

Department of Transportation
Federal Highway Administration
Central Federal Lands Highway Division

PLH 523-1(1)
Bear River Access Road
Bear River Migratory Refuge
Box Elder County, Utah

INVITATION FOR BID

This invitation for bid cites Federal Highway Administration
Specifications FP-03, 2003, Metric Version

Cut & Paste on Bid Submittal Envelope

OF-17 (cflhd7/03) FAR (48) CFR 53.214(g)
OFFER LABEL FAR (48) CFR 53.215-1(h)

NOTICE TO OFFEROR

1. THIS LABEL MAY ONLY BE USED ON ENVELOPES LARGER THAN 156 mm (6 ½ INCHES) IN HEIGHT AND 292 mm (11 ½ INCHES) IN LENGTH.
2. Print or type your name and address in the UPPER left corner of the envelope containing your offer.
3. Complete the bottom portion of this form and paste it on the lower left corner of the envelope, unless the envelope is 156 mm by 292 mm (6 ½ inches by 11 ½ inches) or smaller.

OFFER

SOLICITATION NO.

DATE FOR RECEIPT OF OFFERS

TIME FOR RECEIPT OF OFFERS

OFFICE DESIGNATED TO RECEIVE OFFERS

Contractor _____

Street Address _____

City/State/Zip _____

State: Utah

County: Box Elder

Location: Bear River Migratory Refuge

Length: Schedule A = 2.702 km
Schedule B = 4.922 km
Schedule C = 5.822 km

Type of Improvement: Grading, Drainage, Base, Superpave Asphalt
Concrete Pavement, signing and striping,
fencing, concrete sidewalk, and traffic control

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NOTICE TO BIDDERS AND OFFERORS

Before mailing your offer, please check the following:

- Your offer sets forth full, accurate, and complete information as required by this solicitation, including representations and certifications/bidder qualifications and acknowledgement of any amendments that may have been issued.
- You have completed the bid schedule and checked your bid figures, including calculations on your work sheets.
- You have provided the required minimum Bid Guarantee in proper form and amount including Power of Attorney Affidavit. See FAR Provision 52.228-1.
- You have completed and signed all required documents.

INVITATION FOR BID BOOKLET

It is the responsibility of the bidder to verify that this solicitation booklet is complete as listed in the table of contents. Also, the bidder is responsible for submitting all required forms and documents with the bid.

Applicable FAR provisions and clauses in this IFB are incorporated by reference or full text. FAR provisions and clauses incorporated by reference can be accessed on the Internet at www.arnet.gov/far/. Bidders are strongly encouraged to review the provisions and clauses referenced in this document before submitting a bid.

Bidders **must** fill out and submit with their offers: (1) this page completed, which indicates interest in partnering; (2) pages A-1 and A-2; (3) pages number B-1 through B-27; (4) Sections C and D in their entirety; and (5) page F-3 of the Contract Clauses indicating Bidder's option to waive the price evaluation preference for HUBZone Certified Firms. The remaining pages may be retained by the bidder for their information.

PARTNERING (See Subsection 103.05 of the FP)

Please indicate your interest in participating in Partnering by checking the appropriate blank below.

The offeror is interested in participating in partnering.

The offeror is not interested in participating in partnering.

NOTICE TO BIDDERS AND OFFERORS

BONDING

FAR Provision 52.228-1, Bid Guarantee, requires a bid guarantee of not less than 20 percent of the amount of the bid (see page A-3). A bid bond from a corporate surety must be from a surety acceptable to the Government as appearing on the Department of the Treasury's list of approved sureties. The bid bond must have an original signature and an embossed seal for the surety. If a Power of Attorney is required with the bid bond, an original, photocopy or facsimile of an original Power of Attorney is sufficient evidence of authority to bind the surety. If the Power of Attorney form contains any language stating that the Power of Attorney can be revoked at any time, the document must contain an original signature or an embossed seal in the certification section.

Small business concerns, including minority business enterprises, may obtain assistance in securing necessary bonding for this project by contacting the office of the Small Business Administration located in their State.

ATTENTION: Minority, Women-owned, and Disadvantaged Business Enterprises (DBEs). The Department of Transportation (DOT), offers working capital financing and bonding assistance for transportation related contracts. DOT's Bonding Assistance Program (BAP) offers bid, performance and payment bonds on contracts up to \$1,000,000. DOT's Short-Term Lending Program (STLP) offers lines of credit to finance accounts receivable. Maximum line of credit is \$500,000 with interest at the prime rate. For further information, call (800) 532-1169. Internet address: <http://osdbuweb.dot.gov>.

INDIVIDUAL SURETIES

See FAR contract clause 52.228-11, Pledges of Assets.

UTILIZATION OF SMALL BUSINESS, HUBZone SMALL BUSINESS, SMALL DISADVANTAGED BUSINESS, WOMEN-OWNED SMALL BUSINESS, VETERAN OWNED, AND SERVICE-DISABLED VETERAN OWNED SMALL BUSINESS CONCERNS SUBCONTRACTING PROGRAM

FAR Clause 52.219-8, Utilization of Small Business Concerns states that Prime Contractors afford small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns the maximum practicable opportunity to participate in performing contracts let by any Federal agency.

FAR Clause 52.219-9, Small Business Subcontracting Plan, Alternate I, requires that the large business concern who is the successful low bidder on a Federal project with an anticipated award amount exceeding \$1 million, is required to submit a subcontracting plan prior to contract award. The subcontracting plan expresses goals in terms of percentages of total planned subcontracting dollars for the use 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 as subcontractors. To view and download a sample plan for subcontracting

NOTICE TO BIDDERS AND OFFERORS

requirements, visit <http://www.cflhd.gov/procurement/construction/reference-links.cfm>. If the apparent successful low bidder fails to submit a subcontracting plan acceptable to the CO within the allowable time, that bidder may be ineligible for award of the contract.

A list of currently known business concerns owned and controlled by socially and economically disadvantaged individuals and/or women-owned small business concerns that have indicated an interest in participating in highway construction is available at <http://www.ccr.gov>

PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS

The award of this contract is subject to a 10% Price Evaluation Preference for HUBZone Small Business Concerns (SBC). Refer to FAR Clause 52.219-4. This price evaluation preference can apply to any qualified HUBZone SBC certified by the Small Business Administration. For any HUBZone SBC electing to waive the preference, see Page F-3 of this solicitation.

NOTICE TO POTENTIAL HUBZONE SBC BIDDERS

In the event this full and open competition results in a contract award to a qualified HUBZone SBC after a price evaluation preference, FAR Clause 52.236-1, Performance of Work by the Contractor, on page F-4, does not apply.

§126.700 of the Code of Federal Regulations (Title 13, Part 126, Subpart G), stated below, will replace the performance of work requirements stated in the above mentioned FAR clause.

A qualified HUBZone SBC receiving a contract under this solicitation for general construction must spend at least 50% of the cost of the contract incurred for personnel on its own employees or employees of other qualified HUBZone SBCs. This requirement may be met by expending at least 50% of the cost of the contract incurred for personnel on its employees or it may subcontract at least 35% of the cost of the contract performance incurred for personnel to one or more qualified HUBZone SBCs. A qualified HUBZone SBC prime contractor may not, however, subcontract more than 50% of the cost of the contract incurred for personnel to non-qualified HUBZone SBCs.

PROGRESS PAYMENTS

DFARS 204.7302, NASA, DOT and Treasury FAR Supplements, requires prospective bidders be registered in Central Contractor Registration (CCR) system prior to the award of a contract, basic agreement, basic ordering agreement, or blanket purchase agreement (Refer to FAR Clause 52.204-7, Central Contractor Registration). The DOT has partnered with the Department of Defense (DOD) to use the CCR system to obtain contractor financial electronic funds transfer (EFT) information.

NOTICE TO BIDDERS AND OFFERORS

FAR Clause 52.232-33, Payment by Electronic Funds Transfer -- Central Contractor Registration requires that the EFT information in the CCR must be accurate in order for contractors' invoices to be considered proper invoices for the purpose of prompt payment. Contractors must input and maintain their current EFT information.

To register in CCR, access the following DOD web site: www.ccr.gov .

FAR Clause 52.232-5, Payments Under Fixed-Price Construction Contracts, states reimbursement will be made for premiums paid by the Contractor to obtain performance and payment bonds as required under this contract. As specified in the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP), Section 151, Mobilization, payment for performance and payment bond premiums will be included in the mobilization item and shall not be in addition to the contract price.

FAR Clause 52.232-27, Prompt Payment for Construction Contracts, states the due date for progress payments shall be the 14th day after receipt of a proper payment request by the Government's designated billing office. Bidders are advised to review Subsection 109.08, Progress Payments and Subsection 109.05, Scope of Payment of the FP concerning direct and indirect payments.

FACSIMILE OR TELEGRAPHIC BIDS ARE NOT AUTHORIZED FOR THIS SOLICITATION

Bids may be modified or withdrawn by facsimile or telegraphic notice, 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 telegraphic or facsimile data. See FAR Provision 52.214-5, Submission of Bids.

FAX Number to submit modifications to bids for this project is (801)963-0093.

SOLICITATION, OFFER AND AWARD <i>(Construction, Alteration or Repair)</i>	1. SOLICITATION NO. DTFH68-08-B-00005	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (<i>IFB</i>) <input type="checkbox"/> NEGOTIATED (<i>RFP</i>)	3. DATE ISSUED April 15, 2008	PAGE OF PAGES 1 OF 2	
IMPORTANT - THE "OFFER SECTION ON THE REVERSE MUST BE FULLY COMPLETED BY OFFEROR.					
4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO. PLH 523-1(1), Bear River Access Road			
7. ISSUED BY: FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION 12300 WEST DAKOTA AVENUE, SUITE 167 LAKEWOOD, COLORADO 80228		CODE: 69050001	8. ADDRESS OFFER TO: Federal Highway Administration Central Federal Lands Highway Division Attn: Tiffany Atchison 12300 W. Dakota Ave, Ste 360 Lakewood, Colorado 80228		
9. FOR INFORMATION CALL SEE PAGE A-3	A. NAME: SEE PAGE A-3		B. TELEPHONE NO. (<i>Include area code</i>) SEE PAGE A-3		
SOLICITATION <i>NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder."</i>					
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS: CONSTRUCTION OF PLH 523-1(1), BEAR RIVER ACCESS ROAD, IN STRICT ACCORDANCE WITH: <ol style="list-style-type: none"> 1. FEDERAL ACQUISITION AND TRANSPORTATION ACQUISITION REGULATIONS (<i>FAR & TAR</i>) 2. DEPARTMENT OF LABOR, DAVIS BACON MINIMUM WAGE RATES (<i>See Section G</i>) 3. SPECIAL CONTRACT REQUIREMENTS (<i>See Section I</i>) 4. PLANS 5. BID SCHEDULE (<i>See Section B</i>) 6. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-03, 2003, METRIC VERSION 7. SUBCONTRACTING PLAN (IF APPLICABLE) <p>See Subsection 104.04 of the FP for governing order of precedence</p> <p style="text-align: right;">* SEE BLOCK 21</p>					
11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>*</u> calendar days after receiving <input type="checkbox"/> award <input checked="" type="checkbox"/> notice to proceed. The performance period is <input checked="" type="checkbox"/> mandatory <input type="checkbox"/> negotiable.					
12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				12B. CALENDAR DAYS 10	
13. ADDITIONAL SOLICITATION REQUIREMENTS: <ol style="list-style-type: none"> A. Sealed offers in original and <u>0</u> copies to perform the work required are due at the place specified in Item 8. by <u>2:00 p.m.</u> local time on <u>05/15/08</u>. If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due. B. An offer guarantee <input checked="" type="checkbox"/> is <input type="checkbox"/> 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 <u>60</u> calendar days for Government acceptance after the date offers are due will not be considered and will be rejected. 					

OFFEROR (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)	15. TELEPHONE NO. (Include area code)
CODE	16. REMITTANCE ADDRESS (Include only if different than Item 14)
FACILITY CODE	

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

AMOUNTS	SEE INDIVIDUAL BID SCHEDULE(S)
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18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

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

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20B. SIGNATURE	20C. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED: **Schedule A items must be completed by November 14, 2008. Schedules B & C items must be completed by July 17, 2009.**

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 27 (4 copies unless otherwise specified)	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 15 U.S.C. 637() <input type="checkbox"/> 41 U.S.C. 253(c)()
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26. ADMINISTERED BY CODE: _____	27. PAYMENT WILL BE MADE BY FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION 12300 W. DAKOTA AVENUE, SUITE 167 LAKEWOOD, COLORADO 80228
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)	31A. NAME OF CONTRACTING OFFICER (Type or print)
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30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE
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ADDITIONAL SOLICITATION INFORMATION

Block 9: DATA AVAILABLE FOR REVIEW

The following materials are available electronically at www.cflhd.gov/procurement/construction/advertised-projects.cfm:

Geotechnical Report UT-RX-PLH 02 01

Grading Summary

The following materials are available electronically:

Manual of Uniform Traffic Control Devices for Streets and Highways, (Current Edition published by U.S. Government Printing Office found at <http://mutcd.fhwa.dot.gov> .

AASHTO Manuals found at <http://fhwapap04.fhwa.dot.gov/index.jsp> under the Standard Specifications and Supplements link.

FP-03, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, 2003, found at <http://www.cflhd.gov/design/index.cfm#> under the Construction Specs tab.

Contractor Guidelines for Quality Control Plans and example QC Plans found at <http://www.cflhd.gov/design/index.cfm#> under the Construction Specs tab.

For amendments, bid results and tabulations or other procurement information please visit our website at www.cflhd.gov/procurement/construction

Block 13: A bid guarantee of not less than 20 percent of the amount of the bid or \$3 million, whichever is less, is required. If the bidder fails to provide the required bid guarantee in the proper form and amount, such failure may result in rejection of the bid. See FAR Provision 52.228-1, Bid Guarantee. If the bid guarantee is a bid bond, it must be submitted on Standard Form 24. Also refer to Subsections 102.03 and 102.04 of the FP for additional information.

Block 26: The Contractor shall submit invoices to:

FHWA, CFLHD, Project Engineer's Office (Address to be designated at preconstruction conference), for submission to the designated billing office shown in Block 7.

Final billing shall be submitted directly to the address shown in Block 7.

Other: The estimated price range of Schedule C is between \$10 million and \$15 million.

For questions regarding access to the Federal Business Opportunities (FBO) website or how to obtain plans and other solicitation documents, please contact either Tiffany Atchison at (720) 963-3354 or Brenda McGehee at (720) 963-3353.

As explained in FAR Provision 52.214-6, any explanation or interpretation of the solicitation, drawings, specifications, etc must be requested in writing to one of the following:

E-mail address: CFLContracts@fhwa.dot.gov
FAX Number: 720-963-3360
Mailing Address: Federal Highway Administration
Central Federal Lands Highway Division
Attention: Acquisition and Contracting
12300 W. Dakota Avenue, Suite 360
Lakewood, Colorado 80228

Responses will be provided to the individual questioner and also be posted on our website at <http://www.cflhd.gov/procurement/construction/advertised-projects.cfm> under the project link. Potential Offerors are advised to check this site on a regular basis to assure the most current and up-to-date information.

All amendments resulting from this solicitation will be uploaded to the FBO website at http://www.fbo.gov/spg/DOT/FHWA/68/postdatePrevDays_1.html and posted on our website at <http://www.cflhd.gov/procurement/construction/advertised-projects.cfm> under Current Solicitations.

**BIDDERS PLEASE BE ADVISED THAT QUESTIONS RELATIVE TO THIS
IFB WILL NOT BE ACCEPTED AFTER 2:00 P.M. MT ON MAY 12, 2008 .**

Bid Schedule Instructions

BIDDERS, PLEASE NOTE: Before preparing the bid, carefully read the Solicitation Provisions.

This solicitation is comprised of three schedules as follows:

Schedule A – 2.702 km of Grading, Drainage, Base, Superpave Asphalt Concrete Pavement, signing and striping, fencing, concrete sidewalk, and traffic control

Schedule B – 4.922 km of Grading, Drainage, Base, Superpave Asphalt Concrete Pavement, signing and striping, fencing, concrete sidewalk, and traffic control

Schedule C – 5.822 km of Grading, Drainage, Base, Superpave Asphalt Concrete Pavement, signing and striping, fencing, concrete sidewalk, and traffic control

- Insert a numeric unit price for each pay item for which there is a quantity
- When the words “Lump Sum” appear as a unit price, insert an amount for each lump sum pay item.
- Multiply the unit price by the quantity for each pay item and show the amount bid.
- Total all amounts bid for each pay item and show the Total on line provided on Page B-8 for Schedule A; Page B-16 for Schedule B; and Page B-24 for Schedule C.
- Complete the Summary Sheet on Page B-25.

Field Laboratory Trailer – a base bid will be solicited using “Item 15401-0000, Contractor Testing. A bid item alternative, “Item 15401-0000, Contractor Testing, Using Government Furnished Field Laboratory” has been included and requires pricing on the Bid Summary Page (B-25).

Evaluation Factors for Award

To be eligible for award of a contract, the bidder shall submit prices for each item necessary to complete all contract work in Schedule A, Schedule B, and Schedule C.

Evaluation for award of a contract will consist of Schedule C. If sufficient funds are not available to award Schedule C, then Schedule B will be evaluated. If sufficient funds are not available to award Schedule B, then Schedule A will be evaluated. Accordingly, contract award will be made to the lowest responsible bidder conforming to the solicitation, provided funds are available.

Once the lowest responsible bidder has been selected for the schedule to be awarded, the Government will determine whether the alternative bid item for the schedule to be awarded will be included. If included, Bid Item 15401-0000, Contractor Testing, will be replaced with Bid Item 15401-0000, Contractor Testing, Using Government Furnished Field Laboratory, in the awarded contract and the final contract award amount will be determined.

All work for Schedule A must be completed by November 14, 2008.

All work for Schedules B & C must be completed by July 17, 2009.

Schedule A

PLH 523-1(1)
Bear River Access Road

Bid Schedule

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15501-0000	Construction schedule ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 6,200 m	\$ _____	\$ _____
15705-1400	Soil erosion control, sediment log 1,430 m	\$ _____	\$ _____
15802-0000	Watering for dust control ALL	Lump Sum	\$ _____
20104-0000	Clearing 3.0 ha	\$ _____	\$ _____
20201-0000	Selective clearing 75.0 ha	\$ _____	\$ _____
20301-0300	Removal of box culvert 1 Each	\$ _____	\$ _____
20301-1100	Removal of gate 6 Each	\$ _____	\$ _____
20301-1200	Removal of headwall and wingwalls 2 Each	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20301-1900	Removal of pipe culvert 8 Each	\$ _____	\$ _____
20301-2300	Removal of sign/marker and foundation 1 Each	\$ _____	\$ _____
20301-2400	Removal of sign 1 Each	\$ _____	\$ _____
20302-0300	Removal of curb and gutter, concrete 155 m	\$ _____	\$ _____
20302-0800	Removal of fence, barbed wire 3,790 m	\$ _____	\$ _____
20303-1600	Removal of pavement, asphalt 1,690 m2	\$ _____	\$ _____
20304-1000	Removal of structures and obstructions (Refuse clean-up) ALL	Lump Sum	\$ _____
20420-0000	Embankment construction 13,210 m3	\$ _____	\$ _____
20701-1400	Earthwork geotextile, type IV-C 20,170 m2	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 33,700 m2	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 1,110 m3	\$ _____	\$ _____
25101-3000	Placed riprap, class 3 1,500 m3	\$ _____	\$ _____
30101-0000	Aggregate base 10,750 t	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
40101-0600	Superpave pavement, 12.5mm nominal maximum size aggregate, 0.3 to <3 million ESAL 6,870 t	\$ _____	\$ _____
40105-3000	Antistrip additive, type 3 70 t	\$ _____	\$ _____
40920-1000	Fog seal, emulsified asphalt grade CSS-1 or CSS-1h, SS-1 or SS-1h 14 t	\$ _____	\$ _____
41101-5000	Prime coat grade MC-70 39 t	\$ _____	\$ _____
41105-0000	Blotter 285 t	\$ _____	\$ _____
41201-1000	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h 16 t	\$ _____	\$ _____
60101-0000	Concrete 31 m3	\$ _____	\$ _____
60201-0400	300mm pipe culvert 4 m	\$ _____	\$ _____
60201-0800	600mm pipe culvert 25 m	\$ _____	\$ _____
60201-1000	900mm pipe culvert 80 m	\$ _____	\$ _____
60210-0400	End section for 300mm pipe culvert 1 Each	\$ _____	\$ _____
60210-0800	End section for 600mm pipe culvert 2 Each	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60210-1000	End section for 900mm pipe culvert 6 Each	\$ _____	\$ _____
60220-1900	2400mm span, 1800mm rise precast reinforced concrete box culvert 53 m	\$ _____	\$ _____
60220-3050	3000mm span, 1800mm rise precast reinforced concrete box culvert 23 m	\$ _____	\$ _____
60902-1100	Curb and gutter, concrete, 325mm depth 142 m	\$ _____	\$ _____
60915-1000	Wheelstop, concrete 19 Each	\$ _____	\$ _____
61101-0000	Water system ALL	Lump Sum	\$ _____
61501-0100	Sidewalk, concrete 1,150 m2	\$ _____	\$ _____
61502-1000	Drive pad, concrete 26 m2	\$ _____	\$ _____
61504-1000	Accessibility ramp, concrete 37 m2	\$ _____	\$ _____
61901-1000	Fence, barbed wire, 5 strand 2,350 m	\$ _____	\$ _____
61902-0000	Gate (Electronically Controlled) 2 Each	\$ _____	\$ _____
61902-0000	Gate (swing, Type I) 1 Each	\$ _____	\$ _____
61902-0000	Gate (Road Closure) 1 Each	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61902-0900	Gate, metal 2 Each	\$ _____	\$ _____
61902-2600	Gate, barbed wire, 5-strand 3 Each	\$ _____	\$ _____
61920-2000	Remove and reset gate 1 Each	\$ _____	\$ _____
62201-0350	Backhoe 120 Hour	\$ _____	\$ _____
62201-0850	Wheel loader, 1 cubic meter minimum rated capacity 80 Hour	\$ _____	\$ _____
62201-1300	Bulldozer, 120kW minimum flywheel power 80 Hour	\$ _____	\$ _____
62201-2850	Motor grader, 3.6 meter minimum blade 80 Hour	\$ _____	\$ _____
62201-3000	Hydraulic excavator 80 Hour	\$ _____	\$ _____
62202-1000	Materials transfer vehicle ALL	Lump Sum	\$ _____
62301-0000	General labor 80 Hour	\$ _____	\$ _____
62302-1000	Special labor, hired technical services 60 Hour	\$ _____	\$ _____
62302-1100	Special labor, hired survey services 120 Hour	\$ _____	\$ _____
62405-0200	Placing conserved topsoil, 75mm depth 21,540 m2	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62510-2000	Seeding, hydraulic method 5.30 ha	\$ _____	\$ _____
62515-2000	Mulching, hydraulic method 5.30 ha	\$ _____	\$ _____
62535-0000	Herbicide 2,800 L	\$ _____	\$ _____
62635-2000	Cuttings, willow staking 1,890 Each	\$ _____	\$ _____
63301-0000	Sign system 28 Each	\$ _____	\$ _____
63308-2000	Object marker, type 2 2 Each	\$ _____	\$ _____
63316-1000	Remove and reset sign 15 Each	\$ _____	\$ _____
63401-0300	Pavement markings, type B, solid 19,070 m	\$ _____	\$ _____
63401-0400	Pavement markings, type B, broken 2,310 m	\$ _____	\$ _____
63405-0050	Pavement markings, symbols 10 Each	\$ _____	\$ _____
63405-2900	Pavement markings, type H, turn arrow 5 Each	\$ _____	\$ _____
63405-3050	Pavement markings, type H, "ONLY" word message 3 Each	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63405-3250	Pavement markings, type H, accessibility symbol 3 Each	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 10 Each	\$ _____	\$ _____
63502-0900	Temporary traffic control, cone, type 700mm 120 Each	\$ _____	\$ _____
63502-1300	Temporary traffic control, drum 120 Each	\$ _____	\$ _____
63502-1600	Temporary traffic control, warning light type B 8 Each	\$ _____	\$ _____
63503-1000	Temporary traffic control, plastic fence 800 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 45 m2	\$ _____	\$ _____
63505-1000	Temporary traffic control, pavement markings 6.000 km	\$ _____	\$ _____
63506-0500	Temporary traffic control, flagger 7,055 Hour	\$ _____	\$ _____
63506-0600	Temporary traffic control, pilot car 3,360 Hour	\$ _____	\$ _____
63602-6000	System installation, traffic detector system 1 Each	\$ _____	\$ _____

Bid Schedule A

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63610-2800	Conduit, 100mm, PVC 2,440 m	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Schedule B

PLH 523-1(1)
Bear River Access Road

Bid Schedule

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15501-0000	Construction schedule ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 11,100 m	\$ _____	\$ _____
15705-1400	Soil erosion control, sediment log 1,560 m	\$ _____	\$ _____
15802-0000	Watering for dust control ALL	Lump Sum	\$ _____
20104-0000	Clearing 4.6 ha	\$ _____	\$ _____
20201-0000	Selective clearing 75.0 ha	\$ _____	\$ _____
20301-0300	Removal of box culvert 1 Each	\$ _____	\$ _____
20301-1100	Removal of gate 7 Each	\$ _____	\$ _____
20301-1200	Removal of headwall and wingwalls 2 Each	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20301-1900	Removal of pipe culvert 12 Each	\$ _____	\$ _____
20301-2300	Removal of sign/marker and foundation 1 Each	\$ _____	\$ _____
20301-2400	Removal of sign 1 Each	\$ _____	\$ _____
20302-0300	Removal of curb and gutter, concrete 155 m	\$ _____	\$ _____
20302-0800	Removal of fence, barbed wire 3,790 m	\$ _____	\$ _____
20303-1600	Removal of pavement, asphalt 1,690 m2	\$ _____	\$ _____
20304-1000	Removal of structures and obstructions (Refuse clean-up) ALL	Lump Sum	\$ _____
20420-0000	Embankment construction 29,740 m3	\$ _____	\$ _____
20701-1400	Earthwork geotextile, type IV-C 33,550 m2	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 33,700 m2	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 1,190 m3	\$ _____	\$ _____
25101-3000	Placed riprap, class 3 1,210 m3	\$ _____	\$ _____
30101-0000	Aggregate base 21,100 t	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
40101-0600	Superpave pavement, 12.5mm nominal maximum size aggregate, 0.3 to <3 million ESAL 11,780 t	\$ _____	\$ _____
40105-3000	Antistrip additive, type 3 118 t	\$ _____	\$ _____
40920-1000	Fog seal, emulsified asphalt grade CSS-1 or CSS-1h, SS-1 or SS-1h 23 t	\$ _____	\$ _____
41101-5000	Prime coat grade MC-70 67 t	\$ _____	\$ _____
41105-0000	Blotter 445 t	\$ _____	\$ _____
41201-1000	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h 24 t	\$ _____	\$ _____
60101-0000	Concrete 33 m3	\$ _____	\$ _____
60201-0400	300mm pipe culvert 4 m	\$ _____	\$ _____
60201-0800	600mm pipe culvert 100 m	\$ _____	\$ _____
60201-1000	900mm pipe culvert 95 m	\$ _____	\$ _____
60210-0400	End section for 300mm pipe culvert 1 Each	\$ _____	\$ _____
60210-0800	End section for 600mm pipe culvert 12 Each	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60210-1000	End section for 900mm pipe culvert 8 Each	\$ _____	\$ _____
60220-1900	2400mm span, 1800mm rise precast reinforced concrete box culvert 53 m	\$ _____	\$ _____
60220-3050	3000mm span, 1800mm rise precast reinforced concrete box culvert 23 m	\$ _____	\$ _____
60902-1100	Curb and gutter, concrete, 325mm depth 142 m	\$ _____	\$ _____
60915-1000	Wheelstop, concrete 18 Each	\$ _____	\$ _____
61101-0000	Water system ALL	Lump Sum	\$ _____
61501-0100	Sidewalk, concrete 1,150 m2	\$ _____	\$ _____
61502-1000	Drive pad, concrete 26 m2	\$ _____	\$ _____
61504-1000	Accessibility ramp, concrete 37 m2	\$ _____	\$ _____
61801-0000	Concrete barrier 490 m	\$ _____	\$ _____
61901-1000	Fence, barbed wire, 5 strand 2,350 m	\$ _____	\$ _____
61902-0000	Gate (Electronically Controlled) 2 Each	\$ _____	\$ _____
61902-0000	Gate (swing, type I) 1 Each	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61902-0000	Gate (Road Closure) 1 Each	\$ _____	\$ _____
61902-0900	Gate, metal 2 Each	\$ _____	\$ _____
61902-2600	Gate, barbed wire, 5-strand 4 Each	\$ _____	\$ _____
61920-2000	Remove and reset gate 1 Each	\$ _____	\$ _____
62201-0350	Backhoe 120 Hour	\$ _____	\$ _____
62201-0850	Wheel loader, 1 cubic meter minimum rated capacity 80 Hour	\$ _____	\$ _____
62201-1300	Bulldozer, 120kW minimum flywheel power 80 Hour	\$ _____	\$ _____
62201-2850	Motor grader, 3.6 meter minimum blade 80 Hour	\$ _____	\$ _____
62201-3000	Hydraulic excavator 80 Hour	\$ _____	\$ _____
62202-1000	Materials transfer vehicle ALL	Lump Sum	\$ _____
62301-0000	General labor 80 Hour	\$ _____	\$ _____
62302-1000	Special labor, hired technical services 60 Hour	\$ _____	\$ _____
62302-1100	Special labor, hired survey services 120 Hour	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62405-0200	Placing conserved topsoil, 75mm depth 36,920 m2	\$ _____	\$ _____
62510-2000	Seeding, hydraulic method 6.40 ha	\$ _____	\$ _____
62515-2000	Mulching, hydraulic method 6.40 ha	\$ _____	\$ _____
62535-0000	Herbicide 2,800 L	\$ _____	\$ _____
62635-2000	Cuttings, willow staking 1,890 Each	\$ _____	\$ _____
63301-0000	Sign system 37 Each	\$ _____	\$ _____
63308-2000	Object marker, type 2 3 Each	\$ _____	\$ _____
63309-0200	Delineator, type 2 47 Each	\$ _____	\$ _____
63316-1000	Remove and reset sign 15 Each	\$ _____	\$ _____
63401-0300	Pavement markings, type B, solid 29,260 m	\$ _____	\$ _____
63401-0400	Pavement markings, type B, broken 6,460 m	\$ _____	\$ _____
63405-0050	Pavement markings, symbols 7 Each	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63405-2900	Pavement markings, type H, turn arrow 5 Each	\$ _____	\$ _____
63405-3050	Pavement markings, type H, "ONLY" word message 3 Each	\$ _____	\$ _____
63405-3250	Pavement markings, type H, accessibility symbol 3 Each	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 10 Each	\$ _____	\$ _____
63502-0900	Temporary traffic control, cone, type 700mm 120 Each	\$ _____	\$ _____
63502-1300	Temporary traffic control, drum 120 Each	\$ _____	\$ _____
63502-1600	Temporary traffic control, warning light type B 8 Each	\$ _____	\$ _____
63503-1000	Temporary traffic control, plastic fence 800 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 45 m2	\$ _____	\$ _____
63505-1000	Temporary traffic control, pavement markings 7.500 km	\$ _____	\$ _____
63506-0500	Temporary traffic control, flagger 7,055 Hour	\$ _____	\$ _____
63506-0600	Temporary traffic control, pilot car 3,360 Hour	\$ _____	\$ _____

Bid Schedule B

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63602-6000	System installation, traffic detector system 1 Each	\$ _____	\$ _____
63610-2800	Conduit, 100mm, PVC 4,980 m	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Schedule C

PLH 523-1(1)
Bear River Access Road

Bid Schedule

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization ALL	Lump Sum	\$ _____
15201-0000	Construction survey and staking ALL	Lump Sum	\$ _____
15401-0000	Contractor testing ALL	Lump Sum	\$ _____
15501-0000	Construction schedule ALL	Lump Sum	\$ _____
15705-0100	Soil erosion control, silt fence 12,800 m	\$ _____	\$ _____
15705-1400	Soil erosion control, sediment log 1,670 m	\$ _____	\$ _____
15802-0000	Watering for dust control ALL	Lump Sum	\$ _____
20104-0000	Clearing 5.3 ha	\$ _____	\$ _____
20201-0000	Selective clearing 75.0 ha	\$ _____	\$ _____
20301-0300	Removal of box culvert 1 Each	\$ _____	\$ _____
20301-1100	Removal of gate 7 Each	\$ _____	\$ _____
20301-1200	Removal of headwall and wingwalls 2 Each	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20301-1900	Removal of pipe culvert 18 Each	\$ _____	\$ _____
20301-2300	Removal of sign/marker and foundation 1 Each	\$ _____	\$ _____
20301-2400	Removal of sign 1 Each	\$ _____	\$ _____
20302-0300	Removal of curb and gutter, concrete 154 m	\$ _____	\$ _____
20302-0800	Removal of fence, barbed wire 3,790 m	\$ _____	\$ _____
20303-1600	Removal of pavement, asphalt 1,690 m2	\$ _____	\$ _____
20304-1000	Removal of structures and obstructions (Refuse clean-up) ALL	Lump Sum	\$ _____
20420-0000	Embankment construction 37,540 m3	\$ _____	\$ _____
20701-1400	Earthwork geotextile, type IV-C 43,340 m2	\$ _____	\$ _____
21101-1000	Roadway obliteration, method 1 33,700 m2	\$ _____	\$ _____
25101-2000	Placed riprap, class 2 1,190 m3	\$ _____	\$ _____
25101-3000	Placed riprap, class 3 3,160 m3	\$ _____	\$ _____
30101-0000	Aggregate base 27,600 t	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
40101-0600	Superpave pavement, 12.5mm nominal maximum size aggregate, 0.3 to <3 million ESAL 14,300 t	\$ _____	\$ _____
40105-3000	Antistrip additive, type 3 143 t	\$ _____	\$ _____
40920-1000	Fog seal, emulsified asphalt grade CSS-1 or CSS-1h, SS-1 or SS-1h 26 t	\$ _____	\$ _____
41101-5000	Prime coat grade MC-70 79 t	\$ _____	\$ _____
41105-0000	Blotter 515 t	\$ _____	\$ _____
41201-1000	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h 28 t	\$ _____	\$ _____
60101-0000	Concrete 52 m3	\$ _____	\$ _____
60201-0400	300mm pipe culvert 4 m	\$ _____	\$ _____
60201-0800	600mm pipe culvert 127 m	\$ _____	\$ _____
60201-1000	900mm pipe culvert 94 m	\$ _____	\$ _____
60210-0400	End section for 300mm pipe culvert 1 Each	\$ _____	\$ _____
60210-0800	End section for 600mm pipe culvert 16 Each	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60210-1000	End section for 900mm pipe culvert 8 Each	\$ _____	\$ _____
60220-1900	2400mm span, 1800mm rise precast reinforced concrete box culvert 53 m	\$ _____	\$ _____
60220-3050	3000mm span, 1800mm rise precast reinforced concrete box culvert 23 m	\$ _____	\$ _____
60220-3975	3600mm span, 1800mm rise, precast reinforced concrete box culvert 78 m	\$ _____	\$ _____
60902-1100	Curb and gutter, concrete, 325mm depth 142 m	\$ _____	\$ _____
60915-1000	Wheelstop, concrete 18 Each	\$ _____	\$ _____
61101-0000	Water system ALL	Lump Sum	\$ _____
61501-0100	Sidewalk, concrete 1,150 m2	\$ _____	\$ _____
61502-1000	Drive pad, concrete 26 m2	\$ _____	\$ _____
61504-1000	Accessibility ramp, concrete 37 m2	\$ _____	\$ _____
61801-0000	Concrete barrier 1,050 m	\$ _____	\$ _____
61901-1000	Fence, barbed wire, 5 strand 2,350 m	\$ _____	\$ _____
61902-0000	Gate (Electronically Controlled) 2 Each	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61902-0000	Gate (swing, type I) 1 Each	\$ _____	\$ _____
61902-0000	Gate (Road Closure) 1 Each	\$ _____	\$ _____
61902-0900	Gate, metal 2 Each	\$ _____	\$ _____
61902-2600	Gate, barbed wire, 5-strand 4 Each	\$ _____	\$ _____
61920-2000	Remove and reset gate 1 Each	\$ _____	\$ _____
62201-0350	Backhoe 120 Hour	\$ _____	\$ _____
62201-0850	Wheel loader, 1 cubic meter minimum rated capacity 80 Hour	\$ _____	\$ _____
62201-1300	Bulldozer, 120kW minimum flywheel power 80 Hour	\$ _____	\$ _____
62201-2850	Motor grader, 3.6 meter minimum blade 80 Hour	\$ _____	\$ _____
62201-3000	Hydraulic excavator 80 Hour	\$ _____	\$ _____
62202-1000	Materials transfer vehicle ALL	Lump Sum	\$ _____
62301-0000	General labor 80 Hour	\$ _____	\$ _____
62302-1000	Special labor, hired technical services 60 Hour	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62302-1100	Special labor, hired survey services 120 Hour	\$ _____	\$ _____
62405-0200	Placing conserved topsoil, 75mm depth 44,480 m2	\$ _____	\$ _____
62510-2000	Seeding, hydraulic method 7.00 ha	\$ _____	\$ _____
62515-2000	Mulching, hydraulic method 7.00 ha	\$ _____	\$ _____
62535-0000	Herbicide 2,800 L	\$ _____	\$ _____
62635-2000	Cuttings, willow staking 1,890 Each	\$ _____	\$ _____
63301-0000	Sign system 47 Each	\$ _____	\$ _____
63308-2000	Object marker, type 2 5 Each	\$ _____	\$ _____
63309-0200	Delineator, type 2 110 Each	\$ _____	\$ _____
63316-1000	Remove and reset sign 15 Each	\$ _____	\$ _____
63401-0300	Pavement markings, type B, solid 34,120 m	\$ _____	\$ _____
63401-0400	Pavement markings, type B, broken 7,850 m	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63405-0050	Pavement markings, symbols 7 Each	\$ _____	\$ _____
63405-2900	Pavement markings, type H, turn arrow 5 Each	\$ _____	\$ _____
63405-3050	Pavement markings, type H, "ONLY" word message 3 Each	\$ _____	\$ _____
63405-3250	Pavement markings, type H, accessibility symbol 3 Each	\$ _____	\$ _____
63502-0600	Temporary traffic control, barricade type 3 10 Each	\$ _____	\$ _____
63502-0900	Temporary traffic control, cone, type 700mm 120 Each	\$ _____	\$ _____
63502-1300	Temporary traffic control, drum 120 Each	\$ _____	\$ _____
63502-1600	Temporary traffic control, warning light type B 8 Each	\$ _____	\$ _____
63503-1000	Temporary traffic control, plastic fence 800 m	\$ _____	\$ _____
63504-1000	Temporary traffic control, construction sign 45 m2	\$ _____	\$ _____
63505-1000	Temporary traffic control, pavement markings 10.800 km	\$ _____	\$ _____
63506-0500	Temporary traffic control, flagger 7,055 Hour	\$ _____	\$ _____

Bid Schedule C

Project: PLH 523-1(1)

BEAR RIVER ACCESS ROAD

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63506-0600	Temporary traffic control, pilot car 3,360 Hour	\$ _____	\$ _____
63602-6000	System installation, traffic detector system 1 Each	\$ _____	\$ _____
63610-2800	Conduit, 100mm, PVC 6,080 m	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

BID SUMMARY FOR
PLH 523-1(1)
BEAR RIVER ACCESS ROAD

Schedule A \$ _____

Schedule B \$ _____

Schedule C \$ _____

Schedule A with Alternative Bid Item
15401-0000, Contractor Testing, Using
Government Furnished Field Laboratory \$ _____

Schedule B with Alternative Bid Item
15401-0000, Contractor Testing, Using
Government Furnished Field Laboratory \$ _____

Schedule C with Alternative Bid Item
15401-0000, Contractor Testing, Using
Government Furnished Field Laboratory \$ _____

Continuation of Bid Schedule

**BUY AMERICAN ACT- CONSTRUCTION MATERIALS
UNDER TRADE AGREEMENTS**

It is understood and agreed that the materials and components listed in Subpart 25.1 of the FAR are a part of this contract and are deemed to be Domestic Construction Material for the purposes of this contract.

NOTE TO CONTRACTOR:

The following information and any applicable supporting data is required for evaluation of requests under FAR Clause 52.225-11 Paragraph (c) & (d) and FAR Provision 52.225-12 Paragraph (b).

Material and/or Component

Construction Material Description	Unit of Measure	Quantity	*Cost Delivered to Job Site
Foreign Construction Material			
Comparable Domestic Material			

Material and/or Component

Construction Material Description	Unit of Measure	Quantity	*Cost Delivered to Job Site
Foreign Construction Material			
Comparable Domestic Material			

[Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]
[Please include name, address, telephone number and contact for suppliers surveyed. Attach copy of response; if oral, attach summary. Include all applicable supporting information.]*

HAZARDOUS MATERIALS

As required by FAR Clause 52.223-3, Hazardous Materials Identification and Safety Data - Alternate I, the apparent low bidder must submit prior to award a Material Safety Data Sheet (MSDS) for all hazardous materials that the bidder identifies in paragraph (b) of the FAR clause and defined under the latest version of Federal Standard No. 313.

Hazardous Material	Identification Number

USE OF RECOVERED MATERIALS ON FEDERAL LANDS HIGHWAY PROJECTS

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.

BID BOND (See instructions on reverse)			DATE BOND EXECUTED (Must not be later than bid opening date)			OMB NO. 9000-0045			
Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (MVR), Federal Acquisition Policy Division, GSA, Washington, D.C. 20405.									
PRINCIPAL (Legal name and business address)						TYPE OF ORGANIZATION (aX@ one)			
						<input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION			
						STATE OF INCORPORATION			
SURETY(IES) (Name and business address)									
PENAL SUM OF BOND					BID IDENTIFICATION				
PERCENT OF BID PRICE 20 PERCENT	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO. PLH 523-1(1), Bear River Access Road			
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS	FOR (Construction, Supplies or Services)	CONSTRUCTION			
<p>OBLIGATION:</p> <p>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.</p> <p>CONDITIONS:</p> <p>The Principal has submitted the bid identified above.</p> <p>THEREFORE:</p> <p>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.</p> <p>Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of 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.</p> <p>WITNESS:</p> <p>The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.</p>									
PRINCIPAL									
SIGNATURE(S)	1. <div style="text-align: right;">(Seal)</div>		2. <div style="text-align: right;">(Seal)</div>		3. <div style="text-align: right;">(Seal)</div>		Corporate Seal		
NAMES(S) & TITLE(S) (Typed)	1.		2.		3.				
INDIVIDUAL SURETY(IES)									
SIGNATURE(S)	1. <div style="text-align: right;">(Seal)</div>			2. <div style="text-align: right;">(Seal)</div>					
NAME(S) (Typed)	1.			2.					
CORPORATE SURETY(IES)									
SURETY A	NAME & ADDRESS				STATE OF INC.	LIABILITY LIMIT \$		Corporate Seal	
	SIGNATURE(S)	1.			2.				
	NAMES(S) & TITLE(S) (Typed)	1.			2.				

CORPORATE SURETY(IES) (Continued)					
SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	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., 20% of the bid price but the amount not to exceed 3,000,000.00 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 designated "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 capacity.
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."

D-1
FEDERAL ACQUISITION REGULATION
SOLICITATION PROVISIONS

REPRESENTATIONS AND CERTIFICATIONS

Effective January 2005, offerors/bidders must submit Representations and Certifications online at www.bpn.gov. All offerors/bidders should submit/update this information at least annually. Refer to the Federal Acquisition Provision 52.204-8 *Annual Representations and Certifications* below. If you have previously accomplished your on-line registration and the NAICS code for this solicitation is different than the code listed in your online profile, please note the amended changes on the lines provided in the Provision below.

REFER TO CFLHD'S WEBSITE AT <http://www.cflhd.gov/procurement/construction/reference-links.cfm> FOR ON-LINE REGISTRATION INSTRUCTIONS

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2006)

- (a) (1) The North American Industry Classification System (NAICS) code for this acquisition is 237310.
(2) The small business size standard is 31.0 million or fewer.
(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) 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
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

(End of Provision)



FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

BIDDER'S QUALIFICATIONS

INSTRUCTIONS: Answer all questions on this form inserting "none" or "not applicable" where appropriate. If more space is required attach additional sheets. Return the signed, dated and completed form with the bid to the address shown in the invitation for bids on or before the time set for bid opening. The prospective bidder shall provide any additional information requested by the Government during evaluation of the bids.

If the prospective bidder is a joint venture or general partnership, a separate Bidder's Qualifications form shall be provided individually for each joint venture participant or partner.

1. Name and address of business:

Name _____			DUNS Number (See FAR Provision 52.204-6)* _____
Street _____			Home Office Congressional District (Insert District #) * _____
City _____	State _____	Zip Code _____	
County _____			
Telephone Number (Include Area Code) _____			
Fax Number (Include Area Code) _____			

* Necessary for Government reporting purposes only
To obtain a Dun & Street number, call
800-333-0505.

2. a. Type of organization (check appropriate box):

<input type="checkbox"/> Individual	<input type="checkbox"/> Non-profit organization	<input type="checkbox"/> Corporation
<input type="checkbox"/> Partnership	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Incorporated in: _____

If a Foreign entity:

<input type="checkbox"/> Individual	<input type="checkbox"/> Non-profit organization	<input type="checkbox"/> Corporation
<input type="checkbox"/> Partnership	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Registered in: _____

b. Size and type of Business Concern (check appropriate boxes):

<input type="checkbox"/> Large Business Concern	<input type="checkbox"/> Small Disadvantaged Business Concern	<input type="checkbox"/> Emerging Small Business
<input type="checkbox"/> Small Business Concern	<input type="checkbox"/> Women-Owned Small Business	<input type="checkbox"/> SBA 8(a) Certified
<input type="checkbox"/> HUB Zone Business Concern	<input type="checkbox"/> Veteran Owned Business Concern	<input type="checkbox"/> Service-Disabled Veteran-Owned Business Concern

3. If a joint venture or general partnership:

- a. Provide the name under which the project will be bid, the home office address, and name of the principal who will represent the company with regard to this project if different from "1." above.

Principal _____

 Business Name _____

 Street _____

 City State Zip Code _____

- b. Provide the name and home office addresses of each of the joint venture partners; indicate which partner is the sponsoring partner. Attach a separate sheet for additional partners.

Sponsoring Partner _____			Other Partner _____		
Street _____			Street _____		
City	State	Zip Code	City	State	Zip Code

4. Date organization established: _____

5. Name of succeeded business, if any: _____

6. How many years have you been in business as:

- a. General contractor ___ years.
 b. Subcontractor ___ years.

7. a. Furnish the following information concerning the owner, partners, officers and directors:

Name	Title	Percent of Business Owned	Years of Business Experience	
			Contracting	Other

- b. Attach resumes of these key personnel as well as the on-site project manager(s) and superintendent(s), and specifically identify the following:
- Present position, responsibility, and length of employment.
 - Amount and type of construction experience.
 - Amount and type of highway construction experience, including position, responsibility, and a brief project description of each period of employment.
 - Formal education and training, professional or technical registrations or licenses.

FEDERAL ACQUISITION REGULATIONSOLICITATION PROVISIONSInstructions to Bidders**52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)**

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

<http://www.arnet.gov/far/>.

(End of Provision)

- 52.204-5 WOMEN-OWNED BUSINESS OTHER THAN SMALL BUSINESS (MAY 1999)
- 52.211-6 BRAND NAME OR EQUAL (AUG 1999)
- 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)
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- 52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS
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- 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)
- 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

**52.211-4 AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS NOT LISTED
IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND
COMMERCIAL ITEM DESCRIPTIONS (JUN 1988)**

Specifications cited in this solicitation which are not available for distribution may be examined at the following location:

Federal Highway Administration
Central Federal Lands Highway Division
12300 West Dakota Avenue, Suite 360
Lakewood, Colorado 80228
Contact: Tiffany Atchison @ (720) 963-3354 or Brenda McGehee @ (720) 963-3353

(End of Provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

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

(End of Provision)

**52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITY (FEB 1999)**

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

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

Goals for minority participation for each trade	Goals for female participation for each trade
5.1%	6.9%

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

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

(1) its implementation of the Equal Opportunity clause,

(2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and

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

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

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Box Elder County, Utah.

(End of Provision)

**52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENTS-
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.

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid

guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be 20 percent of the bid price or \$3,000,000, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of Provision)

52.233-2 SERVICE OF PROTEST (SEPT 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:

Kevin R. Black
Contract Development Engineer
Central Federal Lands Highway Division
12300 West Dakota Avenue, Suite 360
Lakewood, Colorado 80228

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

(End of Provision)

52.252-3 ALTERATIONS IN SOLICITATION (APR 1984)

Portions of this solicitation are altered as follows:

None.

(End of Provision)

FEDERAL ACQUISITION REGULATION
CONTRACT CLAUSES
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52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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

<http://www.arnet.gov/far/>.

(End of Clause)

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**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 **(See Standard Form 1442)**. 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 the no later than **June 12, 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.

(End of Clause)

52.211-12 LIQUIDATED DAMAGES - CONSTRUCTION (SEPT 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of (See Section 108 of the FP-03) for each calendar day of delay until the work is completed or accepted.

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

(End of Clause)

**52.222-39 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.

(End of Clause)

52.225-11 Buy American Act—Construction Materials under Trade Agreements (Nov 2006)

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

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

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

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

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

“Cost of components” means—

- (1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
- (2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Designated country” means any of the following countries:

- (1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, or United Kingdom);
- (2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, or Singapore);
- (3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or

Zambia); or

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

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

“Domestic construction material” means—

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

“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
- 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:

1. None

[Contracting Officer to list applicable excepted materials or indicate "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

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
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Item 1:

Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

Item 2:

Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

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

[Include other applicable supporting information.]

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

(End of clause)

52.236-4 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 _____*_____.

(b) Weather conditions: Contact National Weather Service.

(c) Transportation facilities NA_____.

(d) _____*_____.

* See continuation of Standard Form 1442.

(End of Clause)

52.252-4 ALTERATIONS IN CONTRACT (APR 1984)

Portions of this contract are altered as follows: None_____.

(End of Clause)

General Laborer.....	\$ 11.30	2.73
Pipelayers (Smooth sides and bottom of trenches, does rigging of pipe, assembles and installs concrete and tile pipe).....	\$ 12.52	2.79
Power Tool Cutting Torch, Operators of gasoline, electric, or pneumatic tools, (E.G. Compressor, compactor, jackhammer, vibrator, concrete saw, chain saw and concrete cutting torch).....	\$ 12.52	2.79
Painter, Spray.....	\$ 14.05	1.62
Piledriverman.....	\$ 23.54	2.80
Power equipment operators:		
Backhoe, Tire & Track, over 5 cu. yds.....	\$ 18.14	7.03
Backhoe, Tire & Track, under 5 cu. yds.....	\$ 17.82	7.15
Backhoe/Loader Combo.....	\$ 18.55	6.67
Blade, Smooth/Finish.....	\$ 18.28	6.84
Bulldozer, D7 or less.....	\$ 17.59	7.08
Heavy Duty Repairman.....	\$ 18.05	7.11
Loader, over 10 cu. yds.....	\$ 18.95	6.94
Loader, under 2 1/2 cu. yds.....	\$ 17.15	7.08
Piledriver.....	\$ 21.85	7.23
Roller, Asphalt.....	\$ 17.15	7.23
Roller, Grade/Compaction....	\$ 15.48	5.82
Sheepfoot Compactor.....	\$ 16.29	7.08
Truck drivers: (Dump Trucks - Water Level capacity (Bottom, end and side), including Dumpster Truck, Turnawagons, Turnarockers and dumpcrete):)		
8 cu. yds. and less than 14 cu. yds.....	\$ 15.99	4.91
Less than 8 cu. yds.....	\$ 15.84	5.87
Mixer Truck.....	\$ 8.63	

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	Rates	Fringes
Truck Driver, Dump Dump Trucks - Water Level Capacity (Bottom, End and Side), Including Dumpster Truck, Turnawagons, Turnarockers and Dumpcrete: 14 cu yds. and less than 35 cu. yds.....	\$ 16.49	7.52

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	Rates	Fringes
Truck drivers: (Water, Fuel & Oil Tank)		
0 to less than 1,200 gal....	\$ 16.065	7.52
1,200 gal. to less than 2,500 gal.....	\$ 16.19	7.52
10,000 gal. to less than 15,000.....	\$ 17.14	7.52
15,000 gal. to less than 20,000 gal.....	\$ 17.39	7.52
2,500 gal. to less than 4,000.....	\$ 16.34	7.52
20,000 gal. to less than 25,000 gal.....	\$ 17.74	7.52
4,000 gal. to less than 6,000 gal.....	\$ 16.64	7.52
6,000 gal. to less than 10,000 gal.....	\$ 16.89	7.52
Over 25,000 gal.....	\$ 17.89	7.52

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

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

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

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

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

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

=====
END OF GENERAL DECISION

SPECIAL CONTRACT REQUIREMENTS

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

SI (METRIC)⁽¹⁾ TO U.S. CUSTOMARY CONVERSION FACTORS (approximate)

To the table on page iv, amend the second line of the MASS and the second line of the ILLUMINATION portion of the table as follows:

Symbol	When You Know	Multiply By	To Find	Symbol
MASS				
kg	kilograms	2.2046	pounds	lb
ILLUMINATION				
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl

Section 101. – TERMS, FORMAT, AND DEFINITIONS

101.04 Definitions. Add the following:

Qualified Biologist – A biologist who has performed bird surveys.

Qualified archeologist – An archeologist who has performed excavations .

Section 104. – CONTROL OF WORK

104.03 Specifications and Drawings. Add the following:

(c) As-built working drawings. Prepare and furnish as-built working drawings prior to final acceptance. The Government will provide one set of 280 x 430 millimeter contract drawings to be used exclusively for recording the as-built details of the project. Mark plans on title sheet “As-Built Plans”. Use 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. Location changes are to be shown in the same coordinate system used for the staking notes. Strikeout all details shown that are not applicable to the completed work. Check and initial all plan sheets 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. Submit a copy of the updated as-built drawings at least every 30 days to the CO for review for compliance with these specifications.

As a minimum, show the following information on the as-built drawings:

(1) Title Sheet

- (a) Name of contractor.
- (b) Name of Project Engineer.
- (c) Project completion date.
- (d) Revisions to project length.
- (e) Revisions to begin and end stations of project.
- (f) Revisions to index to sheets.
- (g) Strikeout any schedules or options not awarded.
- (h) A note stating "All work was constructed as designed unless otherwise noted."

(2) Typical section(s)

- (a) Revisions in dimensions.
- (b) Revisions in materials.
- (c) Revisions in station ranges.
- (d) Revisions to begin and end stations of project, and length of project.
- (e) Revisions to station equations.
- (f) Revisions to slope ratio and curve widening tables.
- (g) Revisions to any notes.

(3) Summary of Quantities and Tabulation Sheets

- (a) Revisions to all quantities, locations, notes/remarks, including totals.
- (b) Strikeout unused pay items.
- (c) Revisions to application rates.
- (d) Revisions to location, type, end treatments, riprap, skew, on drainage summary.

(4) Control Sheets

- (a) Show any control that was removed, destroyed, established, according to subsections 107.02, paragraph 2; 152.02, paragraph 2; and 152.03.
- (b) Use a unique naming convention for newly established control points. Do not reuse CFL control point numbers.

(5) Plan and profile and layout sheets

- (a) Revisions to the alignment; grades, elevations and stationing of intersection PIs; station equations and superelevation.
- (b) Major changes in the construction limits; particularly changes requiring additional design, additional right of way, or contract modifications. (Show information on plan and profile, layout sheets, and right of way plans if applicable.).
- (c) Changes in permanent rights of way caused by acquisition during construction. (Show information on plan and profile, layout sheets, and right of way plans if

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- applicable). In addition, annotate any construction completed according to agreements made with landowners during construction.
- (d) Revisions in location, type and grade of road approaches.
 - (e) Revisions in locations of sub-excavation and roadway obliteration.
 - (f) Location, type and elevation of all constructed or relocated utilities, aerial and underground. Location, type and elevation of utilities not previously or inaccurately mapped, but encountered during construction, indicated as “approximate” or “as mapped”. (Show information on plan and profile and layout sheets and utilities plans if applicable).
 - (g) Location, size and type of underdrains.
 - (h) Location, number and type of horizontal, lateral, trench and blanket drains.
 - (i) Revisions to culvert diameter, length, type, stationing, skew, riprap and end treatments.
 - (j) Length of culvert extension, skew, and offset from centerline to the ends of extended culverts.
 - (k) Channel changes.
 - (l) Location of monuments and permanent references replaced according to subsection 107.02.
 - (m) Location, length and type of fencing.
 - (n) Location, length, stationing and type of walls.
 - (o) Location, length, stationing and end treatment of roadside design features, including, but not limited to, guardrail, guardwall, signs, fences, gates, etc.
 - (p) Revisions in location of pavement markings.
 - (q) Revisions to parking areas or turnouts location.
 - (r) Revisions in location, type and length of curbs, sidewalks, and accessible ramps.
 - (s) Revisions to any notes.
 - (t) Revisions to permanent erosion control measures.

(6) Structural Sheets

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

(7) Standards, Details, and Specials

Revisions to notes, dimensions, locations, and materials.

No direct payment will be made for preparing and furnishing as-built working drawings. A retention of 1/10th of 1% of payment due will be withheld from project pay estimates if the Contractor has not kept current the designated set of as-built plans. In addition, a retention of 1/10th of 1% of the contract amount paid to date will be withheld at the end of the project until the set of as-built plans has been submitted to and accepted by the Project Engineer. The final completed as-built working drawings must be submitted to and accepted by the Contracting Officer before final acceptance will be granted on the project.

Section 105. - CONTROL OF MATERIAL

105.01 Source of Supply and Quality Requirements. Add the following:

Submit samples of materials for quality verification testing for materials required to conform to Sections 703, 704, and 705.

Materials containing petroleum-based solvents such as cutback asphalts and traffic paints may be restricted from use by local laws or ordinances in certain geographic areas. Upon presenting proof of such restrictions, alternate materials considered acceptable to the CO may be substituted for the materials specified in the contract.

105.02 Material Sources

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

For Contractor-located, non-commercial sources, secure environmental clearances according to Subsection 107.10.

105.04 Storing and Handling Material. Add the following after the third sentence of the second paragraph:

For Contractor-located, non-commercial staging, storing, and material handling areas, secure environmental clearances according to Subsection 107.10.

Add the following:

The Contractor may use the gravel areas near the refuge maintenance building and in the southeast quadrant of the "O" canal crossing and the Duckville parking area for a staging/storage area and for stockpiling.

Section 106. - ACCEPTANCE OF WORK

106.01 Conformity with Contract Requirements. Delete the text and substitute the following:

Follow the requirements of FAR Clause 52.246-12 Inspection of Construction.

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.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

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Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is stricter.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:

- (1) Sampling method
- (2) Number of samples
- (3) Sample transport
- (4) Test procedures
- (5) Testing laboratories
- (6) Reporting
- (7) Estimated time and costs
- (8) Validation process

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory.

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Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

- (1) Have the work accepted at a reduced price; or
- (2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

Where sample/testing procedures make reference to AASHTO, ASTM, or other standards (designated as FLH T), the procedure as modified in the Materials Manual shall govern. Where the specifications make reference to AASHTO Test T11, "Procedure B - Washing Using a Wetting Agent" shall be the procedure followed.

Where the specifications make reference to AASHTO Test T310, "Direct Transmission Method of In-Place Nuclear Density and Moisture Content" shall be the procedure followed.

Reference to the Materials Manual means the Federal Lands Highway "Field Materials Manual, U.S. Department of Transportation, Federal Highway Administration," Publication No. FHWA-FL-91-002, dated March 1991, revised March 1994, and all amendments and supplements thereto. Copies are available from the Materials Engineer, Federal Highway Administration, Central Federal Lands Highway Division, Materials Branch, P.O. Box 25246, Denver, Colorado 80225-0246, Telephone: (720) 963-3537.

106.03 Certification. Add the following after the second paragraph:

See Table 106-3 for schedule for full or partial acceptance by material certification. Submit certification and sample of material for testing as required.

106.05 Statistical Evaluation of Work and Determination of Pay Factor (Value of Work).

(b) Acceptance. Delete the last sentence of the second paragraph and substitute the following:

If a lot is concluded or terminated with fewer than three samples, the samples will be combined with those of an adjacent lot. In the event there is no adjacent lot, the material will be accepted according to Subsection 106.04.

Table 106-2 Pay Factor.

The Pay Factor 1.03, category I row: Delete the value 84 in the n=9 column and substitute the value 94.

The Pay Factor 0.75, category II row: Delete the value 35 in the n=3 column and substitute the value 25.

Table 106-3

Schedule For Full or Partial Acceptance by Materials Certification

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
306	Dust Palliative	Magnesium Chloride, Emulsified Asphalt, Lignin Sulfonate, Calcium Chloride	As specified	1 per shipment	First shipment
308	Minor Crushed Aggregate	Crushed Aggregate	Source, Quality and Gradation	1 per source	1 per source
404 and 417	Minor Hot Asphalt Concrete, Minor Cold Asphalt Mix	Aggregate Asphalt Mix	Source quality, Gradation, Stability, and Grade	1 per mix	1 per source
634 and 635	Permanent Pavement Markings, Temporary Traffic Control	634.02 as applicable, 635 as applicable	As specified	1 per source	-----
701	Hydraulic Cement	Portland Cement, Blended Hydraulic Cement and Masonry Cement	AASHTO M 85, M 240, and ASTM C 91	1 per shipment	1 per 100 tons
702.01	Asphalt Material	Asphalt Cement	AASHTO M 20, M 226, MP 1 or as applicable	1 per shipment	1 per shipment
702.02	Asphalt Material	Cut-back Asphalt	AASHTO M 81 or M 82 as applicable	1 per shipment	1 per shipment
702.03	Asphalt Material	Emulsified Asphalt	AASHTO M 140 or M 208 as applicable	1 per shipment	1 per shipment
702.05	Asphalt Material	Asphalt Materials used for Damproofing and Waterproofing Concrete Surfaces	As specified for each type of asphalt material	1 per shipment	-----
702.06	Recycling Agent	As specified	As applicable	1 per shipment	1 per shipment
702.08	Antistrip	As specified	As applicable	1 per shipment	-----
706	Concrete and Plastic Pipe	As specified	As applicable	1 per shipment	-----
707	Metal Pipe	Metal Pipe as specified	As applicable	1 per shipment	-----
708	Paint	As specified	As applicable	1 per batch\lot	1 sample for quantities >100L

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
709	Reinforcing Steel and Wire Rope	As specified	As applicable	1 per shipment	For 709.01 & 709.03 submit 3 1-meter bars of each size and grade of bar furnished. 709.02 submit 1 2-meter length for each size furnished
710	Fence and Guardrail	As specified	As applicable	1 per shipment	-----
711	Concrete Curing Material and Admixtures	As specified	As applicable	1 per material source per material type	-----
712	Joint Material (all)	As specified	As applicable	1 per shipment	-----
713	Roadside Improvement Materials (all)	As specified	As applicable	1 per shipment	-----
714	Geotextile and Geocomposite Drain	As specified	As applicable	1 per shipment	1 per project per type
715	Piling	As specified	As applicable	1 per shipment	-----
716	Material for Timber Structures	Timber and Hardware	As applicable	1 per shipment	-----
717	Structural Metal	As specified	As applicable	1 per shipment	717.01(e) minimum 6 per shipment for each size used. 717.10 1 per project
718	Traffic Signing and Marking (all)	As specified	As applicable	1 per shipment	-----
720	Structural Wall and Stabilized Materials (all)	As specified	As applicable	1 per shipment per material type	-----
721	Electrical and Illumination Material (all)	As specified	As applicable	1 per shipment per material type	-----
722	Anchor Material	As specified	As applicable	1 per shipment per material type	-----
725	Miscellaneous materials	As specified	As applicable	1 per shipment per material type	-----

Section 107. - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.01 Laws to be Observed. Add the following:

Section 401 and 404 of the Clean Water Act.

Comply with the terms and conditions of the 404 U.S. Army Corps of Engineers Permit #200250176. Comply with the terms and conditions of any permits that are issued for the performance of work within the jurisdictional waters of the U.S.

National Pollutant Discharge Elimination System (NPDES)

Obtain a separate NPDES permit associated with industrial activity for any mobile asphalt and concrete plants that provide material for the project.

Implement the requirements of the (NPDES) for erosion control due to storm water runoff during construction as specified under the NPDES General Permit UTR1000000 for Utah.

(a) General. Designate the erosion control/water quality supervisor according to Subsection 157.03 who will be responsible for implementing the SWPPP. The erosion control/water quality supervisor shall be familiar with the SWPPP procedures and practices and shall ensure that emergency procedures and the SWPPP are updated as needed and available for inspection.

(b) Preparation of SWPPP. At least three weeks prior to beginning construction, provide a draft SWPPP for the project, which includes the following information and forms:

- (1) Site Description
- (2) Expected sequencing of operations and construction schedule
- (3) Weather monitoring procedure
- (4) Descriptions and details of erosion and sediment controls, including dust control
- (5) Erosion Control Details and Quantities provided in the Plans
- (6) Controls for other potential onsite storm water pollutants
- (7) Spill prevention, control, and countermeasures plan (see (e) below)
- (8) Applicable specifications and Special Contract Requirements
- (9) Maintenance and inspection procedures and forms
- (10) Description of potential non-storm water discharges at the site
- (11) Notice of Intent (NOI) form submitted by CFLHD
- (12) Blank Notice of Termination (NOT) form
- (13) Contractor and Subcontractor Certification forms
- (14) Other record keeping forms and procedures
- (15) "Good housekeeping" practices and requirements

Modify the erosion and sediment control details, layout sheets, and quantities included in the plans if necessary to address project site conditions and proposed construction operations and include them in the SWPPP.

To comply with the General Permit, jointly review the draft SWPPP with the CO and agree to any needed revisions. Jointly approve and sign the revised SWPPP. The approved SWPPP will describe and ensure the implementation of practices, which will be used to reduce the pollutants in storm water discharges to assure compliance with the terms and conditions of the General Permit. When the SWPPP is approved and signed by the CO and Contractor, it will be the document in force on the project. Implement the SWPPP as required throughout the construction period.

Place the SWPPP and all updates in a three-ring binder so that completed inspection forms and other records may be inserted. Maintain a current copy of the SWPPP, including a copy of the General Permit, NOI, and all associated records and forms at the job site throughout the duration of the project. Make the SWPPP available for public inspection and for the inspection and use of the CO.

Maintain all related erosion control elements in proper working order throughout construction. Do not perform clearing and grubbing or earthwork until the SWPPP has been implemented.

Prior to construction, the Contractor and all subcontractors must sign certifications (included in the SWPPP) that they understand the requirements of the General Permit. Ensure that all subcontractors comply with the requirements of the General Permit under the supervision of the Contractor.

At the completion of the project, provide the CO with the SWPPP, including inspection forms and all data used in developing and modifying the SWPPP. The Contractor is also required to retain a copy for a period of at least three years from the date the site is finally stabilized.

(c) Notice of Intent (NOI). Post the NOI at the construction site bulletin board throughout the duration of the project.

(d) Erosion Controls. Implement soil erosion controls according to the SWPPP and Section 157.

(e) Controls for Other Pollutants. . Implement controls to eliminate the discharge of pollutants (other than erodible soil) into storm water, such as pollutants from materials stored onsite. Include the implementation of spill prevention and material management controls and practices to prevent the release of pollutants into storm water. Include these controls and practices and storage procedures for chemicals, construction materials and other pollution prevention measures in the **Spill Prevention, Control, and Countermeasures** Section of the SWPPP. In addition, contact the appropriate federal, state, and local authorities to determine the quantity of discharge that initiates reporting of petroleum products and hazardous material spills to those authorities. List the quantities in the SWPPP for all petroleum products and hazardous material used on the project.

A spill prevention, control and countermeasures plan is required if the volume of oil (including fuel) at a single location exceeds 5000 liters (1,320 gallons) or more. The total volume is the sum of all containers with a capacity of 200 liters (55 gallons) or more.

(f) “Good Housekeeping” Practices and Requirements. Specify the Contractor’s “good housekeeping” practices and requirements, including vehicle wash-down areas, onsite and offsite tracking control, protection of equipment storage and maintenance areas, sweeping of highways and

roadways related to hauling activities, and procedures to prevent litter, construction debris, and construction chemicals exposed to stormwater from becoming a pollutant source for stormwater discharges in the SWPPP.

Take precautions to prevent pollution of streams, lakes, and reservoirs with fuels, oil, bitumens, calcium chloride, magnesium chloride, Portland cement, fresh Portland cement concrete, raw sewage, muddy water, chemicals or other harmful materials. Do not discharge these materials into channels leading to any stream, lake or reservoir.

Locate machinery service and refueling areas away from streambeds and washes to reduce the possibility and minimize the impacts of accidental spills or discharges.

Remove non-waste materials, such as used cans, oils, machine and equipment parts, paint, hazardous materials, plastic and rubber parts, discarded metals, and building materials from the construction site and dispose of at an approved landfill.

Where the Contractor's working area encroaches on a running or intermittent stream, construct and maintain adequate barriers to prevent the discharge of any contaminants into the stream. Use sediment traps during dewatering activities.

Do not operate mechanical equipment in running streams unless approved in writing by the CO. Forging of running streams with construction equipment will not be permitted. Obtain approval from the CO to use temporary bridges or other structures whenever crossings are necessary.

Immediately clear streams, lakes and reservoirs of all work items, debris or other obstructions inadvertently placed thereby or resulting from construction operations.

(g) Inspections and Revisions to the SWPPP.

Conduct inspections at least once every 14 calendar days, before anticipated storm events (or series of storm events such as intermittent showers over one or more days) expected to cause a significant amount of runoff, and within 24 hours of the end of a storm that is 13 millimeters (0.5 inches) or greater. Inspection frequency can be reduced to at least one per month, if: 1) the site is temporarily stabilized, 2) runoff is unlikely due to winter conditions (site is covered with snow, ice, or the ground is frozen, or 3) during seasonal arid and semi-arid periods (areas with an average rainfall of 510 millimeters (20 inches) or less), with the exception of when rain is predicted and within 24 hours after the end of a storm event of 13 millimeters (0.5 inches) or greater. The area of inspection includes, but is not limited to, disturbed areas that have not been finally stabilized, areas used for storage of materials, locations where vehicles enter or exit the site, and all of the erosion and sediment controls that are included in the SWPPP. Where sites have been finally or temporarily stabilized, or during seasonal arid periods in arid areas (rainfall of 0-10 inches) and semi-arid areas (average rainfall of 10-20 inches) such inspection shall be conducted at least once every month. Monitor rainfall with a rain gauge accurate to the nearest 3 millimeters (0.125 inches) of rain.

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Document the inspections on forms provided in the SWPPP. Sign inspection forms according to the requirements of the SWPPP and the General permit. Retain inspection forms onsite in the SWPPP notebook throughout the construction period.

Revisions to the SWPPP may be necessary during construction to make improvements or to respond to unforeseen conditions noted during construction or site inspections. For that purpose, specify in the SWPPP the mechanism whereby revisions may be proposed by the Contractor or the CO and incorporated into the plan, including review and approval of minor changes. Jointly approve and sign each revision to the SWPPP before implementation. Implement approved modifications within 7 calendar days following the date of the inspection when deficiencies or necessary corrections were first noted.

Utah Air Quality Permit

Obtain an air quality permit from the Utah Division of Air Quality prior to the start of construction. The contractor shall prepare a fugitive dust control plan as part of obtaining the permit. The address for the Utah Division of Air Quality is PO Box 144820, 150 North 1950 West, Salt Lake City, UT.

107.02 Protection and Restoration of Property and Landscape. Add the following:

Contact the West Corinne Water Company, Bucky Reeder, (435) 230-0792 or Dee Hardy (435) 744-744-5552, at least two weeks before starting water line construction. There are two services using the water line, the Refuge Maintenance Facility and the Bear River Club. It may be possible to shut the water off for short periods of time. Coordinate with Steven Hicks of the US Fish and Wildlife Service (435) 734-6431 and Gary Slot of the Bear River Club (435) 744-2420.

Cooperate with all existing utilities along the roadway. The following is a list of contacts should the need arise:

Utah Power (PacifiCorp) - Status 1

Robert Weyland (435)257-6703
Gary Hunsaker (435)452-8987

Qwest - Status 1

Jeffrey Magdiel (801)626-5425 (cell) – (801)391-5776
Tim Squires (801)626-5411 (cell) – (801)651-2395
Matt Ivestor (801)626-5401

West Corinne Water Company - Status 2

Dee Hardy (435) 744-5552
Bucky Reeder (435) 230-0792
Curtis Marble (435) 730-2135

Chevron Pipeline - Status 4

George Adams (801) 975-2324

Wiltel Communications (Level 3 Communications) - Status 4

Marsha Kidd (918) 547-0029
Keith Osborn (720) 888-2774

Questar Gas - Status 1

Office (801) 324-3461

Status 1: The utilities are in conflict with the project and REQUIRE relocation by OTHERS DURING construction.

Status 2: The utilities are in conflict with the project and REQUIRE relocation by the Contractor DURING construction.

Status 3: The utilities are in conflict with the project and REQUIRE relocation BEFORE construction.

Status 4: The utilities are located within the project rights of way but require NO relocation.

107.03 Bulletin Board. Add the following:

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

107.10 Environmental Protection. Delete the text and substitute the following:

(a) **Spills of Petroleum Products or Hazardous Materials.** Properly clean up, mitigate, and remedy, if necessary, all spills of petroleum products, hazardous materials, or other chemical or biological products released from construction, fleet, or other support vehicles, or stationary sources. Respond in accordance with federal, state, and local regulations.

Immediately report to the CO any spill of petroleum products or a hazardous material. Report the spill to the appropriate federal, state, and local authorities, if the spill is a reportable quantity.

(b) **Water pollution.** Do not operate mechanized equipment or discharge or otherwise place any material within the wetted perimeter of any waters of the U.S. within the scope of the Clean Water Act (33 USC § 1251 et seq.). 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 any State agency having jurisdiction over the discharge of material into the waters of the U.S. In the event of an unauthorized discharge:

- (1) Immediately prevent further contamination;
- (2) Immediately notify appropriate authorities; and
- (3) Mitigate damages as required.

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Comply with the terms and conditions of any permits that are issued for the performance of work within the wetted perimeter of the waters of the U.S.

Separate work areas, including material sources, by the use of a dike or other suitable barrier that prevents sediment, petroleum products, chemicals, or other liquid or solid material from entering the waters of the U.S. Use care in constructing and removing the barriers to avoid any discharge of material into, or the siltation of, the water. Remove and properly dispose of the sediment or other material collected by the barrier.

(c) Vehicles and equipment. All vehicles and equipment entering the project area must be clean of noxious weeds and free from oil leaks and are subject to inspection. Wash all construction equipment to thoroughly remove all dirt, plant, and other foreign material prior to entering the project. Particular attention must be shown to the under carriage and any surface where soil containing exotic seeds may exist. These efforts are critical to prevent the introduction and establishment of non-native plant species into the project area. Make arrangements for the CO to inspect each piece of equipment before entering the project. The CO will maintain records of inspections. Equipment found operating on the project that has not been inspected, or has oil leaks will be shut down and subject to citation.

In general, when gasoline, diesel fuel, antifreeze, hydraulic fluid or any other chemical contained within the vehicle is released to the pavement or ground, proper corrective, clean-up, and safety actions specified in the SWPPP must be immediately implemented. All vehicles with load rating of 2 tons or greater should carry, at minimum, enough absorbent materials to effectively immobilize the total volume of fluids contained within the vehicle.

Repair oil leaks immediately on discovery. Do not use equipment that is leaking. Have oil pans and absorbent material in place prior to beginning repair work. Have the "on scene" capability of catching and absorbing leaks or spillages of petroleum products including antifreeze from breakdowns or repair actions with approved absorbent materials. Keep a supply of acceptable absorbent materials at the job site in the event of spills, as defined in the SWPPP. Sand or soil is not approved absorbent materials.

Use oil pans and absorbent materials to prevent leaks, spills and draining petroleum fluids from falling onto bare ground and paved surfaces during servicing of equipment. Dig up soils contaminated with such fluids, place in appropriate safety containers, and dispose of according to state and/or federal regulations.

(d) Environmental Clearances.

(1) Contractor-Selected, Non-Commercial Areas. Contractor-selected, non-commercial areas include, but are not limited to, material sources, disposal sites, waste areas, haul roads, and staging areas. (A commercial source is a current operating concern, which has in the recent past provided same-type materials or services). These requirements do not apply for areas identified by the FHWA as having previously received clearance.

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Prior to construction activities in Contractor-selected, non-commercial areas, provide the following to the CO and the FHWA Environmental Section (12300 West Dakota Avenue, Lakewood, CO 80228/Fax 720-963-3610):

(a) A report with documentation, according to the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, to determine if prehistoric or historic buildings, structures, sites, objects, or districts listed or eligible for listing in the National Register of Historic Places (NRHP) are present and if they will be affected by the proposed activity. Include information identifying the location, total land area, and type of activity proposed. The FHWA will review this documentation. The FHWA will coordinate with the State Historic Preservation Officer (SHPO) and other parties, which will require the following time frames:

- (1) Coordination on a "no effect" determination may require 30 days or longer.
- (2) Coordination on eligibility and affects may require 45 days or longer.
- (3) Coordination on mitigation of adverse effects may require 60 days or longer.

(b) Written documentation that such activities will not affect any "Waters of the U.S." as defined by the U.S. Army Corps of Engineers. Provide documentation by an individual capable of performing wetland delineations according to the 1987 Corps of Engineers' manual. Documentation of effects to wetlands or other Waters of the U.S. will be submitted to the CO and to the FHWA Environmental section. If wetlands are affected, coordination with the Corps of Engineers may require 45 days or longer.

(c) Written documentation that such activities will not affect any species protected under the Endangered Species Act (ESA). Provide documentation prepared by a biological specialist. The written documentation will include a "no effect," a "may affect-is not likely to adversely affect," or a "may affect-is likely to adversely affect," determination according to Section 7 of the Endangered Species Act. Submit the documentation to the CO and the FHWA Environmental Section. If the determination is "may affect-is not likely to adversely affect" or "may affect-is likely to adversely affect," the FHWA will coordinate with the U.S. Fish and Wildlife Service (FWS), which will require the following time frames:

- (1) "May affect-is not likely to adversely affect" may require 45 days or longer.
- (2) "May affect-is likely to adversely affect" may require 150 days or longer.

Contract time will not be increased due to the submittal and approval process for the above three items.

107.11 Protection of Forests, Parks, and Public Lands. Add the following:

The CO will order the suspension of burning and other operations when directed to do so by the Refuge. No adjustment in the contract completion date will be made for partial or total suspensions of burning operations.

Section 108. - PROSECUTION AND PROGRESS

108.01 Commencement, Prosecution, and Completion of the Work: Add the following:

Limit operations as follows:

- Three weeks prior to the beginning of clearing operations a qualified biologist provided by the contractor will conduct a nest survey within the clearing limits. Submit the qualifications of the biologist to the CO for approval at least two weeks before the beginning of the survey. In the event an active nest is found, mark the site using ribbon and lathe placed along the road on a line perpendicular to the roadway. Do not clear the areas 30 meters either side of the lathe. The CO will notify the contractor after the Refuge has recovered the nest site that the site is ready to be cleared.
- The road from Sta. 0+850 to Sta. 6+300 can be closed to all traffic, except emergency vehicles, from June 1 to August 31. While the road is open to traffic do not perform any construction activities between 6:00 pm on Friday and 6:00 am on Monday.
- Completion date for the project if Schedule "A" is awarded is November 14, 2008. The completion date if Schedule "B" or Schedule "C" is awarded is July 17, 2009. Failure to meet any of the completion dates will result in liquidated damages according to Subsection 108.04.
- Construction of the low-water crossing, canal crossings, bank revetment and riprap fill in channel shall be during low water conditions, usually July through September.
- Coordinate the construction of the Unit 3A, Duckville and "O" canal crossings with the Refuge. Notify the refuge one month prior to beginning construction of the Unit 3A, Duckville and "O" canal crossings. The Refuge can close the control gates for short periods of time to allow the contractor to work in minimal water, expect some leakage of the control gates.
- A qualified archeologist provided by the contractor will be present during all excavations between Sta. 0+850 to Sta. 6+200. Submit qualifications to the CO two weeks before any excavation.
- A traversable path for emergency vehicles must be maintained through the project limits at all times.

Perform no work except to maintain traffic control devices, erosion control devices, the roadway driving surface, and to control dust during the listed Federal holidays and surrounding days:

- Memorial Day Weekend:
12:00 Noon on Friday May 23, 2008 to 6:00 am on Tuesday May 27, 2008.
12:00 Noon on Friday May 22, 2009 to 6:00 am on Tuesday May 26, 2009.

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- Independence Day: 12:00 Noon on July 3, 2008 to 6:00 am on July 7, 2008.
- Labor Day Weekend: 12:00 Noon on Friday August 29, 2008 to 6:00 am on Tuesday September 2, 2008.

Add the following:

A Notice to Proceed must be issued before commencement of any work.

Section 109. - MEASUREMENT AND PAYMENT

109.08 Progress Payments.

(b) Closing date and invoice submittal date. Delete the last sentence and substitute the following:

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 will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

(e) Processing progress payment requests.

(1) Proper invoices. Delete the title and text and substitute the following:

(1) Invoices received by the 7th day following the closing date.

(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 Government's receiving report, the invoice will be paid.

(b) 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.

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If the revised invoice meets the requirements of Subsection 109.08(c), but still had 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 or 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.

(2) Defective invoices. Delete the title and text and substitute the following:

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

(a) Proper invoices. If the invoice meets the requirements of Subsection 109.08(d), 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(d), 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(d), 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 of the Government's receipt of the invoice. The Contractor will be notified of the reasons for any changes to the invoice.

(f) Partial payments. Add the following after the first paragraph:

Partial payments for stockpiled manufactured material (aggregates) will be based on Contractor process control test results. If test results show the material to be out-of-specification, or in "reject" where statistical evaluation procedures are used, no payment for stockpiled materials will be made.

Section 152. - CONSTRUCTION SURVEY AND STAKING

Construction Requirements

152.02 General. Delete the first paragraph and substitute the following:

The Government will furnish to the Contractor one copy of each of the following information:

- 3D coordinates and offset distance from centerline for subgrade and surface course finishing stakes at 20-meter intervals and miscellaneous intermediate stations.
- Slope stake books containing centerline grade and slope staking information at 20-meter station intervals and miscellaneous intermediate stations.
- Computer listings containing: horizontal alignment, vertical alignment, earthwork quantities, and staking details showing superelevation template data and slope information.

The Government will provide files for downloading 3D data. Following is the information that will be provided electronically:

- 3D coordinates of control points.
- 3D coordinates of grade finishing stakes.
- 3D coordinates of slope stakes

The Government will perform the following:

- Establish basic survey control points for vertical and horizontal control of the project.

Delete the second sentence of the second paragraph and substitute the following:

Reestablish missing terrain control points and stakes before slope staking begins.

Add the following:

Furnish a practicable schedule of staking activities with the construction schedule submitted according to Section 155. Include the dates and sequence of staking requirements.

152.03 Survey and Staking Requirements. Add the following before (a) Control Points:

(a) **General.** Construction survey and staking includes layout, controls, and measurements as necessary to construct the project. Perform the work listed below according to Subsections 152.03(a) through 152.03(n):

- Control Points
- Slope Stakes and References: Both sides of the road, designed approach roads and for the parking area and pullouts.
- Clearing Limits: Both sides of the road, designed approach roads and for the parking area.
- Centerline Reestablishment: Main roadway (0+850 to 6+100) and Bike Path (1+008.7 to 1+208.9)
- Centerline Verification: Main roadway (20+100 to 20+672 segment only)
- Grade Finishing Stakes: Top of subgrade and top of base course.
- Drainage Structures (approximately 27 pipe culverts for Schedule C)
- Box Culverts
- Fencing and gates
- Intermediate Survey and Staking
- Measure conserved topsoil
- Miscellaneous Survey and Staking as defined in FP-03 Subsection 152.03 (l)

(b) Roadway cross-sections. Delete the text and substitute the following:

Take roadway cross-sections when required to re-catch slope stakes according to 152.03(c). Take roadway cross-sections normal to centerline. Along each cross-section, measure and record points at breaks in topography, but no farther apart than 5 meters. Space the points so that the maximum variation in vertical distance from a straight line between two consecutive points and the ground line does not exceed ± 0.2 meters. Measure and record points to at least the anticipated slope stake and reference locations. Reduce all cross-section distances to horizontal distances from centerline.

Submit one printed copy and one electronic file of the cross-sectional data in GEOPAK ASCII text format: station, offset, elevation, north coordinate, east coordinate, p-code text format. Include a file header that defines the data type of the column. (Contact Central Federal lands Survey Manager, at 720-963-3700 for more information on the format.) Include one observation per line in the submitted files showing the following data:

Station (nominal), offset from centerline, elevation, north coordinate, east coordinate, p-code (Feature code: RH for reference hub, CL for centerline).

(e) Centerline reestablishment. Delete the text and substitute the following:

Reestablish centerline from instrument control points. The maximum spacing between centerline points is 10 meters when centerline curve radius is less than or equal to 75 meters. When the

centerline curve radius is greater than 75 meters, the maximum distance between centerline points is 20 meters. Reestablish centerline as many times as necessary to construct the work.

(g) Culverts. Delete the first paragraph and substitute the following:

Verify, in the field, the approximate location of each individual culvert with the CO prior to surveying, designing, and staking culverts. Use the “Guide for Designing and Staking Culvert in the Field”, dated January 9, 1996, issued by the U.S. Department of Transportation, Central Federal Lands Highway Division, Lakewood, CO, as a guide to the work in this section.

Perform the following:

(4) Add the following:

(a) For single skewed culverts, also submit a plotted field design cross-section, normal to roadway centerline, at each end section. Plot the offset and elevation of natural ground at the end section and at all proposed template break points between centerline and the end section. Ensure the template design embankment slope is not exceeded.

(b) For multiple skewed culverts, also submit a plotted field design cross-section, normal to roadway centerline, at the end sections (left and right) nearest to the shoulder. Plot the offset and elevation of natural ground at the end section and at all proposed template break points between centerline and the end section. Ensure the template design embankment slope is not exceeded.

(5) Add the following:

Plot at a scale of 1:100.

Add the following:

(8) When the field design has been approved, set culvert survey stakes, reference stakes, and stake inlet and outlet ditches to make the culvert, including end treatments (e.g., drop inlets) functional.

(9) Adjust slope stakes to provide for catch basins (and transitions into and out of catch basins) which correspond to the final culvert location and design. If the culvert was moved from location shown in the plans, review the slope stakes in the vicinity of the plan location and adjust the slope stakes to remove the planned catch basin.

(l) Miscellaneous survey and staking. Delete the text and substitute the following:

Perform all surveying, staking, recording of data, and calculations necessary for establishing the layout, control, and measurement required to construct the project. Perform the work in such a manner as to ensure the contract work is constructed in the proper location and to the required

tolerances. Where staking increments are not identified, propose appropriate staking increments to the CO for acceptance.

Add the following:

(m) Reference hub establishment. Establish reference hubs and guard stakes on both sides of centerline at 20-meter station intervals and each intermediate cross-section as shown in the plans, according to the offset distance and elevation data furnished. Reference hubs shall be 19-millimeter square, 300 millimeter long oak or ash (hardwood) stakes driven flush with the natural ground. If rocky soil prohibits the use of stakes this long, 200-millimeter stakes can be substituted. Reference hubs shall be set approximately 6 meters outside of the proposed cut limits and 5 meters outside of the proposed fill limits, except in rock cuts and wall areas. Should the Contractor be unable to set any of the reference hubs because of obstructions such as trees or boulders, alternate locations for the hubs shall be determined and computed in the field by the Contractor. The alternate point for the hub shall be along the station right-angle line to a more usable location. This move should be of minimal distance. Centerline points shall be 12d light boat nails (or equivalent) with flagging if the points fall within the existing highway surface, or 19 millimeter by 38 millimeter by 450 millimeter guard stakes if they fall outside the existing roadway. Reference hub and centerline guard/offset stakes shall be 19 millimeter by 38 millimeter by 450 millimeter finished size pine stakes painted white. Remove and dispose of any reference hubs and guard stakes previously placed by the Government.

Section 153. - CONTRACTOR QUALITY CONTROL

Construction Requirements

153.02 Contractor Quality Control Plan.

(a) Process control testing. Add the following:

See Table 153-1 for schedule of minimum sampling and testing for process control. Where no minimums are specified, submit proposed tests to be performed and the proposed sampling and testing frequencies.

For aggregates and/or aggregate/asphalt mixtures accepted under Subsection 106.03, sample and test for conformity with the Certification a minimum of one time per pay item.

(b) Inspection/control procedures.

(3) Production phase. Add the following:

(d) Inspect the work, materials or assemblies accepted under Subsection 106.03 to ensure that **all** the work and materials comply with contract requirements. Furnish the results of the work inspection, along with the product certification or commercial certification as applicable, to the CO prior to incorporating the materials into the work.

(c) Description of records. Add the following:

Identify the format for reporting test results, materials certifications and the procedures to be used to maintain inspection records.

(d) Personnel qualifications.

(1) Add the following:

Designate a Quality Control Supervisor (QCS) whose primary responsibility is managing the inspection system. The QCS will not be the Contractor's Superintendent. Designate a QCS who is experienced to perform and supervise all work inspection, sampling and testing. The QCS will monitor all phases of the work and identify deficiencies and take appropriate corrective action.

Add the following:

(3) Personnel assigned to sampling or testing will have 1 year or more of recent job experience in the type of sampling and testing required by the contract, and the following:

(a) NICET Level II certification in highway materials, or State (SHA) or industry certification-related sampling and testing equivalent to their intended responsibilities.

(b) WAQTC or other nationally accepted certification program for intended sampling and testing responsibilities.

or

(c) Current or previous employment by an AASHTO accredited laboratory performing sampling and testing equivalent to their intended responsibilities.

(d) Demonstrated proficiency or successful testing of one or more proficiency samples may be substituted for basic qualifications pending verification of test results.

153.03 Testing. Delete the title and text and substitute the following:

153.03 Sampling and Testing. Perform the work required by Table 153-1 and by the accepted Quality Control Plan.

(a) Acceptance sampling. Acceptance sampling schedules and times or locations will be provided by the CO. Use a procedure for random sampling. In addition, sample any material that appears defective or inconsistent with similar material being produced, unless such material is voluntarily removed and replaced or otherwise corrected.

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(b) Testing. If the Government-furnished field laboratory option is not exercised by the CO, furnish a laboratory equipped with all test equipment necessary to satisfy the requirements of the contract. Ensure test equipment has been checked, calibrated, standardized and/or otherwise verified in accordance with AASHTO and ASTM standards by an individual qualified to do this work. Ensure mobile laboratories receive an equipment inspection after the laboratory has been moved to its permanent location on the project site and anytime it is moved thereafter. Inspect equipment within 45 days of actual use in project testing and at least once a year thereafter. Do not use equipment that has not been inspected or is found to be deficient. Mark deficient equipment and take it out-of-service until it is repaired or replaced and shown by subsequent inspection to perform as required. Maintain records documenting these inspections in the laboratory. Provide certification(s) stating the equipment conforms to testing requirements and provide evidence of current inspection.

The CO may require the Contractor to perform testing to demonstrate acceptable equipment and an acceptable level of technician competence. The CO may also check equipment and inspection records to verify condition. Repair or replace equipment not meeting applicable requirements. Keep laboratory facilities clean and maintain equipment in proper working condition. Provide the CO unrestricted access to the laboratory for inspection and review.

(c) Certifications. For materials accepted by certification in accordance with 106.03, review all certifications to insure compliance with the requirements of the contract prior to incorporating materials into the work and provide a signed copy of the reviewed certification(s) to the CO.

153.04 Records. Add the following to the first paragraph:

When tests are on material being incorporated into the work, report test results within the reporting times indicated in the sampling and testing requirements at the end of each section or as specified in the contract.

Add the following to the second paragraph:

Detailed inspection results including deficiencies observed and corrective actions taken.

153.05 Acceptance. Add the following:

If chronic deficiencies are noted in the Contractor's inspection or testing systems, the CO may order supplemental inspection and/or testing to be performed. The Government will charge to the Contractor all costs associated with such supplemental inspection or testing.

Table 153-1
Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 204, 208, 209.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Embankment Construction Composition of Roadbed in Cuts	Classification and Moisture/Density	AASTHO M 145 AASHTO T 99 or AASHTO T 180 (minimum of 5 proctor points).	1 per material/type.	Source of material.
	In-place density and moisture content	AASHTO T 310	2 per lift, but not less than 2 every 800 cubic meters.	Compacted embankment, subgrade as applicable.
	R-value	AASHTO T 190 (Tested by FHWA Central Lab).	1 per 700 meters, or change in material type.	Sample depth: 0-300 mm.
Bedding/Backfill for Structures and Culvert Pipe	Classification and Moisture/Density	AASTHO M 145 AASHTO T 99 or AASHTO T 180 (minimum of 5 proctor points).	1 per material/type.	Source of material.
	In-place density and moisture content	AASHTO T 310	1 per 15 meters/lift. Minimum 2 per lift.	Compacted bedding or backfill as applicable.

Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 255.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Select wall backfill 704.13(a) and Wall backfill 704.13(b)	Gradation and liquid limit	AASHTO T 11 AASHTO T 27 AASHTO T 89 AASHTO T 90	1 per material/type	Source of material
	Moisture Density	AASHTO T99, Method C ⁽¹⁾	1 per material/type	Source of material
	In-place density and moisture content	AASHTO T 310	For MSE walls: 1 per 300-mm lift per 75-meters of wall length (minimum of 2 per lift)	Compacted backfill

⁽¹⁾ A minimum of 5 points are required for moisture density test.

Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 301, 303, 304, 305, 306, 308.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Subbase, Base Course Aggregate	Gradation (301)	AASTHO T 11 AASTHO T 27	2 per day	Crusher belt
	Moisture/Density	AASHTO T 99 or AASTHO T 180 (minimum of 5 proctor points)	1 per source of material	Source of material
Stabilization and Aggregate Topsoil Courses	In-place density and moisture content	AASHTO T 310 or ASTM 2950	2 per lift at 300-meter intervals, alternating lanes	Compacted aggregate
	Plasticity index (aggregate surfacing only)	AASHTO T 90	2 per day	Crusher belt
	Gradation (304 materials processed in place)	AASHTO T 11 AASHTO T 27	1 per 300 meters	Processed material
Magnesium Chloride and Calcium Chloride	Specific Gravity	Hydrometer	1 per shipment	Transport vehicle

Note: Density and Moisture calculations AASHTO T 310...Density corrections based on moisture for recycled materials containing asphalts, or aggregates containing MgCl or CaCl will be made based on samples taken from each test site and oven-dried in the laboratory.

Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section: 401.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Superpave Hot Asphalt Concrete Pavement	Gradation	AASTHO T 11 AASHTO T 27	2 per day per stockpile	Crusher belt (during production) and Cold Feed or Hot Bins (as applicable during production of hot mix)
	Moisture content of aggregates	AASHTO T 255	1 per day	Cold Feed (during production of hot mix)
	Compaction	ASTM D2950	Test strip, first day of production to establish roller pattern: 12 per 500 meters, then 3 per 500 meters	In place, after compaction
	Placement temperature	Thermometer	As directed	Behind laydown machine
	Surface tolerance	Straight edge and FLH T 504	During and after compaction	See Subsection 401.16
Aggregate	Fine aggregate angularity	AASHTO T 304, Method A	1 per day	Cold Feed

Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 402, 403, 404, 405, 408.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Asphalt Concrete Pavement	Gradation	AASTHO T 11 AASHTO T 27	2 per day per stockpile	Crusher belt (during production) and Cold Feed or Hot Bins (as applicable during production of hot mix)
Open-Graded Asphalt Friction Course	Moisture content of aggregates	AASHTO T 255	1 per day	Cold Feed (during production of hot mix)
Asphalt Base Course	Compaction	ASTM D2950	Test strip, first day of production to establish roller pattern: 12 per 500 meters, then 3 per 500 meters	In place, after compaction
	Placement temperature	Thermometer	As directed	Behind laydown machine
	Surface tolerance	Straight edge and FLH T 504	During and after compaction	See Subsection 401.16

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Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 409, 410.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Chip seal aggregate	Gradation	AASHTO T 11 AASHTO T 27	2 per day	Production belt or spreader discharge
Slurry seal aggregate	Moisture content of aggregates	AASHTO T 255	1 per day	Stockpile or spreader discharge
Asphalt binder Emulsified asphalt	Placement temperature	Thermometer	Prior to each days production, followed by 2 each day	Distributor truck

Table 153-1
Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 416, 418.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Continuous Cold Recycled Asphalt Base Course Foamed Asphalt Stabilized Base Course	Gradation	AASTHO T 27 (maximum size only)	1 per 500 meters	Recycled material prior to compaction
	Moisture content	FLH T 515	Minimum 1 per 500 meters alternating lanes (as necessary to comply with contract requirements)	In place after compaction and prior to compaction to determine total moisture.
	In-place density	ASTM D2950	1 per 500 meters, alternating lanes (1 value will be equal to the mean of 3 in-place tests, and as necessary to comply with contract requirements)	In place after compaction

Note: Density and Moisture calculations ASTM D 2950...Density corrections based on moisture for recycled materials containing asphalts, or aggregates containing MgCl or CaCl will be made based on samples taken from each test site and oven-dried in the laboratory.

Table 153-1

Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the Contractor)

Section(s): 501, 552, 601.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Concrete	Gradation and fineness modulus	AASTHO T 11 AASHTO T 27	1 per day	Aggregate, before batching
	Moisture	AASHTO T 255	1 per day/stockpile	Aggregate, before batching
	Slump	AASHTO T 119	1 per 25 cubic meters, minimum 1 per day	See note
	Air content	AASHTO T 152	1 per 25 cubic meters, minimum 1 per day	See note
	Unit weight	AASHTO T 121	1 per 25 cubic meters, minimum 1 per day	See note
	Temperature	Thermometer	1 per 25 cubic meters, minimum 1 per day	See note
	Making test specimens for compressive strength	AASHTO T 23	1 set per 25 cubic meters, minimum 1 set per day	At point of discharge

Note: If an extended set admixture is used for the sole purpose of extending discharge times, sampling and testing will be performed by the Contractor at point of batching and discharge location to ensure compliance with Subsection 552.08.

Section 154. - CONTRACTOR SAMPLING AND TESTING

Construction Requirements

154.02 Sampling. Add the following:

Perform the initial curing of all concrete test cylinders. Provide for transporting the cylinders to the FHWA-Central Federal Lands Highway's Laboratory unless other testing facilities are authorized by the CO.

Label each concrete mold with the name and number of the Project, the cylinder number, date molded, location of the sample, and the test age (i.e. – 7, 14, or 28 days). Label the mold after casting and the cylinder after stripping to ensure the sample can be identified throughout the entire curing process.

Provide the required cylinder molds.

154.03 Testing. Add the following:

Where Process Control Sampling and Testing frequencies in Table 153-1 are identical to the Sampling and Testing Tables for all applicable work the Process Control Samples may be used for acceptance.

Add the following subsections:

154.03A Field Laboratory (Government-Furnished). If the bid option “Item 15401-0000, Contractor Testing, Using Government Furnished Field Laboratory” is **exercised**, the government will provide for the Contractor's use a mobile field laboratory, including testing equipment as follows:

- Ignition Oven
- Convection Oven
- Liquid Limit Machine and Grooving Tool
- 30,000 Gram Balance
- 12,000 Gram Balance
- 4,600 Gram Balance (readable to 0.01)
- Platform Scale
- Mechanical Compactor (Moisture Density) and Accessories
- 8-inch Sieve Shaker and Sieve Stack
- 12-inch Sieve Shaker and Sieve Stack
- Drill Press with Muller
- Large Sample Splitter
- Small Sample Splitter

Provide any additional equipment or facilities necessary to fulfill the requirements of the Contract.

Transport the laboratory from 12300 West Dakota Avenue, Lakewood, CO to the point of use and return the laboratory to the same Lakewood address upon completion of the work. The trailer will be available upon issuance of Notice to Proceed and must be returned no later than 14 days following final acceptance of the contract. Contact the CFLHD Equipment Depot at (720) 963-3386 for specific directions to the laboratory storage location.

Assume responsibility for the replacement of any and all missing or damaged equipment and for the repair of any damage to the laboratory. **Replacement cost for missing or damaged equipment or facilities will be deducted from any remaining monies owed the Contractor. If sufficient funds are not available under the Contract for such retention, the Contractor agrees to make payment directly to the Government for any damaged or missing equipment or facilities.**

Specifics:

Furnished equipment will be inspected by the Government by checking, standardizing, calibrating and/or verifying, as appropriate, in accordance with applicable AASHTO and ASTM standards. The Government equipment inspection will be completed after the laboratory has been moved to its permanent location on the project site prior to actual use in project testing and at least once a year thereafter. Notify the CO at least 30 days in advance of intent to use the testing equipment on the project so that Government equipment inspection can be scheduled and performed. Assume responsibility for additional equipment inspections prior to the Government's yearly inspection if the mobile laboratory is moved. Maintain records documenting these inspections in the laboratory.

Maintain equipment in proper operating condition. Do not use equipment that is found to be deficient or defective. Mark deficient or defective equipment and take it out-of-service and immediately notify the CO. If Government-furnished testing components fail through no fault or negligence of the Contractor, the Government will replace or repair the equipment in the most expeditious manner practicable. Requests for time extension and/or delay damages will not be granted for delays of less than 48 hours for any one occurrence, or for cumulative delays amounting to less than 5 (five) days in any one 365-day period. Requests for time extensions or damages due to equipment-related delays caused by equipment misuse or other Contractor fault will not be granted.

- Furnish water to the Government-provided field laboratory which is clear and free of oil, acid, rust, alkali, sugar, and vegetable substances. Furnish 120/240-volt, 60-cycle, single-phase current adequate to operate all of the Government field laboratory facilities at all times as required by the CO. Supply enough power to support a 200 amp service panel. Equip the power supply with a regulator that limits the voltage of the power furnished to the laboratory to not less than 220 volts and not more than 240 volts.
- All equipment provided by the Government and replaced by the Contractor will remain with the laboratory and will become the property of the Government.
- Use of the laboratory is limited to testing materials in connection with this contract.

154.03B Field Laboratory (Contractor-Furnished). Furnish a laboratory equipped with all test equipment necessary to satisfy the requirements of the contract.

The sampling and testing services of a commercial laboratory meeting or exceeding the requirements described herein may be used if all contract sampling and testing requirements are satisfied by the use of the commercial facility.

Ensure test equipment has been checked, calibrated, standardized and/or otherwise verified in accordance with AASHTO and ASTM standards by an individual qualified to do this work. Ensure mobile laboratories receive an equipment inspection after the laboratory has been moved to its permanent location on the project site and anytime it is moved thereafter. Inspect equipment within 45 days of actual use in project testing and at least once a year thereafter. Do not use equipment that has not been inspected or is found to be deficient. Mark deficient equipment and it take out-of-service until it is repaired or replaced and shown by subsequent inspection to perform as required. Maintain records documenting these inspections in the laboratory. Provide certification(s) stating the equipment conforms to testing requirements and provide evidence of current inspection.

The CO may require the Contractor to perform testing to demonstrate acceptable equipment and an acceptable level of technician competence. The CO may also check equipment and inspection records to verify condition. Repair or replace equipment not meeting applicable requirements. Keep laboratory facilities clean and maintain equipment in proper working condition. Provide the CO unrestricted access to the laboratory for inspection and review.

Section 155. - SCHEDULES FOR CONSTRUCTION CONTRACTS

Construction Requirements

155.03 Bar chart Method (BCM). Delete the text.

155.05 Written Narrative. Add the following:

(j) List anticipated monthly and cumulative contract earnings (including, for schedule updates, any contract modifications) for each month from the beginning of construction operations through the completion of the work. Calculate and list each month's anticipated earnings through the close of business on the date provided by the CO as the cut-off date for monthly project pay estimates.

Section 156. - PUBLIC TRAFFIC

Construction Requirements

156.03 Accommodating Traffic During Work. Delete the last two sentences of the first paragraph and substitute the following:

Submit situation-specific traffic control implementation drawings and alternate traffic control proposals according to Subsection 104.03 for acceptance at least 14 days before intended use.

156.04 Maintaining Roadways During Work.

(a) Add the following:

Do not construct diversions outside of the clearing limits or use alternate route detours without the approval of the CO.

156.06 Limitations on Construction Operations.

(c) Delete the first sentence and substitute the following:

For alternate one-way traffic control, provide a minimum lane width of 3 meters. For two-way traffic, provide a minimum roadway width of 6.6 meters.

(i) Delete the text and substitute the following:

When the road is open to traffic, limit construction-caused delays to public traffic to a maximum of 15 minutes per passage through the project, Monday through Friday 6:00a.m. to 6:00p.m:

From 6:00 p.m. through 6:00 a.m., Monday through Friday, allow traffic to pass through the construction without delay when the road is open to traffic

(j) Add the following:

Limit the length of area affected as approved by the CO. See Subsection 108.01 for limitations on work.

Section 157. - SOIL EROSION CONTROL

Construction Requirements

157.03 General. Delete the second paragraph and substitute the following:

Standard erosion control devices are provided in the contract. Detail site-specific measures for controlling erosion and submit to the CO for acceptance prior to implementation. Provide working drawings and associated data that do not exceed 610 by 920 millimeters in size. Allow 7 days for acceptance of the drawings or a return for corrections. Include the following in the detailed design:

- (1) Address contractual requirements for storm water runoff permits, environmental commitments, and other permit requirements here or in Subsection 107.01 or 107.10.
- (2) Location of each proposed erosion control measure.
- (3) Type of each erosion control measure.
- (4) Quantities and estimated unit costs of proposed temporary erosion control devices to be implemented during construction.
- (5) A schedule detailing coordination of erosion control measures with the various construction operations or stages. Include the furnishing, installation, maintaining, and removing of temporary devices and the installation of permanent erosion control features.
- (6) A schedule outlining the proposed schedule of clearing and grubbing, excavation, embankment, and culvert operations such that the area of disturbed or erodible material is minimized. Schedule the work such that temporary and permanent erosion measures can be incorporated at the earliest practical time.
- (7) Construction methods used in various items of work to minimize erosion.

Add the following:

At least 5 days prior to the preconstruction conference, designate in writing an Erosion Control Supervisor who is responsible for implementing the requirements of this Section. Do not designate the project superintendent as the Erosion Control Supervisor.

When temporary erosion control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as part of the work in a timely manner, provide temporary measures at no cost to the Government.

157.12 Inspection and Reporting. Add the following:

Monitor the turbidity of waters adjacent to the project. Take turbidity measurements using an HF-DRT 15CE turbidimeter or equivalent upstream of the project and 150 meters downstream of the area of the highest turbidity, except immediately after riprap operations. If the measurements show an increase of 10 NTU or more, immediately suspend operations in the vicinity of the problem area and modify the erosion control measures to eliminate the cause of the high turbidity. Include turbidity readings, locations, and actions taken, if any, in inspection reports. Also provide documentation of meter calibration.

157.14 Acceptance. Add the following:

Soil erosion control will be evaluated under Subsection 106.02 based on the demonstrated ability of the erosion control measures to result in minimal soil erosion, sedimentation and/or siltation, and turbidity increases within or adjacent to the project limits.

Section 158. WATERING FOR DUST CONTROL

Description

158.01. Add the following:

The is no source of water within the project limits

Section 202. ADDITIONAL CLEARING AND GRUBBING

Description

202.01. Add the following:

This work also includes clearing the Tamarisk and Russian Olive trees from the Wetland Mitigation Area.

202.04 Selective Clearing. Add the following:

Eradicate the Tamarisk and Russian Olive tree from the Wetland Mitigation Area by cutting down the Tamarisk and Russian Olives and applying an approved herbicide to the stumps. Leave no stump taller than 150 mm. Use Tahoe 4E herbicide (Triclopyr) or approved equal, mixed at 20% with forest crop oil on each Tamarisk or Russian Olive stump. The approximate concentrations of tamarisk are show in the following table:

Percent tamarisk cover	Hectares
61-100%	1.90
31-60%	0.69
11-30%	2.75
0-10%	63.86

The greatest densities of tamarisk are generally located along the Bear River and Reeder Overflow Canal as well as the remnants of irrigation and drainage ditches. The Russian Olives are generally found in low densities scattered throughout the mitigation area. The downed Tamarisks and Russian olive are to be removed from the project. The downed Tamarisks and Russian Olives may be chipped for easier removal provided the following conditions are met:

- The chipper discharge is directly into a covered truck or trailer
- The chips are never stockpiled on the ground

Section 203. - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Description

203.01 Add the following:

Remove refuse stockpiled from areas shown on Wetland Mitigation Area plan sheet and haul to an approved landfill. In Wetland Mitigation Area, there are two general fence locations. The first is fencing located in the interior of the mitigation area, the second is perimeter fencing. The interior fencing may be removed at any time. Remove the perimeter fencing in coordination with Section 619; do not leave gaps in the perimeter fencing overnight. Remove all fence as ordered by CO.

Construction Requirements

203.04 Removing Material. Add the following:

Asphalt removed as part of this project may be used as fill material as long as it is placed directly under the paved surface.

203.05 Disposing of Material.

(a) **Remove from Project.** Add the following:

Secure environmental clearances according to Subsection 107.10.

(b) **Burn.** Delete the text.

(c) **Bury.** Delete the text.

Section 204. - EXCAVATION AND EMBANKMENT

Construction Requirements

204.05 Conserved Topsoil. Delete the first sentence and substitute the following:

Conserve topsoil from the roadway excavation and from embankment foundation areas to the extent and depth determined by the CO.

204.06 Roadway Excavation

(a) **General** Append the following:

Limit the depth of excavation to that shown in plans. Do not over excavate.

204.09 Preparing Foundation for Embankment Construction.

(c) **Embankment across ground not capable of supporting equipment.** Delete and substitute the following:

If the CO determines unstable soil is encountered, place a layer of Type IV-C non-woven geotextile and place the first lift of embankment material in a single uniformly distributed layer. Limit the layer thickness to a minimum depth necessary to support the construction equipment but not greater than 450 mm. See Special Sheet M204-A in plan set. Compact material according to Subsection 204.11.

204.11 Compaction. Add the following:

Prior to compacting the first lift of embankment over ground not capable of supporting equipment, construct a 50 foot test section according methodology described in Subsection 204.09(c). Compact with a non-vibratory compactor approved by the CO. Test the density in the test section every two passes to determine the optimum number of passes required to achieve the maximum density. New test section will be required for different equipment, embankment thicknesses, fill type and subgrade strength.

204.14 Disposal of Unsuitable or Excess Material. Add the following:

Secure environmental clearances according to Subsection 107.10.

Measurement

204.16

(a) Roadway Excavation.

(1) Include the following volumes in roadway excavation:

(e) Delete the text and substitute the following:

Conserved topsoil stripped from cuts.

(h) Delete the text and substitute the following:

Conserved material taken from stockpiles and used in Section 204 work except topsoil measured under Section 624. Only materials required to be conserved by the CO are eligible for measurement under this item.

(2) Do not include the following in roadway excavation: Add the following:

(m) Conserved topsoil stripped from fills.

Payment

204.17 Add the following:

Payment for Item 20401 is limited to ten percent of the plan quantity of excavation in the cut until the slope rounding in that cut is completed.

Section 207. – EARTHWORK GEOTEXTILES

Measurement

207.07 Delete the subsection and substitute the following:

207.07 Measure the Section 207 items listed in the bid schedule according to Subsection 109.02.

Section 211. – ROADWAY OBLITERATION

211.02 Add the following:

Scarify the unimproved dirt roads and refuse areas located in the Wetland Mitigation Area as shown in the plans. Seed and mulch scarified areas.

Section 301. - UNTREATED AGGREGATE COURSES

Construction Requirements

301.03 General. Delete the third paragraph and substitute the following:

For base course set target values within the gradation ranges shown in Table 703-2, grading C, D, or E.

Section 401. - SUPERPAVE HOT ASPHALT CONCRETE PAVEMENT

Description

401.01 Delete the third paragraph and substitute the following:

A minimum of one percent lime is required in the Superpave hot asphalt concrete mixture.

Pavement smoothness is Type I, except from Station 20+100 to Station 20+672.158 which will be Type II. Asphalt binder grade is PG 64-34

Construction Requirements

401.03 Composition of Mix (Job-Mix Formula). Add the following at the end of the first paragraph:

In addition to the properties in Table 401-1, furnish an asphalt mix with a minimum Hveem stability of 30 according to AASHTO T 246 and T 247.

Delete the second paragraph and substitute the following:

Compact specimens with the gyratory effort corresponding to the design ESAL level of 0.3 to < 3 million. Volumetric mix properties will be determined at N_{design} . Use a gyratory compactor which meets the internal angle requirement according to AASHTO T 312.

(c) **Verification.** Add the following at the end of the Subsection:

(6) Bulk specific gravity of aggregate (G_{sb}). The Contractor's coarse and fine G_{sb} is verified if the CO's results are within the acceptable range for the AASHTO Multilaboratory precision D2S shown in AASHTO T 84 and T 85. Once verified the mean of the Contractor's and CO's combine coarse and fine G_{sb} values will be used to calculate volumetrics on field produced mix samples.

401.08 Asphalt Preparation. Delete the text and substitute the following:

Uniformly heat the asphalt binder to provide a continuous supply of the heated asphalt binder from storage to the mixer. Do not heat asphalt binder above 185 °C.

401.09 Aggregate Preparation. Delete the text and substitute the following:

Adjust the aggregate moisture to at least 4 percent by mass of aggregate. Mix the lime uniformly with the aggregate before introducing the aggregate into the dryer or dryer drum. Use calibrated weighing or metering devices to measure the amount of lime and moisture added to the aggregate.

For batch plants, heat, dry, and deliver aggregate for pugmill mixing at a temperature sufficient to produce a mix temperature within the approved range. Adjust flames used for drying and heating to prevent damage to and contamination of the aggregate.

Control plant operations so the moisture content of the mix behind the paver is 0.5 percent or less according to AASHTO T 110 or T 255.

Add lime to the aggregate by Method A, B, or C below.

Method A - Add lime to the combined cold feed aggregate using an enclosed in-line cold feed mechanical pugmill mixer. Use a twin-shaft, continuous mixing pugmill with adjustable mixing paddles. Adjust the retention time of the mixture in the pugmill so no unmixed lime is visible after the lime and aggregate exit the pugmill.

Method B - Add lime to the produced aggregates during stockpiling using a pugmill. Add twenty-five (25) percent of the lime to be added to the coarse aggregate stockpile, and add seventy-five (75) percent of the lime to be added to the fine aggregate stockpile. When more than two stockpiles are used, include the distribution of lime per stockpile in the mix design.

A minimum moisture content of two (2) percent by dry weight for coarse aggregate and four (4) percent by dry weight for fine aggregate is required at the time the aggregates and lime are mixed.

Method C - Use a lime slurry consisting of one part lime and three parts water. Equip the plant with a mixing unit to allow mixing of the slurry and aggregate prior to entering the dryer or dryer drum.

Adjust the moisture of the coarse and fine aggregates, or combination of aggregates, to obtain uniform coating of the aggregate with the lime.

Prior to the production of Superpave hot asphalt concrete pavement, obtain approval of synchronized metering and weighing devices used to introduce a constant rate of lime and water.

401.13 Placing and Finishing. Add the following to the fifth paragraph:

For simple curve widening locations (widening only on one side) shift the centerline joint location such that the final layer is midway between the normal edge of shoulders. The shift from the staked centerline will be towards the widened lane one-half the total curve widening specified for the given station as shown in the plans.

Add the following:

Use a Materials Transfer Vehicle (MTV) with storage and remixing capabilities on all mainline construction when placing asphalt concrete mixtures. The MTV will independently remix and deliver mixture from the hauling equipment to the paving equipment.

Furnish an MTV with the following capabilities:

- An unloading system to receive mixtures from the hauling equipment.
- A minimum storage capacity of 13 tons with a remixing system in the MTV storage bin.
- A discharge conveyor to deliver the mixture to the paver hopper.
- The MTV system cannot exceed maximum legal loadings on structures.

Acceptable Material Transfer Vehicles are:

- Barber Greene MTV-3500
- Roadtec SB-1500
- Roadtec SB-2500

In the event the MTV malfunctions during paving operations, the Contractor must suspend paving, however hot mix in transit and stored in the silo at the time of breakdown may be placed without the use of an MTV. Do not resume hot mix placement until the MTV is operational.

401.14 Compacting. Delete the first sentence of the first paragraph and substitute the following:

Furnish at least 3 rollers. Furnish one roller each for breakdown, intermediate, and finish rolling. At least one roller will be pneumatic-tired. Size the rollers to achieve the required results. Operate rollers according to the recommendation of the manufacturer. Diesel fuel will not be used as a release agent with any roller used to compact the asphalt mix.

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401.17 Acceptance. Delete the second paragraph and substitute the following:

Asphalt binder will be evaluated under Subsections 106.04, and 702.09. Payment for asphalt binder will be determined in accordance with Table 401-5 and Subsection 401.19.

Payment

401.19 Delete the fifth paragraph (paragraph above the pavement smoothness formula) and substitute the following:

When the contract contains provisions for Superpave hot asphalt concrete pavement and type I or II pavement smoothness, a separate adjustment will be made for pavement smoothness according to the following formula:

Table 401-5 Asphalt Binder Pay Factor Table. Delete Table 401-5 and substitute the following:

**Table 401-5
 Asphalt Binder Pay Factor Table**

Tests on Original	Specifications (See 702.01)	Pay Factor =					
		1.05	1.00	0.95	0.90	0.75	Reject
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
Tests after Rolling Thin Film Oven (RTFO)							
Dynamic Shear Rheometer, kPa	≥2.20	≥2.59	2.58 to 2.20	2.19 to 1.82	1.81 to 1.43	1.42 to 1.05	< 1.048
Tests on Pressure Aging Vessel (PAV)							
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	> 5867
Bending Beam Rheometer, s, MPa	≤300	≤262	262 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 ¹ , %	≥1.00	NA	≥ 1.00	0.99 to 0.86	0.85 to 0.71	0.70 to 0.56	< 0.56

⁽¹⁾ Use Direct Tension for payment if s-values from Bending Beam Rheometer are between 300 and 600 Mpa.

Table 401-6 Sampling and Testing Requirements.

The Asphalt binder row: Delete 106.04 in the Type of Acceptance column and substitute 106.05.

The Asphalt binder row: In the Category column add "I".

The Hot asphalt concrete pavement (control strip) and (production) rows: In the Characteristic column add footnote (2) after Asphalt content:

⁽²⁾ Modify AASHTO T308, parts 8.2 and 10.2 to allow the use of AASHTO T 255, Total Evaporable Moisture Content of Aggregate by Drying.

Section 409. - ASPHALT SURFACE TREATMENT

409.10 Fog Seal. Add the following after the first sentence:

Unless otherwise noted on the plans, dilute the specified emulsion one part water to one part emulsified asphalt.

Measurement

409.14 Add the following:

Measure fog seal including water added for dilution.

Indicate a breakdown of total emulsion and water added on the load invoices supplied to the CO for payment.

Section 411. - ASPHALT PRIME COAT

Description

411.01 Delete the second paragraph and substitute the following:

Prime coat asphalt grade is designated as shown in AASHTO M 140 or AASHTO M 208 for emulsified asphalt; AASHTO M 81 or AASHTO M 82 for cut-back asphalt; or Subsection 702.03(e) for other emulsified asphalts

Measurement

411.08 Add the following after the second paragraph:

Indicate a breakdown of total emulsion and water added on the load invoices supplied to the CO for payment.

Section 412. - ASPHALT TACK COAT

Description

412.01 Delete the text and substitute the following:

This work consists of applying an emulsified asphalt or hot asphalt cement tack coat.

Tack coat emulsified asphalt grade will meet AASHTO T 140 or AASHTO T 208.

Tack coat asphalt cement grade will meet AASHTO M 20, M 226, or M 320

Measurement

412.08 Add the following after the second paragraph:

Indicate a breakdown of total emulsion and water added on the load invoices supplied to the CO for payment.

Section 601. - MINOR CONCRETE STRUCTURES

Description

601.01 Add the following:

Where shown on the plans construct headwalls with screw gate and frame or flap gate. Construct screw gate and frame according to plans or provide drawing from manufacturer to the CO for approval. Install flap gate or manufactured screw gate and frame according to manufacturer's recommendations. Design all precast concrete box culverts to meet AASHTO LRFD MS-18 loading.

Material

601.02 Add the following:

Concrete coloring agents	711.05
Precast reinforced concrete box sections	706.07
Reinforcing fibers	725.29
Screw Gate and Frame	725.30
Flap Gate	725.31

601.03 Concrete Composition. Add the following: All Portland cement concrete will include reinforcing fibers.

Delete Table 601-1 and substitute the following:

Table 601-1
Composition of Minor Structure Concrete

Property	Specification
Cement content	362 kg/m ³ minimum
Water/cement ratio	0.49 maximum
Slump	125 mm maximum
Air Content	4% minimum
Size of coarse aggregate	AASHTO M43 with 100% passing the 37.5-mm sieve
28-day compressive strength	20.7 MPa minimum

601.07 Acceptance. Add the following:

Screw gate and frame and flap gate will be evaluated under Subsections 106.02 and 106.03.

Measurement

601.08 Add the following:

Do not measure screw gate and frame or flap gate for payment.

Section 602. - CULVERTS AND DRAINS

Construction Requirements

602.03 General. Add the following:

If necessary, install cofferdams according to Subsection 208.06

602.06 Laying Plastic Pipe. Add the following to the second paragraph:

Provide watertight joints for plastic pipe culverts.

Measurement

602.09 Add the following:

Do not measure cofferdams for payment.

Section 611. – WATER SYSTEMS

Material

611.02 Add the following:

Air vacuum relief valve 725.33

611.03 Add the following:

Contact the West Corinne Water Company, Bucky Reeder at (435) 230-0792, two weeks before the start of water line construction. The below is a table that is a list of approximate quantities for the installation of the waterline. Actual quantities may vary.

ITEM	UNITS	Schedule A	Schedule B	Schedule C
75mm (3-in) Shut-off valve	ea	2	3	3
75mm (3-in) Air vacuum relief valve	ea	3	7	11
152mm (6-in) casing pipe	m	18	27	27
"T" connection to water service	ea	1	2	2
75mm, 22.5-deg. Bend (elbow)	ea	0	0	1
75mm, 30-deg. Bend (elbow)	ea	0	0	1
75mm, 45-deg. Bend (elbow)	ea	1	6	8
75mm, 90-deg. Bend (elbow)	ea	0	0	0
Thrust block	ea	3	9	15
75mm cap	ea	2	2	4
75mm SCH 80 PVC pipe	m	2111	4311	5221
Removal of water line	m	13	13	26
75mm sleeve	ea	2	2	2

Section 618. – CONCRETE BARRIERS AND PRECAST GUARDWALLS

Description

618.01 Add the following:

In lieu of the concrete barrier details shown in the plans the Contractor may elect to provide an alternative concrete barrier. The alternate concrete barrier must be approved for use by a state department of transportation and meet crash test requirements of NCHRP Report 350, *Recommended Procedures for Safety Performance of the Highway Features* and approved by the CO.

Section 619. – FENCES, GATES, AND CATTLE GUARDS

619.02 Add the following:

Use only cedar for wood posts.

619.03 Fences and Gates. Add the following:

In the Wetland Mitigation Area, install new perimeter fencing as directed by CO. Coordination is required with the remove of the existing perimeter fencing and gates. Do not leave gaps in the fence unprotected overnight. If it necessary to leave a gap in the fence, install temporary fencing at no additional cost to the government.

(c) 5 (b) Metal gates. Add the following:

In lieu of the metal gate shown in the plans, commercially available metal gates of similar design and construction will be allowed if approved by the CO.

Add the following:

(d) Electronically controlled gates

Construct a fully functioning electrically control gate, operated by both remote control and key pad. Connect to electrical source via underground conduit and conform to national and local electrical standards. Install a new service connection and meter near the sewer lift station adjacent to the proposed bike path. The gate installed at the Refuge Visitor Center driveway shall be a cantilevered slide gate. The opening shall be 7.925 meters wide and arched along the opening. The arch will be 3.600 meter tall at the center and 2.400 meter at the ends of the opening. The words “BEAR RIVER MIGRATORY BIRD REFUGE” will be mounted to the gate, following the contour of the arch in 0.25 meter high letters. The gate installed at the bike path will be a cantilevered slide gate and have an opening width of 3.00 meters and a 2.400 meter height. For both gates provide the following:

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- A high torque DC motor and opener hardware appropriate for the weight of the gate, according to manufacture's recommendations.
- Gate speed of 0.3 meter per second.
- 50 code key pad with gooseneck post
- Seven day timer
- Receiver
- 15 transmitters
- UPS Battery back up
- Conform to Underwriters Laboratories Standard 325, Fourth Edition

In addition, provide the following for the driveway gate:

- Two loop detectors
- Two safety loops installed on both sides of the gate
- One free exit loop installed on visitor center side of gate

For the bike path gate provide an additional keypad and post.

The gate electrical components and operating hardware will conform to industry standards unless otherwise specified. The gate operator will comply with UL-325 & UL-991. The gates will be composed of vertical steel or aluminum square tubes spaced to deter entrance on foot. Paint according to manufacture's recommendations and Section 708. Provide three color combinations with color palettes to the CO before ordering gate. The gate should be a muted natural color with contrasting color for the lettering.

Section 622. – RENTAL EQUIPMENT

622.02 Rental Equipment. Add the following:

Spread the dirt stockpile located near the southern boundary of the Wetland Mitigation Area on the dirt road scarified area prior to seeding as directed by the CO. This work will be paid for using equipment hours. The stockpile is approximately 38 cubic meters.

Section 623. – GENERAL LABOR

Delete the text of this Section and substitute the following:

Description

623.01 This work consists of furnishing workers and hand tools for construction work, survey crews, and/or furnishing qualified personnel to perform technical work ordered by the CO and not otherwise provided for under the contract.

623.02 Workers and Equipment. Furnish competent workers and appropriate hand tools for the work.

Obtain approval of the length of a workday and workweek before beginning the work. Keep daily records of the number of hours worked. Submit the records along with certified copies of the payroll.

623.03 Surveying Services. Furnish personnel, equipment, and material that conform to the requirements of Subsection 152.01. Survey according to Section 152. Perform work only as directed by the CO.

Survey and establish controls within the tolerances shown in Table 152-1, or within other tolerances as established by the CO.

Prepare field notes in an approved format. Furnish calculations. All field notes, supporting documentation, and calculations become the property of the Government upon completion of the work.

623.04 Office Technical Services. Furnish qualified engineering personnel experienced in highway construction and design, capable of performing in a timely and accurate manner. Provide personnel with a minimum of NICET Level II certification in highway design and construction, or State (SHA) or industry certification-related design and construction equivalent to their intended responsibilities. Personnel with 2 years or more of recent job experience in the type of highway design and construction provided for under the contract may be used in lieu of certifications. Provide the names and relevant experience of all personnel. Furnish supporting tools and equipment (e.g., calculator, computer, and software, and appropriate and commonly-used drafting tools for the assigned task).

All calculations, notes, and supporting documentation become the property of the government upon completion of the work.

623.05 Acceptance. Additional surveying services will be evaluated under Section 152.

Hired technical services will be evaluated under Subsections 106.02 and 106.04

Measurement

623.06 Measure the Section 623 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Round portions of an hour up to the nearest half hour. Measure time in excess of 40 hours per week at the same rate as the first 40 hours.

For surveying services, the minimum field survey crew is two persons. Measure surveying service by the crew hour. Do not measure time spent in making preparations, performing

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calculations, plotting cross-sections and other data, and processing computer data, and other efforts necessary to successfully accomplish the ordered survey services.

Do not measure time for worker's transportation time to and from the project site.

Measure office technical services by the hour as ordered by the CO for performing calculations, plotting cross-sections and other data, and processing computer data.

Payment

623.07 The accepted quantities will be paid at the contract price per unit of measurement for the Section 623 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this section. See Subsection 109.05.

Section 624. - TOPSOIL

Construction Requirements

Add the following:

Place any excess conserved topsoil in Wetland Mitigation Area as directed by the CO.

Section 625. – TURF ESTABLISHMENT

Description

625.01 Add the following:

This work also includes the eradication of weeds in the Wetland Mitigation Area.

Material

625.02 Add the following:

Herbicide

725.32

Construction Requirements

625.03 General. Add the following:

Spray the herbaceous weeds with an herbicide. Weeds are present throughout the off-site mitigation area; however the greatest concentration is west of the Reeder Overflow Canal. The estimated area of herbaceous weeds is 16.2 hectares.

Seed and mulch all disturbed areas in the Wetland Mitigation Area.

Section 626. – PLANTS, TREES, SHRUBS, VINES, AND GROUNDCOVER

Description

626.01 Add the following:

This work also consists of collecting and installing willow cuttings

Construction requirements

626.02 General Add the following:

Plant willow cuttings along both banks of the Reeder Overflow Canal and on the south bank of the Bear River as shown in the plans. When collecting cuttings from trees that will remain, prune branches in accordance with The International Society of Arboriculture: Current Standards for Pruning. The Refuge has a stand of Sandbar Willows on the refuge available for cuttings. Coordinate with the Refuge on harvesting the cuttings. When obtaining cuttings, remove no more than 1/3 of the branches from any single tree. Willow cuttings should be 0.9 meters and 10 to 20 mm diameter from one or two year old growth. Cut stems at a 45 degree angle.

Provide a hole deep enough to accommodate 90 percent of the cuttings length. Just before planting, remove 25 mm from the basal end of the cutting. Place cutting in hole (basal end first) and backfill. Compact around cutting to eliminate air pockets. Water cutting and add more backfill if settling occurs.

Section 634. - PERMANENT PAVEMENT MARKINGS

Construction Requirements

634.03 General. Delete the last sentence of the first paragraph and substitute the following:

For simple curve widening locations (widening only on one side) shift the centerline striping location such that the centerline stripe is midway between the normal edge of shoulders. The shift from the staked centerline will be towards the widened lane one-half the total curve widening specified for the given station as shown in the plans.

Place the centerline stripe along the existing striped centerline, as recorded under Subsection 152.03(n).

Add the following:

The Contractor may use, upon approval, permanent pavement marking materials and layouts meeting current state approved standards that are practiced in the region of the project in lieu of

contract requirements, if the state standards meet the requirements of the MUTCD. The material substituted must be equivalent to that required in the specifications. Obtain the CO's approval before incorporating into the work. When requesting approval, furnish to the CO the applicable state standards (specifications and drawings), manufacturer's name and address, supplier's certification indicating material is produced to state approved specifications, pricing data showing cost difference for labor and materials, and any other available information describing application and performance. When directed, submit samples for approval at the Contractor's expense. Within 14 days, the CO will inform the Contractor as to the acceptance of the request. The unit price for the contract item(s) will be reduced to reflect any cost savings.

Section 635. - TEMPORARY TRAFFIC CONTROL

635.07 Construction Signs. Add the following to the end of the first paragraph:

Provide the same type of sheeting on all post-mounted construction signs that pertain to the project.

635.13 Temporary Pavement Markings and Delineation. Delete the text and substitute the following:

Before opening a pavement surface to traffic, remove all conflicting pavement markings by sandblasting or other methods that do not damage the surface or texture of the pavement. Make removal pattern uneven so it does not perpetuate the outline of the removed pavement markings. Lightly coat sandblasted or removal areas on asphalt surfaces with emulsified asphalt.

Provide pavement markings or delineation and signing according to Section 156, the MUTCD, and project plans. Install and maintain temporary pavement markings that are neat, crack free, true, straight, and unbroken.

For seasonal suspensions, apply permanent pavement marking pattern with temporary traffic paint.

Install permanent pavement markings within 14 days. If permanent pavement markings are not placed within 14 days, provide, at no cost to the contract, additional temporary delineation equivalent to the permanent pavement marking pattern required by the contract. Do not apply temporary traffic paint to the final surface.

For temporary pavement markings, use preformed retroreflective tape, traffic paint, or temporary raised pavement markers as follows:

(a) Temporary Markings. For temporary pavement markings, use preformed retroreflective tape, traffic paint, or temporary raised pavement markers as indicated in the plans and as follows:

(1) Preformed retroreflective tape. Apply according to the manufacturer's instructions. Remove all loose temporary preformed retroreflective tape before placing additional pavement layers.

(2) Temporary traffic paint. Apply temporary traffic paint at a 0.38-millimeter minimum wet film thickness (0.38 liters per square meter). Immediately apply type 1 glass beads on the paint at a minimum rate of 0.7 kilograms per liter of paint.

(3) Raised pavement markers. When chip seals, slurry seals, or tack coats are used after marker placement, protect the markers with an approved protective cover, which is removed after the asphalt material is sprayed.

Remove all temporary pavement markers before placing additional pavement layers. Remove all temporary pavement markings from the surface course before placing permanent pavement markings.

(b) Delineation for Unmarked Pavements with Vehicle Positioning Guides. For ADT's greater than 1000, vehicle positioning guides may be used in lieu of temporary markings for the delineation of unmarked pavements for a period of no longer than 3 days. For ADT's of 1000 or less, vehicle positioning guides may be used in lieu of temporary markings for the delineation of unmarked pavements for the full 14 day temporary marking period.

For unmarked pavements, install signing and vehicle positioning guides as indicated on plan sheet CM635-02. Use vehicle positioning guides that meet the requirements of Subsection 718.21(b), raised pavement markers.

Remove all vehicle positioning guides before placing additional pavement layers. Remove all vehicle positioning guides from the surface course before placing permanent pavement markings.

Measurement

635.26 Delete the tenth paragraph and substitute the following:

Measure temporary pavement markings by the kilometer along the centerline of the roadway. Measure temporary pavement markings as a single measurement, inclusive of all markings, from end to end regardless of color, material type, or number of lines. Do not deduct for standard gaps between stripes. Measure only one application of temporary pavement markings per lift.

Measure vehicle positioning guides used at the option of the Contractor in lieu of temporary markings as equivalent temporary pavement markings. When vehicle positioning guides exceed the period of use stated in the plans, provide additional temporary or permanent pavement markings at no cost to the Government. Measure vehicle positioning guides by the kilometer along the centerline of the roadway. Measure as a single measurement, inclusive of all markings, from end to end regardless of material type, gaps or number of lines. Measure only one application of vehicle positioning guides per lift. "DO NOT PASS", "PASS WITH CARE", and "NO CENTER STRIPE" signs required to be used with vehicle positioning guides are subsidiary to the temporary pavement marking item. Do not measure these signs as construction signs.

Section 636 – SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS

636.01. Add the following:

This work includes the installation of the following:

1. Vehicle count/classification system
2. Central control software and workstation

636.02. Add the following:

Traffic Counter	721.01 (l)
Traffic Counter Software	721.01 (m)
Cellular Modem Assembly	721.01 (n)
Wireline Modem Assembly	721.01 (o)
Solar Panel Assembly	721.01 (p)
Counter Station Cabinet	721.01 (q)
Workstation	721.01 (r)
Cabinet Post - Wood	721.01 (s)

Furnish shielded twisted pair, size No. 14 minimum, lead-in cable.

Provide support equipment for maintenance of the system consisting of the following items and quantities:

<u>Item</u>	<u>Quantity</u>
Traffic Counter	2
Cellular Modem Assembly	2
Wireline Modem Assembly	2
Solar Panel Assembly	1
Surge Arrestors – each type	10
Counter Station Cabinet	1
Electric Meter Assembly	1
Cabinet Post - Wood (5 meters)	1

Note: These quantities are in addition to wiring, mounting, assembling and other miscellaneous items.

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Provide support equipment prior to completion of system acceptance and store support equipment during maintenance period at site to be designated by CO. At end of maintenance period deliver equipment to site in the Refuge designated by CO.

636.04 General. Delete the second paragraph and substitute as follows:

Fifteen working days after notification to proceed submit a list of proposed equipment and material. Include manufacturer's name, size, and identification number of each item. Supplement the list with shop drawings, cut sheets, manuals, wiring diagrams and schematics of adequate detail to demonstrate compliance with the contract documents. Also furnish as part of this submittal the communication protocols for the transmission of vehicle detector counts to the workstation running the application program for counter polling and data display.

636.05 Conduit. Add the following:

Install conduit with pulling wire in common trench with water main for future use by Qwest. Provide turnouts every 240 meters and at box culvert crossings for future installation of telephone pedestals. At turnouts, bring conduit to edge of clear zone and cap. Hang the conduit along the headwall for concrete box culvert crossings.

At traffic counter location, install conduit with a minimum cover of 2 feet except for conduit containing electrical lines between the electric meter assembly and Utah Power's power connection.

- Install conduit carrying power connections to Utah Power facilities in accordance with Utah Power requirements.

Lay conduit on a uniform grade to allow condensation to drain to pullboxes. Install pullboxes flush with the shoulder surface. Restore the area around the pullbox and conduit installations.

Where conduit terminates in a pullbox, break into the pullbox and seal remainder of hole with method approved by the CO.

Provide sealed bonding bushings at each conduit entry outlet in pullbox. Install ground rods in designated pullboxes. Connect conduit to upper end of ground rod in compliance with Article 250 of the National Electric Code. Where conduits terminate in a pullbox not containing a ground rod, bond ends of conduits together using a method in compliance with Article 250 of the National Electric Code.

Cap all conduit until terminated in an enclosure or cabinet or cables are installed.

636.06 Installation of Signal and Lighting Systems. Add the following:

(a) Install Cabinet post – Wood

Install cabinet posts - wood 5 meters in length. Augur hole of sufficient depth to allow for a minimum of 1.5 meters of embedment. Erect posts plumb backfill area around hole

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with suitable material thoroughly compacted to the satisfaction of the CO. Restore, in kind, all areas which are disturbed by the installation operation.

(b) Install Counter Station

Cabinet locations shown on the plans may be changed to fit field conditions as directed by the CO. Mount counter station cabinet on post as shown in the miscellaneous details. Install all conduit between devices mounted on post as shown in the miscellaneous details.

Paint all exposed cabinets, conduit and attachment hardware to match a paint chip that will be provided by the CO and touch up all surfaces that become scratched, chipped or damaged during shipping or installation. Do not paint the following items:

1. Code required labels such as Underwriters Laboratories.
2. Identification, performance rating, name or nomenclature plates of mechanical or electrical fire equipment.
3. Operating or moving parts of operating units or mechanical and electrical equipment such as: solar panels and, radio antennas.

Paint in accordance with Section 563 and manufacturer's instructions.

Prior to powering-on equipment within the cabinet verify and record the voltages (i.e., from the electric meter assembly or solar power assembly) and verify the cabinet ground. Provide the CO with a copy of the voltages recorded.

Provide four copies of as-built drawings for each cabinet showing the wiring of each cabinet and of loops reporting to the cabinet and four copies of a configuration list for each cabinet listing the setting of the equipment in the cabinet including the cabinet's telephone number, modem settings, measured voltages, and programmed parameters for the counter. Place one set of as-built drawings and one configuration list in the cabinet in the clear plastic envelope provided with the cabinet and deliver the other three copies of the drawings and configuration lists to the CO.

(c) Install Solar Panel Assembly

Mount the solar panel array on the post as shown in the plans such that the array is pointed south at an angle of 30° to the horizontal.

(d) Install Traffic Counter

Install vehicle counter into cabinet at station 1+800 approximately. Exact location will be determined by the CO in the field. Assign loops to counter inputs in accordance with manufacturer's instructions. Configure the counter for classification. Program the counter to provide volume counts in accordance with vehicle length ranges provided by the CO for locations where the counters are to be configured for classification. Verify proper operation of counter by comparing manual counts recorded over a period of one hour or until fifty counts are recorded, whichever ever takes longer, with counts from vehicle counter.

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Provide test software and a notebook computer to permit monitoring volume recorded by counter with manual counts. Verify volume measurements are within 10% for each vehicle classification and within 5% for total counts. Provide the test software to the CO at the completion of the testing.

(e) Install Cellular Modem Assembly

Install cellular modem inside designated cabinets and mount cellular antenna and mounting bracket. Connect modem to surge arrestor and antenna. Position antenna to optimize signal level.

(f) Install Electrical Meter Assembly.

Install electrical meter assembly consisting of a lockable safety disconnect switch, meter socket and grounding and bond equipment in compliance with Utah Power's requirements. Bond the nipple in accordance with Section 250-72 of the National Electric Code (NEC). The CO will provide the padlock for the disconnect switch.

(g) Install Wireline Modem Assembly

Install wireline modem inside designated cabinets and mount telco demarcation enclosure onto cabinet post. Use two-pair No. 22 AWG twisted cable temperature rated from -40°C to +60°C to connect telephone cables terminated by Qwest in telco demarcation enclosure to terminal blocks on Input/Communications Panel in Count Station Cabinet.

(h) Install Workstation and Traffic Counter Software

Install the workstation in the Refuge Visitor center at the location designated by the CO. Connect to existing utility power outlet and install connection to the existing telephone line. Install the Traffic Counter Software defined in 721.01 (m) on the workstation and configure the data base (i.e., assigning telephone number and name for the vehicle counter site). Train the operators in the use of the workstation and software including configuring of the data base.

Verify operation of the workstation and software by monitoring counts for the vehicle counter site. Compare the counts displayed on the workstation with manual counts recorded in the field. Turn off each of the counter stations one at-a-time and verify that an error message is displayed on the workstation for that location. Also, verify the functionality of the Traffic Counter Software as defined in 721.01 (m).

636.07 Add the following:

Complete pullboxes, and conduit prior to beginning loop installation.

Install 25 mm conduit under the shoulder from the end of the saw cut to the pullbox. Install a bushing on the conduit stubout to prevent damage to loop lead-in wires.

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Install the conduit in a direct line with the loop saw-cut so that the wires entering the conduit will not be bent.

Furnish and install lead-in cable in the conduit from the pullbox with sufficient length to reach the counter cabinet. Secure the lead-in cable and splice each loop to an individual lead-in cable

Measurement

636.12 Add the following:

For telephone conduit in water main trench do not measure conduit hangers, elbows, caps or other fixtures for payment.

For traffic detector system include all work and materials including but not limited to trenching, backfill, wiring, mounting hardware, cabling, conduit, pullboxes and operating manuals necessary to install and operate a fully functioning traffic counting system as described in these specifications and maintained for a period of 90 days.

Section 702. - ASPHALT MATERIAL

702.01 Asphalt Binder. Delete the Subsection and add the following:

702.01 Asphalt Binder. Conform to AASHTO M 20, M 226, or M 320, Table 1. Conform to Subsection 702.04.

In AASHTO M 320, Table 1 replaces footnote g with the following:

^s If the creep stiffness is below 300MPa, the direct tension test is not required. If the creep stiffness is between 300 and 600 MPa, the direct tension failure strain requirement shall be used in lieu of the creep stiffness requirement. The *m*-value requirement must be satisfied in both cases.

702.03 Emulsified Asphalt. Add the following:

(e) Other emulsified asphalts. Other emulsified asphalts not covered by item (a) through (d) will conform to the following:

- | | |
|--|--------------|
| (1) Saybolt furol viscosity at 50°C, AASHTO T 59 | 15 - 150 sec |
| (2) Settlement, AASHTO T 59 | 1% max. |
| (3) Residue by distillation, AASHTO T 59 | 65% min. |
| (4) Oil Distillate by volume, AASHTO T 59 | 25% max. |

(5) Solubility in trichloroethylene, AASHTO T 44

97.5 % min.

Section 703. – AGGREGATE

703.02 Coarse Aggregate for Concrete. Delete the text and substitute the following:

703.02 Coarse Aggregate for Concrete. Conform to AASHTO M 80 class A including the restriction on reactive materials, except as amended or supplemented by the following:

Add the following:

In addition to the requirements under **703.01** and **703.02** the following will also apply to fine and coarse aggregate for concrete.

Fine and Coarse Aggregate for Concrete.

Alkali reactivity of aggregates (Mortar bar method), ASTM C 1260 0.10% max.

Aggregates tested by ASTM C 1260, which exhibit mortar bar expansions less than 0.10 % at 16 days after casting, are considered innocuous and may be used.

Aggregates tested by ASTM C 1260 which exhibit mortar bar expansions between 0.10 and 0.20 % at 16 days after casting may be used if acceptable supplemental information is submitted which confirms that mortar bar expansions are not caused by alkali-silica reactions. Acceptable supplemental information includes:

- A report of petrographic examination of the aggregate by ASTM C 295 performed within one year from the time of submittal which contains quantifiable data and conclusions verifying that the aggregate is not potentially deleteriously reactive with cement

or

- A report of petrographic examination of the ASTM C 1260 mortar bar samples by ASTM C 856 which contains quantifiable data and conclusions verifying that the aggregate is not potentially deleteriously reactive with cement and that the mortar bar reaction products are not due to alkali-silica reaction.

Aggregates tested by ASTM C 1260 which exhibit mortar bar expansions more than 0.20 % at 16 days after casting *or* aggregates exhibiting expansions between 0.10 and 0.20 % at 16 days after casting that have been found to be potentially deleteriously reactive by acceptable supplemental information may be used if additional supplemental information is submitted which confirms that effective mitigation measures utilizing supplementary cementitious

materials have been used in the concrete mix design. Acceptable supplemental information includes:

- Data and test results by ASTM C 1567 which confirm that concrete mix design combinations of cement, fly ash, silica fume and/or ground iron blast furnace slag exhibit expansions less than 0.10 % at 16 days after casting. Lithium compounds shall not be used.

Testing of the reactivity of aggregates by ASTM C 1293 may be substituted for ASTM C 1260. In such a case, the average concrete prism expansion must be less than 0.04 % at one year. Aggregates exhibiting mortar bar expansions more than 0.04 % at one year may be used if additional supplemental information is submitted which confirms that effective mitigation measures utilizing supplementary cementitious materials have been used in the concrete mix design. Acceptable supplemental information includes:

- Data and test results by ASTM C 1567 which confirm that concrete mix design combinations of cement, fly ash, silica fume and/or ground iron blast furnace slag exhibit expansions less than 0.10 % at 16 days after casting. Lithium compounds shall not be used.

703.05 Subbase, Base, and Surface Course Aggregate.

(a) General. Delete lines (3), (4), (5), and (6) and substitute the following:

- (3) Fractured faces, one or more, ASTM D 5821 50% min.
- (4) Free from organic matter and lumps or balls of clay

Table 703-2 Target Value Ranges for Subbase and Base Gradation. Delete reference to the “436-74(6)” percent by mass passing the 4.75 millimeter sieve for grading E (base) and substitute “36-74 (6)”.

703.17 Superpave Asphalt Concrete Pavement Aggregate. Delete lines (c), (d) (e), and (f) and substitute the following:

- (c) Fractured faces, one or more, ASTM D 5821 90% min.
- (d) Fine aggregate angularity, AASHTO T 304, method A 40% min.
- (e) Flat and elongated particles, 1:5 ratio. +9.5 mm sieve, 10% max.
calculated by mass, weighted average, ASTM D4791
- (f) Sand equivalent AASTHO T 176, referee method 45 min.

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Section 704. – SOIL

704.02 Bedding Material. Delete the text and substitute the following:

- | | |
|--|---|
| (a) Maximum particle size | 12.5 mm or half the corrugation depth, whichever is smaller |
| (b) Material passing 75- μ m sieve, AASHTO T 27 and T 11 | 10% max. |

Section 705. - ROCK

705.02 Riprap Rock. Delete lines (a), (b), (c), (d), and substitute the following:

- | | |
|--|-------------|
| (a) Apparent specific gravity, AASHTO T 85 | 2.40 min. |
| (b) Absorption, AASHTO T 85 | 4.0% max. |
| (c) Los Angeles abrasion, AASHTO T 96 | 50% max. |
| (d) Gradation for the class specified | Table 705-1 |

Section 706. - CONCRETE AND PLASTIC PIPE

706.07 Precast Reinforced Concrete Box Sections. Add the following:

The following information shall be clearly marked on the inner surface of each box section by indentation, waterproof paint or other approved means.

- Box span and rise
- Date of manufacture
- Name of manufacturer

706.08 Plastic Pipe. Delete the first paragraph and substitute the following:

Furnish perforated and nonperforated plastic pipe conforming to the following for the size and types specified. For watertight joints, conform to ASTM D 3212. For pipe culvert, furnish pipe conforming to types (a), (b), or (c) for the size specified.

Section 709. – REINFORCED STEEL AND WIRE ROPE

709.01 Reinforcing Steel.

(b) Reinforcing bars. Delete the text and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M31M or M322M.

(d) Tie bars. Delete the text and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M31M.

(e) Hook bolts. Delete the text and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M31M with M14 rolled threads or M16 cut threads. Furnish a threaded sleeve nut capable of sustaining a minimum axial load of 67 kilonewtons.

Section 712. – JOINT MATERIAL

712.01 Sealants, Fillers, Seals, and Sleeves

(a) Joint Sealants and crack fillers. Delete lines (1) and (2) and substitute the following:

(1) Concrete joint sealer, AASHTO M 324
hot-poured elastic type

(2) Joint sealants, hot poured, AASHTO M 324
for rigid and asphalt pavement

Section 713. – ROADSIDE IMPROVEMENT MATERIAL

713.04 Seed. Add the following:

Supply seed in the following proportions and rate:

Upland Seed Mix

<u>Botanical Name</u>	<u>Common Name</u>	<u>Kg of pure live seed per hectare</u>	<u>Number of seeds per Kg</u>	<u>Percent Mix</u>	<u>Seeds per square meter</u>
Atriplex canescens	Four-wing saltbush	2.95	114400	8.1	43
Distichlis spicata	Seashore saltgrass	1.84	1144000	5.0	270
Ephedra nevadensis	Morman tea	3.85	43780	10.5	22
Pascopyrum smithii	Western wheatgrass	19.26	242000	52.6	162
Sporobolus airoides	Alakali sacaton	8.71	3867600	23.8	270
Total		36.61		100.0	767

Wetland Seed Mix

<u>Botanical Name</u>	<u>Common Name</u>	<u>Kg of pure live seed per hectare</u>	<u>Number of seeds per Kg</u>	<u>Percent Mix</u>	<u>Seeds per square meter</u>
Distichlis spicata	Seashore saltgrass	0.89	1144000	10.7	130
Eleocharis palustris	Creeping spikerush	0.74	1364000	9.0	130
Juncus balticus	Baltic rush	0.04	23980000	0.5	130
Scirpus acutus	Hardstem bulrush	1.21	830720	14.7	1130
Scirpus americanus	Three square bulrush	2.6	395560	30.9	130
Scirpus maritmus	Alkali bulrush	2.8	357720	34.2	130
Total		8.28		100.0	780

713.05 Mulch. Delete Subsection (f)

Section 718. - TRAFFIC SIGNING AND MARKING MATERIAL

718.08 Signposts.

(b) Galvanized Steel posts.

(2) Square tubular steel posts.

(c) Delete the text and substitute the following:

Galvanizing after punching
(inside and outside of post)

ASTM A 653M,
coating designation Z275

718.14 Waterborne Traffic Paint.

(g) Daylight reflectance. (Without glass beads) Delete the text and substitute 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 721 - ELECTRICAL AND ILLUMINATION MATERIAL

721.01 (c) Wire and Cable. Add the following:

Only use wires that bear the UL label. Only provide single conductor cable which has permanent identification on the outer protective covering, showing the size, type, style and voltage. Unless specified otherwise in the contract documents, current carrying conductors shall conform to the following requirements:

Single conductor cable shall be copper, Type THHN as designated by the Underwriter's Laboratory Specifications rated at 600 Volts and has heat and moisture resistance insulation for a maximum operating temperature of 75°C in wet and dry conditions.

Ground wire shall be AWG No. 6, soft-drawn bare copper wire, 7 strand single conductor for 600 Volts.

Provide AWG No. 14 shielded twisted pair Loop-lead in cable complying with IMSA 50-2.

Add the following:

721.01 (l) Traffic Counter

Furnish traffic counter meeting the following requirements:

1. Shelf mounted
2. Dimensions (maximum): 150 mm (H) x 250 mm (W) x 250 mm (D)
3. Field configurable to provide counts by either classification according to vehicle length using outputs from 1.8 meter by 1.8 meter loops in trap configuration with leading edge of the loops spaced 4.5 meter apart, or counts from single loops.
4. Accommodates inputs from eight (8) loops.
5. Stores vehicle lengths into six programmable fields when operating in the classification mode configurable categories storing counts up to 1000 in each category.
6. Counts reset to zero whenever counter polled.
7. All configuration data stored in nonvolatile memory.
8. Interface with cellular or PSTN modem or device containing an RS232 serial interface.
9. Capable of being powered from 115 VAC, 60 Hz and 12VDC solar assembly output. Include necessary transformers or converters to operate from site specific power source defined in the Table of Equipment Complements.
10. Temperature range: -30°C to +60°C

Provide five (5) copies of manufacturer's maintenance and operations manuals.

721.01 (m) Traffic Counter Software

Furnish traffic counter software meeting the following requirements:

1. Runs on the workstation operating system specified in Subsection 712.01 (s).
2. Automatic polling of vehicle classification/counters.
3. Contains an operator interface to control polling period from five-minutes to twenty-four hour and display counts for that period.
4. Contains time-of-day capability so operator can set different polling rates for two different daily periods.
5. Displays counts by vehicle class (i.e., preprogrammed ranges of length) and total volume (i.e., sum of counts for all classes) for classification sites and total volume for classification and count stations.
6. Accumulates (i.e., does not reset count to zero whenever polls) uploaded data from counter for an operator-programmed period of from fifteen minutes to twenty-four hours with the capability to be reset to zero by either the operator or at a pre-programmed time each day with the operator having the capability to turn-off the pre-programmed time feature.

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7. Stores up to 30 days of data on CD ROM or DVD ROM. Ensure data stored is selectable by the operator and may include, but not limited to polling interval, hourly and daily counts.
8. Supports two data interfaces- one through PSTN network using wireline data modem, the other through RS232 serial data interface. Communications for each site configurable through operator interface.
9. When invalid response received, repoll for programmable number of tries. If communications cannot be established, flag location as communications failure with capability of operator to clear.

After installation of the software on the workstation and verification of proper operation of all of the traffic counter stations, provide four (4) hours of hands-on training at the Refuge Visitor Center for up to eight (8) people. The training shall include configuration of a site, setting user controlled parameters, the use of built in diagnostics and selection of reports generated by the software.

Provide five (5) copies of operations and maintenance manuals and software documentation, and provide two (2) copies of the software backed-up on CD-ROM.

721.01 (n) Cellular Modem Assembly

Furnish a cellular modem assembly which includes the following: cellular modem, surge arrester, cabling between antenna and surge arrester and surge arrester, and external cellular antenna with antenna mount.

Cellular Modem Requirements:

1. RS-232 Serial Interface for interface with vehicle counter/classifier.
2. Operates at data rates up to 9600 bps.
3. Remote configuration and remote management.
4. Stores all configuration data in non-volatile memory.
5. Password protected.
6. Provides quick connect sequence, when operating at rates of 2400 bps or less.
7. Operates in a standby, listen, mode to minimize power consumption.
8. Supports AT command sequence.
9. Power: Configurable for commercial utility power 115 $\sqrt{20}$ VAC and power from the solar power assembly's 9-18 VDC output.
10. Mechanical: Standalone unit with maximum dimensions of 225 mm (L) x 150 mm (W) x 50 mm (H).
11. Operating temperature: -30°C to +70°C

Antenna requirements:

1. External fixed mount. Magnetic mount is not acceptable.
2. Frequency: 825-895 MHz
3. Gain: 3 dB
4. Maximum Power: 200 W
5. Radiator: Stainless Steel
6. Radiator Length: ≤ 250 mm

Antenna Mount

Install mounting hardware suitable for mounting on wooden post. All hardware required to attach the mount to the post and the antenna to the mount shall be included. Design the post in conformance with Subsection 721.01 (s) so the tip of the antenna is between 2.4 m and 3.6 m from the ground.

Surge arrestor requirements:

1. Surge: 50 kA, IEC 1000-4-5m 8/20 us waveform, 500 Joules
2. Insertion loss: typical ≤ 0.5 dB
3. Turn on time: 2.5 ns for 2 kV/ns
4. VSWR (max): 1.1 to 1
5. Temperature: -40°C to $+85^{\circ}\text{C}$

Provide five (5) copies of manufacturer's maintenance and operations manuals for the cellular modem and antenna.

721.01 (o) Wireline Modem Assembly

The wireline modem assembly includes data cable to connect to the counter/classifier and a NEMA 4X enclosure sized to mount the telephone demarcation block that will be provided by Qwest. The enclosure will be mounted on the cabinet assembly as shown in the detailed plans at locations containing wireline modems.

Wireline Modem Requirements

1. Speed: 9600 bps minimum
2. Provides for transmission over two-wire dial-up lines.
3. V.32 compliant
4. Supports AT command set
5. RS232 C Serial Interface to interface with vehicle counter/classifier.
6. Remotely configurable.
7. Stores all configuration data in non-volatile memory.

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8. Mechanical: Standalone with maximum dimensions of 225 mm (L) x 150 mm (W) x 50 mm (H)
9. Temperature Operating: -30°C to + 70°C
10. Electrical: 120V/20VAC, 60 Hz
Power (maximum): Standby : 1 W
Active: 5 W

Provide five (5) copies of manufacturer's maintenance and operations manuals.

721.01 (p) Solar Panel Assembly

Each solar panel assembly consists of a solar array, charge controller, battery and miscellaneous hardware such as cabling, junction boxes and mounting hardware required to provide a complete solar power assembly. The equipment shall meet the following requirements:

Solar Array

1. Electrical Characteristics based on measurements made in accordance with ASTM E1036-85 corrected to standard test conditions of an illumination of 1 kW/m² at spectral distribution of AM 1.5 (ASTM E892-87)
 - Minimum power out: 45 Watts
 - Voltage (at maximum power): 16.8 V
2. Dimensions (maximum): 940 mm (L) x 500 mm (W)
3. Weight (maximum): 6.3 kg

Charge Controller

1. Sized for the solar array
2. Solid state
3. Uses pulse width modulation
4. Provides low voltage disconnect and battery temperature compensation.
5. Stand-alone suitable for shelf mounting.
6. Operating temperature: -30°C to +70°.

Battery

Sealed lead acid deep discharge cell sized to provide power operation under the following conditions:

- Equipment complement with highest power consumption
- 48-hours without sunlight
- Traffic Counter polled twelve times per hour.

Dimensions shall not exceed 330 mm x 175 mm x 225 mm.

Provide five (5) copies of manufacturer's maintenance and operations manuals for the solar panel array, charge controller and battery.

721.01 (q) Count Station Cabinet

Count Station Cabinets shall be provided in the following configurations based on the utility interfaces:

- Configuration 1: 120 VAC electrical power and PSTN telephone service
- Configuration 2: 120 VAC electrical power and cellular telephone service
- Configuration 3: solar power and cellular telephone service
- Configuration 4: solar power and PSTN telephone service

All configurations shall meet the following requirements except where explicitly noted otherwise:

Material

The cabinet shall be a NEMA Type 3R outdoor enclosure fabricated out of 3 mm thick, type 5052-H32 aluminum alloy. The cabinet finish shall be clean, free of holes or blemishes, without burrs and with all corners rounded.

Use corrosion resistant components and mounting hardware.

Paint the exterior of the cabinet according to Section 708. The CO will furnish a color chip

Door

Provide a single access door on the front of the cabinet with the door opening flanged on all sides. The door shall be a minimum of eighty (80) percent of the surface area of the cabinet. The door shall be hinged on the right side when facing the cabinet. The door shall contain a gasket to provide a weather tight seal between the door and cabinet.

Provide a removable door handle for each cabinet. The handle shall have a minimum diameter of 12 millimeters.

Provide for the padlocking of the cabinet. The padlock will have a minimum shackle diameter of 6 mm. The CO will provide the locks.

Ventilation

Provide louvered vents with a replaceable air filter in the front door. Louvers shall satisfy the NEMA rod entry test for 3R rated enclosures. Cover the vents with an air filter held firmly in place with top and bottom brackets and a spring loaded clamp. Exhaust air shall be vented out of the cabinet between the top of the cabinet and the door. The exhaust area shall be screened with a material having a maximum hole diameter of 3 mm.

Mechanical

The cabinet shall be designed for mounting on the side of a post according to manufacturer's specification and as directed by the CO. The cabinet shall be furnished with a reinforced mounting area along the top and bottom 75 mm of the back of the cabinet. The reinforced mounting area will be a minimum of 9mm thick. The mounting area shall include reinforced

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angle or stiffening techniques to prevent the back of the cabinet from deforming when attached to the post.

The maximum dimensions of the cabinet shall be as follows: 675mm (H) x 425 mm (W) x 375 mm (D).

The cabinet shall contain a shelf for the mounting of the traffic counter and modem. For Configurations 3 and 4, the shelf will also contain the charge controller and battery.

Plastic Envelope

Install in each cabinet a resealable, clear plastic envelope sized to accommodate one (1) set of letter sized as-built drawings and one copy of the configuration list for the cabinet.

Ground Bus

Permanently mount a solid copper ground bus to the inside surface of the cabinet wall. The point of contact between the ground bus and the cabinet wall shall have a resistance of less than one-ohm. The copper ground bus shall have a minimum of twenty connector points, each capable of securing at least one conductor in the range of #14 to #6. Equipment ground wiring shall return to the ground bus bar. Where multiple ground bus bars are used, they shall be bonded to each other with bare stranded #8 copper wire.

Mount a solid copper neutral bus on electrically insulated standoffs to the inside surface of the cabinet wall. The copper neutral bus shall have a minimum of ten connector points, each capable of securing at least one #8 conductor. For Configurations 1 and 2 the equipment neutral (AC-) wiring shall return to the neutral bus. Where multiple neutral bus bars are used, they shall be bonded to each other with bare stranded #8 copper wire. The neutral bus bars shall be located in proximity to the ground bus bars so that they may be connected together using a stranded #8 copper wire.

AC Power Distribution Panel

For Configurations 1 and 2 the cabinet shall contain a panel for AC power distribution. The panel shall contain the following:

1. A terminal block for power distribution to the equipment within the cabinet. The terminals shall be labeled AC+, AC- and AC ground and shall be covered with a clear insulating material to prevent inadvertent contact. Terminated lugs large enough to accommodate No. 2 conductors shall be furnished for the service terminal block. The terminal block shall be rated for 50 Amps at 600 Volts peak, minimum. The block shall be either a double row, 3 position screw/insert with shorting bar (screws, inserts and shorting bars shall be nickel plated brass) or a Marathon #1423552 (or approved equal). If the Marathon block is used, the surge protector shall be terminated under a screw head (not common with AC+, AC-, or AC Ground). The AC+, AC- and AC ground conductors connecting to the service terminals and appropriate buses shall not be spade lugged.
2. A circuit breaker wired to the AC input, listed and approved by the Underwriters Laboratory. The operating mechanism shall be enclosed, trip free from operating handle on overload and trip indicating. Contacts shall be silver alloy enclosed in an arc quenching chamber. The circuit breaker shall be rated for 15 Amps and shall be

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unaffected by the ambient temperature range, relative humidity, applied power, shock and vibration ranges specified in NEMA TS-1. Breakers shall have a minimum interrupt capacity of 5000 Amps. Thermal magnetic breakers are not acceptable.

DC Power Distribution Panel

For Configurations 3 and 4, the cabinet shall contain a panel for DC power distribution. The panel shall contain the following:

1. Terminal block for power distribution to the equipment within the cabinet. The terminals shall be labeled DC+, DC- and ground and shall be covered with a clear insulating material to prevent inadvertent contact. Terminated lugs large enough to accommodate No. 14 conductors shall be furnished for the service terminal block. The terminal block shall be rated for 50 Amps at 600 Volts peak, minimum. The block shall be either a double row, 3 position screw/insert with shorting bar (screws, inserts and shorting bars shall be nickel plated brass) or a Marathon #1423552 (or approved equal). If the Marathon block is used, the varistor shall be terminated under a screw head (not common with the DC+, DC- and Ground).
2. An ON/OFF toggle switch to remove the power from all of the devices in the cabinet.
3. A fuse or circuit breaker, appropriately sized, between the power supply and toggle switch.
4. A varistor across the DC+ and DC- load side and ground properly sized for the DC voltage level.

Input/Communications Panel

The cabinet shall contain an input/communications panel containing the following terminal blocks:

1. Internal distribution of communication cables between the traffic counter and the wireline or cellular modem.
2. Termination of the cabling between the wireline modem and the telco demarcation enclosure. Provide for the termination of a two-pair cable.
3. Termination of inductance loop wire and loop lead-in cables from eight (8) loops.

Surge Protection

Surge protection shall be provided on all external cables entering the cabinet.

Provide a power line surge protector between the AC load side of the input power circuit breaker and ground meeting the following requirements:

1. Working voltage: rating of 130 VRMS and 184 V peak
2. Limit the surge voltage applied to the equipment to a level less than the maximum surge voltage the equipment is specified to survive while conducting a peak surge current of at least 15,000 Amps. The surge current shall be an unsymmetrical triangle wave (8 x 20us) that requires 8 microsecond to reach its peak value and 20 microsecond to fall to half the peak value.

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3. Dissipate 220 Joules of surge energy without damage to itself and shall have 1.5 Watt power dissipation rating.
4. Normal operating current: 20 Amps continuous minimum.
5. Operating temperature range: -40°C to + 70°C

Loop detector inputs shall be protected with a surge protector meeting the following requirements:

1. Protect the inputs against differential (between the loop leads) surges and against common mode (between loop and ground) surges.
2. Withstand a 400 amp surge current (differential mode) with an 8 x 20 microsecond waveform and withstand a 1000 Amp surge current (common mode) with an 8 x 20 microsecond waveform.
3. Minimum capacity: 6 occurrences at peak surge current.
4. Clamp the surge voltage to 30 volts or less when subjected to peak surge currents for the differential mode and 40 volts or less for the common mode as specified above.
5. Maximum response time: 40 nanoseconds.
6. Operating temperature range: -40°C to + 70°C

Telephone line inputs shall be protected by a surge protector meeting the following requirements:

1. DC breakover voltage between tip and ring, tip and ground and ring and ground: 300-380 V
2. Stand-Off voltage: $\sqrt{240}$ V
3. Leakage current (maximum at 60 Hz): 10 uA
4. Holding current (minimum): 200 mA
5. Peak on state voltage ($I_t=1A$): 3V
6. Response time (maximum): 1 ns
7. Peak pulse current (10x100us):
Applied between tip-ring, tip-ground and ring and ground: 100 A
Applied simultaneously to tip and ground and ring and ground: 200A
8. Overcurrent limiting: designed for UL 497A
9. Operating temperature: -40°C to + 70°C

Cabinet Wiring

Cabinet wiring shall meet the following requirements:

1. Conductors between the service terminal AC- and equipment ground and their associated bus shall be No. 8 or larger.

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2. All conductors shall be labeled. Labels attached to each end of the conductor shall identify the other end.
3. All conductors shall conform to the following color-code requirements:

AC+ (or DC+):	black
AC neutral (or DC-):	white or gray
DC+	red
DC-	yellow
Ground:	solid green
4. All conductors used in cabinet wiring shall terminate with properly sized clear insulated spring spade lug type terminals excepted when soldered to a through panel solder lug on the rear side of the terminal block or as specified otherwise. All crimp style connections shall be applied with a power tool which prevents the opening of the handles until the crimp is completed.
5. Wiring shall be routed to prevent conductors from being in contact with metal edges. Cabling shall be arranged so that any removable assembly may be removed without disturbing conductors not associated with that assembly.
6. All wiring harnesses shall be neat, firm and routed to minimize crosstalk and electrical interference.
7. For Configurations 1 and 2 do not connect the neutral bus to the ground bus.

Terminal Blocks

Terminal blocks shall be two position multiple barrier type rated at 20 Amps, 600 Volts RMS minimum. Provide shorting bars in each of the positions provided along with an integral marking strip.

Arrange terminal blocks so that they do not upset the entrance, training and connection of incoming conductors. Suitably identify all terminals by legends permanently affixed and attached to the terminal blocks. No electrically alive parts shall extend beyond the protection afforded by the barriers. Locate all terminal blocks below the shelf. AC terminal blocks shall be UL approved for 600 Volts AC minimum and shall be suitable for outdoor use.

Terminals used for field connections shall secure conductors by means of a #10-32 nickel or cadmium plated brass binder head screw. Terminals used for internal wiring connections, but not for field connections, shall secure conductors by means of a #6-32 nickel or cadmium plated brass binder head screw.

721.01 (r) Workstation

Furnish a workstation meeting the following requirements:

System Processor: Intel® Core™ 2 Quad Processor Q6700
(2.66GHz, 8M, 1066MHz FSB) or approved equivalent

1. Cache: 256 kB
2. Memory: 2.0 GB Non-ECC SDRAM
3. Operating System: Windows XP Professional or Windows Vista Business

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4. Hard Drive: 80 GB
5. Diskette Drive: 3.5", 1.44 MB
6. DVD+/-RW: 16x
7. Network Interface: 10/100 MBPS PCI Ethernet Adapter
8. Expansion Slots: 5 PCI
9. I/O Ports: (minimum) 2 USB
1 serial port
1 parallel port
2 PS/2 ports
10. Modem: Internal
11. 3-button mouse and 101 -key board
12. Monitor: 21" flat panel (19.8"viewable-.24AG)
13. Chassis: Mini tower

Provide manufacturer's operating and maintenance manuals for the equipment. Provide backup copies of software on CD-ROM.

721.01 (s) Cabinet Post-Wood

Cabinet Post –Wood shall have nominal dimensions of 150 mm x 150 mm of the length specified in the miscellaneous details. The posts shall meet the following requirements

1. Species: Douglas Fir South or Douglas Fir Larch, Grade No. 1
2. Surfaced on four sides.
3. The bending stress will not be less than 28 MPa using the clean wood properties of ASTM D2555.
4. Pressure treated with water-borne wood preservative either Ammoniacal Copper Arsenite or Chromated Copper Arsenate conforming to the requirements of American Wood Preservative Standard P5. The preservative shall be applied in conformance with American Wood Preservative Standards C1, C2, C3, C4, C5, C14 and C18. Minimum net retention shall be for material in contact with soil. Bituminous preservative treatments are not permitted.

Prior to use store, band and keep the timber dry.

Section 725. - MISCELLANEOUS MATERIAL

725.29 Reinforcing Fibers. Delete the text and substitute the following:

When reinforcing fibers are specified, conform to the following:

(a) **Use with concrete.** Fibers will be fully oriented, 100% virgin polypropylene, collated fibrillated, white in color, 1½ inches long, dosed at 1.5 pounds per cubic yard of concrete, conforming to ASTM C 1116, Type III.

Add the following subsection:

725.30 Screw Gate and Frame.

Conform to the following:

Rubber Seal	ASTM D 2000, Grade AA 625 or
BC 610 to 615	
Frame	ASTM A 123, ASTM A 36
Fasteners	ASTM A 307
Threaded Steel	ASTM A 575
Malleable Iron Castings	ASTM A 47M
Bolts	ASTM A 307 60,000 psi Tensile Strength
Asphalt Varnish	ASTM FSS TT-V-51
Galvanizing	AASHTO M 111

Fabricate as shown in plans or provide approved equal. Uniformly coat all castings with asphalt varnish or with a commercial preservative according to manufacture's recommendations.

Add the following subsection:

725.31. Flap gate.

Provide a flap gate specifically designed for one-way flow and designed for use in irrigation. The cover shall close firmly on the seat to prevent backward flow. Uniformly coat with a protective finish according to manufacture's recommendation. Meet the specifications of the HydroGate Model 50C, Agri Drain Model FG24HD or Waterman Model F-10 or approved equal.

Add the following subsection:

725.32. Herbicide.

Mix herbicide as directed below:

(a) **Herbaceous weeds.** Use Patriot Herbicide (Metsulfuron Methyl) or approved equal, the mix ratio for the herbicide, oil and water is as follows:

- 250 ml of herbicide
- 945 ml of spreader 90 surfactant
- 378.5 liters of water

Apply mix at 164.5 liters per hectare. Spray using boom sprayers or hand sprayers.

Add the following subsection:

725.33 Air vacuum relief valve.

Conform to the following:

- Air vacuum valves shall be fully automatic float operated valves designed to exhaust large quantities of air during the filling of a piping system and close upon liquid entry. The valve shall re-open during draining or if a negative pressure occurs.
- Valves shall be manufactured and tested in accordance with American Water Works Association (AWWA) Standard C512.
- Valves used in potable water service shall be certified to ANSI/NSF 61 Drinking Water System Components – Health Effects.
- The valve shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection.
- Valves installed in vaults or flood prone locations shall include an inflow preventer to prevent the introduction of contaminated water through the air valve outlet. The inflow preventer shall allow the admittance and exhausting of air while preventing contaminated water from entering during normal operating conditions. The inflow preventer shall be flow tested by an independent third party to certify performance.
- The valve body shall provide a through flow area equal to the nominal valve size.

Appendix A

401 and 404 Permit

PLH 523-1(1)
Bear River Access Road



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

April 30, 2007

Regulatory Branch (200250176)

Charles G. Luedders
Federal Highway Administration
Central Federal Lands Highway Division
12300 West Dakota Avenue
Lakewood, Colorado 80228-2583

Dear Mr. Luedders:

We are enclosing your copy of Department of the Army Permit 200250176. Please note you are only authorized to complete the work described in the permit.

If you sell the property associated with this permit, the terms and conditions of this permit will continue to be binding on the new owner. To validate the transfer of this permit, have the succeeding party sign the permit transfer section at the end of the permit and forward a copy to this office, along with their printed name, address, telephone number, and other contact information.

The time limit for completing the work is specified in General Condition 1. If the work will not be completed prior to that date, you may request a time extension. Your request for an extension must be received by this office for consideration at least 30 days before the time limit date.

Please refer to identification number 200250176 in any correspondence concerning this project. If you have any questions, please contact Mr. Corey Loveland at our Utah Regulatory Office, 533 West 2600 South, Suite 150, Bountiful, Utah 84010-7744, email corey.b.loveland@usace.army.mil, or telephone 801-295-8380, extension 16.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Gipson".

Jason Gipson
Acting Chief, Intermountain Regulatory Section
Sacramento District

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: Charles Luedders
Federal Highway Administration (FHWA)
Central Federal Lands Highway Division
12300 West Dakota Avenue
Lakewood, Colorado 80228-2583

Permit Number: 200250176

Issuing Office: U.S. Army Engineer District-Sacramento
1325 J Street
Sacramento, California 95814-2922

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below. A notice of appeal options is enclosed.

Project Description: To permanently fill 14.6 acres of waters of the United States, including wetlands, in order to improve 12 miles of the existing public access road (Box Elder Country Road 523/West Forest Street) to the U.S. Fish and Wildlife Service Bear River Migratory Bird National Wildlife Refuge. The project includes widening the road and curves, creating turnouts, and updating the road to meet current Federal AASHTO, State, and Central Federal Lands Highway Division safety guidelines and standards. This project will elevate the roadway to protect the road surface from flood and ice/frost damage, provide permanent erosion control adjacent to low water crossings, and include the installation of a boat ramp accessing the Bear River for use by the public.

All work is to be completed in accordance with the attached plans.

Project Location: The project is located west of Brigham City and west of the Interstate 15 at the Forest Street exit. The project is adjacent to the Bear River Migratory Bird National Wildlife Refuge. The roadway improvement project begins in Section 5, Township 8 North, Range 3 West, in Box Elder County, Utah.

PERMIT CONDITIONS:**Special Conditions:**

1. FHWA shall develop a final comprehensive mitigation and monitoring plan which must be approved by the Army Corps of Engineers prior to initiation of construction activities. The plan shall include mitigation location and design drawings, vegetation plans including target species to be planted, and final success criteria and shall be presented in the format of the Sacramento District's Habitat Mitigation and Monitoring Proposal Guidelines, dated December 30, 2004. The purpose of this requirement is to insure replacement of functions and values of the aquatic environment that would be lost through project implementation.
2. To mitigate for the permanent loss of 14.6 acres of waters of the United States, FHWA shall restore 1.4 acres of wetlands within the onsite mitigation areas and construct, restore, and enhance 13.2 acres of mudflat, wet meadow, and emergent marsh habitat on the 180-acre Mark Brent Christensen property (offsite mitigation area) as proposed in the mitigation plan. This offsite compensatory mitigation plan shall also include, as previously proposed, removal of tamarisk and invasive weedy species, cleanup of dump sites, native willow plantings, road closures, flap gate installation, and dirt pile removal.
3. FHWA shall construct all compensatory mitigation prescribed by the final approved mitigation plan concurrently with, or in advance of, the start of construction of the authorized/permitted activity.
4. In no case shall initiation of construction of compensatory mitigation be delayed beyond October 31, 2008. Construction of the offsite compensatory mitigation shall be completed no later than July 30, 2009. Onsite compensatory mitigation work shall also be completed no later than July 30, 2009.
5. To insure that mitigation is completed as required, FHWA shall notify the District Engineer of the start date and the completion date of the mitigation construction, in writing and no later than 10 calendar days after each date.
6. To provide a permanent record of the completed work, FHWA shall provide the Corps with one complete set of as-builts of the completed work within the on- and off-site mitigation, preservation, and avoidance areas. The as-builts shall indicate changes made from the original plans in indelible red ink. These as-builts shall be provided to this office no later than 60 days after the completion of the construction of the mitigation area wetlands.

7. To assure success of the on- and off-site compensatory mitigation, FHWA shall monitor the onsite restoration work and the offsite (Mark Brent Christensen property) creation/enhancement/restoration/preservation areas for five years or until the success criteria described in the final approved management and monitoring plan are met, whichever is greater. This period shall commence upon completion of the authorized fill activity, but not later than one year after the initiation of fill activity. The primary focus of this monitoring shall be to insure that the enhancement and preservation measures identified in the final mitigation and monitoring plan are successfully established and maintained for the long-term betterment of wetland and wildlife habitat at the mitigation sites.
8. FHWA shall submit monitoring reports to this office by October 1 for each year of the monitoring period.
9. FHWA must allow representatives from the Corps of Engineers to inspect the authorized activity and any mitigation, avoidance, and preservation areas at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
10. All terms and conditions of the Section 401 State of Utah Water Quality Certification dated February 2, 2007, are expressly incorporated as conditions of your permit.
11. FHWA shall provide proof of off-site mitigation property acquisition. FHWA is responsible for the construction of all mitigation and the required monitoring. FHWA must also send documentation to the Corps when the off-site mitigation property has been transferred to the U.S. Fish and Wildlife Service Bear River Bird Refuge for long-term ownership, maintenance and management.
12. To document post-project construction conditions, FHWA shall submit post construction photos of the mitigation site within 30 days after project completion.
13. Best Management Practices (BMP's) shall be required and implemented as indicated in the State of Utah Water Quality Certification. Offsite material used for the roadbed and fill will be required to be free of contaminants and other hazardous material. BMP's are required during the construction of the bank stabilization, culvert installations, boat ramp demolition and installation, and all other times when work is in or near open water. Included in these BMP's are proper use of silt fences, sediment traps, logs, and wattles. All BMP's proposed in permit application shall be implemented as described.
14. FHWA's responsibility to complete the required compensatory mitigation as set forth in Special Condition 2 will not be considered fulfilled until FHWA has

demonstrated mitigation success and has received written verification from the U.S. Army Corps of Engineers.

General Conditions:

1. The time limit for completing the work authorized ends on **November 1, 2012**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(✓) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant.

Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Charles G. Luedders

Permittee

April 10, 2007

Date

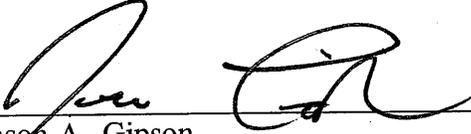
Charles G. Luedders, P.E.

Project Manager

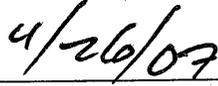
Typed or Printed Name and Title of Permittee

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and Behalf of Ronald N. Light, Colonel, U.S. Army, District Engineer:



Jason A. Gipson
Acting Chief, Intermountain Regulatory Section
Sacramento District



Date

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below and return a copy of the permit with the transferee's signature to the Corps of Engineers.

Transferee

Date

Typed or Printed Name, Address, and Phone Number of Transferee

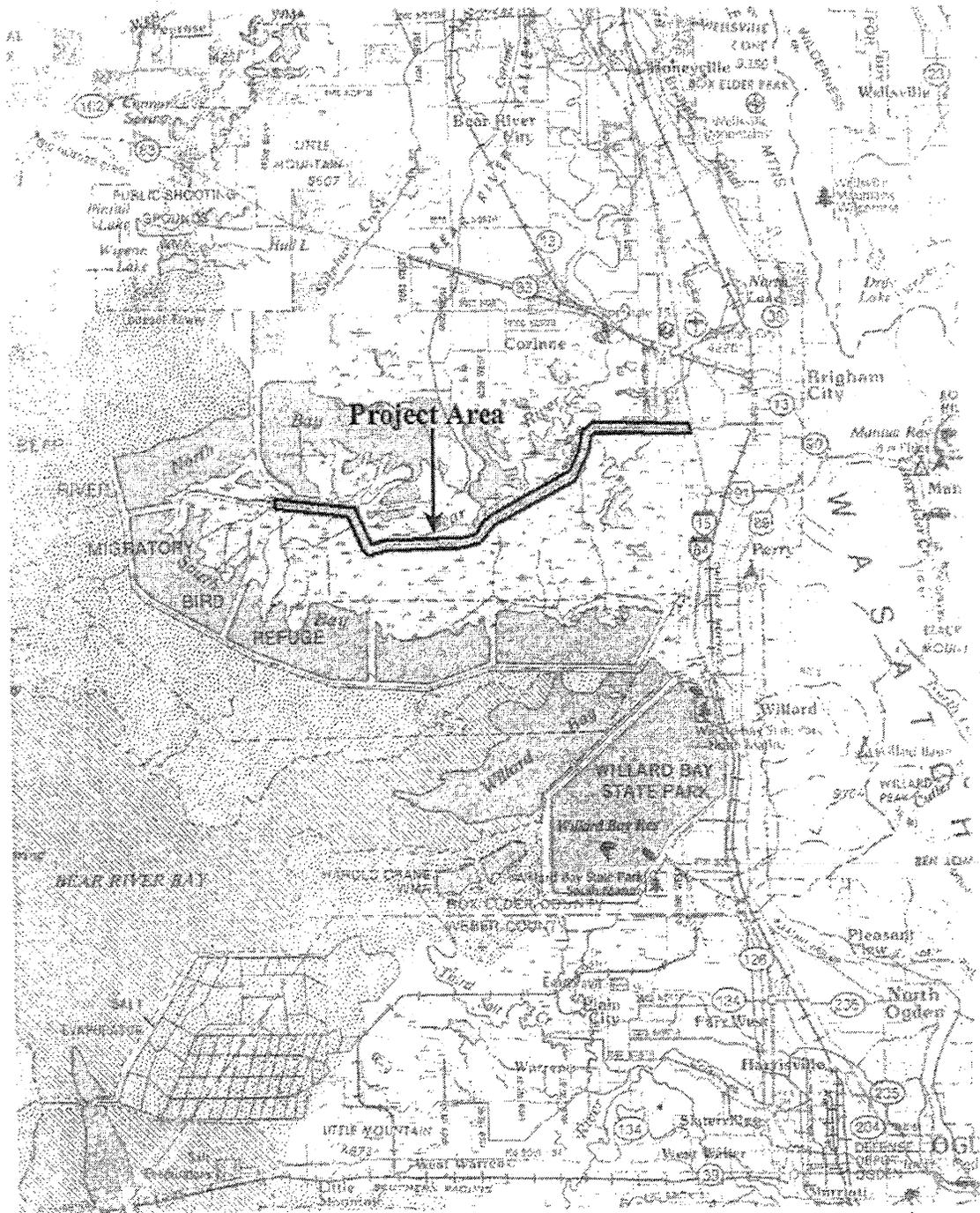
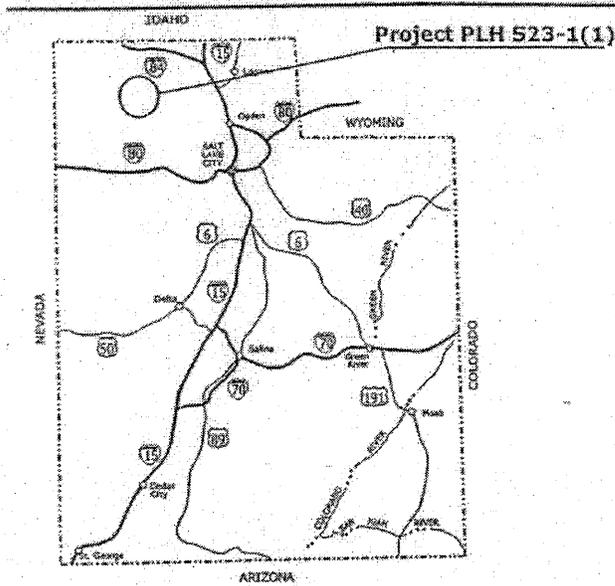


FIGURE 1a



**PROJECT PLH 523-1(1)
BEAR RIVER ACCESS ROAD**

KEY MAP OF UTAH

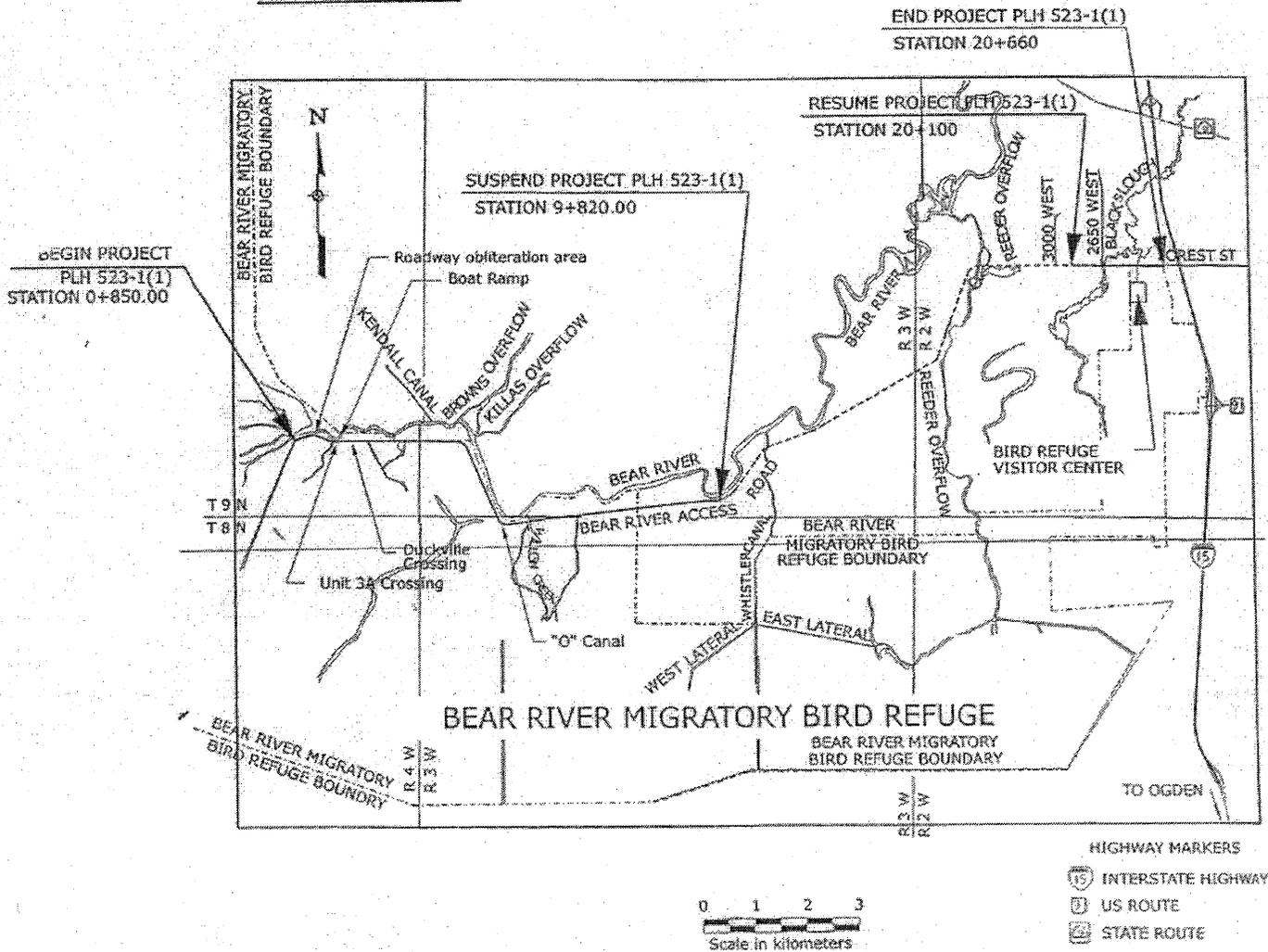
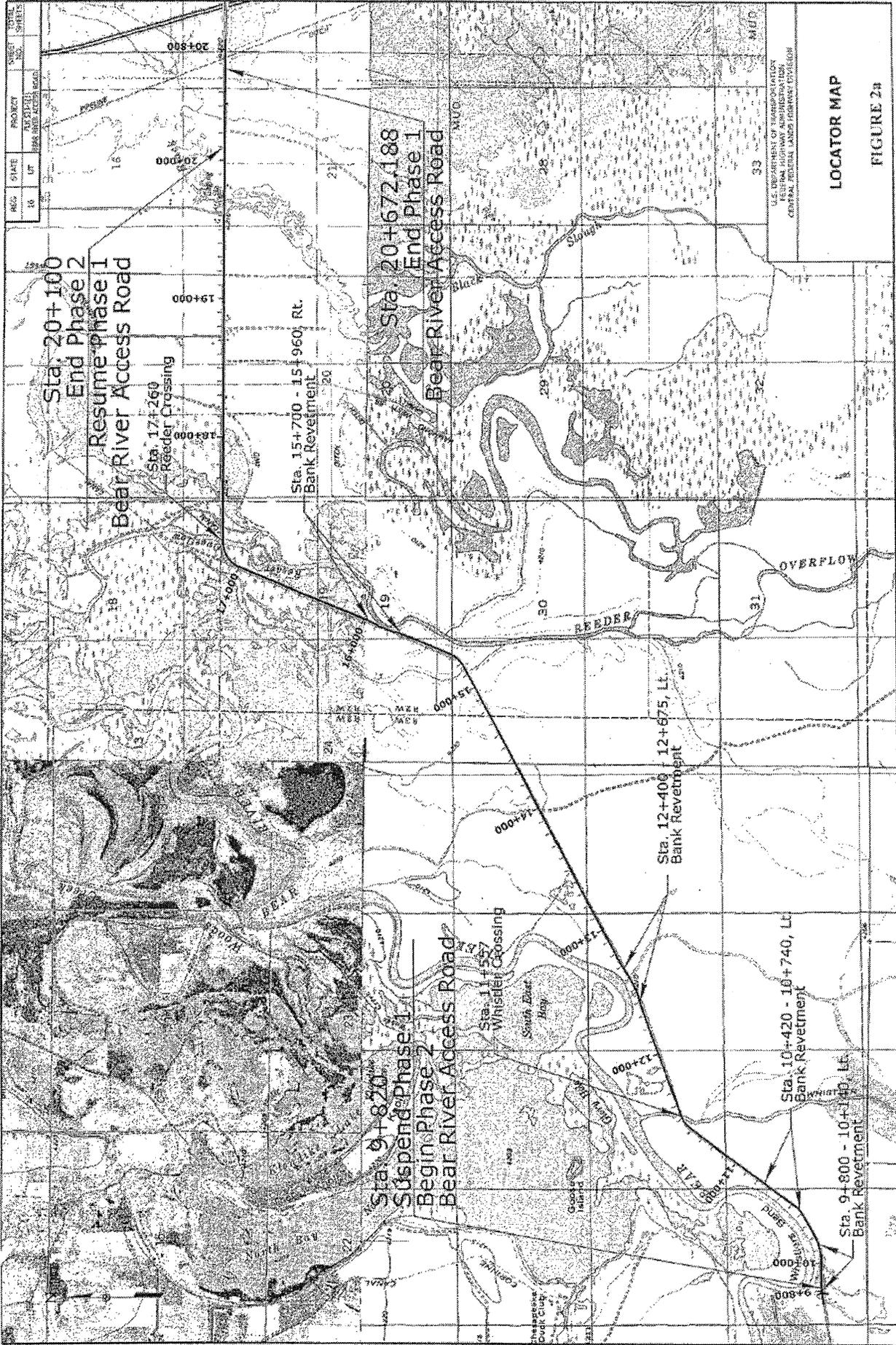


FIGURE 1

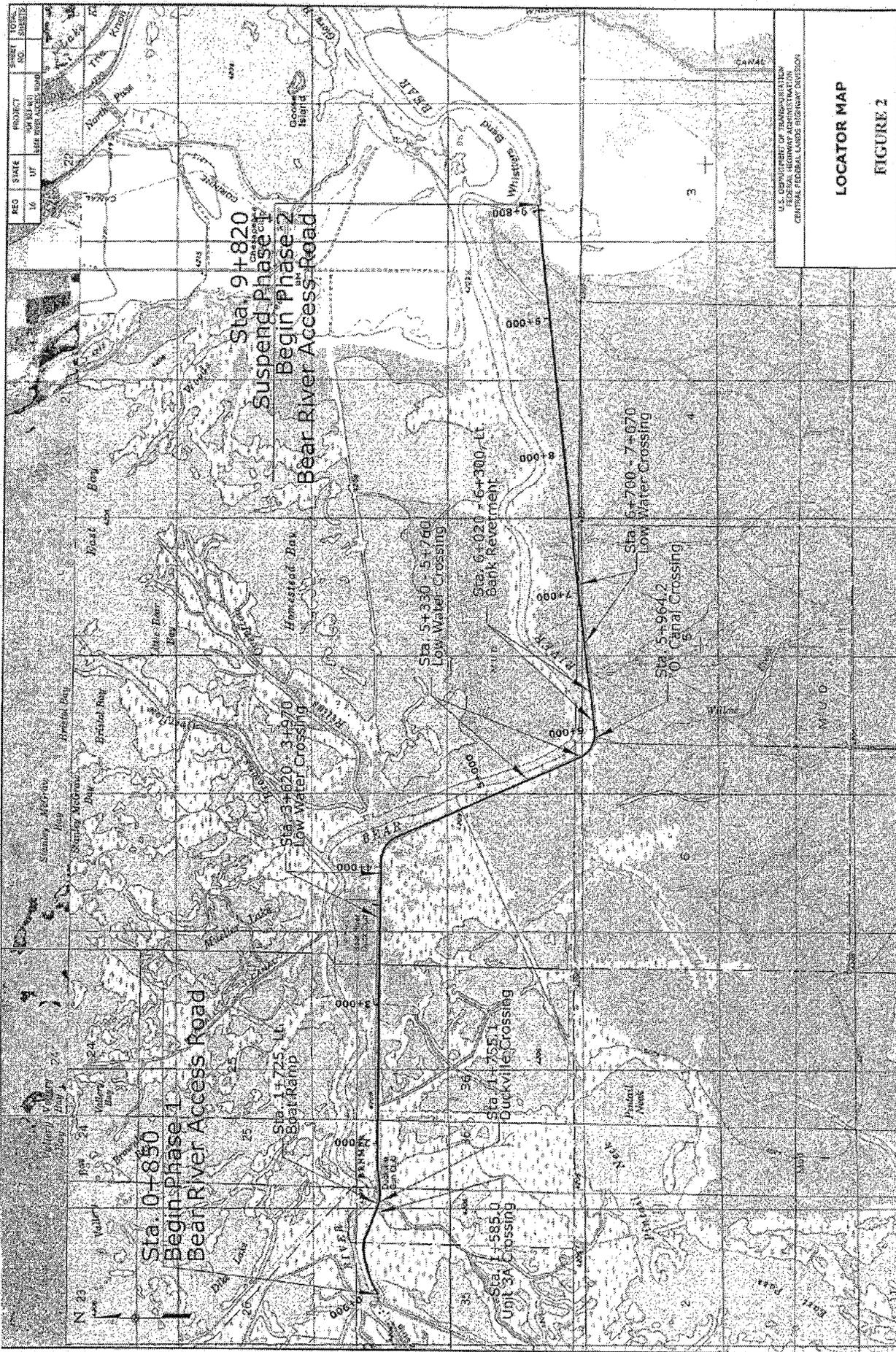


SCALE	PROJECT	NO.	SHEET
16	UT	100	100

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL REGIONAL LANDS DIVISION

LOCATOR MAP

FIGURE 2a

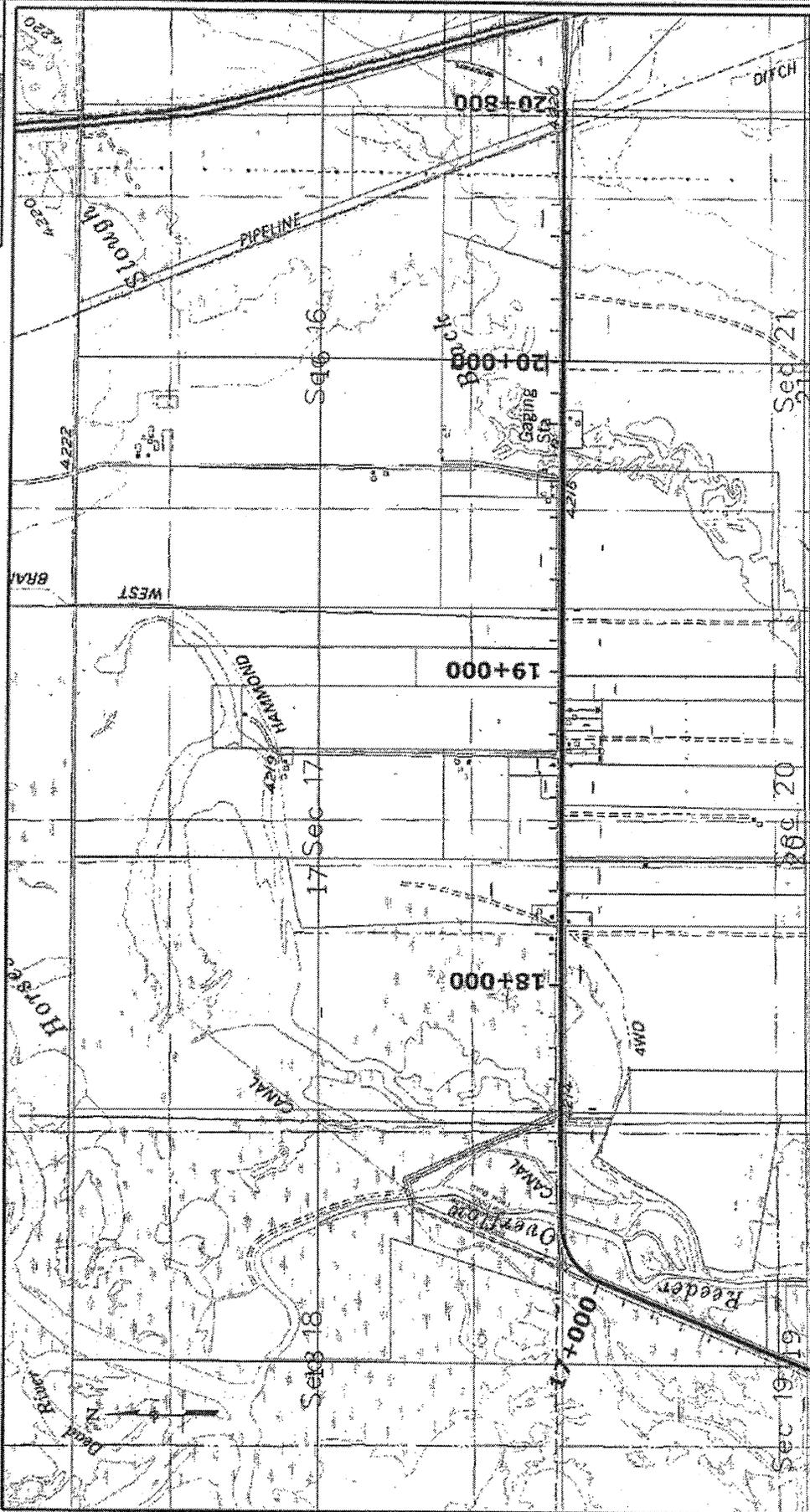


REG	STATE	PROJECT	TOTAL
16	UT	BEAR RIVER ACCESS ROAD	16

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

LOCATOR MAP
 FIGURE 2

REG	STATE	PROJECT	SHEET	AREA
16	UT	ROAD OVERLAP 2000	16	SHEETS



U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

**PROPOSED
 MITIGATION PARCEL
 FIGURE 3**

LEGEND:

Wetland Delineation Sample Point	
	Photo Point and View Direction
	Delineated Wetland
	Project Area Boundary
	Reeder Overflow
	Burt's Ditch

WETLAND	ACRES	TYPE
A	1.05	MF
B	1.64	WM
C	4.63	MFWM
D	26.90	MFWM
E	0.42	WM
F	4.52	WM/EM
G	6.46	WM/EM
H	24.87	MFWM/EM
I	7.56	WM/EM
J	0.09	EM
K	13.58	MFWM
L	0.20	EM
TOTAL	93.92	

OPEN WATER	
Reeder Overflow	10.81
Burt's Ditch	0.67
TOTAL	11.48

MF=Mudflat Playa
 WM=Wet Meadow
 EM=Emergent Marsh
 OW=Open Water



Figure 3. Wetland Delineation Map. Wetland delineation sample points, photo location, and view directions are shown.

Bear River Access Road Project
 Mark Brent Christensen Property
 Wetlands Delineation Technical Report

Frontier Corporation USA
 November 2006

Appendix B

NPDES Permit (Notice of Intent)

PLH 523-1(1)
Bear River Access Road



State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

February 2, 2007

Corey Loveland, Project Manager
U.S. Department of the Army
Corps of Engineers Regulatory Office
533 West 2600 South, Suite 150
Bountiful, UT 84010-7744

Dear Mr. Loveland:

Subject: Water Quality Certification
404 Permit Application No. 200250176

Applicant: Charles Luedders
Federal Highway Administration

Location: Access road to the US Fish and Wildlife Service Bear River
Migratory Bird National Wildlife Refuge, Box Elder County, Utah.

Purpose: Improve 12 miles of existing Bear River Access Road, known
locally as West Forest Street. The improvements include raising
and widening the road and paving with asphalt concrete,
constructing several low water crossings, replacing culverts,
constructing bank revetment and installing a boat ramp on the Bear
River. Refer to U.S. Army Corps of Engineers Public Notice
Number indicated above.

The Utah Division of Water Quality staff has reviewed the referenced information and maps. It is our opinion that applicable water quality standards may be violated unless appropriate Best Management Practices (BMPs) are incorporated to minimize the erosion-sediment load to the Bear River or any adjacent waters during project activities and operation of the facilities. We strongly recommend that appropriate water quality parameters be monitored for effectiveness of sediment control and other applicable BMPs.

Potential impacts from runoff during construction or during long-term operation of the road may include the degradation of water quality, increased quantities and intensities of peak flows, channel erosion, flooding, and geomorphologic deterioration that may directly or indirectly cause an inability of streams to achieve ecological balance and retain their designated beneficial uses. Emphasis in design should avoid concentration of storm water to fewer drainage locations. The intent should be to allow or mimic the natural flow patterns to the degree possible.

The Division of Water Quality requests the following conditions be included in the US Army Corps of Engineers 404 Permit, as follows:

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY
288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870 (801)538-6146

NOI

Notice of Intent (NOI) for Storm Water Discharges Associated with **Construction Activity** Under the UPDES General Permit No. UTR109807

Submission of this Notice of Intent constitutes notice that the party(s) identified in Section I of this form intends to be authorized by UPDES General Permit No. UTR109807 issued for storm water discharges associated with construction activity in the State of Utah. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. OPERATOR INFORMATION

Name (Main operator): FHWA, Central Federal Lands Phone: 720 963-3725

Address: 12300 W Dakota Ave Status of Owner/Operator: F - Federal

City: Lakewood State: CO Zip: 80228-2583

Contact Person: Charles Luedders Phone: 720 963-3725

Name (1st Co-permittee): _____ Phone: _____

Address: _____ Status of Owner/Operator: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Phone: _____

Name (2nd Co-permittee): _____ Phone: _____

Address: _____ Status of Owner/Operator: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Phone: _____

Name (3rd Co-permittee): _____ Phone: _____

Address: _____ Status of Owner/Operator: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Phone: _____

Please copy this form if you have more co-permittees than what is allowed on this form.

II. FACILITY SITE / LOCATION INFORMATION

Name: Bear River Access Road

Project No. (if any): UT PLH 523-1(1)

Address: 2155 W Forest Street County: BOX ELDER

City: BRIGHAM CITY State: UT Zip: 84302

Latitude: 41 28' 46" Longitude: 112 14' 52"

Is the facility located on Indian Lands?

(Y or N) N

III. SITE ACTIVITY INFORMATION

Municipal Separate Storm Sewer System (MS4) Operator Name: _____

Receiving Water Body: _____

How far to the nearest water body? _____

List the Number of any other UPDES permits at the site: _____

IV. TYPE OF CONSTRUCTION (Check all that apply)

1. ___ Residential 2. ___ Commercial 3. ___ Industrial 4. X Road 5. ___ Bridge 6. X Utility 7. X Contouring, Landscaping

8. ___ Other (Please list) _____

V. MANAGEMENT PRACTICES

Identify proposed Best Management Practices (BMPs) to reduce pollutants in storm water discharges: (Check all that apply)

1. X Silt Fences 2. ___ Sediment Pond 3. X Seeding/Preservation of Vegetation 4. X Mulching/Geotextiles 5. X Check Dams 6. X Structural Controls (Berms, Ditches, etc.)

7. ___ Other (Please list) _____

VI. ADDITIONAL INFORMATION REQUIRED

Project Start Date: Completion Date: Estimated Area to be Disturbed

06/01/08 06/01/09 (in Acres): 69

A storm water pollution prevention plan has been prepared for this site and is to the best of my knowledge in Compliance with State and/or Local Sediment and Erosion Plans and Requirements.

(Y or N) Y (A pollution prevention plan is required to be on hand before submittal of the NOI)

VII. CERTIFICATION: I certify under penalty of law that I have read and understand the Part I.B. eligibility requirements for coverage under the general permit for storm water discharges from construction activities.

I further certify that to the best of my knowledge, all discharges and BMPs that have been scheduled and detailed in a pollution prevention plan will satisfy requirements of Part I.B. , and Part III. of this permit.

I understand that continued coverage under this storm water general permit is contingent upon maintaining eligibility as provided for in Part I.B.

I also certify under penalty of law that this document and all attachments were prepared under the direction or supervision of those who have place their signature below, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Certification provided online by Charles G Luedders, Project Manager, charles.luedders@fhwa.dot.gov 03/21/08

Amount of Permit Fee Enclosed: \$ 100

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY

288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870

NOT

Notice of Termination (NOT) for Storm Water Discharges Associated with **Construction Activity** Under the UPDES General Permit No. UTR109807 **SEE REVERSE FOR INSTRUCTIONS**

Submission of this Notice of Termination constitutes notice that the operator identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the UPDES program. **ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.**

I. Permit Information

UPDES Storm Water General Permit Number: UTR109807

Check Here if You are No Longer the Operator of the Facility: _____ Check Here if the Storm Water Discharge is Being Terminated: _____

II. Facility Operator Information

Name: FHWA, Central Federal Lands Phone: 720 963-3725

Address: 12300 W Dakota Ave

City: Lakewood State: CO Zip: 80228-2583

III. Facility Site/Location Information

Name: Bear River Access Road

Address: 2155 W Forest Street County: BOX ELDER

City: BRIGHAM CITY State: UT Zip: 84302

Latitude: 41 28' 46" Longitude: 112 14' 52"

IV. Certification: I certify under penalty of law that either: a) all storm water discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or b) I am no longer an operator at the construction site and a new operator has assumed operational control for those portions of the construction site where I previously had operational control. I understand that by submitting this notice of termination, I am no longer authorized to discharge storm water associated with construction activity under this general permit, and that discharging pollutants in storm water associated with construction activity to waters of the State is unlawful under the State of Utah Water Quality Act where the discharge is not authorized by a UPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Water Quality Act.

Print Name: _____ Date: _____

Signature: _____

Instructions for Completing Notice of Termination (NOT) Form

Who May File A Notice Of Termination (NOT) Form

Permittees who are presently covered under the State issued Utah Pollutant Discharge Elimination System (UPDES) General Storm Water Permit for Construction Activity may submit a notice of termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at UAC R317-8-3.8(b)(c) and (d), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with construction activity from the construction site that are authorized by a UPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.