuss and coordinate the following with the CO:

- (1) Surveying and staking methods;
- (2) Stake marking;
- (3) Grade control for courses of material;
- (4) Referencing;
- (5) Structure control; and
- (6) Any other procedures and controls necessary for the work.

Preserve all initial reference and control points. After beginning construction, replace all destroyed or disturbed initial reference or control points necessary to the work.

Prepare field notes in an approved format. Sample note formats are available as listed in Subsection 106.01. Furnish all survey notes at least weekly.

When using GPS, electronic data collectors or any other locating methods to perform stakeout of any point, submit field notes electronically and hardcopy in a format that provide the X, Y, and Z coordinates and the amount of error in the completed staking.

Survey and establish controls within the tolerances shown in Table 152-1. The construction survey and staking work may be spot-checked for accuracy, and unacceptable portions of work may be rejected. Resurvey rejected work, and correct work that is not within the tolerances specified in Table 152-1. Acceptance of the construction staking does not relieve the Contractor of responsibility for correcting errors discovered during the work and for bearing all additional costs associated with the error.

Start work only after staking for the affected work is accepted.

Compute and furnish calculations supporting pay quantities. Measure quantities within the tolerances shown in Table 152-2.

All field notes, pay notes, and supporting documentation become the property of the Government upon completion of the work.

Remove and dispose of all flagging, lath, stakes, and other staking material after the project is complete. Remove visible portions of brushes if used to mark grade finishing stakes.

**152.03 Survey and Staking Requirements.** Amend as follows:

Add the following:

**(a) Control points.** When using GPS for relocating or establishing control points, determine the horizontal location by static observation of sufficient length of time to meet allowable tolerances in table 152-1. Establish the vertical position of all control points by differential leveling. Base coordinate computations on the original horizontal and vertical control points furnished for the project. Provide notes with all calculations and adjustments made for control point location determination.

**(b) Roadway cross-sections.**

Delete this requirement from 283+00 to 557+00.

**(c) Slope stakes and references.**

Delete this requirement from 283+00 to 557+00.

Delete and substitute the following paragraph:

**(I) Miscellaneous survey and staking.** Perform all surveying, staking, and recording of data essential for establishing the layout and control of the following, as applicable:

- (1) Approach roads;
- (2) Curb and gutter;
- (3) Guardrail;
- (4) Parking areas;
- (5) Box culverts;
- (6) Riprap;
- (7) Stream realignments;
- (8) Shoulder stabilization/subexcavation areas;
- (9) Special ditches;
- (10) Signs, delineators, and object markers; and
- (11) Pavement markings;
- (12) Monument bases.

Add the following:

(q) Asphalt paver reference line. Set adequate horizontal control points or reference lines for asphalt concrete paver as specified in Subsection 401.13.

Add the following to Table 152-1:

**Table 152-1**  
**Construction Survey and Staking Tolerances**  
**(continued)**

Staking Phase	Horizontal	Vertical
Asphalt paver reference line	±2 inches	—

Add the following Table:

**Table 152-2**  
**Measurement Tolerances**

Pay Unit	Horizontal	Vertical
Acre	1.0 feet or 1:100 whichever is greater	—
Cubic Yard	0.2 foot or 1:500 whichever is greater	0.3 foot or 1:333 whichever is greater
Linear Foot	0.2 foot or 1:500 whichever is greater	—
Square Foot	0.1 feet or 1:1000 whichever is greater	—
Station	1.0 feet or 1:1000 whichever is greater	—

### Payment

**152.06** Delete the second paragraph and substitute with the following:

Payment for lump sum items will be prorated based on the progress of the work under this Section.

## **Section 153.— CONTRACTOR QUALITY CONTROL**

Delete this Section and substitute with the following:

### **Description**

**153.01** This work consists of establishing and maintaining an effective system to control and assure that work being performed is according to the contract requirements. Follow the requirements of FAR Clause 52.246-12, Inspection of Construction.

### **Construction Requirements**

**153.02 General.** Provide a system to address quality control and quality assurance.

Submit a written quality control and assurance plan for acceptance, 14 days prior to commencing work. Include provisions for ensuring environmental compliance. Modifications or additions to the plan may be required to meet quality requirements. Supplement the plan as work progresses and whenever there are changes in procedures or personnel. Include work accomplished by subcontractors and suppliers, both on and off-site. Defer submission of a quality control and assurance plan for items of work not immediately scheduled to begin when approved by the CO.

A maximum of 10 percent of the total progress payment amount will be retained if the quality control and assurance plan is not approved, required updates are not submitted and accepted or the plan is not being followed.

Furnish 48 hours notice prior to the start of each segment of work.

**153.03 Sampling and Testing.** Provide a detailed listing of the sampling and testing to be performed for quality control and quality assurance. Include the type of test and frequency of sampling required for each item of work to ensure proper process controls are in effect. See Table 153-1 for a partial listing of Sections requiring sampling and testing to ensure proper process control. Requirements for acceptance sampling and testing can be found in the Acceptance Subsection of each Section.

Sample and split samples according to AASHTO or other acceptable procedures. Allow the CO the opportunity to witness all sampling. Immediately perform splits when required. Deliver the Government's portion of the sample or split sample in an acceptable container suitable for shipment. Label all samples with the following information:

- (a) Project number;
- (b) Source of material;
- (c) Pay item number;

- (d) Sample number;
- (e) Date sampled;
- (f) Time sampled;
- (g) Location sample taken;
- (h) Name of person sampling;
- (i) Name of person witnessing sampling; and
- (j) Type of test required on sample.

Allow the CO the opportunity to witness all testing. Testing of trial samples may be required to demonstrate testing competence.

**153.04 Quality Manager.** Provide an onsite quality manager(s) available during all phases of work. Duties include coordinating and supervising the quality control and assurance system for all work including subcontractors and suppliers. Provide a quality manager that is responsible for and knowledgeable of monitoring environmental compliance and erosion control, including the turbidity and erosion control monitoring requirements found in Section 157 and ensuring that the work described in Section 208 complies with contract requirements.

The quality manager is permitted to perform inspection duties. Allow sufficient authority to assure work is performed according to requirements, which includes stopping work that is not in compliance. The quality manager is not to directly supervise crews.

Furnish a manager with at least five years experience in highway or road construction, specifically in the areas of material testing, inspection, management, supervision, quality control or quality assurance. Submit in writing the name, experience, and line of authority for acceptance. Identify an alternate to serve in the event of the manager's absence. Select an alternate with comparable experience and knowledge to the quality manager.

Do not designate the superintendent, project manager, or project foreman as the quality manager.

**153.05 Quality Control System.** Establish a system that directly monitors and controls the quality of work. Furnish inspectors with a minimum of 3 years experience in the work to be monitored. Address the following in the plan:

- (a) The name and experience of inspectors, testers, and company(s) providing quality control. Include lines of authority for both individuals and company(s);
- (b) Develop a chart of quality control inspections which includes definable features, inspectors responsible, and inspection frequency of work. In addition to required inspection frequencies, list any additional inspections to ensure a quality project. Include all work of subcontractors and suppliers; and
- (c) Procedures for managing reports, documents, charts, certifications, and submittals.

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**153.06 Quality Assurance System.** Establish a system that provides assurance the project was constructed according to the contract requirements and ensures environmental compliance. Furnish experienced personnel to inspect, verify, test, and evaluate materials and workmanship to assure a quality project. Address the following in the plan:

- (a) The name and experience of individuals and company(s) providing quality assurance. Include lines of authority for both individuals and company(s);
- (b) Method for assuring material incorporated into the work is in compliance;
- (c) Process to assure personnel have received proper training to produce a quality product;
- (d) Procedures to assure necessary preliminary work is accomplished prior to the beginning of work (submittals have been approved, certifications verified, surveys completed, etc.)
- (e) Process that verifies quality control activities are performed and properly documented;
- (f) Process to identify and correct quality deficiencies in work being performed;
- (g) A process to assure that deficiencies are not repeated; and
- (h) Method for assuring subcontractor and supplier work is in compliance.

**153.07 Government Inspection.** Provide written notification WFLHD 470 *Notification of Completion of Work* when the following work is ready to be inspected:

- (a) Allow 1 working day for the following work to be inspected.
  - (1) Survey and staking (field stakes and notes). Provide survey notes for the following:**
    - (a) Control points – prior to disturbing original control points;
    - (b) Clearing limits – 15 days prior to starting clearing and grubbing operations;
    - (c) Slope stakes – prior to starting excavation;
    - (d) Subexcavation – prior to backfilling;
    - (e) Guardrail – prior to starting installation;
    - (f) Bridge – prior to starting work on each component;
    - (g) Walls – prior to starting work; and
    - (h) Fence – prior to starting installation.

**(2) Construction work.**

(a) Roadway – prior to placement of pavement structure;

(b) Any layer of pavement structure requiring hubs – prior to placing next layer;  
and

(c) Structural excavation – prior to backfilling.

**(b)** Allow 1 working day (except as noted) to inspect the following work. Do not continue work on items listed below until receipt of WFLHD 470 *Notification of Completion of Work* indicating the work will not be inspected, the work was inspected and no deficiencies were found, or unless authorized by the CO. Work delayed in excess of the inspection period will be evaluated according to FAR Clause 52.242-14 Suspension of Work.

(1) Forms and reinforcing steel – prior to placing concrete.

(2) Concrete deck – prior to placing concrete (perform checks of all deck pour requirements, including dry run results prior to inspection).

**153.08 Records.** Submit a list of all records and documentation that track quality control/assurance processes and issues. Indicate who will be responsible for maintaining the records and where the records will be located.

Provide the following documents:

**(a) Notification of Completion of Work.** Submit a completed WFLHD 470 *Notification of Completion of Work* when work is ready for inspection by the Government according to Subsection 153.06.

**(b) Construction Operations Report.** For each day of work, submit a completed WFLHD 465 *Contractor's Daily Record of Construction Operations* or an approved alternate form. Include the following certification signed by the person responsible for the construction operations:

*"I certify that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record."*

**(c) Quality Control and Assurance Report.** For each day of work, prepare a Quality Control and Assurance Report. Record the phase all work is in and document all quality control and assurance activities associated with this work. List deficiencies and corrective actions taken or scheduled to be taken. Document meetings or discussions concerning quality control and assurance issues. Attach all test results from the day's operations. Include the following certification signed by the manager:

*"I certify that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record."*

**(d) Control Charts.** Maintain linear control charts that identify the project number, contract item number, test number, each test parameter, the upper and/or lower specification limit applicable to each test parameter, and test results. Use the control charts as part of the quality system to document the variability of the process, identify production and equipment problems, and identify potential pay factor adjustments. Make corrections to the process when problems are evident.

**(e) Pay Item Measurement Notes (FHWA 17348 Pay Item Record).** Prepare notes according to Subsection 109.01. Calculate and maintain QL-Pay pay factors on appropriate items.

**(f) Quality Control and Quality Assurance Test Results.** Report test results on forms containing all sample information required by Subsection 153.03. Label clearly all interim measurements used to determine the results. Attach work sheets used to determine test values to the test result forms when submitted.

Submit **(b)** and **(c)** reports within one working day of the work being performed. When requested, resubmit incomplete or erroneous reports within one working day. When chronic errors or omissions occur, correct the procedures by which the reports are produced.

**153.09 Acceptance.** Quality control and assurance system will be evaluated under Subsection 106.02 based on the demonstrated ability of the quality control and assurance system to result in work meeting the requirements.

If the Government's testing and inspection indicate that the quality control and assurance system is ineffective or the plan is not being followed, make immediate improvements to the system to correct these inadequacies. Furnish notification in writing of improvements and modifications to the system.

### **Measurement**

**153.10** Measure the Section 153 item listed in the bid schedule according to Subsection 109.02.

### **Payment**

**153.11** The accepted quantities will be paid at the contract price per unit of measurement for the Section 153 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payments for the lump sum item will be prorated based on the total work completed.

**Table 153-1  
Minimum Process Control Sampling and Testing Requirements**

Material or Product	Characteristic	Test Method or Specification	Tolerance	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
<b>Section 301</b>							
Aggregate base Grading _D____	Gradation	AASHTO T 27	Subsection 703.05	1 for each 6 hours of production but not less than 2 for each day	Flowing aggregate stream (bin or belt discharge) or conveyor belt	Yes when requested	End of shift
	Fractured faces	ASTM D 5821	"	"	"	"	"
	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"	"
	Percent Passing No. 200	AASHTO T 11	"	"	"	"	"
	SE/P <sub>200</sub> Index	See Subsection 101.04	"	"	"	"	"
<b>Section 401, 402, or 403</b>							
Aggregate source quality	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	—	1 per type & not less than 5 per source of material	Source of material	Yes	Before producing
	Fine aggregate angularity	AASHTO T 304, Method A	—	"	"	"	"
Aggregate	Gradation	AASHTO T 27 & AASHTO T 11	—	1 for each 6 hours of production but not less than 2 for each day	Flowing aggregate stream (bin or belt discharge) or conveyor belt	Yes, when requested	End of shift
	Fractured faces	ASTM D 5821	"	"	"	"	"
	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"	"
Note: If aggregate is separated into two or more stockpiles, sample and test each of the stockpiles at the minimum sampling frequency.							

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

### **Construction Requirements**

**154.02 Sampling.** Amend as follows:

Add the following to the first paragraph:

When samples are required at the Vancouver Laboratory, send to:

**Material Section  
Western Federal Lands Highway Division  
610 East Fifth Street  
Vancouver, Washington 98661**

If samples are sent other than normal delivery vendors, call 360.619.7747 or 360.619.7592 before delivery. Deliveries will be accepted from 7 a.m. to 2:30 p.m. PT (Monday - Friday).

Access to the government complex is controlled, check-in is required at the main building entrance located on East Fifth Street. Directions will be given for delivery of samples.

Add the following to the second paragraph:

Provide the required cylinder molds.

Add the following:

The sampling frequencies and reporting times are listed in the individual sections ordering the work. See Subsections 301.03 and 401.03 for additional sampling and testing requirements.

**154.04A Laboratory Trailer and Test Equipment.** (Added Subsection.)

A Government-furnished laboratory trailer with testing equipment is offered for use on this project. To take advantage of this offer, address a request in writing to the Construction Engineer (Western Federal Lands Highway Division, 610 East Fifth Street, Vancouver, WA 98661), within 30 days after award of contract. Failure to do so will terminate the offer.

The laboratory trailer, License No. DOT #40932 and testing equipment are located at Western Federal Lands Highway Division, 610 East Fifth Street, Vancouver, Washington. The specifications for the trailer are as follows:

- Width = 10 feet;
- Length = 36 feet;
- Height = 12 feet;
- Gross Vehicle Weight (GVW) = 13,500 pounds;
- Tongue Weight = 4,500 pounds;
- Ball Requirements = 2 5/16 inch;
- 3 axles with electric brakes.

Before the trailer will be released for delivery, hauling vehicles must meet the following requirements:

- 2.5 ton GVW minimum;
- Ball height of 18-inches from ball to ground;
- Safety chains;
- Brake control (normal and break-away);
- Wiring harness for lights and brakes;
- Wide load signs;
- Transportation permits, if required; and
- Spare wheels and tires for trailer (USC 8-inch x 14.5-inch).

Provide an authorization from the Contractor to accept delivery of the trailer.

Provide 14 day written notice before arriving to pickup the trailer. Pickup, return, and inspection of the trailer and equipment may be scheduled between the hours of 7 a.m. and 3:30 p.m., Monday through Friday, except holidays. Notify the CO 48 hours before returning the trailer to the Vancouver office.

A list of testing equipment may be obtained by calling the Contracts Section at 360.619.7520, e-mailing at [contracts@mail.wfl.fha.dot.gov](mailto:contracts@mail.wfl.fha.dot.gov), or by fax at 360.619.7932.

Determine if the laboratory trailer and testing equipment are adequate to perform all testing required by the Contract. Check equipment (especially scales and gyratory compactor) and recalibrate as necessary after transporting the trailer. Submit written documentation to the CO that the equipment is properly calibrated.

A rental fee of \$400 per month will be deducted from progress payments, except during non-work periods on the project in excess of 30 days. Fees will begin 5 days after receipt of trailer from the Vancouver office. The fee will be prorated for periods less than one month at \$20 per day.

Return the laboratory trailer and equipment to Western Federal Lands Highway Division office in Vancouver, Washington within 14 days of the project being determined substantially complete or the rental fee will increase to \$50 per day. Fee assessments will include the day of return to the Vancouver office.

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Trailer and equipment will be inspected for damage or missing items. An invoice will be sent for the cost of replacing missing or damaged equipment and restoring the trailer to a working condition, less reasonable wear and tear. Costs incurred will be deducted from the final payment. A maximum of 30 days will be required to inspect the trailer and equipment after it is returned to Vancouver.

Follow the requirements of FAR Contract Clauses 52.245-1 – Government Property and 52.245-9 – Use and Charges and as follows.

- (a) Provide a representative to accept written responsibility for the trailer and equipment when it is checked out from the Vancouver office.
- (b) Testing equipment has been checked and calibrated to applicable specifications. Furnish any additional equipment required to perform tests not supplied with the laboratory trailer. Repair or replace equipment during use that requires calibration or does not meet specifications, due to wear and tear. Assume no responsibility for reasonable wear and tear to laboratory trailer and testing equipment upon final return to the Government. All equipment will remain or become the property of the Government.
- (c) Assume responsibility and bear costs of transporting, installing, repairing and maintenance of the trailer and equipment in a workable condition. Obtain all necessary permits. Adhere to requirements of the Laboratory Trailer Manual. Adequately anchor the awning to prevent damage. Do not perform tests in the trailer until it has been leveled and blocked according to the Laboratory Trailer Manual.
- (d) The trailer is wired with a 200-amp service box and contains a 90-gallon water tank. Provide a clean water supply, a 220-240 volt, 60 cycle commercial electric source, or a 220-240 volt, 60 cycle single phase ac regulated electrical supply of at least 60 kilowatts, and a supply of propane gas.
- (e) Provide 48-hour notice to the CO prior to transporting the trailer from the project.

### **Payment**

**154.07** Delete the text of the fifth paragraph and substitute with the following:

Payment for all or part of this item may be retained, if Government verification testing invalidates the Contractor testing or the CO determines that documentation of sampling and testing is not adequate.

## Section 155.— SCHEDULES FOR CONSTRUCTION CONTRACTS

Delete this Section and substitute with the following:

### Description

**155.01** This work consists of scheduling and monitoring all construction activities. Follow the requirements of FAR Clause 52.236-15, Schedules for Construction Contracts.

### Construction Requirements

**155.02 Preliminary Work Plan.** Do not begin work, except mobilization, traffic control, and Section 637 work, without an accepted preliminary work plan.

A preliminary work plan is a written narrative of contract activities for the first 45 days after the Notice to Proceed has been issued. Include the following:

- A title page stating the contract number, project number, project name, Contractor name, current fixed completion date, date of submittal, submittal number, and “*Preliminary Work Plan*”;
- Describe work to be done within each activity including the type and quantity of equipment, labor, and materials to be used;
- Describe planned production rates by pay item quantities (e.g. cubic yards of roadway excavation per day);
- Describe the number of work days per week, holidays, number of shifts per day, and number of hours per shift. Include all calendars used in the schedule module.
- Estimate periods during which an activity is idle or partially idle. Include beginning and end dates.
- Describe expected and critical delivery dates for equipment or material that can affect timely completion of the project;
- Identify the Vendor, Supplier, or Subcontractor to perform an activity. State assumptions made in scheduling their work.

Submit 3 copies of a preliminary work plan at least 7 days before the preconstruction conference. Within 7 days after the preconstruction conference, the preliminary work plan will be accepted or rejected. If rejected, submit a revised plan within 3 days.

**155.03 Initial Construction Schedule.** Prepare a construction schedule according to Subsection 155.04. Submit 3 paper copies and one electronic copy of the initial construction schedule within 20 days after the Notice to Proceed has been issued. In case of discrepancy, the paper version will govern over the electronic version of the schedule.

Show completion of work within the contract time.

Allow 7 days for approval or rejection of the schedule. If rejected, submit a revised schedule within 7 days.

Use the approved initial construction schedule as the baseline for the first construction schedule update.

A maximum of 10 percent of the total progress payment amount will be retained if an acceptable schedule is not received within 30 days after the Notice to Proceed is issued.

**155.04 Construction Schedule.** A construction schedule is a Critical Path Method (CPM) schedule and a written narrative. Include the following:

(a) A CPM schedule including the following:

- (1) A title page or header block with the contract number, project number, project name, Contractor name, current fixed completion date, date of submittal, and submittal number;
- (2) Show activity descriptions. Define and code activities to the contract pay items. Include activities for submittals, submittal reviews, fabrication, and deliveries. Do not include activities for continuous, non-critical items such as flagging, traffic control, QA/QC, etc;
- (3) Show activity durations. Break activities into subtasks such that no activity duration exceeds 30 calendar days. Break longer activities into two or more activities distinguished by location or some other description;
- (4) Show early start and finish dates;
- (5) Show late start and finish dates;
- (6) Show total float and free float;
- (7) Show predecessors;
- (8) Use a time scale to graphically show the work scheduled for performance;
- (9) Show the sequence and interdependence of all activities; and
- (10) Identify the critical path.

Float is a shared commodity and is not for the exclusive use of the contractor or the Government. Either party has the full use of float until it is depleted.

**(b)** A written narrative stating the basis and assumptions underlying the schedule including:

**(1)** Describe work to be done within each activity including the type and quantity of equipment, labor, and materials to be used;

**(2)** Describe planned production rates by pay item quantities (e.g. cubic yards of roadway excavation per day);

**(3)** Describe the number of work days per week, holidays, number of shifts per day, and number of hours per shift. Include all calendars used in the schedule module.

**(4)** Estimate periods during which an activity is idle or partially idle. Include beginning and end dates;

**(5)** Describe expected and critical delivery dates for equipment or material that can affect timely completion of the project; and

**(6)** Identify the Vendor, Supplier, or Subcontractor to perform an activity. State assumptions made in scheduling their work.

**155.05 Updated Construction Schedule.** Prepare a construction schedule according to Subsection 155.04. Verify finish dates of completed activities, remaining duration of uncompleted activities, and proposed logic and time estimate revisions. Submit three paper copies and one electronic copy of an updated construction schedule for acceptance by the 15th day of each month or when:

**(a)** A delay occurs in the completion of a critical (major) activity;

**(b)** A delay occurs which causes a change in the critical path for the CPM schedule;

**(c)** The actual prosecution of the work is different from that represented on the current construction schedule;

**(d)** There is an addition, deletion, or revision of activities caused by a contract modification;  
or

**(e)** There is a change in the schedule logic.

Show completion of work within the contract time.

Allow 7 days for approval or rejection of the schedule. If rejected, submit a revised schedule within 7 days.

Use the approved initial or previous construction schedule as the baseline for the current construction schedule update.

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A maximum of 10 percent of the total progress payment amount will be retained if an acceptable schedule is not received by the 15<sup>th</sup> day of the month.

**155.06 Records.** Submit a list of all records and documents that track progression of work. Indicate who will be responsible for maintaining the records and where the records will be located.

Provide the following documents:

**(a) Notification of Completion of Work.** Submit a completed WFLHD 470 *Notification of Completion of Work* when work is ready for inspection by the Government according to Subsection 153.06.

**(b) Construction Operations Report.** For each day of work, submit a completed "*Contractor's Daily Record of Construction Operations*" (Form WFLHD 465) or an approved alternate form within one day of the work being performed.

*"I certify that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record."*

For an electronic version of the form go to:

<http://www.wfl.fha.dot.gov/other/it/forms/wflhd465A.pdf>.

**155.07 Acceptance.** Construction schedules, records, and documents will be evaluated under Subsection 106.02.

### **Measurement**

**155.08** Measure the Section 155 items listed in the bid schedule according to Subsection 109.02.

### **Payment**

**155.09** The accepted quantities will be paid at the contract price per unit of measurement for the Section 155 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for construction schedule will be paid as follows:

**(a)** 25 percent of the item amount, not to exceed 0.5 percent of the original contract amount, will be paid after the construction schedule is accepted.

**(b)** Payment of the remaining portion of the lump sum will be prorated based on the total work completed.

## Section 156.— PUBLIC TRAFFIC

### Construction Requirements

#### 156.03 Accommodating Traffic During Work. Add the following:

- (a) Accommodate traffic according to the following schedule, except as limited by Subsections 108.01(f) and 156.06 (m):

Monday through Friday:

8:30 a.m. to 12:00 p.m. 2 hour closures permitted. 3.5 hour closures permitted for blasting and blasting clean up activities only

12:00 p.m. to 1:00 p.m. open road

1:00 p.m. to 4:30 p.m. 2 hour closures permitted. 3.5 hour closures permitted for blasting and blasting clean up activities only

4:30 p.m. to 10:00 p.m. no more than a total of 30 minute delay for traffic traveling through the project

10:00 p.m. to 8:30 a.m. open road

Saturday and Sunday

6:00 a.m. to 12:00 p.m. no more than a total of 30 minute delay for traffic traveling through the project

12:00 p.m. to 1:00 p.m. open road

1:00 p.m. to 5:00 p.m. no more than a total of 30 minute delay for traffic traveling through the project

5:00 p.m. to 6:00 a.m. open road

- (b) Residents may occasionally need access through the project at times other than the specified openings. Residents will be asked to provide 48-hour notice to the CO for consideration. Accommodate these residents to the extent possible.
- (c) Immediately open the road to emergency vehicles or provide access for victims, emergency responders, and their equipment.
- (d) Develop an Emergency Response Plan which addresses the above. Provide the Plan to the CO to post it on the project website and provide updates as necessary.
- (e) Provide notice to the CO at least 14 calendar days prior to implementing delays or at any time a work schedule change is anticipated.
- (f) At least 2 days in advance of road closures, publish notices of the road closure in local newspapers and notify local radio stations. Provide notices on a weekly basis and continue until no longer applicable. Notify emergency service providers of road closure and delay schedules on a weekly basis.

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- (g) Include the removal of the earthen causeway in Lily Pad Bay in the traffic control plan once the bridge has been constructed.
- (h) Avoid delays to school buses operating on fixed schedules. Maintain a suitable turnaround area for the bus during days of operation.

For information only:

The bus schedule makes daily trips to from the beginning of the road and turns around at the rifle range near station 280+00. The schedule is generally as follows when school is in session:

Trip 1: 6:35 am to 7:05 am

Trip 2: 7:45 am to 8:25 am

Trip 3: 2:55 pm to 3:20 pm

Trip 4: 3:35 pm to 3:55 pm

An additional trip would be made midday if there are any kindergarten school children living on the road that would require bus service.

**156.04 Maintaining Roadways During Work.** Add the following:

- (a) Maintain single lane traffic between 113+50 and 123+50 while constructing the new bridge at Lily Pad Bay.

**156.05 Maintaining Roadways During Non-Work Periods.** Add the following:

Before winter shut down, leave the roadway in a condition suitable for snow removal by the maintaining agency. Remove equipment and other hazards from the roadway and turnouts before suspending construction operations.

**156.06 Limitations on Construction Operations.** Amend as follows:

Delete paragraph (g) and substitute with the following:

- (g) Provide two-way radio communications between Traffic and Safety Supervisor, flaggers, and pilot cars. Provide two-way radio communications between flaggers unless flaggers are able to see each other and communicate. Citizen band radios are not acceptable. Make radio equipment available to the CO as necessary.

Add the following:

- (k) Complete paving of adjacent traffic lanes to the same elevation within 24 hours.
- (l) Complete paving operations in accordance with Subsection 401.07.
- (m) Do not perform construction operations which interfere with public travel on the roadway on any holiday or between 6 p.m. Friday and 6 a.m. the following Monday, unless approved by the CO.

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**(n)** For purposes of facilitating traffic, perform grading or surfacing part-width at a time. Except during closures, make the width not under construction available to public traffic under alternate one-way control. Furnish pilot car and driver, or flaggers, or both, to direct traffic through sections of road under one-way control.

**156.08 Traffic and Safety Supervisor.** Amend as follows:

Delete the text in paragraph (f) and substitute with the following:

**(f)** Coordinate and ensure that all traffic control devices are furnished, installed, maintained, removed, stored, replaced, relocated and cleaned according to Subsection 635.03 **(a)** through **(i)**.

Add the following:

**(i)** Inspect traffic control devices, including those in staging, storage, material sources, disposal areas, as follows:

**(1)** Daily during daylight hours when daylight work is being performed;

**(2)** Daily during hours of darkness when nighttime work is being performed;

**(3)** Weekly during daylight hours and hours of darkness when work is suspended for periods of more than one week except when the project has been shut down for the winter, and weekly during the hours of darkness when only daylight work is being performed. During periods of winter suspension, inspect only as requested by the CO;

**(4)** Additional inspections, day or night, as directed by the CO; and

**(5)** Provide reports of inspections to the CO in an acceptable format within 2 days.

**(j)** Before winter suspension, conduct an inspection of the project with the CO to ensure proper provisions are made for winter travel during the period of suspension.

**(k)** Operate vehicles while transporting the portable traffic control devices and personnel including construction signs, barricades, drums, cones, tubular markers and other traffic control devices.

**(l)** Provide temporary flagging assistance.

## Section 157.— SOIL EROSION CONTROL

### Material

#### 157.02 Add the following to the materials list:

Tackifier	713.12 <b>(b)</b>
Wattles	713.13 <b>(d)</b>
Rolled Erosion Control Products	713.18 <b>(c)</b>
Turbidity Curtain	713.19
Absorbent Boom	713.20

### Construction Requirements

#### 157.03 **Controls and Limitations on Work.** Amend as follows:

##### **(d)** Add the following:

**(3)** Where final grade is achieved on cuts and fills, apply measures within 7 days.

##### Add the following:

**(i)** Use wattles for temporary erosion control on all exposed slopes.

**(j)** Discharge of waters from excavated materials into streams, lake or wetland areas is not permitted. De-watering and filtering of sediment from dredged materials will occur in accordance with the dredge management plan found in Section K. Install straw wattles as shown on the plans.

**(k)** Provide the following minimum amounts of emergency erosion control and hazardous spill measures on hand during the duration of construction: 100 feet of unsupported silt fence, 150 feet straw wattle, and 5 absorbent booms. Use these to address unexpected rain events, or failure of other measures to contain sediment.

**(l)** Use turbidity curtains at locations shown on the plans to contain silt at construction locations in Fernan Lake. Install turbidity curtains prior to performing excavation at that site. Do not remove curtain until the turbidity on either side of the curtain is equal. Remove and reuse the curtain at other sites as needed. Install, anchor, maintain and handle the curtain in accordance with manufacturer's recommendations. Do not allow the curtain to drag back and forth on the lake bottom. Provide the CO with 3 copies of the shop drawings for approval at least 14 days prior to ordering materials for each site where turbidity curtains are used. Include methods and locations for anchoring and maintaining the curtains.

**(m)** Place silt fences well above the ordinary high water mark and outside of wetland boundaries unless fill is being added to or removed from the water body.

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**157.08 Temporary Turf Establishment.**

**157.11 Temporary Turf Establishment.** Delete this Subsection.

**157.11A Soil Stabilization** (Added Subsection.)

The soil stabilization mixture is composed of mulch and tackifier. Mix and apply the mixture according to the manufacturer’s recommendations. Applying mulch and tackifier as separate applications is optional and at the rates shown in Table 157-1A.

**Table 157-1A  
Application Rates for Soil Stabilization**

<b>Material</b>	<b>Application Rate Pounds/acre</b>
Mulch	1350
Tackifier	60

Notify the CO at least two days before applying the mixture. Provide hydro-mulch type equipment capable of providing a uniform application using water as a carry agent and capable of reaching cut slopes at a height of 60 feet. Treat all slopes, disturbed areas and conserved topsoil stockpiles before winter shutdown. Do not apply soil stabilization during rain.

**157.12 Inspection and Reporting.** Add the following after the first sentence:

During times work is not taking place, perform inspections at least every 14 days.

Add the following:

Monitor turbidity daily when work is occurring in Fernan Lake or Fernan Creek, or when a plume of sediment is visible outside of a containment area and a result of the project. Sample background turbidity as well as turbidity downstream from or near the construction area.

If a plume is present, sample turbidity immediately adjacent to the work during work activity and sample background turbidity immediately upstream of the project but above any disturbance created by the project. Include one background measurement for each sampling event. Turbidity in the plume shall not exceed background turbidity by more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days.

If these turbidity standards are exceeded, take immediate steps to reduce turbidity to below the standard. Record the steps taken legibly and in an organized fashion.

Turbidity monitoring is the responsibility of the quality manager and shall be performed by someone trained in the use of a turbidimeter. Measure turbidity using a calibrated portable turbidimeter. Provide records that clearly indicate the date of the sample, turbidity data presented in nephelometric units, time of collection and, if present, the cause of turbidity.

**157.13 Maintenance and Cleanup.** Delete the third paragraph and substitute with the following:

Removal and disposal of erosion control devices designated to remain will be performed by others.

Do not remove the turbidity curtains or other erosion control devices installed in Fernan Lake until the turbidity of water inside the erosion control device collection area is equal to or less than the turbidity of water outside the erosion control device collection area. Determine turbidity of water according to Subsection 106.02

**157.14 Acceptance.** Add the following:

Turbidity curtains, absorbent booms, and wattles will be evaluated under Subsection 106.03. Turbidity curtains, absorbent booms, and wattles application will be evaluated under Subsections 106.02 and 106.04.

Soil stabilization materials will be evaluated under Subsection 106.03. Soil stabilization application will be evaluated under Subsection 106.02 and 106.04.

### **Measurement**

**157.15** Amend as follows:

Delete the third paragraph and substitute with the following:

Measure soil stabilization by the acre on the ground surface. No additional payment will be made for separate applications of the mulch and tackifier should the contractor elect to apply them separately.

Delete the fourth paragraph and substitute with the following:

Measure excavation for sediment basins under Section 204.

Measure channel diversion by the each. Include all necessary sandbags, geotextile, plastic sheeting, and rock necessary for the diversion and all costs associated with excavating, installing, maintaining, and removing the channel diversion. These items will not be measured separately and are considered incidental.

Add the following:

Measure turbidity curtain by the lump sum. Include all necessary anchor systems and materials, and all costs associated with installing, maintaining, removing and reusing the turbidity curtain in accordance with the manufacturer's recommendations as often as necessary. These items will not be measured individually and are considered incidental.

Rolled erosion control products will be measured under Section 629.

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## Section 201.— CLEARING AND GRUBBING

### Description

#### 201.01 Add the following:

This work also includes the salvage of selected trees for use as habitat trees and root wads under Section 622.

#### 201.01A **Definitions.** (Added Subsection.)

- (a) **Habitat trees.** Selected trees, including the root wad, marked by the CO for placement in the lake for fish habitat.
- (b) **Root wads.** The bottom 12 feet of the tree bole attached to the root wad of selected trees marked by the CO for use in stream restoration.
- (c) **Landscape log.** Selected trees without the root wad, marked by the CO for landscape placement.

### Construction Requirements

#### 201.03 **General.** Add the following:

Trees designated for use as habitat trees are to be pushed over and the entire tree and root wad are to be placed whole in the lake at the locations shown on the plans. Do not cut or limb habitat trees. Leave the stumps intact and do not remove.

Complete all clearing and grubbing between July 15 and May 1 of the following year.

Locate log landing sites away from streamside management units and creeks.

Conserve topsoil according to Section 204.

Except where construction of the road is impractical without removal, do not remove of trees larger than 4" DBH on the lake-side of the centerline between 10+00 and 121+00, and near wetlands stream banks throughout the project. Clearly mark trees in these areas that must be removed 3 days prior to the scheduled activity. Proceed with clearing activities after review and approval of the CO. Mark trees to be preserved that are near areas to be cleared with yellow caution flagging and use caution to prevent damage to the tree or root structure.

#### 201.05A **Salvaging.** (Added Subsection.)

The CO will designate trees to be salvaged for habitat trees, root wads or landscaping logs. Stockpile at locations designated by the CO.

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Protect habitat trees including their branches from breakage during pushing, hauling, stockpiling and placement. Do not cut or limb habitat trees. Leave the stump intact.

See Subsection 622 for the final placement of the habitat trees in clusters and the placement of the root wads and landscaping logs.

**201.06 Disposal.** Add the following:

Many landowners on the project have expressed verbal interest in receiving fill from this project. All contacts and arrangements for disposal of excess material is the responsibility of the contractor.

**Measurement**

**201.08** Add the following:

Measure the final placement of the habitat trees in clusters, root wads and landscape logs under Subsection 622.

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

### **Construction Requirements**

#### **203.04 Removing Material.** Add the following:

For safe movement of traffic, maintain existing regulatory, informational, and warning signs in place until removal is necessary for construction.

#### **203.05 Disposing of Material.** Amend as follows:

##### **(a) Remove from the project.** Add the following:

Trees, brush, and limbs may be recycled on the project site if the material is mulched to provide material that will meet the requirements of Subsection 713.05 **(b)**. Stockpile mulch at a site approved by the CO.

##### **(b) Burn.** Delete this paragraph.

## Section 204.— EXCAVATION AND EMBANKMENT

### Description

**204.01** Add the following:

This work also includes conserving boulders for use as barriers under Section 622 and the stream restoration channel excavation from 199+40 to 217+40 RT. Work also includes the Subexcavation Stabilization areas.

### Material

**204.03** Add the following to the materials list:

Rock Embankment

705.04(a)

**204.05 Conserved Topsoil.** Add the following:

Conserve the top 6 inches of soil in all wetland areas to be disturbed and stockpile for replacement on the completed disturbed area. Replace this material over the completed disturbed area within 5 days.

**204.06 Roadway Excavation.** Amend as follows:

(a) **General.** Add the following to the second paragraph:

Conserve sufficient quantities of 6-inch minus material from the roadway excavation to use for finishing the roadbed. Sufficient quantities are available within the roadway excavation. Some sorting and removal of larger material may be required.

Add the following:

Excavate the channel for the stream restoration from 199+40 to 217+40 RT as shown on the plans and stream cross-sections. Final contouring and shaping of the channel will be completed under Section 622.

**204.07 Subexcavation.** Delete the second sentence and add the following:

For all Subexcavation Stabilization Type II areas, include the welded wire reinforcement and rock embankment as part of the repair. Provide an intermediate pavement structure within 30 days of completing the repairs and backfill to each area to include aggregate base in accordance with Subsection 301 and asphalt paving in accordance with Subsection 404 as shown on the Plans.

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**204.10 Embankment Construction. (b) Embankment within the roadway prism. Add the following:**

Construct the top 12 inches of the embankment with 6-inch minus material conserved from the roadway cuts. Some sorting and removal of larger material may be required.

If the existing asphalt is to be used in the roadway embankment, pulverize the asphalt to a maximum 6 inch diameter material and incorporate with other material within the roadway embankment. Do not place existing asphalt material below the Q2 elevation as shown on the plans.

**204.12A Boulders. (Added Subsection.)**

Conserve 175 boulders with a minimum 36 inch diameter from the roadway excavation and stockpile boulders at the existing parking area near 280+00 LT and other locations approved by the CO. See Section 622 for final placement of the boulders.

**204.14 Disposal of Unsuitable or Excess Material. Delete the text of the first paragraph and substitute with the following:**

Dispose of excess material at the existing parking area between 279+54 and 281+79 LT. Only place sufficient material to raise the parking area to the designated elevations. Do not dispose of unsuitable material at this site. Construct the top 12-inches of the parking area with 6-inch minus material. Use this area first for excess material before placing excess material at the site on the RT side of the road.

Dispose of unsuitable and additional excess material at 275+14 to 282+94 RT. Construct a temporary access road and culvert to the waste area as shown on the plans. Place material at this site in accordance with the plans. Sculpt and shape the finished mound to provide a natural shape as directed by the CO. See Subsection 622. Remove the temporary access road and culvert once the waste area has been completed. Do not construct or remove the waste area temporary access road and culvert if water is flowing in the stream without the approval of the CO. This stream is normally dry between July and December.

If material is disposed of off the project, comply with Subsection 107.10 as well as any applicable local, State, and Federal laws.

Water and compact material disposed of at 279+54 to 281+79 LT only.

## Measurement

**204.16** Amend as follows:

(a) **Roadway excavation.** Add the following:

Conserving and stockpiling of boulders will not be measured for payment. Measure final placement of boulders under Section 622.

(e) **Waste.** Add the following:

Do not measure the construction and removal of the waste area temporary access road and culvert for payment. Include all work associated with these items in other bid items under this section.

Add the following paragraph:

(f) **Subexcavation.** Do not measure the welded wire reinforcement, rock embankment, aggregate base, and asphalt paving for each Subexcavation Stabilization Type II area for payment. Include all work associated with these items in other bid items under this section.

## Section 205.— ROCK BLASTING

### Construction Requirements

**205.03 Regulations.** Delete the text of paragraph (b) and substitute with the following:

**(b) Storage, security, and accountability.** Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), 27 CFR Part 555.

**205.05 Blasting Plans.** Add the following:

**(a) General blasting plan.** Delete the text of paragraph and substitute with the following:

Submit a general blasting plan for acceptance at least 30 days before drilling operations begin. Include, as a minimum, the following safety and procedural details;

- (6)** Include any measures necessary such as electro shocking and block nets surrounding the blast area to remove or scare fish from the site prior to blasting. Use damage assessment procedures to monitor impacts to fisheries.

**205.08 Blasting. General.** Add the following:

Do not blast rock into the lake or stream. Use blasting mat when applicable to minimize blast debris scatter.

Use the lowest possible powder factor to accomplish the blasting goals.

Cover all detonation cord on the surface with a minimum of 6 inches of fill.

Do not fire two holes side-by-side simultaneously. Use 25 millisecond delays or more between holes.

Limit the powder factor to one-quarter pound of explosives per cubic yard when air-gapping boulders.

Do not use cap and fuse techniques for blasting.

Blast in accordance with the requirements on Subsection 107.10 **(d)(2)**.

Breaking or reducing boulders by the method of “plastering” or “mud-capping” will not be allowed.

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

**Payment**

**208.06** Add the following after the second paragraph:

See Section H for additional requirements. Submit documentation to show how these requirements will be met and include this information in the Spoil and Wastewater Containment Plan.

**208.14** Add the following after the second paragraph:

Foundation fill ordered by the CO will be paid for according to the agreed price established in the Contract Modification authorizing the work.

**Section 209.— STRUCTURE EXCAVATION AND BACKFILL**

**Measurement and Payment**

**209.13** Delete the fourth paragraph and substitute with the following:

Foundation fill ordered by the CO will be measured and paid for according to the method of measurement and agreed price established in the Contract Modification authorizing the work.

## **Section 211.— ROADWAY OBLITERATION**

### **Construction Requirements**

#### **211.02 Add the following:**

Do not obliterate or remove the roadway across Lily-Pad Bay (116+00 to 121+50) until the new bridge is open to road traffic. Adjust and relocate portions of the roadway at the new bridge ends to accommodate traffic during construction of the bridge as shown on the plans and as directed by the CO.

Remove the entire roadway, except as noted below, to the natural lake bottom and dispose of the material in accordance with Subsection 204.

Do not remove the entire roadway section at the locations shown on the plans for the vegetated buffer swales at 117+00 RT and 121+00 RT. Remove the asphalt portion of the roadway in accordance with the requirements of this Subsection and shape the buffer swales in the existing roadway material in accordance with the plans.

## **Section 251.— RIPRAP**

### **Description**

**251.01** Add the following:

This work also includes construction of planting pockets on riprap embankment as shown on the plans.

### **Construction Requirements**

**251.03 General.** Add the following:

Place riprap under or adjacent to structures before placing prefabricated superstructure units or constructing superstructure falsework.

**251.04 Placed Riprap.** Add the following:

Construct the contours and planting pockets in the riprap as shown on the plans. Fill the planting pockets with topsoil in accordance with Section 624.

**251.07 Acceptance.** Add the following:

Construction of the planting pockets will be evaluated under Subsection 106.02.

Placing furnished and conserved topsoil material will be evaluated under Subsections 106.02 and 106.04.

### **Measurement**

**251.08** Add the following:

Do not measure planting pockets for payment.

Measure topsoil according to Subsection 624.06.

Delete Table 251-1 and substitute with the following:

**Table 251-1  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Riprap (705.02)	Measured and tested for conformance (106.04)	Apparent specific gravity & absorption	—	AASHTO T 85	1 per material type	Source of material	Yes	Before using in work
		Coarse durability index	—	AASHTO T 210	“	“	“	“
Mortar	Measured and tested for conformance (106.04)	Making test specimens Compressive strength	—	AASHTO T 23 & T 22	1 per mix design	—	Yes, when requested	Before using in work

## **Section 255.— MECHANICALLY-STABILIZED EARTH WALLS**

### **Material**

**255.02** Add the following to the material list:

Modular block-faced wall	720.04
Geogrid	720.05

### **Construction Requirements**

**255.03 General.** Amend as follows:

Delete the first paragraph and substitute with the following:

Survey according to Section 152, and verify the limits of the wall installation. Prepare and submit installation drawings according to Subsection 104.03. Perform the work under Section 209. Grade the foundation for a width equal to the length of the wall reinforcement plus 3 feet. Where the wall is set on a rocky foundation, place 6 inches of select granular backfill under the wall reinforcement.

Add the following:

Perform excavation with equipment capable of removing the material while preventing escapement outside of the construction limits.

For modular block-faced walls, submit samples to the CO for approval of all products to be used in the construction of the wall, manufacturer's specifications and installation methods, including design information establishing the stability of the applicable wall. Submit samples to the CO prior to ordering blocks in accordance with Subsection 720.04.

**255.04 Wall Erection.** Add the following:

**(d) Modular block-faced walls.** Furnish and assemble modular block-faced walls with reinforcement according to the manufacturer's recommendations.

**255.05 Backfilling.** Add the following:

Place select granular backfill closely following erection of each course of wall reinforcement and blocks. Prior to backfilling, place wall reinforcement on the back of the modular block-faced wall. Place a minimum of 6 inches of uncompacted backfill material over the wall reinforcement before any rubber-tire equipment is permitted to operate above the fabric. Place a minimum of 10 inches of uncompacted backfill material over the wall reinforcement before any track-mounted equipment is permitted to operate above the fabric. Compact each layer according to Subsection 204.11.

**255.06 Acceptance.** Amend as follows:

Delete the first sentence of the first paragraph and substitute with the following:

Material for mechanically-stabilized earth walls listed under 720.01 and 720.04 will be evaluated under Subsection 106.02 and 106.03.

Add the following:

Geogrid wall reinforcement will be evaluated under Section 207.

**Measurement**

**255.07** Add the following:

Measure mechanically-stabilized earth wall modular block-faced by the square yard of front wall vertical plane.

Do not measure the geogrid wall reinforcement for payment. Include all work associated with this item in other bid items under this section.

## Section 301.— UNTREATED AGGREGATE COURSES

### Construction Requirements

**301.03 General.** Delete the text of this Subsection and substitute with the following:

Prepare the surface on which the aggregate course is placed according to Section 204 or 303 as applicable.

After a representative quantity of aggregate is produced, submit proposed target values for the appropriate sieve sizes along with a representative 400-pound sample at least 14 days before incorporating the aggregate into the work. Submit the target values to the CO. Submit the aggregate sample to the Vancouver Laboratory, using the mailing tags provided by the CO.

Set target values for base aggregate within the gradation ranges shown in Table 703-2A for the required gradation. List the percent passing for all sieve sizes shown in Table 703-2A. Target values for non-specification sieves are necessary for performing “The Humphres Method of Granular Soils.”

**301.04 Mixing and Spreading.** Delete the text of this Subsection and substitute with the following:

Use the optimum moisture content from the Humphres test performed by the Government. Mix the aggregate and adjust the moisture content to obtain a uniform mixture with a moisture content within one percent of the optimum moisture content. Spread and shape the mixture on the prepared surface in a uniform layer.

Do not place the mixture in a layer exceeding 6 inches in compacted thickness. When more than one layer is necessary, compact each layer according to Subsection 301.05 before placing the next layer. Route hauling equipment uniformly over the full width of the surface to minimize rutting or uneven compaction.

If at any time the calculated mean value for any tested sieve differs from the target value by more than the allowable deviation for that sieve, terminate placement and resubmit new target values and another aggregate sample to the Vancouver Laboratory for a new Humphres.

**301.05 Compacting.** Delete the first sentence of this Subsection and substitute with the following:

The Government will determine the maximum density and optimum moisture according to the test procedures described on pages 92 to 98 of Highway Research Board Bulletin No. 319, dated 1962, “The Humphres Method of Granular Soils”. Use the data provided to determine the maximum density based on the gradation of field compaction samples.

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**301.08 Acceptance.** Delete paragraph (b) and substitute with the following:

**(b) SE/P<sub>200</sub> Index (SEP).** The lower specification limit for the SEP is 1.000. See Subsection 101.04 for the definition of this parameter.

**(c) Fractured faces.** When aggregate is produced from a gravel source, use the specification limit shown in Subsection 703.05**(b)(2)**.

Delete the text of Table 301-1 and substitute with the following:

**Table 301-1  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality 703.05(a)	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	—	AASHTO T 96	1 per type & not less than 5 per source of material <sup>(1)</sup>	Source of material	Yes, when requested	Before using in work
		Sodium sulfate soundness loss (course & fine)	—	AASHTO T 104	"	"	"	"
		Durability index (course & fine)	—	AASHTO T 210	"	"	"	"
		Accelerated weathering	—	WFLHD-DMSO	"	"	"	"

**Table 301-1 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Base course grading C, D & E	Statistical (106.05)	Gradation		AASHTO T 27 & T 11	1 per 1000 tons	From window or roadbed after processing	Yes	4 hours
		3/8 inch	I					
		No. 4	I					
		No. 200	I					
		Other specified sieves	II					
		Fractured faces	I	ASTM D 5821	"	"	"	"
		Sand equivalent	—	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"
		SE/P <sub>200</sub> index	I	—	"	"	"	"

**Table 301-1 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
	Measured and tested for conformance (106.04)	Moisture-density (max. density)	—	AASHTO T 180, method D <sup>(2)</sup>	1 per type & source of material	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	1 per 500 tons	In-place	—	Before placing next layer

(1) Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use.  
Obtain samples representative of aggregates being furnished. Include rock type and sample location on test reports.

(2) Minimum of 5 points per proctor.

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

**Description**

**401.01** Add the following to the second paragraph:

Asphalt binder grade for this project is SHRP PG 64-28

**Construction Requirements**

**401.03 Composition of Mix (Job-Mix Formula).** Delete Table 401-1 and substitute with the following:

**Table 401-1  
Superpave Hot Asphalt Concrete Pavement Design Requirements (AASHTO M323)**

Design ESAL (Million)	Gyratory Compaction Level (% Theoretical Maximum Specific Gravity, Gmm) AASHTO R 35			Minimum Voids-in-the-Mineral Aggregate (VMA), % <sup>(4)</sup>				Voids Filled with Asphalt (VFA), % <sup>(5),(6)</sup>	Dust-to-Binder Ratio <sup>(1)</sup>	Minimum Tensile Strength Ratio, AASHTO T 283 <sup>(2)</sup>
	N <sub>Initial</sub>	N <sub>Design</sub>	N <sub>Max</sub>	Nominal Maximum Size Aggregate <sup>(3)</sup>						
				1 Inch	3/4 Inch	1/2 Inch	3/8 Inch			
< 0.3	6 (≤ 91.5 %)	50 (96 %)	75 (≤ 98 %)	12.0	13.0	14.0	15.0	70-80	0.8-1.6	0.80
0.3 to < 3	7 (≤ 90.5 %)	75 (96 %)	115 (≤ 98 %)					65-78		
3 to < 30	8 (≤ 89 %)	100 (96 %)	160 (≤ 98 %)					65-75		
≥ 30	9 (≤ 89 %)	125 (96 %)	205 (≤ 98 %)							

- (1) Include non-liquid antistriper, baghouse fines, and other mineral matter added to the mixture. Calculate the ratio using effective asphalt content (calculated by mass of mix).
- (2) Prepare specimens in accordance with AASHTO R 35.
- (3) The nominal maximum size is one size greater than the first sieve to retain more than 10 percent of the combined aggregate.
- (4) When mineral filler or hydrated lime is used, include in the calculation for compliance with the VMA.
- (5) For 3/8-inch nominal maximum size aggregate mixtures with ≥ 3 million ESALs, provide a VFA of 73 to 76 percent.
- (6) For 1-inch nominal maximum size aggregate mixtures with < 0.3 million ESALs, provide a VFA ≥ 67 percent.

**401.07 Weather Limitations.** Add the following:

Complete paving operations between April 1 and October 15 of each year.

**401.08 Asphalt Preparation.** Delete the first paragraph and substitute with the following:

Uniformly heat the asphalt binder to provide a continuous supply of the heated asphalt binder from storage to mixer. Do not heat asphalt binder above 365° F.

**401.16 Pavement Roughness.** Delete the title and text of this Subsection and substitute with the following:

The CO will measure roughness of the final paved surface course within 21 days after final rolling, of the completed roadway paving, and before placement of any surface treatment. In addition to the pavement roughness type requirements, construct all pavement surfaces to meet the requirements of paragraph (b).

(a) **International roughness index (IRI).** The CO will furnish and operate an inertial profiler conforming to AASHTO PP 50 and validated according to AASHTO PP 49. Furnish personnel to provide flagging operations as may be required. The CO will measure the pavement profile (a single trace) in the middle portion of each lane. Analysis of the profile data will be made using the latest version of the Profile Viewer and Analysis (ProVAL) software.

Areas of localized roughness will be identified using a report of continuous IRI with a base length of 25 feet. This will yield the IRI of every possible 25 foot segment. Any area for which the continuous report exceeds an IRI of 150 inches/mile will be considered a defective area requiring correction according to paragraph (c).

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

An IRI value will be determined for each 0.1-lane mile of traveled way. Cattle guards and bridges not being overlaid will be excluded from the calculation of IRI and determination of localized roughness. Measure excluded areas according to (b).

(1) **Type III pavement roughness.** The CO will measure the roughness of the final paved surface course. Defective areas are 0.1-mile segments with IRI values greater than 95 inches per mile or areas of localized roughness.

The pay factors from Table 401-3 will be used in conjunction with the histogram printout from ProVAL's Smoothness Assurance Analysis option to compute a final pay adjustment. The average pay factor ( $P_{ave}$ ) computed to four decimals is equal to the sum of the products of the individual pay factors shown in Table 401-3 times ProVal's corresponding histogram percentages, divided by 100. The products will be computed to four decimals and the average pay factor will be rounded to two decimals after summing and dividing by 100.

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

<b>IRI (inches/mile)</b>	<b>Pay Factor (PF)</b>
Greater than 95	Reject <sup>(1)</sup>
95.0 to 90.0	0.80
90.0 to 80.0	0.90
80.0 to 70.0	0.96
70.0 to 60.0	1.00
60.0 to 50.0	1.03
50.0 to 40.0	1.06
40.0 to 30.0	1.08
Less than 30.0	1.10

(1) Pay Factor when corrections are not allowed equals 0.70.

**(2) Type IV pavement roughness.** The CO will measure the roughness of the existing surface before construction traffic. The existing surface is the original surface before overlaying, recycling, or milling. The existing IRI will be used to determine the percent improvement for each 0.1-mile segment.

The CO will measure the roughness of the final paved surface course. Defective areas are areas of localized roughness or 0.1-mile segments having a percent improvement less than 0.9 or 25.4 as determined from Table 401-4.

The percent improvement in IRI will be determined to one decimal place for each 0.1-mile segment according to the following formula:

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

The pay adjustment factor computed to two decimal places for each 0.1-mile segment will be determined from Table 401-4. No deductions will be made for segments where the final IRI value is less than or equal to 75.0 inches per mile, provided the final IRI is less than or equal to the initial IRI.

**Table 401-4  
Type IV Pavement Roughness**

<b>Single Lift <sup>(1)</sup> Percent Improvement (%)</b>	<b>Pay Adjustment Factor <sup>(1)</sup></b>	<b>Multi-Lift <sup>(2)</sup> Percent Improvement (%)</b>	<b>Pay Adjustment Factor <sup>(2)</sup></b>
Greater than 48.4	PAF = 12.50	Greater than 61.1	PAF = 12.50
24.8 to 48.4	PAF = 0.5274(%) – 13.027	43.3 to 61.1	PAF = 0.0.6983(%) – 30.168
12.4 to 24.7	PAF = 0.00	34.0 to 43.2	PAF = 0.00
0.9 to 12.3	PAF = 3.2609(%) – 40.435	25.4 to 33.9	PAF = 4.3605(%) – 148.260
Less than 0.9	Reject <sup>(3)</sup>	Less than 25.4	Reject <sup>(3)</sup>

- (1) For single lift overlays with no other corrective work such as milling, grinding or preleveling in excess of 25 percent of the surface area the of existing pavement.
- (2) For multiple lift operations such as milling, grinding or preleveling followed by one or more lifts of pavement or two or more lifts of pavement without milling, grinding or preleveling.
- (3) Pay adjustment factor when corrections are not allowed equals minus 37.50.

**(b) Type V pavement roughness (straightedge measurement).** Use a 10 foot metal straight edge to measure at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 0.2 inch in 10 foot between any two contacts of the straightedge with the surface.

**(c) Defective area correction.** Correct defective areas from paragraphs (a) or (b) above. Obtain approval for the proposed method of correction. Grinding is an acceptable method of correction provided the area ground does not exceed 430 square feet per location, and is limited to an average of 1 location per lane mile with no more than two locations per lane mile. Grinding in excess of these limits is not an acceptable method of correction unless it is accompanied by an overlay or a single-course surface treatment over the entire length of the project.

If grinding is allowed, grind the pavement surface with a diamond blade machine and apply a fog seal according to Subsection 409.10. The endpoints of the areas where a grinder is to be applied must be optimized via grinding simulation using ProVal’s Smoothness Assurance Grinding option. Grinding simulation must be done with the purpose of grinding the minimum area needed to decrease the roughness to acceptable limits.

If no corrections are allowed, no adjustment will be made to the average pay factor (P<sub>ave</sub>) determined from Table 401-3 or the pay adjustment factors determined from Table 401-4.

If corrections are allowed, the CO will re-measure the pavement profile once at no expense to the Contractor. Subsequent re-measures will cost \$2,000. Data from analysis of the most recent profile measurement will be used to determine the P<sub>ave</sub> determined from Table 401-3 or the pay adjustment factors determined from Table 401-4.

Each area of localized roughness remaining in the final paved surface course, regardless of whether corrections are allowed or not, will be accessed an additional deduction of \$200.

### Payment

**401.19** Delete the last paragraph and substitute with the following:

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type III pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined as follows:

$$\text{Type III Pay Adjustment} = [(P_{\text{ave}} - 1.0000) * (\text{UBP}) * (\text{FCQ})] - [200(\text{NLRA})]$$

where:  $P_{\text{ave}}$  = average pay factor from Table 401-3

UBP = unit bid price

FCQ = final contract quantity

NLRA = number of localized roughness areas remaining in final pavement surface course

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement type IV pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined as follows:

$$\text{Type IV Pay Adjustment} = [(\sum \text{PAF}) * (\text{UBP})] - [200 * (\text{NLRA})]$$

where:  $\sum \text{PAF}$  = summation of individual pay adjustment factors from Table 401-4

UBP = unit bid price

NLRA = number of localized roughness areas remaining in final pavement surface course

Delete Table 401-5 and substitute with the following:

**Table 401-5  
Asphalt Binder Pay Factor Table**

Tests on Original	Specifications (See 702.01)	Pay Factor =					Reject
		1.05	1.00	0.95	0.90	0.75	
Dynamic Shear Rheometer, kPa	≥ 1.00	≥ 1.12	1.00 to 1.11	0.99 to 0.88	0.87 to 0.71	0.70 to 0.50	< 0.50
<b>Tests after Rolling Thin Film Oven (RTFO)</b>							
Dynamic Shear Rheometer, kPa	≥ 2.20	≥ 2.584	2.583 to 2.200	2.199 to 1.816	1.815 to 1.432	1.431 to 1.048	< 1.048
<b>Tests on Pressure Aging Vessel (PAV)</b>							
Dynamic Shear Rheometer, kPa	≤ 5,000	≤ 4,711	4,712 to 5,000	5,001 to 5,289	5,290 to 5,578	5,579 to 5,867	> 5,867
Bending Beam Rheometer, s, MPa	≤ 300	≤ 262	263 to 300	Use DT	Use DT	Use DT	≥ 600
Bending Beam Rheometer, m	≥ 0.300	≥ 0.313	0.312 to 0.300	0.299 to 0.287	0.286 to 0.274	0.273 to 0.261	< 0.261
Direct Tension <sup>(1)</sup> , %	≥ 1.00	N/A	≥ 1.00	0.99 to 0.86	0.85 to 0.71	0.70 to 0.56	< 0.56

(1) Use Direct Tension (DT) for payment if s-values from the Bending Beam Rheometer are between 300 and 600 MPa.

Delete Table 401-6 and substitute with the following:

**Table 401-6  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	
Aggregate source quality	Measured and tested for conformance (106.04 & 105)	L.A. abrasion (coarse)	—	AASHTO T 96	1 per type & not less than 5 per source of material <sup>(1)</sup>	Source of materials	Yes	Before producing	
		Sodium sulfate soundness loss (coarse & fine)	—	AASHTO T 104	“	“	“	“	
		Accelerated weathering	—	WFLHD-DMSO	“	“	“	“	“
		Durability Index (coarse & fine)	—	AASHTO T 210	“	“	“	“	“
		Gradation	—	AASHTO T 27 & T 11	1 per submitted mix design	Stockpiles	Yes	28 days before	
Asphalt concrete (mix design)	Measured and tested for conformance (106.04)	VMA	—	AASHTO R 35	“	—	—	“	
		VFA	—	“	“	—	—	“	
		Voids	—	“	“	—	—	“	
		TSR	—	AASHTO T 283	“	—	—	“	

**Table 401-6 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	
Asphalt binder	Measured and tested for conformance (106.04)	Quality	—	Subsection 702.01	1 per submitted source & mix design	In line between tank & mixing plant	2 – 1-quart samples	—	
		Mix temperature	—	—	1 per 2100 t of mix, but not less than 5 samples	Hauling vehicle before dumping or windrow before picking up	—	Upon completing test	
Hot asphalt concrete pavement (control strip)	Statistical (106.05)	Gradation		AASHTO T 308 & T 30	3 minimum	Behind paver before compacting	Yes	4 hours	
		No. 4	I						
		No. 30	I						
		No. 200	I						
		Other specified sieves	II						
		Asphalt content	I		AASHTO T 308 & T 329	“	“	“	“
		VMA	I		AASHTO R 35	“	“	“	“
		VFA	I		“	“	“	“	“
		Core density <sup>(2)</sup>	I		AASHTO T 166	5 minimum	In-place after compacting	Cores to CO after determining specific gravity & compaction	—
		Maximum specific gravity (density)	—		AASHTO T 209	1 <sup>(3)</sup>	Behind paver before compacting	Yes	24 hours

**Table 401-6 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Hot asphalt concrete pavement (production)	Statistical (106.05)	Asphalt content	I	AASHTO T 308 & 329	1 per 700 tons	Behind paver before compacting	Yes	4 hours
		VMA	I	AASHTO R 35	"	"	"	"
		Core density <sup>(2)</sup>	I	AASHTO T 166	"	In-place	Cores to CO after determining specific gravity	24 hours
Hot asphalt concrete pavement (final surface)	Measured and tested for conformance (106.04)	VFA	—	AASHTO R 35	"	Behind paver before compacting	Yes	4 hours
		Gradation	—	AASHTO T 308 & T 30	"	"	"	"
		Maximum specific gravity (density)	—	AASHTO T 209	1 per day <sup>(3)</sup>	"	"	"
		Type I & II smoothness	I	FLHT T 504	See Subsection 401.16	See Subsection 401.16	14 days after final paving	

**Table 401-6 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Hot asphalt concrete pavement (final surface)	Measured and tested for conformance (106.04)	Type III & IV roughness	—	AASHTO PP 49 & PP 50	See Subsection 401.16	See Subsection 401.16	—	14 days after final paving

(1) Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use. Obtain samples representative of aggregate being furnished. Include rock type and sample location on test reports.

(2) For each days production cut core samples from the compacted pavement. Obtain cores as soon as the pavement has cooled sufficiently to allow coring, but not later than 12 hours after final rolling. Fill and compact the sample holes with asphalt concrete mixture. Make cores 6 inches in diameter. Perform specific gravity and thickness tests on cores and deliver to CO after testing is completed. Label cores and protect from damage due to handling or alteration due to temperature during storage or transfer.

(3) A single maximum specific gravity will be determined and used for each day's production. The CO will determine on which random mix sample the maximum specific gravity is to be determined.

## **Section 412.— ASPHALT TACK COAT**

### **Construction Requirements**

**412.07 Acceptance.** Delete the text of the first paragraph and substitute with the following:

Emulsified asphalt will be evaluated under Subsections 106.02, 106.03, and 702.09.

03USC01/01/04

## **Section 551.— DRIVEN PILES**

### **Construction Requirements**

**551.08 Preparation and Driving.** Delete the second paragraph and substitute with the following:

Drive piles to within 3 inches of plan location at cutoff elevation. Install no pile closer than 6 inches to any cap face. Drive piles so that the axial alignment is within 1/4 inch per foot, along the longitudinal axis, of the required alignment. The CO may stop driving to check the pile alignment. Check alignment of piles that cannot be internally inspected after installation before the last 5 feet are driven. Do not pull laterally on piles or splice to correct misalignment. Do not splice a properly aligned section on a misaligned pile.

Utilize noise reduction devices and methods for pile driving.

## Section 552.— STRUCTURAL CONCRETE

### Material

**552.02** Add the following to the material list:

Flexible cellular joint filler

712.01(a)(6)

### Construction Requirements

**552.03** **Composition (Concrete Mix Design).** Amend as follows:

Delete Table 552-2 and substitute with the following:

**Table 552-2**  
**Minimum Air Content for Air Entrained Concrete**

Nominal Maximum Aggregate Size <sup>(1)</sup>	As Delivered Minimum Air Content <sup>(2)(3)</sup> (%)
2½ inch	3.5
2 inch	3.5
1½ inch	4.0
1 inch	4.5
¾ inch	4.5
½ inch	5.5

(1) Meet the processing requirements of AASHTO M 43, Table 1 – Standard Sizes of Processed Aggregate.

(2) These air contents apply to the total mix. When testing these concretes, aggregates larger than 1½ inches is removed by handpicking or sieving, and air content is determined on the minus 1½ inches fraction of the mix. Air content of the total mix is computed from the value determined on the minus 1½ inches fraction.

(3) For P(AE) concrete, reduce the as delivered minimum air content by 1.0 % and use a maximum air content of 6.0 %

(v) Delete Table 552-3 and substitute with the following:

**Table 552-3  
Required Average Compressive Strength When Data  
Are Not Available to Establish a Standard Deviation**

Specified Compressive Strength ( $f'_c$ ) (pounds per square inch)	Required Average Compressive Strength ( $f'_{cr}$ ) (pounds per square inch)
Less than 3000	$f'_c + 1000$
3000 to 5000	$f'_c + 1200$
Over 5000	$1.10f'_c + 700$

**552.08 Delivery. (a) Truck mixer/agitator.** Add the following:

Do not exceed 130 total revolutions at mixing speed, including both initial mixing and remixing. Do not exceed 300 total revolutions, including both mixing and agitating speed.

**552.09 Quality Control of Mix. (b) Delivery and sampling.** Delete paragraph (4) and substitute with the following:

(4) Take samples according to AASHTO T 141 from specified loads. Composite samples are not required. Provide cylinder molds. Make at least 4 cylinders for compressive strength tests. Label each concrete cylinder mold with the project name, project number, the cylinder number, date molded, and location of the sample. Mark one cylinder “7 day test”, one cylinder “14 day test”, and two cylinders “28 day test”. Labeling on the lid only is not allowed. Use a permanent ink or paint marker to ensure that the label remains legible throughout the curing period.

After initial curing, furnish and maintain a suitable environment to cure cylinders according to WFLHD T 23-94. Provide suitable containers to protect and continue the curing of cylinders while transporting.. Deliver cylinders to the Vancouver Laboratory according to Subsection 154.02. Cylinders will be tested at 7, 14, and 28 days from the date molded. Ensure cylinders arrive at the Vancouver Laboratory at least 1 day before the designated test date.

**552.12 Construction Joints.** Delete the third paragraph and substitute with the following:

When the joint is between two fresh concrete placements, rough float the first placement to thoroughly consolidate the surface and leave the surface in a roughened condition. Clean the joint surface of laitance, curing compound, and other foreign material. Use an abrasive blast or other approved method to expose the aggregate on the joint surface. Re-tighten forms where the joint overlaps the first placement. Immediately before placing new concrete, flush the joint surface with water and allow to dry to a surface dry condition.

**552.15 Curing Concrete.** Add the following to the fourth paragraph:

Cure all concrete structures a minimum of 7 days prior to contact with bodies of water to avoid leaching.

**552.16 Finishing Formed Concrete Surfaces.** Amend as follows:

**(h) Class 8 - Refinishing.** Add the following paragraph:

Clean and refinish according to the appropriate class any concrete surfaces which are exposed to view (e.g., piers, columns, web walls, etc.) and have become streaked and unsightly due to spilled mortar, leaching, or some other cause.

Delete Table 552-9 and substitute with the following:

**Table 552-9  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
A aggregate source quality (703.02)	Measured and tested for conformance (106.04 & 105)	Quality	AASHTO M 80	1 per material type	Source of material	Yes	Before producing
Concrete composition (mix design)	Measured and tested for conformance (106.04 & 105)	All	Subsection 552.03	1 per mix design	Source of material	Yes	Before producing
Produceed 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 225	—	“	“	“

**Table 552-9 (continued)  
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Concrete (552.09(b)(3))	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	—	AASHTO T 119	“	“	—	“
		Temperature	—	Field measured	“	“	—	“
Structural concrete (552.09(b)(3))	Statistical (106.05)	Compressive strength <sup>(3)</sup>	II	AASHTO T 23 & T 22	1 set per 30 yd <sup>3</sup> but not less than 1 per day	Discharge stream at point of placing	Note 4	See Subsection 552.09(b)(4)

- (1) Sample according to AASHTO T 141 except composite samples are not required.
- (2) Cast at least 4 compressive strength cylinders. Carefully transport cylinders to curing facility. Transport cylinders to WFLHD materials laboratory for testing. See Subsection 154.02.
- (3) A single compressive strength test result is the average result from 2 cylinders cast from the same load and tested at 28 days.
- (4) Deliver cylinders to designated laboratory for test.

**Section 553.— PRESTRESSED CONCRETE****Construction Requirements**

**553.08 Shoring Transporting, and Erecting.** Add the following after the second paragraph:

Do not cast bent diaphragms until a minimum of 90 days after stressing the precast girder.

**Section 554.— REINFORCING STEEL****Construction Requirements**

**554.08 Placing and Fastening.** Delete the first paragraph and substitute with the following:

Place, fasten, and support the bars according to the CRSI *Manual of Standard Practice*. Use precast concrete blocks or metal supports. Attach concrete block supports to the supported bar with wire cast in the center of each block. Use class 1 (plastic protected) or class 2, type B (stainless steel protected) metal supports in contact with exposed concrete surfaces. Use stainless steel conforming to ASTM A 493, type 430.

## **Section 575.— MINOR BRIDGE WORK (ADDED SECTION)**

### **Description**

**575.01** This work consists of design, construction, inspection and removal of temporary bridge work pads for construction of the new bridge.

### **Material**

**575.02** Select material consistent with the safety and quality required by the design.

### **Construction Requirements**

**575.03** Construct temporary bridge work pads from the edge of the existing roadway between 117+00 and 121+00 for the construction of the bridge bents and the placement of the prestressed concrete beams. Construct the temporary work pads using piling, timber bents, rock, contained fill or other methods that will minimize impacts to Fernan Lake. Provide a temporary work pad plan to the CO for review 30 days prior to construction.

Schedule a pre-work meeting with the CO at least two weeks prior to beginning work. Review specific proposals for methods, equipment and material to be used for construction of the temporary bridge work pads.

Prepare and submit construction drawings according to Subsection 104.03. Provide detail descriptions of equipment, materials, staging and any other information necessary to control the work and to minimize impacts to the surroundings of Fernan Lake.

Do not ground barges or watercraft on the lakebed.

**575.04 Acceptance.** Temporary bridge work pads will be evaluated under Subsection 106.02, 106.03 and 106.04.

### **Measurement**

**575.05** Measure temporary bridge work pads by the lump sum. Include removal of the temporary bridge work pads.

### **Payment**

**575.06** The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 575 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Special Contract Requirements

Project: ID PFH 80-1(1), Fernan Lake Road

## **Section 601.— MINOR CONCRETE STRUCTURES**

### **Construction Requirements**

**601.07 Acceptance.** Delete the text of this Subsection and substitute with the following:

Material for minor concrete structures will be evaluated under Subsections 106.02 and 106.03.

Excavation and backfill will be evaluated under Section 209.

Construction of minor concrete structures will be evaluated under Subsections 106.02 and 106.04.

Delete Table 601-2 Sampling and Testing Requirements.

## Section 602.— CULVERTS AND DRAINS

### Description

#### 601.01 Add the following:

This work consists of painting exposed culvert pipe sections, conserving and placing streambed material at selected culverts and providing and placing bedding and foundation material for the box culverts and culverts. It also includes the installation and removal of the temporary culvert for the waste area.

### Material

#### 602.02 Add the following to the material list:

Paint	708.04
Foundation Fill	704.01
Bedding material	704.02

### Construction Requirements

#### 602.03 **General.** Add the following:

Carefully remove and conserve the native streambed materials at pipe locations designated in the plans that require streambed material to be placed inside of the pipe. Place this material inside of the pipe once the new culvert has been installed as shown on the plans.

Place the foundation fill and bedding material under the concrete box culverts and culvert pipes as shown on the plans.

Install and remove the temporary culvert for the waste area shown on the plans as directed by the CO.

#### 602.07A **Painting Metal Pipe.** (Added Subsection.)

Clean all metal pipe surfaces prior to painting. Paint all outside exposed pipe sections on the outlet side with a steel primer and an acrylic latex flat finish coating. Submit color chips to the CO that closely match the surrounding soils. One color is anticipated for all of the culverts.

Outside exposed pipe sections may be painted in place or prior to installation. Painting the interior of the pipe is not necessary. If painting is completed prior to installation, spot paint all exposed painted surface areas that are damaged during installation.

Special Contract Requirements

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**602.08 Acceptance.** Add the following:

See Table 602-1 for minimum sampling and testing requirements.

Painting of culvert pipe will be evaluated under Subsections 106.02 and 106.04.

Streambed material placement will be evaluated under Subsection 106.02.

Bedding material will be evaluated under Subsection 106.02.

**Measurement**

**602.09** Add the following:

Do not measure painting culvert pipe separately.

Do not measure conserving and placing native streambed material separately.

Do not measure bedding material and foundation material separately.

Do not measure the removal of the temporary culvert for the waste area shown on the plans separately. This work is considered incidental. Include all costs associated with this work in the unit bid price for the temporary culvert.

**Payment**

**602.10** Add the following

Include all costs associated with preparing and painting the culvert pipe in other bid items in this Section.

Include all costs associated with the conserving, stockpiling, and placing of the native streambed material in other bid items in this Section.

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

### **Description**

#### **605.01** Add the following:

This work also consists of furnishing and installing underdrain systems using pipe, granular backfill, and geotextile.

03USC03/29/06

## **Section 617.— GUARDRAIL**

### **Material**

#### **617.02** Add the following:

Use alternate hole arrangement detail as shown on Standard 617-10.

### **Construction Requirements**

#### **617.04 Rail Elements.** Add the following:

Install reflector tabs as shown on the plans.

#### **617.05 Terminal Sections.** Add the following:

Provide impact attenuators 24 feet long and 2 feet wide that provide attachment to standard thrie-beam guardrail as shown in the plans. Use impact attenuators that meet NCHRP Test Level 2, and are of a non-gating design. Nest thrie-beam and w-beam rail sections to prevent vehicle snagging during reverse direction impacts.

Special Contract Requirements

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## Section 620.— STONE MASONRY

### Description

**620.01** Add the following:

This work consists of constructing stone masonry sign bases, constructing and installing the USFS sign and installing a government furnished plaque.

### Material

**620.02.** Add the following to the materials list:

Aggregate	703.05
Manufactured stone	705.08
Paint	708
Reinforcing steel	709.01
Timber structures	716

### Construction Requirements

**620.03 General.** Add the following:

Excavate and prepare the foundation as shown on the plans. Construct the stone masonry sign base at the location specified by the CO and as shown on the plans. Construct the aggregate access pad and shape to drain.

The plaque and marker will be provided by the government. Contact the CO for delivery of the plaque and marker. Install it in accordance with the plans.

Construct the USFS sign in accordance with the plans. Provide three sets of shop drawings for the sign to the CO for approval prior to ordering materials. Include paint color chips, material specifications and lettering fonts and sizes. Install the sign on the sign base and connect as shown in the plans.

**620.04 Placing Stone.** Delete the first paragraph and substitute with the following:

Place stone to provide a uniform pattern and color. Do not place stone masonry when the ambient temperature is below 32° F. Maintain completed masonry at a temperature above 40 °F for 24 hours after construction. Clean all stones thoroughly and moisten immediately before placing. Clean and moisten the bed. When removing and resetting stone masonry, use hand tools to clean the exposed faces of the stones of all mortar before resetting.

Special Contract Requirements

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**620.10 Acceptance.** Add the following:

Aggregate base will be evaluated under Section 301.

Reinforcing steel will be evaluated under Section 554.

Timber will be evaluated under Section 557.

**Measurement**

**620.11** Add the following:

Measure stone masonry sign base by the Cubic Yard. Include the cost of installing the government furnished plaque.

Do not measure the USFS sign separately. All materials, equipment and labor required to construct and install the sign are to be considered incidental and included in the unit bid price for the sign base.

## Section 622.— RENTAL EQUIPMENT

### Description

**622.01** Delete the text of this Subsection and substitute with the following:

This work consists of furnishing and operating equipment for the construction work as ordered by the CO and listed below. Work under this Section does not include equipment time used to perform work provided for under any other pay item shown in the bid schedule. The work anticipated under this Section includes:

- (a) Perform minor landscaping.
- (b) Additional erosion control measures not included in Section 157 as directed by the CO.
- (c) Construct inlet and outlet ditches not included in Section 602.
- (d) Removal of miscellaneous items as directed by the CO.
- (e) Remove concrete pad at 124+50 RT.
- (f) Stream rehabilitation from 150+00 to 165+00 RT 166+00 to 170+00 RT
- (g) Final placement of root wads as directed by the CO at the following locations:
 

199+40 to 217+40	30 root wads	stream restoration
279+00 to 282+00	20 root wads	waste disposal area
- (h) Wetland mitigation at 165+00 to 170+00 LT as directed by CO.
- (i) Contouring and shaping the stream restoration from 199+40 to 217+40 as directed by the CO.
- (j) Contouring and shaping the vegetated buffer swales at the bridge ends (117+00 RT and 121+00 RT) and the ditch swales near the bridge ends (116+50 LT and 120+50 LT).
- (k) Final placement of habitat tree clusters in Fernan Lake as directed by the CO at the following locations:
 

52+00 to 54+75	3 habitat tree clusters
61+50 to 65+70	3 habitat tree clusters

- (l) Place boulders at locations designated by the CO to discourage unauthorized access at the following locations:

89+35 to 90+90 RT  
103+60 to 105+90 RT  
111+00 to 111+90 RT  
280+00 LT

- (m) Reshape edges of existing parking lot at 280+00 LT for the placement of additional excess material.

- (n) Sculpt, shape, and scarify waste area located at 275+14 to 282+94 RT as directed by the CO.

- (o) Place landscaping logs as shown on the plans and as directed by the CO.

- (p) Place rock weirs at culvert outlets as shown on the plans and as directed by the CO.

**Construction Requirements**

**622.02 Rental Equipment.** Delete the text of the first paragraph and substitute with the following:

Furnish and operate the following equipment:

Number of Units	Type of Equipment
1	Dump Truck, 10 Cubic Yard Minimum Capacity
1	Wheel Loader, 4 Cubic Yard Minimum Rated Capacity
1	Bulldozer, Universal Blade and Ripper, 300HP Minimum
1	Motor Grader, 8 Foot Minimum Blade
1	Hydraulic Excavator, Crawler Mounted, 1 Cubic Yard Minimum Capacity with Thumb Attachment

Submit the model number and serial number for each piece of equipment before use. Make equipment available for inspection and approval before use.

## **Section 623.— GENERAL LABOR**

### **Description**

**623.01** Delete the text of this Subsection and substitute with the following:

This work consists of furnishing workers and hand tools for the work listed in Subsection 622.01.

## **Section 624.— TOPSOIL**

### **Construction Requirements**

**624.04 Placing Topsoil.** Add the following:

Place conserved topsoil in planting pockets shown on the plans and in the MSE retaining wall pocket as directed by the CO.

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

### **Construction Requirements**

**633.04 Supports.** Add the following:

Fabricate sign supports from wood.

**633.05 Panels.** Delete the text of the first paragraph and substitute with the following:

Fabricate sign panels from aluminum. Use Type III, VII, VIII, or IX retroreflective sheeting. For permanent sign panels, use type L-1 letters, numerals, arrows, symbols, and borders. Cut panels to size and shape and drill or punch all holes. Make panels flat and free of buckles, warp, dents, cockles, burrs, and other defects.

## Section 635.— TEMPORARY TRAFFIC CONTROL

### Description

#### **635.01** Add the following:

This work also includes providing the services of a Traffic and Safety Supervisor.

### Construction Requirements

#### **635.03 General.** Added the following:

Provide the necessary traffic control for the revegetation work that will be completed by the USFS. Coordinate the work as needed in accordance with Subsection 104.06.

Place Plastic Fence according to subsection 107.10.

#### **635.08A Traffic and Safety Supervisor.** (Added Subsection.)

Perform services described in Subsection 156.08. Provide all vehicles and incidentals necessary to perform the work.

#### **635.13 Temporary Pavement Markings and Delineation.** Amend as follows:

Add the following after the first paragraph:

Provide temporary pavement markings or delineation according to Section 156, the MUTCD, and project plans. Apply temporary pavement markings (centerline) to the same dimensions and cycle lengths as shown in the plans for permanent pavement markings, including all passing zones. Temporary pavement markings may be allowed to remain in place for more than 14 days when approved by the CO.

Delete the text of paragraph (a) and substitute with the following:

**(a) Preformed retroreflective tape.** Apply according to the manufacturer's instructions. Remove all loose temporary preformed retroreflective tape before placing additional pavement layers.

Tape may not be placed at reduced cycle lengths.

**635.13A Temporary Signs and Vehicle Positioning Guides.** (Added Subsection.)

Temporary signs and vehicle positioning guides may be substituted for temporary pavement markings for up to 14 calendar days. Install “NO CENTER STRIPE” (W8-12), “NO PASSING ZONE” (W14-3), “DO NOT PASS” (R4-1) and “PASS WITH CARE” (R4-2) signs according to the MUTCD. Include the description and location of each sign in an alternate traffic control proposal according to Subsection 156.03. Install vehicle positioning guides (temporary raised pavement markers) spaced 40 feet apart for temporary centerline delineation.

**635.17 Pavement Patch.** Add the following:

Remove all cold asphalt mix from patches less than two years old as directed by the CO and replace with hot asphalt mix before placing hot asphalt on succeeding lifts.

**Measurement**

**635.26** Amend as follows:

Delete the sixth paragraph and substitute with the following:

Measure flaggers, for each hour a person is actually flagging. Round portions of an hour up to the half hour. Measure time in excess of 40 hours per week at the same rate as the first 40 hours.

Add the following:

Do not measure flagging performed by the Traffic and Safety Supervisor when there is a pay item in the bid schedule for Traffic and Safety Supervisor.

Signs used to delineate passing zones and raised pavement markers used for vehicle positioning guides according to Subsection 635.13A will not be measured.

Measure Traffic and Safety Supervisor by the day (24-hour day beginning and ending at midnight) for the work described in Subsection 156.08.

A day will be measured when:

- Construction operations require a Traffic Supervisor during the normal working days;
- The Traffic Control Supervisor makes normal checks during nonwork hours; or
- The Traffic Control Supervisor is called out during nonwork hours.

**Payment**

**635.27** Add the following:

Progress payment for temporary pavement markings will be made upon installation, except that when the pay item includes subsequent removal of the markings, up to 25 percent of the unit bid price may be withheld until the removal is completed.

**Section 636.— SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS**

**Materials**

**636.02** Added the following to the materials list:

Bedding material

704.02

**Construction Requirements**

**636.04 General.** Added the following:

Place a warning tape near the top of the trench noting the presence of a buried utility as shown on the plans.

Bed all conduit with bedding material as shown on the plans.

**Measurement**

**636.12** Added the following:

Do not measure warning tape or bedding material separately for the conduit installation. Include all costs associated with these items in other bid items in this section.

**Section 646.— ROADSIDE DEVELOPMENT  
(ADDED SECTION)**

**Description**

**646.01** This work consists of maintaining mailboxes and supports at temporary locations during construction, and installing new mailboxes on new supports at permanent locations.

**Material**

**646.02** Conform to the following Sections and Subsections:

Concrete	601
Reinforcing Steel	709.01

**Construction Requirements**

**646.03** Protect and maintain existing mailboxes at locations accessible to the delivery agent and persons being served. This may require removing and relocating the boxes more than once during construction. Install the existing mailboxes on new supports in their permanent locations after completion of roadway construction.

If the property owner desires to retain the original support, place support on the owner's property adjacent to the work. Otherwise, dispose of the original support.

Replace contractor-damaged boxes in kind at no additional expense to the Government, or owner.

Provide metal mailboxes which meet or exceed U.S. Postal Service requirements.

Provide mounting brackets, angles, adapter plates, and hardware as shown and galvanize according to AASHTO M 111.

Repair damage to galvanized surfaces, such as the cut end of the tube support frame and drill holes, by applying one coat of a zinc Dust-Zinc Oxide Primer complying with Federal Specifications TT-P-641 or MIL Specifications DOD-P-21035.

Stake mailbox locations before installation for proper height and distance from the roadway. Once, staked, notify the CO and the post office. Allow the CO and Postmaster/Mailcarrier 48 hours to review and approve the staked locations prior to installation.

Special Contract Requirements

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**646.04 Acceptance.** Mailboxes and support frames will be accepted under Subsection 106.03. Mailbox installation will be accepted under Subsection 106.02.

**Measurement**

**646.05** Measure the Section 646 items listed in the bid schedule according to Subsection 109.02.

Measure mailbox supports by the each. Removing, relocating, and maintaining existing mailboxes will be measured under Section 203.

**Payment**

**646.06** The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 646 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

**Section 651.— MISCELLANEOUS ROCK WORK  
(ADDED SECTION)**

**Description**

**651.01 General.** This work consists of furnishing and installing rock nails and other components of a rock fall protection system as shown on the Plans and specified herein.

The term “Rock Nail” or “Nail” as used in these specifications is intended as a generic term and refers to a bar tendon grouted into a drilled hole installed through any type of ground and terminating in rock.

**Materials**

**651.02** Furnish materials new and without defects. Remove defective materials from the job site at no additional cost. Conform to the following Subsections:

Permanent Rolled Erosion Control Product	713.18(c)
Solid, threaded bar nail tendons (Rock Nails)	726.01(a)
High strength steel wire mesh	726.01(b)
Compression claws	726.01(c)
Spike plates	726.01(d)
Boundary wire ropes	726.01(e)
Threaded Fastener Nuts	726.01(f)
Bar couplers	726.01(g)
Miscellaneous materials	726.01(h)
Galvanized Coating	726.01(i)
Centralizers	726.02(a)
Rock Nail grout	726.02(b)
Fine aggregate	726.02(c)
Portland cement	726.02(d)
Admixtures	726.02(e)

Alternate rock fall protection systems from various manufacturers may be proposed provided they meet the minimum material and corrosion requirements specified herein with the additional demonstrated capability of mesh and hardware to safely accept and distribute rock nail loads of at least 55,000 lbs through the system. Use only alternate systems with components that comprise a proven system package by the manufacturer. Provide manufacturer’s drawings and calculations, sealed by a registered engineer, demonstrating that any proposed alternate system is compatible with project objectives for internal and external stability of the slope during and after construction.

Special Contract Requirements

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Provide documented test data from the system supplier/manufacturer to verify a minimum of 5 years demonstrated satisfactory performance of the proposed alternate slope stabilization system applications and capacities.

See information in the Bid Schedule and the Notice to Bidders regarding the submittal of alternate products for consideration as an equal.

**(a) Rock Fall Protection System Components**

**(1) High Strength Steel Wire Mesh:** See Section 726.01(b).

**(2) Miscellaneous Materials:** Miscellaneous hardware intrinsic for the system including, but not limited to:

- 1 inch diameter wire boundary rope;
- rope clamps;
- compression claws;
- spike plates;and
- other required fasteners or system stabilizing elements.

**(3) Rock Nails:** Provide in accordance with Section 726.

**(b) Corrosion Protection.** See Section 726.01(i).

**Construction Requirements**

**651.03 General.** Submit a project reference list verifying the successful construction completion of at least 3 permanent soil/rock nail projects during the past 3 years totaling at least 1000 square yards of wall/slope face area and at least 500 permanent soil/rock nails. Include a brief description of each project with the Owner's name and current phone number.

Provide an on-site rock nail work supervisor who is a registered professional engineer employed by the soil/rock nail company and has experience in the construction of permanent soil/rock nail installations on at least 3 completed projects over the past 3 years. Also provide a drill rig operator with experience installing permanent soil/rock nails on at least 3 projects over the past 3 years. The use of consultants or manufacturer's representatives to satisfy the requirements of this section will not be allowed.

Submit 5 copies of the completed project reference list and a list identifying the supervising engineer, drill rig operator, and on site supervisors assigned to the project at least 30 calendar days before starting the rock fall protection system. Include a summary of each individual's experience on the personnel list and be complete enough for the CO to determine whether each individual satisfies the required qualifications. The CO will notify the Contractor, indicating approval or rejection, within 15 calendar days after receipt of a complete submission. Do not start work or order materials until receiving the CO's written notification of approval of the Contractor' qualifications.

Special Contract Requirements

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Select a method of rock nail installation which includes:

- (a) Temporary casing in the colluvial overburden or use of self-drilling, hollow core nails which provide continuous grout stabilization of the drill hole and can demonstrate acceptable installation and verification test performance.
- (b) Drilling method(s) and equipment that do not compromise stability.
- (c) Final drillhole diameter(s) appropriate for installation of rock nails and development of their required capacity.
- (d) Grouting procedures to meet the performance requirements specified herein.
- (e) Minimizes disturbance to slope. Access roads are not permitted.
- (f) Stabilize drillholes for rock nails at the locations, of specified minimum length, and at the orientation indicated on the Plans.
- (g) Place, and grout the rock nail bars into the drillholes; protect bars as subsequently described to prevent grout contact with threads in the upper 1 foot of bar length below prevailing ground surface to facilitate mesh pretensioning.
- (h) Performance testing of rock nails designated on the Plans and as alternately/additionally selected by the CO.

**651.04 Construction Site Survey, Plan, and Submittals.** Review the available subsurface information, the site geometry, equipment access conditions, and location of existing features. Access roads in the stabilization areas are not permitted.

Survey according to Section 152 and verify limits of the rock fall protection system installation. Prior to start of rock nail installation activity, inspect the site with the CO to observe and document the pre-construction condition of the slope with photos and a narrative description. During construction, observe the conditions in and around the rock nail installation area on a daily basis for signs of ground movement; immediately notify the CO if signs of movements such as new ground cracks, increased size of pre-existing ground cracks, or other evidence of slope deformation are observed.

Submit 5 copies of the following information, in writing, to the CO. Provide submittal item numbers (a) through (e) at least 15 calendar days prior to initiating rock nail installation, and submittal items (f) through (i) at least 15 calendar days prior to start of rock nail installation or incorporation of the respective materials into the work:

- (a) The proposed start date and proposed detailed rock nail installation sequence including.
- (b) Plan describing on-slope construction/access equipment, procedures, and sequencing.

Special Contract Requirements

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- (c) Proposed measures to assure slope stability during various stages of rock nail installation and information on space requirements for installation equipment.
- (d) Proposed methods and materials for extending rock nail length to achieve the required rock bond length.
- (e) Proposed rock nail drilling methods and equipment including drill hole diameter.
- (f) Rock nail grout mix design including:
  - (1) Brand and type of Portland cement.
  - (2) Name and location of material source for aggregate and water.
  - (3) Proportions of mix by weight and water-cement ratio.
  - (4) Manufacturer, brand name and technical literature for proposed admixtures.
  - (5) Compressive strength test results (per AASHTO T106/ASTM C109) supplied by a qualified independent testing laboratory verifying the specified minimum 3 and 28-day grout compressive strengths. Previous test results for the proposed grout mix completed within one year of the start of grouting may be submitted for initial verification and acceptance of the required compressive strengths and start of production work.
- (g) Proposed rock nail grout placement procedures and equipment.
- (h) Proposed rock nail testing methods and equipment setup including:
  - (1) Details of the jacking frame and appurtenant bracing.
  - (2) Details showing methods of providing the temporary unbonded length and of grouting the temporary unbonded length of test rock nails after completion of testing.
  - (3) Equipment list.
- (i) Identification number and certified calibration records for each test jack and pressure gauge and load cell to be used. Jack and pressure gauge shall be calibrated as a unit. Include in the calibration records the date tested, device identification number, and the calibration test results and shall be certified for an accuracy of at least 2 percent of the applied certification loads by a qualified independent testing laboratory within 90 days prior to submittal.

The CO will review the submittals within 15 calendar days after receipt of a complete submission. Do not begin rock nail installation or incorporate materials into the work until the submittal requirements are satisfied and approval has been received in writing from the CO. Changes or deviations from the approved submittals must be re-submitted. No adjustments in contract time will be allowed due to incomplete submittals.

Upon delivery of rock nail bars and rock nail bar couplers to the project site, provide certification of the steel grade.

**651.05 Rock Fall Protection System Installation.** Assemble the rock fall protection system in accordance with the supplier/manufacturer's standards and per the following additional requirements:

- Submit manufacturer designed shop drawings detailing the system for project application in accordance with Subsection 104.03. Properly mark all material to easily identify the system components with the manufacturer's design drawings. Submit the shop drawings to the CO for acceptance 21 days prior to ordering materials;
- Provide a system supplier/manufacturer on-site technical representative to provide initial assistance and direction to the contractor as necessary to assure installation in accordance with system requirements. Assure that the technical assistance remains available to the contractor, as necessary, throughout the duration of the rock fall protection system work including the rock anchor pre-tensioning operations. Conduct the installation of the steel wire mesh in accordance with the supplier/manufacturer's recommendations with amendments, sequencing, and variations as noted below and on the Plans:

**(a) Preparation of the Terrain.** Following slope cutting as shown on the plans and scaling of loose rock as required by the CO, begin rock nail installation.

**(b) Mesh Installation.**

**(1)** Prior to mesh placement, install the permanent rolled erosion control blanket in accordance with the manufacturers recommendations at the locations shown on the plans. Begin mesh sheet placement after the installation and specified curing time for the production rock nails. Treatment of the rock nail head to facilitate mesh pre-tensioning requires that the upper 12 inches of the rock nail that will be below finished ground surface be un-grouted and be protected from grout contact in accordance with Section 726; additionally hand excavate a minimum 4 inch depression around each rock nail head below prevailing ground surface or otherwise provided to allow for mesh drawdown during the tensioning. Proceed with the mesh sheet installation from the top of the stabilization area toward the bottom following placement of the boundary ropes and erosion mat, bringing the mesh firmly into slope contact. Overlap mesh sheets one individual mesh width at the sheet boundaries and secure with compression claws per the manufacturer's requirements.

(2) After positioning of the mesh sheets and spike plates, apply the pretensioning force of 10,000 lb to the rock nails by tightening the rock nail nut against the spike plate to the manufacturer's recommended torque or by another jacking method to produce the desired preload magnitude; torque wrench or jacking equipment shall be calibrated for the project with certification provided to the CO. Conduct the pretensioning in a top to bottom sequence to progressively tighten the mesh to the slope face as uniformly as possible. The purpose of the pretensioning is to secure the face of the slope between rock nail points by developing an uniform confining pressure across its area.

**651.06 Materials Handling and Storage.** Store steel reinforcement on supports to keep the steel from contacting the ground. Protect rock nail steel from dirt, rust, and other deleterious substances prior to installation. Heavy corrosion or pitting of rock nails is cause for rejection by the CO. Light rust that has not resulted in pitting is acceptable. Place protective wrap over the end portion of rock nail bar to which bearing plate and nut will be attached to protect during handling, installation, and grouting.

**651.07 Site Drainage Control.** Provide positive control and discharge of all surface water that will affect installation of the rock nail array. Capture surface water runoff flows and convey them to discharge.

The regional groundwater table is anticipated to be seasonal and generally below the level of the rock nail drillholes based on the results of the geotechnical site investigation. Localized areas of perched water or seepage may be encountered during drilling/installation at the interface of geologic units or from seasonal groundwater seepage areas.

Immediately contact the CO if unanticipated subsurface water conditions are discovered during drilling. Capture the subsurface water runoff flows and convey them to discharge. Suspend work in these areas until remedial measures meeting the CO's approval are implemented.

**651.08 Excavation.** Coordinate the required site/slope access and drilling work so that rock nails are safely installed. Perform the construction sequence in accordance with the Plans and approved submittals. No excavations steeper than those specified herein or shown on the Plans will be made above or below the stabilization area without written approval of the CO.

Where rock blasting is required for the cut slope or adjacent areas within 200 feet of the Slope Stabilization System area, conduct such removals using controlled blasting techniques designed by a qualified blasting consultant. Do not allow blasting to damage completed rock nails, disturb the Slope Stabilization System, disrupt the remaining ground to be nailed, or destabilize the slope above the work area.

**(a) Excavation and Rock Fall Protection System Area Survey Control.** Provide and maintain survey reference and control points at or offset along the top of the slope stabilization area at approximate 30 feet intervals prior to starting rock nail installation. Provide the necessary survey and alignment control for locating and drilling each drillhole within the allowable tolerances and for performing the necessary excavation and rock nail installation in a manner that will allow for constructing the rock fall protection system.

**(b) Rock Nail Slope Excavation.** Below the cut slope catch point, rock nails are to be installed through the prepared cut slopes with provisions for proper rock nail embedment in rock and protection of the rock nail head to facilitate subsequent placement and pre-tensioning of the high-strength stabilization mesh in accordance with the Plans. Cure rock nail grout for at least 72 hours or attain at least the specified 3-day compressive strength before the excavation is conducted. Ensure that installed rock nails are not damaged during excavation of the cut slope. Repair or replace rock nails damaged or disturbed during the excavation to the satisfaction of the CO at no additional cost.

Notify the CO immediately if raveling or local instability of the slope excavation occurs. Stop work in unstable areas until remedial measures are developed.

The Contractor may use a different rock nail installation-slope cutting sequence than illustrated on the Plans, upon satisfactory demonstration to the CO that the alternate procedure provides satisfactory slope stability and will not adversely affect stabilization mesh performance or objectives. Alternative excavation and rock nail installation methods that meet these objectives may be submitted to the CO for review.

**651.09 Rock Nail Installation.** Determine the required drillhole diameter(s), drilling method, grout composition and installation method necessary to achieve the rock nail pullout resistance(s) specified herein or on the Plans, in accordance with the rock nail testing acceptance criteria in Subsection 651.15 Rock Nail Testing Acceptance Criteria. Select the drilling method per the considerations and requirements of Subsection 651.03.

No drilling or installation of production rock nails will be permitted in any soil/rock unit until successful pre-production verification testing of rock nails is completed in that unit and approved by the CO. Install verification test rock nails using the same equipment, methods, rock nail inclination and drillhole diameter as planned for the production rock nails. Perform pre-production verification tests in accordance with Subsection 651.13. The number and location of the verification tests will be as indicated on the Plans or specified herein. Subject to the approval of the CO, verification test rock nails may also be installed at angle orientations other than shown on the Plans or at different locations than specified, as long as the Contractor can demonstrate that the test rock nails will be bonded into ground which is representative of the ground at the verification test rock nail locations designated on the Plans or herein. Install the production rock nails before the application of the rock fall protection system.

**(a) Drilling.** Install the drill holes for the rock nails at the locations, orientations, and lengths shown on the Plans or as directed by the CO. Select drilling equipment and methods suitable for the ground conditions described in the Geotechnical Report and shown in the Boring Logs and in accordance with considerations and requirements of Subsection 651.01. Select drillhole diameter(s) required to develop the specified pullout resistance and to also provide a minimum 1 inch grout cover over the bars. A minimum required drillhole diameter is shown on the Plans. It is the Contractor's responsibility to determine the final drillhole diameter(s) required to provide the specified pullout resistance. Where hard drilling conditions such as rock, cobbles, boulders, or obstructions are encountered, use percussion or other suitable drilling equipment capable of drilling and maintaining stable drillholes through such materials.

Immediately suspend or modify drilling operations if ground subsidence or slope movement is observed.

**(b) Rock Nail Bar Installation.** Provide rock nail bars in accordance with the schedules included in the Plans. Provide centralizers sized to position the bar within 1 inch of the center of the drillhole. Position centralizers, as shown on the Plans, so their maximum center-to-center spacing does not exceed 10 feet. Also locate centralizers within 2 feet from the top and bottom of the drillhole. Securely attach centralizers to the bar so they will not shift during handling or insertion into the drill hole yet will still allow grout tremie pipe insertion to the bottom of drillhole and allow grout to flow freely up the hole. Protect a 1 foot length of bar from grout contact in the zone immediately below finished grade to facilitate Slope Stabilization mesh pretensioning.

Inspect each rock nail bar before installation and repair or replace damaged bars. Check uncased drillhole length in rock for cleanliness prior to insertion of the rock nail bar. Insert rock nail bars with centralizers into the drill hole to the required length in a way that prevents damage to the bar, centralizer, or drill hole. Do not drive or force partially inserted rock nails into the hole. Remove rock nails which cannot be fully inserted to the design depth and clean the drill hole to allow unobstructed installation.

**(c) Rock Nail Installation Tolerances.** Rock nails shall not extend beyond the right-of-way or easement limits shown on the Plans. Rock nail location and orientation tolerances are:

- (1) Rock nail head location, deviation from plan design location; 6 inches any direction.
- (2) Rock nail inclination, deviation from plan; + or - 3 degrees.

Location tolerances are applicable to only one rock nail and not accumulative over large areas.

Rock nails which do not satisfy the specified tolerances, due to the Contractor's installation methods, will be replaced at no additional cost. Backfill abandoned rock nail drill holes with tremied grout.

### **651.10 Grouting.**

**(a) Grout Mix Design.** Use a neat cement grout or a sand-cement grout. Submit the proposed rock nail grout mix design to the CO for review and approval in accordance with Subsection 651.04. The design mix submittal shall include compressive strength test results verifying specification compliance.

**(b) Grouting Equipment.** Use grout equipment that produces a uniformly mixed grout, free of lumps and un-dispersed cement, and is capable of continuously agitating the mix. Use a positive displacement grout pump equipped with a pressure gauge, which can measure at least twice but no more than three times the intended grout pressure. Size the grouting equipment to enable the entire rock nail to be grouted in one continuous operation. Place the grout within 60 minutes after mixing or within the time recommended by the admixture manufacturer, if admixtures are used. Grout not placed in the allowed time limit will be rejected.

**(c) Grouting Methods.** Grout the drillhole after installation of the rock nail tendon. Each drillhole will be grouted within 2 hours of completion of drilling, unless approved by the CO. Inject the grout at the lowest point of each drill hole through a grout tube. Maintain the delivery of grout below the surface of the grout column to prevent the creation of voids. Completely fill the drillhole in one continuous operation. Cold joints in the grout column are not allowed except at the top of the test bond length of proof tested production rock nails.

During casing removal for drillholes advanced by cased methods, maintain sufficient grout level within the casing to offset the external groundwater/soil pressure and prevent hole caving. Maintain grout head or grout pressures sufficient to ensure that the drillhole will be completely filled with grout and to prevent unstable soil or groundwater from contaminating or diluting the grout. Record the grout pressures for rock nails installed using pressure grouting techniques. Control grout pressures to prevent excessive ground heave or fracturing.

Remove the grout and rock nail tendon if grouting is suspended for more than 30 minutes or does not satisfy the requirements of the specification or the Plans, and replace with fresh grout and undamaged rock nail tendon at no additional cost.

**(d) Grout Testing.** Test rock nail grout according to AASHTO T106/ASTM C109 at a frequency of one test per day or a minimum of one test for every 10 nails grouted. Provide grout cube test results to the CO within 24 hours of testing.

**651.11 Rock Nail Installation Records.** Maintain accurate records documenting the rock nail installation. Record the as-built rock nail locations and all other information as shown on the Soil Nail Installation Form, and tabulate as-built information for all installed nails as shown on the Soil Nail Installation Summary Form (see FHWA Publication No. FHWA-SA-93-068: Soil Nailing Inspectors Manual.) Provide the CO with copies of the completed Soil Nail Installation Forms within 24 hours of the completion nail grouting.

**651.12 Rock Nail Testing.** Perform both verification and proof testing of designated test rock nails. Perform pre-production verification tests on sacrificial test rock nails at locations shown on the Plans or listed herein. Perform proof tests on production rock nails at locations selected by the CO. Required rock nail test data shall be recorded by the CO. Testing of any rock nail shall not be performed until the rock nail grout has cured for at least 72 hours and attained at least the specified 3-day compressive strength. Testing in less than 72 hours will only be allowed if the Contractor submits compressive strength test results, for tests performed by a qualified independent testing laboratory, verifying that the rock nail grout mix being used will provide the specified 3-day compressive strengths in the lesser time.

**(a) Proof Test Rock Nail Unbonded Length.** Provide temporary unbonded lengths for each proof test rock nail. Isolate the test rock nail tendon from the reaction frame used during testing. Accepted proof test rock nails may be incorporated as production rock nails provided the temporary test unbonded length is fully grouted subsequent to testing. Submit the proposed test rock nail isolation methods, methods for providing an un-bonded test length and methods for grouting the un-bonded length subsequent to testing to the CO for review and approval in accordance with the Subsection 651.04. Where temporary casing of the un-bonded length of test rock nails is provided, install the casing in a way that prevents any reaction between the casing and the grouted bond length of the rock nail and/or the stressing apparatus.

**(b) Testing Equipment.** Include 2 dial gauges, dial gauge support, jack and pressure gauge, electronic load cell, and a reaction frame in the testing equipment. The load cell is required for the verification test(s) only. Provide description of test setup and jack, pressure gauge and load cell calibration curves in accordance with Subsection 651.04. Design the test reaction frame to be sufficiently rigid and of adequate dimensions/load carrying capacity such that neither excessive deformation of the testing apparatus requiring repositioning of any components nor ground failure occur. Independently support and center the jack over the rock nail bar so that the bar does not carry the weight of the testing equipment. Align the jack, reaction frame, and stressing anchorage with the bar such that unloading and repositioning of the equipment will not be required during the test. Due to the sloping ground and loose condition of the colluvium, special reaction frame considerations will be necessary; the frame and reaction system should be designed or certified by a Registered Professional Engineer in the State of Idaho.

Apply and measure the test load with a hydraulic jack and pressure gauge. Calibrate the jack and pressure gauge by an independent testing laboratory as a unit. Use a pressure gauge graduated in 10 psi increments or less. Provide jack and pressure gauges having a pressure range not exceeding twice the anticipated maximum test pressure. Jack ram travel must be sufficient to allow the test to be done without resetting the equipment. Provide a jack capable of applying each test load increment in less than 1 minute. Monitor the rock nail load during verification tests with both the pressure gauge and the load cell. Use the load cell to maintain constant load hold during the creep test load hold increment of the verification test.

Measure the rock nail head movement with a minimum of 2 dial gauges capable of measuring to 0.001 inch. Provide dial gauges having sufficient travel to allow the test to be done without having to reset the dial gauges. Visually align the dial gauges to be parallel with the axis of the rock nail and support the dial gauges independently from the jack, reaction frame, or slope surface within the influence zone of the test.

**651.13 Pre-production Verification Testing of Sacrificial Test Rock Nails.** Perform pre-production verification testing prior to installation of production rock nails to verify the Contractor's drilling and installation methods and rock nail pullout resistance and design assumptions. Perform two (2) pre-production verification tests at each of the rockfall protection sites specified as directed by the CO and per Subsection 651.09 Rock Nail Installation. Perform verification tests in different soil/rock units and for different drilling/grouting methods proposed to be used as directed by the CO. Verification test rock nails will be sacrificial and not incorporated as production rock nails. Bare bars can be used for the sacrificial verification test rock nails.

Develop and submit the details of the verification testing arrangement including the method of distributing test load pressures to the ground surface (reaction frame), test rock nail bar size, grouted drillhole diameter, and reaction frame dimensioning to the CO for approval in accordance with Subsection 651.04. Construct verification test rock nails using the same equipment, installation methods, rock nail inclination, and drillhole diameter as planned for the production rock nails. Changes in the drilling or installation method may require additional verification testing, as determined by the CO.

Provide verification test rock nails having both bonded and temporary un-bonded lengths. Prior to testing, grout only the bonded length of the test rock nail. Provide the CO with the bonded and un-bonded lengths of the verification test rock nails. Use a temporary un-bonded length of at least 1 meter for the test rock nails. Determine the bonded length of the verification test rock nails based on the production rock nail bar grade and size such that the allowable bar structural load is not exceeded during testing, but not less than 10 feet. Do not use an allowable bar structural load during testing greater than 90 percent of the yield strength for Grade 520 bars. Provide larger verification test bar sizes, if required to safely accommodate the 10 feet minimum test bond length and testing to 1.5 times the allowable pullout resistance requirements, at no additional cost.

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Do not allow the verification test bonded length  $L_{BV}$  to exceed the test allowable bar structural load divided by 2 times the allowable pullout resistance value. Use the following equation for determining the verification test rock nail maximum bonded length to be used to avoid structurally overstressing the verification test rock nail bar size:

$$L_{BV_{max}} = C f_y A_s / 2 Q_d , \text{ (but not less than 120 inches) (10 feet)}$$

$L_{BV_{max}}$  = Maximum Verification Test Nail Bonded Length (ft)

$C$  = 0.9 for Grade 520 bars

$f_y$  = Bar Yield Stress ( psi)  
(Note:  $f_y = 75,000\text{psi}$ )

$A_s$  = Bar Steel Area ( $\text{in}^2$ )

$Q_d$  = Allowable pullout resistance (P/inch, pounds per lineal inch of grouted rock nail length, specified herein or on the Plans)

Determine the Design Test Load (DTL) during verification testing by the following equation:

DTL = Design Test Load (P) =  $L_{BV} \times Q_d$

$L_{BV}$  = As-built bonded test length (in)

$Q_d$  = Allowable pullout resistance (P/inch, pounds per lineal inch of grouted rock nail length, specified herein or on the Plans)

MTL =  $2.0 \times \text{DTL}$  = Maximum Test Load (lb3)

Incrementally load verification test rock nails to a maximum test load of 150 percent of the Design Test Load (DTL) in accordance with the following loading schedule. Record the rock nail movements at each load increment.

### **VERIFICATION TEST LOADING SCHEDULE**

<b><u>LOAD</u></b>	<b><u>HOLD TIME</u></b>
AL (.05 DTL max.)	1 minute
0.25 DTL	10 minutes
0.50 DTL	10 minutes
0.75 DTL	10 minutes
1.00 DTL	10 minutes
1.25 DTL	10 minutes
1.50 DTL (Creep Test)	60 minutes

The alignment load (AL) is the minimum load required to align the testing apparatus. Do not exceed 5 percent of the Design Test Load (DTL). Set dial gauges to “zero” after the alignment load has been applied.

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Hold each load increment for at least 10 minutes. Monitor the verification test rock nail for creep at the 1.50 DTL load increment. Measure rock nail movements during the creep portion of the test and record at 1 minute, 2, 3, 5, 6, 10, 20, 30, 50, and 60 minutes. Maintain the load during the creep test within 2 percent of the intended load by use of the load cell.

**651.14 Proof Testing of Production Rock nails.** Perform successful proof testing on 5 percent (1 in 20) of the production rock nails in each rock nail row or minimum of 1 per row. Use the cable anchor production rock nails as proof test rock nails. The CO will determine the locations and numbers of proof tests.

Provide both bonded and temporary un-bonded lengths for the production proof test rock nails. Grout only the bonded length of the test rock nail prior to testing. Use a minimum of 3 feet for the temporary un-bonded length of the test rock nail. Determine the bonded length of the test rock nail based on the production rock nail bar grade and size such that the allowable bar structural load is not exceeded during testing, and is not less than 10 feet. Construct production proof test rock nails shorter than 12 feet in length with less than the minimum 10 feet bond length with the un-bonded length limited to +3 feet. Do not use the allowable bar structural load during testing greater than 90 percent of the yield strength for Grade 75 bars.

Do not allow the proof test bonded length  $L_{BP}$  to exceed the test allowable bar load divided by 1.5 times the allowable pullout resistance value, or above minimum lengths, whichever is greater. Use the following equation for sizing the proof test rock nail bonded length to avoid overstressing the production rock nail bar size:

$$L_{BPmax} = C f_y A_s / 1.5 Q_d, \text{ (but not less than 10 feet)}$$

$$L_{BPmax} = \text{Maximum Proof Test Rock Nail Bonded Length (ft)}$$

$$C = 0.9 \text{ for Grade 75 bars}$$

$$f_y = \text{Bar Yield Stress (psi)}$$

(Note:  $f_y = 75,000$  psi)

$$A_s = \text{Bar Steel Area (in}^2\text{)}$$

$$Q_d = \text{Allowable pullout resistance (P/inch, pounds per lineal inch of grouted rock nail length, specified herein or on the Plans)}$$

The Design Test Load (DTL) during proof testing shall be determined by the following equation:

$$DTL = \text{Design Test Load (kN)} = L_{BP} \times Q_d$$

$$L_{BP} = \text{As-built bonded test length (in)}$$

$$Q_d = \text{Allowable pullout resistance (P/inch, pounds per lineal inch of grouted rock nail length, specified herein or on the Plans)}$$

$$MTL = 1.5 \times DTL = \text{Maximum Test Load (P)}$$

Perform proof tests by incrementally loading the proof test rock nail to a maximum test load of 150 percent of the Design Test Load (DTL). Measure the rock nail movement at each load and record in the same manner as for verification tests. Monitor the test load by a jack pressure gauge with a sensitivity and range meeting the requirements of pressure gauges used for verification test rock nails. At load increments other than maximum test load, hold the load long enough to obtain a stable reading. Provide incremental loading for proof tests in accordance with the following loading schedule. Record the soil rock nail movements at each load increment.

### **PROOF TEST LOADING SCHEDULE**

<b><u>LOAD</u></b>	<b><u>HOLD TIME</u></b>
AL (.05 DTL max.)	Until Stable
0.25 DTL	Until Stable
0.50 DTL	Until Stable
0.75 DTL	Until Stable
1.00 DTL	Until Stable
1.25 DTL	Until Stable
1.50 DTL (Max. Test Load)	See Below

The alignment load (AL) is the minimum load required to align the testing apparatus and should not exceed 5 percent of the Design Test Load (DTL). Set dial gauges to "zero" after the alignment load has been applied.

Maintain all load increments within 5 percent of the intended load. Depending on performance, perform either 10 minute or 60 minute creep tests at the maximum test load (1.50 DTL). Start the creep period as soon as the maximum test load is applied and measure the rock nail movement and record at 1 minutes, 2, 3, 5, 6, and 10 minutes. Where the rock nail movement between 1 minute and 10 minutes exceeds 1 mm, maintain the maximum test load an additional 50 minutes and record movements at 20 minutes, 30, 50, and 60 minutes.

**651.15 Test Rock Nail Acceptance Criteria.** Test rock nails are considered acceptable when:

- (a) For verification tests, a total creep movement of less than 0.1 inch per log cycle of time between the 6 and 60 minute readings is measured during creep testing and the creep rate is linear or decreasing throughout the creep test load hold period.
- (b) For proof tests, a total creep movement of less than 0.05 inch is measured between the 1 and 10 minute readings or a total creep movement of less than 0.1 inch is measured between the 6 and 60 minute readings and the creep rate is linear or decreasing throughout the creep test load hold period.

(c) For verification and proof tests, the total measured movement at the maximum test load exceeds 80 percent of the theoretical elastic elongation of the test rock nail un-bonded length.

(d) For verification and proof test, a pullout failure does not occur at the maximum test load. Pullout failure is defined as the load at which attempts to further increase the test load simply result in continued pullout movement of the test rock nail. Record the pullout failure load as part of the test data.

Successful proof tested rock nails meeting the above test acceptance criteria may be incorporated as production rock nails, provided that:

(a) The un-bonded length of the test rock nail drillhole has not collapsed during testing.

(b) The minimum required drillhole diameter has been maintained.

(c) The specified corrosion protection is provided.

(d) The test rock nail length is equal to or greater than the scheduled production rock nail length.

Maintaining the temporary un-bonded test length for subsequent grouting is the Contractor's responsibility. If the un-bonded test length of production proof test rock nails cannot be satisfactorily grouted subsequent to testing, replace the proof test rock nail with an additional production rock nail installed at no additional cost.

**651.16 Test Rock Nail Rejection.** If a test rock nail does not satisfy the acceptance criterion, determine the cause.

(a) **Verification Test Nails.** The CO will evaluate the results of each verification test. Reject all installation methods, which do not satisfy the rock nail testing requirements. Propose alternative methods and install replacement verification test rock nails. Install and test replacement test rock nails at no additional cost.

**(b) Proof Test Rock Nails.** The CO may require the Contractor to replace some or all of the installed production rock nails between a failed proof test rock nail and the adjacent passing proof test rock nail. Alternatively, the CO may require the installation and testing of additional proof test rock nails to verify that adjacent previously installed production rock nails have sufficient load carrying capacity. Contractor modifications may include, but are not limited to; the installation of additional proof test rock nails; increasing the drillhole diameter to provide increased capacity; modifying the installation or grouting methods; reducing the production rock nail spacing from that shown on the Plans and installing more production rock nails at a reduced capacity; or installing longer production rock nails if sufficient right-of-way is available and the pullout capacity behind the failure surface controls the allowable rock nail design capacity. The rock nails may not be lengthened beyond the temporary construction easements or the permanent right-of-way shown on the Plans. Installation and testing of additional proof test rock nails or installation of additional or modified rock nails as a result of proof test rock nail failure(s) will be at no additional cost.

**651.17 Acceptance.** Rock nails and the slope stabilization mesh materials will be evaluated under Subsection 106.03. Construction of the rock nails and slope stabilization system will be evaluated under Subsections 106.02 and 106.04.

### **Measurement**

**651.18** Measure rock nails by the lineal foot. Measure the length along the bar centerline from the prevailing finished slope/cut slope line to the bottom tip end of rock nail bar as shown on the Plans.

Measure verification test rock nails by the each for each verification test successfully completed. Failed verification test rock nails or additional verification test rock nails installed to verify alternative rock nail installation methods proposed by the Contractor will not be measured.

Measure proof test rock nail by the each.

Measure rock fall protection slope stabilization system by the square foot of slope face area. Include all labor, manufacturer technical support, materials, equipment, tools, royalties, and other incidentals necessary to install a complete system ready to use.

Roadway excavation will be measured and paid for under Section 204.

Rolled erosion control products will be measured under Section 629.

### **Payment**

**651.19** 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 all work including drilling, materials, material tests, field tests grout, labor, machinery and incidentals necessary to complete the work prescribed in this Section. See Subsection 109.05.

Special Contract Requirements

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## **Section 701.— CEMENT**

**701.01 Hydraulic Cement. (a) Portland Cement.** Delete the text of this Subsection and substitute with the following:

Conform to AASHTO M 85, type V and the low alkali cement criteria of Table 2 – Optional Chemical Requirements.

## Section 703.— AGGREGATE

**703.02 Coarse Aggregate for Concrete.** Delete the text of this Subsection and substitute with the following:

Conform to AASHTO M 80, class A including the reactive aggregate supplementary requirement, except as amended or supplemented by the following:

- |                                       |  |
|---------------------------------------|--|
| (a) Los Angeles abrasion, AASHTO T 96 | 40% max.                                 |
| (b) Adherent coating, ASTM D 5711     | 1.0% max.                                |
| (c) Grading, AASHTO M 43              | All sizes except numbers 8, 89, 9, or 10 |

For bridge decks or surface courses, do not use aggregates known to polish or carbonate aggregates containing less than 25 percent by mass of insoluble residue as determined by ASTM D 3042.

For lightweight coarse aggregate, conform to AASHTO M 195.

**703.05 Subbase, Base, and Surface Course Aggregate.** Amend as follows:

Delete paragraph (a) and substitute with the following:

(a) **General.** Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel meeting the appropriate gradation and conforming to the following:

- |   |          |
|---|----------|
| (1) Los Angeles abrasion, AASHTO T 96   | 35% max. |
| (2) Sodium sulfate soundness loss (5 cycles),<br>AASHTO T 104 (coarse and fine)                                   | 12% max. |
| (3) Durability Index, AASHTO T 210 (coarse and fine)  | 35 min.  |
| (4) Dimethyl Sulfoxide (DMSO), WFLHD Test for Accelerated<br>Weathering of Aggregate by use of Dimethyl Sulfoxide | 12% max. |

Furnish a material that is free from organic matter and lumps or balls of clay. Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

Delete the text in paragraph (b) and substitute with the following:

**(b) Subbase or base aggregate.** In addition to paragraph (a) above, conform to the following:

- |                                     |              |
|-------------------------------------|--------------|
| (1) Gradation                       | Table 703-2A |
| (2) Fractured faces, ASTM D 5821    | 50% min.     |
| (3) SE/P <sub>200</sub> Index (SEP) | 1.000 min.   |

Delete Table 703-2 and substitute with the following:

**Table 703 – 2A**  
**Target Value Ranges for Subbase and Base Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch	100 <sup>(1)</sup>				
2 inch	97 - 100 <sup>(1)</sup>	100 <sup>(1)</sup>	100 <sup>(1)</sup>		
1½ inch		97 - 100 <sup>(1)</sup>			
1 inch	65 - 79 (6)		80 – 100(6)	100 <sup>(1)</sup>	
¾ inch			64 - 94 (6)	86 – 100(6)	100 <sup>(1)</sup>
½ inch	45 - 59 (7)				
3/8 inch			40 - 69 (6)	51 – 82 (6)	62 – 90 (6)
No. 4	28 - 42 (6)	40 - 60 (8)	31 - 54 (6)	36 – 64 (6)	46 - 74 (6)
No. 40	9 - 17 (4)			12 - 26 (4)	12 - 26 (4)
No. 200	10 max <sup>(1)</sup>	10 max <sup>(1)</sup>	10 max <sup>(1)</sup>	10 max <sup>(1)</sup>	10 max <sup>(1)</sup>

(1) Statistical procedures do not apply.

( ) The value in the parentheses is the allowable deviations (±) from the target values.

**703.17 Superpave Asphalt Concrete Pavement Aggregate.** Amend as follows:Add the following:

(h) Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method 12% max. loss

(i) Durability index, AASHTO T 210 (coarse and fine) 35 min.

Delete Table 703-13 and substitute with the following:

**Table 703-13  
Allowable Deviations for Target Value Gradations**

Gradation Range (percent passing)		Allowable Deviation (percent)
Minimum	Maximum	
70.1	89.9	4
60.1	70.0	5
55.1	60.0	6
45.1	55.0	7
40.1	45.0	6
30.1	40.0	5
21.1	30.0	4
8.1	21.0	3
0	8.0	2

## Section 704.— SOIL

**704.02 Bedding Material.** Delete the text of this Subsection and substitute with the following:

Furnish a well graded, free draining material free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material conforming to the following:

- |  |  |
|--|--|
| (a) Maximum particle size                                | 1/2 inch or half the corrugation depth, whichever is smaller |
| (b) Material passing No. 200 sieve, AASHTO T 27 and T 11 | 10% max.   |

**704.07 Select Borrow.** Delete the text of this Subsection and substitute with the following:

Furnish granular material, well graded from coarse to fine, free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material conforming to the following:

- |                               |             |
|-------------------------------|-------------|
| (a) Gradation                 | Table 704-1 |
| (b) Liquid limit, AASHTO T 89 | 30 max.     |

**Table 704-1  
Select Borrow Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 & T 11)
3 inch	100
1 inch	70-100
No. 4	30-70
No. 200	0-5

## Section 705.— ROCK

**705.04 Rock for Special Rock Embankment.** (a) **Mechanically-placed embankments.** Delete table 705-2 and substitute with the following:

**Table 705-2  
Gradation for Rock Embankment**

Percent of Rock Fragments by Mass	Equivalent Cubic Dimension (inches)
75	6-24
25	1-6

03USC06/04/07

## Section 706.— CONCRETE AND PLASTIC PIPE

**706.07 Precast Reinforced Concrete Box Sections.** Delete the text of this Subsection and substitute with the following:

Conform to ASTM C 1433M. Meet the design requirements for HS20 loading.

**706.08 Plastic pipe.** Delete the text of paragraph (d) and substitute with the following:

**(d) Corrugated polyethylene drainage tubing.** Furnish 3 to 10-inch diameter tubing conforming to AASHTO M 252, Type C or CP.

## Section 708.— PAINT

### **708.01 General.** Add the following:

Paint the fiberglass sign with a “Bronze” latex stain. All lettering for the sign will be painted with a latex stain with a Federal Standard Color of bright yellow #23655. Submit paint and stain chips to the CO for approval prior to ordering any paint or stain.

### **708.04 Paint for Steel Structures.** Delete the text and Subsection with the following:

Paint all steel for the USFS sign above the masonry with a rust resistant paint using a charcoal gray 7784 paint color.

Conform to the following:

- |                                      |                      |
|--------------------------------------|----------------------|
| (a) Inorganic zinc primer.           | AASHTO M 300 type II |
| (b) Vinyl wash primer.               | SSPC no. 27          |
| (c) Aluminum vinyl paint.            | SSPC no. 8           |
| (d) White or colored vinyl paint.    | SSPC no. 9           |
| (e) Aliphatic urethane coating.      | USPS-C-644 type I    |
| (f) Latex primer for steel surfaces. | SSPC no. 23          |
| (g) Acrylic latex coating.           | SSPC no. 24          |
| (h) Epoxy coating.                   | SSPC no. 22          |
| (i) Alkyd primer.                    | SSPC no. 31          |
| (j) Silicone alkyd coating.          | SSPC no. 21          |

### **708.05 Penetrating Stain.** Add the following:

Stain all posts for the USFS sign with bleaching oil in a color approved by the CO.

**Section 709.— REINFORCING STEEL AND WIRE ROPE****709.01 Reinforcing Steel.** Amend as follows:

**(b) Reinforcing bars.** Delete the text of this paragraph and substitute with the following:

Furnish deformed, grade 420 bars conforming to AASHTO M 31M or M 332M.

All field bent bars will be ASTM A706

**(d) Tie bars.** Delete the text of this paragraph and substitute with the following:

Furnish deformed, grade 60 bars conforming to AASHTO M 31.

**(e) Hook bolts.** Delete the text of this paragraph and substitute with the following:

Furnish plain, grade 60 bars conforming to AASHTO M 31 with M14 rolled threads or M16 cut threads. Furnish a threaded sleeve nut capable of sustaining a minimum axial load of 15,000 pounds.

**709.03 Prestressing Steel.** Delete the first paragraph and substitute with the following:

Fabricate from one of the following:

- Stress-relieved steel wire, AASHTO M 204M, type BA or WA;
- Uncoated seven-wire steel strand, AASHTO M 203M, grade 270; or
- High-strength steel bars, AASHTO M 275M, type II.

**Section 712.— JOINT MATERIAL**

**712.01 Sealants, Fillers, Seals, and Sleeves. (a) Joint sealants and crack fillers.** Delete the text of paragraph (6) and substitute the following:

(6) Flexible cellular joint filler      ASTM D 1056, type 2, grade 3, 4, or 5

**Section 713.— ROADSIDE IMPROVEMENT MATERIAL****713.05 Mulch. (b) Wood fiber.** Add the following:

Test wood fibers to confirm that they meet all of the foregoing requirements. Weight specifications of the mulch material from suppliers and for all applications, refers only to the air dry mass of the fiber material.

**713.19 Turbidity Curtain.** (Added Subsection.)

Furnish a commercially available construction project turbidity curtain designed to contain silt dispersion in lakes similar to Fernan Lake with a suitable anchoring system. Use a curtain recommended for the lake flow conditions during the time the curtain will be in use. Install the curtain in accordance with the manufacturer's recommendations.

Submit 3 copies of the manufacturer's literature and shop drawings to the CO for acceptance of the turbidity curtain proposed for use on the project a minimum of 14 days prior to ordering. Include manufacturer's literature and recommendations describing installation, maintenance, anchoring and use recommendations and material specifications. Also include details of the bank anchoring system and lake bottom contact area at the specified locations where the curtain will be used.

**713.20 Absorbent Boom.** (Added Subsection.)

Furnish an industrial grade commercially available absorbent boom designed for environmental cleanup that will absorb spill material including fuels and other toxic chemicals either in the water or on land. Utilize the boom in accordance with the manufacturer's recommendations. Submit 3 copies of the manufacturer's literature to the CO for acceptance of the absorbent boom curtain proposed for use on the project a minimum of 14 days prior to ordering. Include manufacturer's literature and recommendations describing installation, maintenance and use recommendations and material specifications.

**Section 714.— GEOTEXTILE AND GEOCOMPOSITE  
DRAIN MATERIAL**

**714.03 Biaxial Geogrid.** (Added Subsection.)

Use geogrid with a regular network of integrally-connected longitudinal and transverse polymer tensile elements with a geometry that permits significant mechanical interlock with the backfill. The geogrid structure shall remain dimensionally stable under construction stresses and have a high resistance to damage during construction, to ultraviolet degradation, and to all forms of chemical and biological degradation encountered in the soil being reinforced.

Identify, store, and handle geogrids according to ASTM D 4873. Limit geogrid exposure to ultraviolet radiation to less than 10 days.

**(a) Physical Requirements.** Provide a biaxial geogrid conforming to Table 714-7.

**Table 714-7  
Physical Requirements for Biaxial Geogrids**

Property	Test Method	Units	Specification
Tensile Strength at 2% Strain	ASTM D 4595	kN/m	6.0
Junction Efficiency	GRI-GG2	%	90
Minimum Aperture Size	Calipered	mm	18.0
Maximum Aperture Size	Calipered	mm	37.0

All strength values in this table are minimum average roll values in the weakest principle direction. Determine minimum average roll values according to ASTM D 4759.

**(b) Evaluation procedures.** Evaluate geogrid according to Subsection 714.01(b).

## Section 717.— STRUCTURAL METAL

**717.01 Structural Steel.** Delete this Subsection and substitute with the following:

(a) **Structural carbon steel.** Structural carbon steel for riveted, bolted, or welded construction shall conform to ASTM A 36. In addition, steel for primary bridge members and fracture critical bridge members shall meet the supplementary requirements for Charpy V-notch test.

(b) **High-strength low-alloy structural (HSLA) steel.** High-strength, low-alloy structural steel, or steel requiring enhanced atmospheric corrosion resistance for riveted, bolted, or welded construction, use steel conforming to ASTM A 588. In addition, steel for primary bridge members and fracture critical bridge members shall meet the supplementary requirements for Charpy V-notch test.

(c) **Bolts and nuts.** Conform to ASTM A 307.

(d) **High-strength bolts, nuts, and washers.** Conform to either AASHTO M 164 or AASHTO M 253, as specified. Use Type 3 bolts in combination with unpainted weathering structural steel.

**Section 718.— TRAFFIC SIGNING AND MARKING MATERIAL**

**718.14 Waterborne Traffic Paint. (g) Daylight reflectance.** (Without glass beads) Delete the text of this Subsection and substitute with the following:

- |                         |  |
|-------------------------|--|
| (1) White, ASTM E 1347  | 84% relative to magnesium oxide standard |
| (2) Yellow, ASTM E 1347 | 55% relative to magnesium oxide standard |

## Section 720.— STRUCTURAL WALL AND STABILIZED EMBANKMENT MATERIAL

### 720.04 Modular Block-faced Wall. (Added Subsection.)

Furnish industrial grade commercially available modular concrete blocks for mechanically stabilized earth retaining walls similar to the walls located on the private property between 65+00 and 70+00 RT. Submit 3 copies of the manufacturer's literature to the CO for acceptance of the modular blocks proposed for use on the project a minimum of 14 days prior to ordering. Include manufacturer's literature and recommendations describing installation, maintenance and use recommendations and material specifications. Also include a block representing the color best matching the surrounding soils 14 days prior to ordering.

### 720.05 Geogrid. (Added Subsection.)

Manufacture the geogrid as a regular network of integrally-connected longitudinal and transverse polymer tensile elements with a geometry that permits significant mechanical interlock with the backfill. The geogrid structure shall remain dimensionally stable under construction stresses and have a high resistance to damage during construction, to ultraviolet degradation, and to all forms of chemical and biological degradation encountered in the soil being reinforced.

(a) **Physical Requirements.** Provide a geogrid with a minimum tensile strength,

$$T_a = 5144 \text{ lbs/ft}$$

Where:

$$T_a = \frac{T_{ult}}{RF \times 1.5}$$

and 
$$RF = FS_{ID} \times FS_{CR} \times FS_D$$

Determine  $T_{ult}$  (Ultimate Tensile Strength) according to ASTM D 4595 (or Geosynthetic Research Institute tests GR1 and GR2) and ASTM D 4759. For the specific geogrid material type and model to be used, determine  $FS_{ID}$ ,  $FS_{CR}$ , and  $FS_D$  according to the criteria listed below. Extrapolations and or interpolations between product types, material types, and models will not be allowed.

$FS_{ID}$  Determine the Partial Factor of Safety for Installation Damage from the results of full scale construction damage tests conducted according to ASTM D 5818. Conduct the tests with a crushed, angular, and durable granular material with a  $D_{50}$  of 2 inches. Use a default value of 3.0 if no installation damage testing has been conducted. The minimum value for  $FS_{ID}$  is 1.1.

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$FS_{CR}$  Determine the Partial Factor of Safety for Creep Deformation according to ASTM D 5262. Collect test data for a minimum duration of 10,000 hours for both standard and elevated temperatures. Extrapolate the test results to a 75-year design life as provided in Appendix B of FHWA Publication No. FHWA-NHI-00-043, Mechanically Stabilized Earth Walls and Reinforced Soil Slopes C Design and Construction Guidelines. If testing has not been conducted, default values for  $FS_{CR}$  are:

<u>Polymer Type</u>	<u><math>FS_{CR}</math></u>
Polyester	2.5
Polypropylene	5.0
Polyethylene	5.0

$FS_D$  The Durability Reduction Factor is dependent on the susceptibility of the geogrid to attack from chemicals, thermal oxidation, hydrolysis, stress cracking, and microorganisms. Manufacturer recommended reduction factors may be used for  $FS_D$ . When this factor is not obtained, the minimum reduction factor for the combined effects of chemical and biological degradation is:

<u>Polymer Type</u>	<u><math>FS_D</math></u>
Polyester	2.0
Polypropylene	1.1
Polyethylene	1.1

Identify, store, and handle geogrids according to ASTM D 4873. Install in accordance with manufacturer's recommendations and CO approval. Limit geogrid exposure to ultraviolet radiation to less than 10 days.

**(b) Evaluation procedures.** Geogrid will be evaluated under Subsection 106.03. Furnish a production certification that the geogrid supplied meets the respective index criteria set forth in these specifications. State on the certification the name of the manufacturer, product name, style number, chemical composition of the filaments, ribs, or yarns, and other information to fully describe the geogrid. In case of dispute over the validity of values, the CO can require the contractor to supply test data from an agency-approved laboratory to support the certified values submitted.

When samples are required, remove a 3.3-foot long, full-width sample from beyond the first outer wrap of the roll. Label the sample with the lot and batch number, date of sampling, project number, item number, manufacturer, and product name.

## **Section 726.— ROCK NAIL MATERIALS (ADDED SECTION)**

### **726.01 Rock Nails.**

**(a) Threaded Bar Nail Tendons (Rock Nails).** AASHTO M31/ASTM A615, Grade 520 reinforced bar. Provide No.9 threaded bar, continuous without splices or welds, new, straight, and undamaged with an allowable load of 22 psi and galvanization per Subsection 726.01(i). Threading may be continuous spiral deformed ribbing provided by the bar deformations (e.g., continuous threadbars) or may be cut into a reinforcing bar. If threads are cut into a reinforcing bar, provide the next larger bar number designation from that shown on the Plans.

**(b) High Strength Steel Wire Mesh.** Provide woven, diamond-shaped high strength wire mesh made of 1/8 inch diameter wire of high-performance, high-tensile, alloyed high strength carbon steel wire with a minimum tensile strength of 262 ksi and galvanized per Subsection 726.01(i). Provide mesh with opening dimensions of 3 inch by 5 inch and a circular clearance of 2.5 inches. Provide mesh with looped, twisted, and fastened wires to prevent unraveling.

**(c) Compression Claws.** Provide compression or press claws of ¼ inch diameter carbon steel with a hot dipped galvanized coating of minimum .0034 inches thickness. Provide compression claws of size necessary to fasten meshes together and attach mesh to boundary wire ropes.

**(d) Spike Plates.** Provide diamond-shaped spike plates with a width of 8 inch and a length of 12 inch made of 3/8 inch thick steel galvanized per Subsection 726.01(i).

**(e) Boundary Wire Ropes.** Provide ½ inch diameter steel wire rope and clips for attachment of mesh at system boundaries and at internal locations as shown on the Plans. Provide rope of 6 x 19 construction, IWRC with minimum breaking strength of 18,900 lb-force and galvanization per Subsection 726.01(i).

**(f) Threaded Fastener Nuts.** Conform to ASTM A307 with galvanization per Subsection 726.01(i).

**(g) Bar Couplers.** Furnish bar couplers galvanized per Subsection 726.01(i) that will develop the full ultimate tensile strength of the bar as certified by the manufacturer.

**(h) Miscellaneous Materials.** All miscellaneous materials for system assembly such as wire rope clips, thimbles, etc., are to be provided by the supplier to assure necessary fastening and compatibility of system components.

(i) **Galvanized Coatings.** After fabrication, galvanize all components according to AASHTO M111. Provide corrosion protection with a 100-year system design life. Apply a minimum application rate of 0.8 oz/ft<sup>2</sup> unless otherwise specified.

**726.02 Rock Nail Appurtenances.**

(a) **Centralizers.** Manufactured from Schedule 40 PVC pipe or tube, steel or other material not detrimental to the rock nail steel (wood shall not be used); securely attached to the rock nail bar; sized to position the rock nail bar within 1 inch of the center of the drillhole; sized to allow tremie pipe insertion to the bottom of the drillhole; and sized to allow grout to freely flow up the drillhole.

(b) **Rock Nail Grout.** Neat cement or sand/cement mixture with a minimum 3-day compressive strength of 1.5 ksi and a minimum 28-day compressive strength of 3.0 ksi per AASHTO T106/ASTM C109.

(c) **Fine Aggregate.** AASHTO M6/ASTM C33.

(d) **Portland Cement.** AASHTO M85/ASTM C150, Type I, II, III or V.

(e) **Admixtures.** AASHTO M194/ASTM C494. Furnish admixtures which control bleed, improve flowability, reduce water content and retard set. Admixtures subject to review and acceptance by the CO. Accelerators are not permitted. Expansive admixtures may only be used in grout used for filling sealed encapsulations. Furnish admixtures compatible with the grout and mixed in accordance with the manufacturer's recommendations.

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