BIDDING DOCUMENTS

PROJECT: DESCHUTES MARKET RD/HAMEHOOK RD

INTERSECTION IMPROVEMENT

PROJECT #: W66107

BID OPENING: FEBRUARY 22, 2023

COMPLETION DATE: SEPTEMBER 30, 2023

CONTRACTING AGENCY:



61150 SE 27TH STREET BEND, OREGON 97702 PHONE: (541) 388-6581 FAX: (541) 388-2719

WEB: www.deschutescounty.gov/road



BIDDING DOCUMENTS

DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

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DESCRIPTION OF PARTS OF BIDDING DOCUMENTS WHICH ARE NOT BOUND HEREIN:

PROJECT PLANS, TITLED "DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT, JANUARY, 2023"

OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2021

The Specification that is applicable to the Work on this Project is the 2021 edition of the "Oregon Standard Specifications for Construction". All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

DESCHUTES COUNTY, OREGON ROAD DEPARTMENT

INVITATION TO BID DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

Sealed bids will be received at the Deschutes County Road Department, 61150 SE 27th Street, Bend, Oregon 97702, until but not after, **2:00 p.m. on February 22, 2023**, at which time and place all bids for the above-entitled public works project will be publicly opened and read aloud.

The Class of Work of this Project is a combination of Earthwork and Drainage or Asphalt Concrete Paving and Oiling. The value for this Contract is estimated to be between \$1,600,000 and \$2,000,000. The Work will consist of, but not be limited to, the following:

- Install and maintain temporary traffic control.
- Perform earthwork and drainage.
- Construct water supply systems.
- Construct aggregate base and shoulders.
- Construct asphalt concrete pavement.
- Install fences.
- Install permanent signs and permanent pavement markings.
- Install illumination.
- Perform additional and incidental work as called for by the specifications and plans.

Specifications and other bid documents may be inspected and obtained from the Deschutes County Bids and RFPs website at https://www.deschutescounty.gov/rfps. Inquiries pertaining to these specifications shall be directed to Blaine Wruck, Transportation Engineer, in writing at Blaine.Wruck@deschutescounty.gov or the address above.

Bids shall be made on the forms furnished by the County, including a Bid Bond or Cashiers Check for the minimum amount of 10% of the Bid Price, addressed and mailed or delivered to Chris Doty, Department Director, 61150 SE 27th Street, Bend, Oregon 97702 in a sealed envelope plainly marked "BID FOR DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT" and the name and address of the bidder.

Bidders must submit a Subcontractor Disclosure Statement. The subcontractor disclosure statement may be submitted in the sealed bid prior to 2:00 p.m. on February 22, 2023 or in a separate sealed envelope marked "SUBCONTRACTOR DISCLOSURE STATEMENT - DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT" prior to 4:00 p.m. on February 22, 2023 at the above location.

Because the work called for under this contract is for a public works project subject to state prevailing rates of wage under ORS 279C.800 to 279C.870, the County will not receive or consider a bid unless the bid contains a statement by the bidder that the bidder will comply with ORS 279C.840. Each bid must contain a statement as to whether the bidder is a resident bidder, as defined in ORS 279A.120. Vendors shall use recyclable and/or sustainably sourced products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

Bidders shall be prequalified with the State of Oregon for the Class of Work stated above in accordance with ORS 279C.430 through 279C.450 and Deschutes County Code 12.52.020 The successful bidders and subcontractors providing labor shall maintain a qualified drug testing program for the duration of the contract. Bidders shall be licensed with the Construction Contractor's Board. Contractors and subcontractors need not be licensed under ORS 468A.720.

Deschutes County may reject any bid not in compliance with all prescribed bidding procedures and requirements, and may reject for good cause any or all bids upon a finding of Deschutes County it is in the public interest to do so. The protest period for this procurement is seven (7) calendar days.

CHRIS DOTY Road Department Director

PUBLISHED:

DAILY JOURNAL OF COMMERCE: February 1, 2023

THE BEND BULLETIN: February 1, 2023

INFORMATION FOR BIDDERS

- 1. <u>General Description of Project.</u> A general description of the work to be performed is contained in the Invitation to Bid. The scope is indicated in the applicable parts of these Contract documents.
- 2. <u>Contract Documents.</u> The Contract documents under which it is proposed to execute the work consist of the material bound herewith. These Contract documents are intended to be mutually complementary and to provide all details reasonably required for the execution of the proposed work.

Any person contemplating the submission of a proposal and being in doubt as to the meaning or intent of said contract document shall at once notify, in writing, the Road Department Director of Deschutes County, Oregon. Any interpretation of change will be mailed or delivered to each person receiving a set of documents.

- **3. Form of Proposals.** All proposals must be submitted on the forms furnished. Subcontractor disclosure form may be submitted with the bid or in a separate envelope.
- 4. <u>Substitutions.</u> Materials and/or products called for in the specifications are named in order to establish a standard of quality design. Manufacturers or suppliers of products similar to those specified may submit bids on the work providing requests for approval of substitution materials are made at least seven (7) calendar days prior to the bid opening. Adequate information on which to base approval or disapproval must be furnished to the Road Department Director or his representative and the Road Department Director shall be the sole judge of any request. When the Road Department Director approves a substitution, it is with the understanding that the Contractor guarantees the substituted article or materials to be equal or better than the specified.
- **5. Preparation of Proposals.** All blank spaces in the proposal form must be filled in, in ink, or typed, in both words and figures where required. No changes shall be made in phraseology of the forms. Written amount shall govern in cases of discrepancy between the amount stated in writing and amount stated in figures.

Any proposal shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or which, in any manner shall fail to conform to the conditions of the published invitation to bidders.

The bidder shall sign his/her proposal in the blank space provided therefore. Proposals made by corporations or partnerships shall contain names and addresses of the principal officers or partners therein. If a corporation makes a proposal, it must be signed by one of the principal officers thereof, and the corporate seal affixed.

If made by a partnership, it must be signed by one of the partners, clearly indicating that he is signing as a partner of the firm. In the case of a proposal

made by a joint venture, each of the joint venturers must sign the proposal in his personal capacity.

The wording of the proposal shall not be changed. Any additions, conditions, limitations or provisions inserted by the bidder will render the proposal irregular and may cause its rejection.

6. <u>Submission of Proposals.</u> All proposals must be submitted in the time and place and in the manner prescribed in the invitation to bid. Proposals must be made on the prescribed proposal forms furnished. Each proposal must be submitted in a sealed envelope, so marked as to indicate its contents without being opened. If the proposal is submitted by mail, the sealed envelope containing the bid must be enclosed in a separate envelope plainly addressed for mailing to conformance with instructions in the Invitation to Bid

A responsive bid proposal must include the following completed items:

- Bid Proposal Form
- Schedule of Bid Items
- Bid Guaranty Form
- 7. Modification or Withdrawal of Proposal. Any bidder may modify his bid by written or telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the County prior to the closing time, and provided further that a written confirmation of a telegraphic modification over the signature of the bidder was mailed prior to the closing time. If written confirmation of a telegraphic communication is not received within at least two calendar days of the closing time, no consideration will be given to the modification. The written or telegraphic communication should not reveal the bid price, but should state the addition or subtraction or other modification so that the County will not know the final prices or terms until the sealed bid is opened.

Proposals may be withdrawn prior to the scheduled time for the opening of the proposals either by telegraphic or written request, or in person. No proposal may be withdrawn after the time scheduled for opening of proposals, unless the County has failed to comply with the time limits applicable to award of the Contract.

- Disclosure of First Tier Subcontractors. 8. Bidders must submit a subcontractor disclosure statement where the value, estimated by the contracting Agency exceeds \$100,000. The subcontractor disclosure statement may be submitted in the sealed bid prior to the bid closing OR it submitted separate sealed envelope mav in а "SUBCONTRACTOR DISCLOSURE STATEMENT" and the name of the project, within two (2) working hours after the bid closing. Bidder must submit a statement on the form provided in these contract documents identifying all first-tier subcontractors that will furnish labor or labor and materials and whose contract value is equal to or greater than:
 - 5% of the total project bid, but at least \$15,000, or
 - \$350,000 regardless of the percentage of the total project bid.

For each subcontractor listed, include:

- The name, address and telephone number of the subcontractor:
- The category of work that the subcontractor would be performing.

If no subcontracts subject to the above disclosure requirements are anticipated, a bidder is required to indicate "NONE" on the accompanying form.

To determine disclosure requirements, it is required that bidders disclose subcontract information for any subcontractor as follows:

1) Use the forms bound herewith for the required disclosure.

Notice – Bidder's Requirements: Bidders are required to disclose information about certain first-tier subcontractors when the contract value estimated by the contracting Agency for a Public Improvement is greater than \$100,000 (see ORS 279C.370). Specifically, when the contract amount of a first-tier subcontractor furnishing labor or labor and materials would be greater than or equal to: (i) 5% of the project bid, but at least \$15,000, or

- (ii) \$350,000 regardless of the percentage, the bidder must disclose the following information about that subcontract either in its Bid submission or within two working hours after bid closing:
- (a) The subcontractor's name, and
- (b) The category of work that the subcontractor would be performing.
- 2) If the bidder will not be using any subcontractors that are subject to the above disclosure requirements, the bidder is required to indicate "NONE" on the accompanying form.
- 3) Bidder shall submit the disclosure form required by OAR 137-049-0360 either in its bid submission or separately within two working hours after Bid Closing in the manner specified by the invitation to bid.
- 4) Compliance with the disclosure and submittal requirements of ORS 279C.370 and OAR 137-049-0360 is a matter of Responsiveness. Bids which are submitted by Bid Closing, but for which the disclosure submittal has not been made by the specified deadline, are not responsive and shall not be considered for Contract award.
- 5) County shall obtain, and make available for public inspection, the disclosure forms required by ORS 279C.370 and OAR 137-049-0360. County shall also provide copies of disclosure forms to the Bureau of Labor and Industries as required by ORS 279C.835. County is not required to determine the accuracy or completeness of the information provided on disclosure forms.
- 6) Substitution of affected first-tier subcontractors shall be made only in accordance with ORS 279C.585. County shall accept written submissions filed under the statute as public records. Aside from issues involving inadvertent clerical error under ORS 279.585(5), County does not have a statutory role or duty to review, approve, or resolve disputes

concerning such substitutions. See ORS 279C.590 regarding complaints to the Construction Contractors Board on improper substitution.

THE COUNTY MUST REJECT A BID IF THE BIDDER FAILS TO SUBMIT THE DISCLOSURE FORM WITH THIS INFORMATION BY THE STATED DEADLINE (see OAR 137-049-0360).

- 9. <u>Bid Security.</u> The Bid Bond or Cashier's Check will be for a minimum of ten per cent (10%) of the amount of the bid price. If a bidder bids more than one bid proposal, each proposal must be accompanied by separate bid security. The County reserves the right to retain the bid security of the three (3) lowest bidders until the successful bidder has signed and delivered the contract and furnished one hundred percent (100%) Performance and Payment Bonds.
- 10. Conditions of Work. Each bidder must inform himself of the conditions relating to the execution of the work, and make himself thoroughly familiar with all the Contract documents. Failure to do so will not relieve the successful bidder of his obligations to enter into a Contract and complete the contemplated work in strict accordance with the Contract documents. Each bidder must inform himself on all laws and statutes, both Federal and State, relative to the regular execution of the work, the employment of labor, protection of public health, access to the work and similar requirements.
- 11. <u>Award of Contract</u>. The award of the contract will be made by the County on the basis of the proposal which in its sole and absolute judgment will best serve the interest of the County.

County will issue a notice of intent to award contract. Any bidder may protest the notice of intent to award contract within seven (7) calendar days of the notice of intent to award contract.

The County reserves the right to accept or reject any or all proposals, and to waive any informalities and irregularities in said proposals.

12. Payment and Retainage. Payment for work performed will be made by the County as specified in the Special Provisions based upon the contract unit prices on the Bid Schedule.

Upon substantial completion of the contract, Contractor may request a partial release of retainage held by the County. The maximum amount of a request for a partial release retainage shall be the Contract amount less 150 percent of the estimated cost of the Contract yet to be performed through final completion. Upon final completion, Contractor may request release of the remaining retainage. Each request for the release of retainage shall be accompanied by the Consent of the contractor's surety.

13. Performance Bond and Payment Bond. The successful bidder shall file with the County, at the time of execution of the contract, a Performance Bond and a Payment Bond each of not less than the contract price on the forms furnished by the County. The Surety Company furnishing the required bonds shall have a sound financial standing and a record of service satisfactory to the County, and shall be authorized to do business in the

State of Oregon. In lieu of a Performance Bond, the contractor may file cash, a Certified or Cashier's Check made payable to Deschutes County, Oregon. This money, check or certificate will be held by the County conditioned on and subject to the same provisions as set forth in the attached Performance Bond. ORS 279C.380 allows no flexibility for a cash deposit in lieu of a Payment Bond.

County may request a copy of Contractor's surety bond(s). Contractor must supply County with copy of surety bond(s) within ten (10) calendar days from the date of the request.

- 14. Required Public Works Bond. Before starting work on this project the Contractor and every subcontractor to which Contractor is a party for the performance of work under this contract must have a public works bond filed with the Construction Contractors Board, 700 Summer St. NE, Suite 300, Salem, Oregon 97309-5052, before starting work on the project, unless exempt under section 2 (7) or (8) of 2005 Oregon Laws Chapter 360 ORS 279C.836(7) or (8). Every subcontract to which Contractor is a party for the performance of work under this contract shall contain a provision requiring the subcontractor to have a public works bond filed with the Construction Contractors Board before starting work on this project, unless exempt under ORS 279C.836 (7) or (8) section 2 (7) or (8) of 2005 Oregon Laws Chapter 360.
- **Failure to Execute Contract.** Upon failure by the successful bidder to enter into the Contract and furnish the necessary bond within ten (10) calendar days from the date Notice of Award is made, the bid bond accompanying the bid shall be forfeited, the proceeds paid to the County, and the award withdrawn. The award may then be made to the next lowest responsible bidder, or all bids rejected and the work is re-advertised.
- 16. Disc<u>laimer of Responsibility.</u> Neither the County nor the Road Department Director will be responsible for oral interpretations. Should a bidder find discrepancies in, or omissions from the drawings, specifications, or other pre-bid documents, or be in doubt as to their meaning, he shall notify the County at least seven (7) calendar working days prior to the bid opening date. Any and all such interpretations, any supplemental instructions or approval of manufacturer's materials to be substituted will be made only in the form of written addenda to the specifications, which, if issued, will be hand delivered or sent by regular mail, email and fax to all prospective bidders receiving a set of such documents, not later than two (2) calendar days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued are to be covered in the bid for such addenda to become part of the Agreement.
- 17. Permits and Licenses. The successful bidder shall be required to have or obtain, at his expense, any and all permits and licenses required by Deschutes County, any City within the County, and the State of Oregon, pertaining to the service he proposes to furnish. Licensing shall include without limitation registration with Construction Contractors Board and in the case of professional engineers and architects proof of current licensing with the appropriate State licensing board.

- **18.** Minimum Requirements of Bid. The following minimum requirements as to the form and manner of submitting bids must be strictly observed; variance from these requirements will result in rejection of the bid as unresponsive.
 - a. Each Bid must be submitted on forms furnished by the County, and include a complete set of contract documents.
 - b. Each Bid must be signed by the bidder.
 - c. Bid security, in the required form and amount, must accompany each bid.
 - d. Each blank in the proposal must be filled in unless an alternative is provided. Each separate bid item must be bid on, unless the proposal form clearly indicates otherwise.
 - e. Each Bid must be submitted in a separate sealed envelope, marked to identify without opening, and in the hands of the Road Department Director at the time and place specified for bid opening.
 - f. A proposal containing modifications, deletions, exceptions or reservations which in any way conflict with or purport to alter any substantive provision contained in the bid documents, will not be considered.
 - g. A conditional bid will not be considered.
 - h. Any bid submitted without all of the pages of the bid documents, but with a sufficient number of the pages of the bid documents to allow the evaluation of the bid, shall be deemed to have been submitted with the missing pages for purposes of bid evaluation. The missing pages of the bid documents shall be deemed to be incorporated into bid by reference.
- **19.** Plans. Plans are not to be taken or construed as being reproduced at precisely the indicated scale. Where the plans are photographic reductions of the original tracings, the approximate amount of reduction is indicated by a note on the plans.
- **20. Specifications.** The specifications are the minimum acceptable specifications for the project for which proposals are sought. Any deviation from the specifications contained herein, shall render the bid non-responsive.
- 21. Examination of Site and Conditions. Bidders are required, prior to submission of bids, to carefully examine the site and the Plans and Specifications of the contemplated work. Errors and omissions in the Plans or Specifications shall be called to the attention of the Road Department Director prior to submission of bid so that addenda may be issued. Failure to do so on the part of the Contractor does not relieve him of responsibility for a correct and completely finished job. Only a written interpretation or correction by addendum shall be binding.

22. Pre-Bid Inquiries. Bidders with pre-bid inquires shall contact Blaine Wruck, Transportation Engineer, in writing at Blaine.Wruck@deschutescounty.gov or 61150 SE 27th Street, Bend, Oregon 97702.

23. Prequalification of Bidders.

Bidders shall be pre-qualified with the State of Oregon in accordance with ORS 279C.430 and Deschutes County Code 12.52.020. The prequalification class is as shown in the Invitation to Bid. This contract is subject to ORS 279C.800 to 279C.870. The successful bidders and subcontractors providing labor shall maintain a qualified drug-testing program for the duration of the contract. Bidders shall be licensed with the Construction Contractor's Board. Contractors and subcontractors need not be licensed under ORS 468.710.

- **24.** Contract Award. Deschutes County reserves the right to postpone award of the contract for fourteen (14) calendar days from the date of the bid opening, or until a final decision is made on a protest, whichever is later.
- **25.** <u>Bidder Statement.</u> Submission of a bid for the project shall constitute a statement by the bidder that the provisions of ORS 279C.840 are to be complied with.

BID PROPOSAL FORM

DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

BIDDER NAME			CCB#
ADDRESS	CITY	STATE	ZIP CODE
CONTACT NAME	CONTACT PHONE N	UMBER	CONTACT EMAIL ADDRESS
The undersigned, hereinafter of in this Proposal are those name and it is made without collusion County; and that the Proposal another proposal on this contra	ned herein; that this Pro in with any official of De is made without any co	posal is, in all reschutes County	espects, fair and without fraud; v, Oregon, hereinafter called
	involved, including magal is made according to	terials and equi the provisions a	
The Bidder agrees that all of the (ORS Chapter 279) are, by this hereby states that Bidder will of	is reference, incorporate	ed in and made	relating to public contracts a part of this Proposal. Bidder
Bidder declares that (check ap ☐ Bidder is a resident bidder of ☐ Bidder is a nonresident bidder.	of the State of Oregon.		
Bidder declares that Bidder is County, including but not limite			tate of Oregon and Deschutes 5.380(4),

The Bidder further agrees that if this Proposal is accepted, Bidder will, within ten (10) calendar days after notification of acceptance, execute the contract with the County in the form of contract annexed hereto; and will, at the time of execution of the contract, deliver to the County the Performance and Payment Bonds (See Section 13 Information for Bidders) required herein; and will, to the extent of this Proposal, furnish all materials necessary to complete the work in the manner, in the time, and according to the methods as specified in the contract documents and required by the Road Department Director.

Bidder certifies that it has a drug testing program in place for its employees, or warrants that a drug testing program will be in place prior to execution of this contract, that the drug testing program is in writing, that new employees must pass a drug screening, that existing employees may be tested for reasonable cause or when an employee is injured or involved in an accident resulting in property

damage. Bidder agrees that each subcontractor providing labor under this Contract shall maintain a qualifying drug testing program for the duration of the Contract.

The Bidder agrees to commence work upon the issuance of a "Notice to Proceed" by the County and fully complete the project according to the time schedule specially set forth in the contract documents.

Bidder further agrees to pay liquidated damages for failure to complete within the specified time.

It is agreed that if the Bidder is awarded the contract for the work herein proposed and shall fail or refuse to execute the contract and furnish the contract and furnish the specified Performance and Payment Bond within ten (10) calendar days after receipt of notification of acceptance of Bidder's proposal, then, in that event, the bid security deposited herewith according to the conditions of the Invitation to Bid and Information for Bidders shall be retained by the County as liquidated damages; and it is agreed that the said sum is a fair measure of the amount of damage the County will sustain in case the Bidder shall fail or refuse to enter into the contract for the said work and to furnish the Performance and Payment Bonds (See Section 13 Information for Bidders) as specified in the contract documents. Bid security in the form of a certified check shall be subject to the same requirements as a bond.

(IF SOLE PROPRIETOR OR PARTNERSHIP)

•	,	
IN WITNESS HERETO, the un, 2	dersigned has set hand this day of 2023.	
	SIGNATURE OF BIDDER	
	TITLE	
	(IF CORPORATION)	
	undersigned corporation has caused this instrume orized officers this day of	
	NAME OF CORPORATION	
	By:	
	Title:	
	Attest:	

(SCHEDULE OF BID ITEMS TO FOLLOW)

ITEM	SPEC					
NO.	SECTION	ITEM	UNIT	QTY	UNIT PRICE	AMOUNT
		Part 00200 - Temporary Features and Appurtenances				
001	00210	Mobilization Towards But action & Direction of Traffic	LS	1	\$	\$
002	00221 00222	Temporary Protection & Direction of Traffic	LS SQFT	1	\$	\$
003 004	00222	Temporary Signs Portable Changeable Message Signs	EACH	665 3	\$	<u>\$</u> \$
004	00222	Flaggers	HOUR	1750	\$	\$
006	00223	Flagger Station Lighting	EACH	3	\$	\$
007	00224	Temporary Barricades, Type III	EACH	24	\$	\$
008	00224	Temporary Plastic Drums	EACH	73	\$	\$
009	00225	Temporary Striping	FOOT	900	\$	\$
010	00225	Stripe Removal	FOOT	900	\$	\$
011	00225	Legend Removal	SQFT	96	\$	\$
012	00280	Erosion Control	LS	1	\$	\$
013	00290	Pollution Control Plan	LS	1	\$	\$
		Part 00300 - Roadwork				
014	00305	Construction Survey Work	LS	1	\$	\$
015	00310	Removal of Structures and Obstructions	LS	1	\$	\$
016	00310	Removal of Surfacings	SQYD	5250	\$	\$
017	00310	Removal of Fences	LS	1	\$	\$
018	00310	Removal of Pipes	LS	1	\$	\$
019	00310	Asphalt Pavement Saw Cutting	FOOT	140	\$	\$
020	00320	Clearing and Grubbing	LS	1	\$	\$
021	00330	Embankment In Place	CUYD	3700	\$	\$
022	00390	Loose Riprap, Class 50	CUYD	8.4	\$	\$
023	00390	Riprap Basins	EACH	9	\$	\$
		Part 00400 - Drainage and Sewers			_	_
024	00445	8 Inch Storm Sewer Pipe	FOOT	180	\$	\$
025	00470	Concrete Inlets, Type G-2	EACH	6	\$	\$
000	00044	Part 00600 - Bases	TON	2450	Φ.	r.
026	00641	Aggregate Base & Shoulders	TON	3150	\$	\$
027	00744	Part 00700 - Wearing Surfaces Level 3, 1/2 Inch ACP Mixture, PG 70-28ER	TON	650	\$	\$
028	00744	Level 3, 1/2 Inch ACP Mixture, PG 70-20ER	TON	1640	\$	\$
029	00749	Extra for Asphalt Approaches	EACH	2	\$	\$
030	00759	Concrete Curbs, Low Profile Mountable Curb - Islands & Shoulders	FOOT	2125	\$	\$
031	00759	Concrete Curbs, Low Profile Mountable Curb - Truck Apron	FOOT	315	\$	\$
032	00759	Concrete Curbs, High Strength Modified	FOOT	210	\$	\$
033	00759	Stamped Concrete, 6 Inches Thick, Concrete Surfacing	SQFT	3440	\$	\$
034	00759	Stamped Concrete, 8 Inches Thick, Concrete Surfacing	SQFT		\$	\$
035	00759	Bicycle Exit Ramp, Concrete Surfacing	SQFT	390	\$	\$
		Part 00800 - Permanent Traffic Safety and Guidance Devices				
036	00865	Thermoplastic, Sprayed, Surface, Non-Profiled	FOOT	5615	\$	\$
037	00867	Pavement Legend, Type B-HS: Bicycle Lane Stencil	EACH	3	\$	\$
038	00867	Pavement Legend, Type A: Yield Line Triangle	EACH	27	\$	\$
039	00867	Pavement Legend, Type AB: Speed Reduction Transverse Bars	EACH	112	\$	\$

ITEM	SPEC					
NO.	SECTION	ITEM	UNIT	QTY	UNIT PRICE	AMOUNT
		Part 00900 - Permanent Traffic Control and Illumination Systems				
040	00905	Remove Existing Signs	LS	1	\$	\$
041	00905	Remove And Reinstall Existing Signs	LS	1	\$	\$
042	00920	Sign Support Footings	LS	1	\$	\$
043	00930	Triangular Base Breakaway Supports	LS	1	\$	\$
044	00930	Perforated Steel Square Tube Slip Base Sign Supports	LS	1	\$	\$
045	00940	Signs, Standard Sheeting, Sheet Aluminum	SQFT	142	\$	\$
046	00940	Signs, Standard Sheeting, Plywood	SQFT	85	\$	\$
047	00970	Pole Foundations	LS	1	\$	\$
048	00970	Switching, Conduit, & Wiring	LS	1	\$	\$
		Part 01000 - Right of Way Development and Control				
049	01012	Water Quality Drainage Swales	SQYD	402	\$	\$
050	01030	Permanent Seeding	ACRE	0.7	\$	\$
051	01040	Conifer Trees, 6 Foot Height	EACH	3	\$	\$
052	01040	Boulders	EACH	20	\$	\$
053	01040	Rock Mulch	TON	80	\$	\$
054	01050	Type 1-5W Fence	FOOT	530	\$	\$
055	01070	Remove and Reinstall Mailbox Supports	EACH	2	\$	\$
		Part 01100 - Water Supply Systems				
056	01140	12 Inch Potable Water Pipe, Fittings & Couplings w/ Restrained Joints and Class B Backfill	FOOT	955	\$	\$
057	01140	8 Inch Potable Water Pipe, Fittings & Couplings w/ Restrained Joints and Class B Backfill	FOOT	68	\$	\$
058	01140	4 Inch Potable Water Pipe, Fittings & Couplings w/ Restrained Joints and Class B Backfill	FOOT	48	\$	\$
059	01140	3 Inch Potable Water Pipe, Fittings & Couplings w/ Restrained Joints and Class B Backfill	FOOT	7	\$	\$
060	01150	1 Inch Combination Air Release / Air Vacuum Valve Assembly	EACH	2	\$	\$
061	01150	1 Inch Tapping Sleeve and 1 Inch Valve Assembly	EACH	1	\$	\$
062	01150	4 Inch Gate Valve	EACH	2	\$	\$
063	01150	8 Inch Gate Valve	EACH	2	\$	\$
064	01150	12 Inch Gate Valve	EACH	8	\$	\$
065	01170	1 Inch Copper Water Service Line	FOOT	22	\$	\$
					TOTAL BID:	
OR DE	SCHUTES C	OUNTY USE ONLY ADD	_ % FOR	NON-RE	ESIDENT BIDDER	
					TOTAL BID	
he Bid	dder ackno	wledges receipt of the following Addenda: (insert addenda nun	nbers)			
		No No No No No No No	•			

FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

Project Name: DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

Bid #: W66107	Bid Closing Date: February 22, 202	Time: 2:00 P.M.
Name of Bidding Co	ontractor:	
		the Invitation to Bid on the advertised) after the advertised bid closing time.
required to be disclo dollar value of the s		
NAME	DOLLAR VALUE	CATEGORY OF WORK
1)	\$	
2)	\$	
3)	\$	
4)	\$	
5)	\$	
6)	\$	
7)	<u> </u>	_
8)	<u> </u>	
Failure to submit this		I result in a non-responsive bid. A non-
Form submitted by		
Bidder name:		
Contact name:	Phone n	umber [.]

BID BOND

KNOW ALL MEN BY THESE PRESI	ENTS, That
hereinafter called the Principal, and _	
a corporation duly organized under t	the laws of the State of,
having its principal place of business	s at
	, in the State of,
and authorized to do business in the	e State of Oregon, as Surety, are held and firmly bound unto the
County of Deschutes, hereinafter cal	lled the Obligee, in the penal sum of
	DOLLARS (\$),
	nd truly to be made, we bind ourselves, our heirs, executors, gns, jointly and severally, firmly by these presents.
	t, whereas, the Principal is submitting a bid proposal for the HOOK RD INTERSECTION IMPROVEMENT project hereby made
contract be awarded to said Princip and shall furnish the Performance documents with the time fixed by s	proposal submitted by the said principal be accepted, and the pal, and if the said Principal shall execute the proposed contract and Payment Bond as required by the bidding and contract said documents, then this obligation shall be void, otherwise to ed and sealed this day of, 2023.
SURETY:	CONTRACTOR:
Name	Name
Ву:	By:
Title:	Title:

CONTRACT

FOR

DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

THIS	CONTRA									day	
		1	2023, by	and be	tween Di	ESCHU	ITES C	COUNTY	, а	politi	cal
subdiv	ision of	the St	ate of C	Oregon,	by and	throug	gh its	Board	of	Cou	nty
Comm	issioners,	hereina	after calle	d "Cou	nty", and	`					,
an Ore	egon corpo	oration,	hereinafte	er called	l "Contrac	tor."					

WITNESSTH:

THAT the said Contractor, in consideration of the sums to be paid by the County in the manner and at the time herein provided, and in consideration of the other covenants and agreements herein contained, hereby agrees to perform and complete the work herein described and provided for and to furnish all necessary machinery, tools, apparatus, equipment, supplies, materials and labor and do all things in accordance with the applicable Plans, the applicable Standard Specifications, the Special Provisions and other required provisions bound herewith or incorporated therein, and in accordance with such alterations or modifications of the same as may be made by the County, and according to such directions as may from time to time be made or given by the Engineer under the authority and within the meaning and purpose of this Contract. This agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the Contractor.

THAT the applicable Plans, the applicable Standard Specifications, the Special Provisions and other required provisions bound herewith or incorporated therein and the Schedule of Items bound herewith are hereby specifically referred to and by this reference made a part hereof, and shall by such reference have the same force and effect as though all of the same were fully written or inserted herein.

THAT the Contractor shall faithfully complete and perform all of the obligations of this Contract, and in particular, shall promptly, as due, make payment of all just debts, dues, demands and obligations incurred in the performance of said Contract; and shall not permit any lien or claim to be filed or prosecuted against the County, its agents or employees. It is expressly understood that the laws of the State of Oregon and the Ordinances of the County shall govern this Contract in all things.

THAT in consideration of the faithful performance of all of the obligations, general and special, herein set out, and in consideration of the faithful performance of the work as set forth in the Contract Documents in accordance with the directions and to the satisfaction of the Engineer, the County agrees to pay to the said Contractor the amount earned, as determined from the actual quantities of work performed, and taking into consideration any amounts that may be deductible and under the terms of the Contract, and to make such payments in the manner and at the times provided in the applicable provisions.

(SIGNATURE PAGE TO FOLLOW)

IN WITNESS WHEREOF, the parties hereto have subscribed their names and affixed their respective official seals as of the date first above written

CONTRACTOR	BOARD OF COUNTY COMMISSIONERS OF DESCHUTES COUNTY, OREGON
BY:	ANTHONY DEBONE, CHAIR
TITLE:	PATTI ADAIR, VICE CHAIR
DATE:	PHIL CHANG, COMMISSIONER
	ATTEST:
	RECORDING SECRETARY
	APPROVED AS TO CONTENT:
	ROAD DEPARTMENT DIRECTOR
	APPROVED AS TO FORM:
	COUNTY LEGAL COUNSEL

Bond #	‡

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that	
(Name of Contractor)	
(Address of Contractor)	
a(Corporation, Partnership, or Individual)	, hereinafter called
"Principal", and(Name of Surety)	
hereinafter called "Surety", are held and firmly bound unto Deschutes Cou	ınty, Oregon
hereinafter called "Owner", in the penal sum of	
Dollars, \$	()
in lawful money of the United States, for the payment of which sum well a we bind ourselves, successors, and assigns, jointly and severally, firmly b	•
THE CONDITION OF THIS OBLIGATION is such that whereas, the Princ certain contract with the OWNER, dated the day of which is hereto attached and made a part hereof for the construction of:	, 2023, a copy of

DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

NOW THEREFORE, if Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by Owner, with or without notice to Surety and during the **two year guaranty period**, and if Principal shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless Owner from all costs and damages which is may suffer by reason of failure to do so, and shall reimburse and repay Owner all outlay and expense which Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER, that Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or the specifications.

PROVIDED, FURTHER, that no final settle right of any beneficiary hereunder, whose			al shall abridge the
IN WITNESS WHEREOF, this instrument shall be deemed an original, this the			
(OFAL)	DDINGIDAL .		
(SEAL)	PRINCIPAL:		
	Bv		
	By Signature		
	Official Capacity	1	
	Attest:		
	Corporat	ion Secretary	
(SEAL)	SURETY:		
	[Add signatures for	each surety if us	sing multiple bonds]
	BY ATTORNEY		
	[Power-of-Attorney	must accompany	y each surety bond]
	Name		
	Signature		
	Address		
	City	State	Zip
	Phone	Fax	

NOTE: Date of bond must not be prior to date of Contract.
If Contractor is Partnership, all partners should execute bond.

Bond #	

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that	
(Name of Contractor)	
(Address of Contractor)	
a(Corporation, Partnership, or Individual)	, hereinafter called
"Principal", and(Name of Surety)	
hereinafter called "Surety", are held and firmly bound unto Deschutes Cou	unty, Oregon
hereinafter called "Owner", in the penal sum of	
Dollars, \$	()
in lawful money of the United States, for the payment of which sum well a we bind ourselves, successors, and assigns, jointly and severally, firmly b	
THE CONDITION OF THIS OBLIGATION is such that whereas, the Princ certain contract with the OWNER, dated the day of which is hereto attached and made a part hereof for the construction of:	

DESCHUTES MARKET RD/HAMEHOOK RD INTERSECTION IMPROVEMENT

NOW, THEREFORE, if Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

right of any beneficiary hereunder, whose	e claim may be unsati	sfied.	
IN WITNESS WHEREOF, this instrumen shall be deemed an original, this the			
(SEAL)	PRINCIPAL:		
	By Signature		
	Official Capacity		_
	Attest: Corporati	ion Secretary	
(SEAL)	SURETY:[Add signatures for	each surety if us	sing multiple bonds]
	BY ATTORNEY- [Power-of-Attorney	_	y each surety bond]
	Name		
	Signature		
	Address		
	City	State	Zip
	Phone	Fax	

PROVIDED, FURTHER, that no final settlement between Owner and Principal shall abridge the

NOTE: Date of bond must not be prior to date of Contract.

If Contractor is Partnership, all partners should execute bond.

SPECIAL PROVISIONS

PROJECT: DESCHUTES MARKET ROAD / HAMEHOOK ROAD

INTERSECTION IMPROVEMENT

PROJECT #: W66107

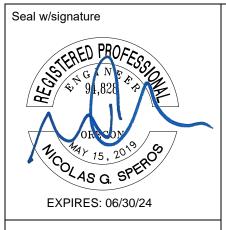
CONTRACTING AGENCY:



61150 SE 27TH STREET BEND, OREGON 97702 PHONE: (541) 388-6581 FAX: (541) 388-2719

WEB: www.deschutescounty.gov/road

PROFESSIONAL OF RECORD CERTIFICATION:



Date Signed: <u>01-20-23</u>

I certify the Special Provision Section(s) listed below are applicable to the design for the subject project. Modified Special Provisions were prepared by me or under my supervision.

 $\begin{array}{c} \textbf{Sections} & \underline{00210,\ 00280,\ 00290,\ 00305,\ 00310,\ 00320,\ 00330,} \\ \underline{00340,\ 00350,\ 00390,\ 00405,\ 00445,\ 00470,\ 00641,\ 00730,} \\ \underline{00744,\ 00749,\ 00759,\ 01012,\ 01030,\ 01040,\ 01050,\ 01070,} \\ \underline{01140,\ 01150,\ 01170,\ 02001,\ 02010,\ 02020,\ 02030,\ 02035,} \\ \underline{02040,\ 02045,\ 02050,\ 02690} \end{array}$

PROFESSIONAL OF RECORD CERTIFICATION:



I certify the Special Provision Section(s) listed below are applicable to the design for the subject project. Modified Special Provisions were prepared by me or under my supervision.

Sections <u>00220, 00221, 00222, 00223, 00224, 00225, 00228, 00850, 00865, 00867, 00905, 00910, 00920, 00930, 00940, 00960, 00970, 02560, 02910, 02926</u>

Date Signed: __01/20/2023

SPECIAL PROVISIONS

WORK TO BE DONE

The work to be done under this contract consists of the following on the Deschutes Market Road/Hamehook Road Intersection Improvement project:

- 1. Install and maintain temporary traffic control.
- 2. Perform earthwork and drainage.
- 3. Construct water supply systems.
- 4. Construct aggregate base and shoulders.
- 5. Construct asphalt concrete pavement.
- 6. Install fences.
- 7. Install permanent signs and permanent pavement markings.
- 8. Install illumination.
- 9. Perform additional and incidental work as called for by the specifications and plans.

APPLICABLE SPECIFICATIONS

The Specification that is applicable to the Work on this Project is the 2021 edition of the "Oregon Standard Specifications for Construction."

All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications and Supplemental Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

Copies of the Oregon Standard Specifications may be purchased or viewed online at

http://www.oregon.gov/ODOT/Business/Pages/Standard Specifications.aspx.

Additional Technical Specifications that are applicable to the Work which are not part of the Oregon Standard Specifications are incorporated herein by reference. The Technical Specifications include:

 Avion Water Company Construction Specifications – Available online at https://avionwater.com/construction.html

APPLICABLE RULES

The rules applicable to this contract are the Attorney General's Model Public Contract Rules, Chapter 137-046 and Chapter 137-049, as presently constituted and Deschutes County Code (DCC) Chapter 2.37. The provisions of DCC Chapter 2.37.150 are incorporated herein by reference. These provisions may be viewed at the following web address:

http://www.co.deschutes.or.us/administration/page/deschutes-county-code

SPECIAL PROVISIONS

CONTRACT TIME

The Contractor shall complete all Work to be done under the Contract not later than September 30, 2023.

CLASS OF WORK

The Class of Work for this Project is a combination of Earthwork and Drainage or Asphalt Concrete Paving and Oiling.

SECTION 00110 - ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS

Comply with Section 00110 of the Standard Specifications modified as follows:

00110.20 Definitions - Replace the definitions of the words and phrases list below with the following definitions :

Agency – County of Deschutes

Bid Booklet - The version that can be accessed and printed from the Deschutes County Bids and RFPs website, which contains the information identified in 00120.10.

Engineer - The Road Department Director of Deschutes County acting either directly or through his authorized representatives.

SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES

Comply with Section 00120 of the Standard Specifications modified as follows:

00120.00 Prequalification of Bidders – Replace the last paragraph with the following:

Deschutes County Road Department will regularly evaluate the performance of Contractors on its projects for purposes of responding to reference checks, future prequalification and determinations of responsibility.

00120.01 General Bidding Requirements - Replace this subsection with the following:

Bidders shall submit bids by paper.

The standard prequalification forms furnished by the ODOT Procurement Office shall be used by the bidder to file authorized signatures with Deschutes County Road Department. Signatures are of personnel authorized to submit Bids, modify Bids, or withdraw Bids.

00120.05 Request for Solicitation Documents – Replace this subsection with the following:

Bidders shall obtain solicitation documents from the Deschutes County Bids and RFPs website:

https://www.deschutescounty.gov/rfps

Each request shall include both the name of the person ordering or obtaining the Solicitation Documents, and the name of the Entity intending to use them. The Agency will add the name of the Entity intending to use the Solicitation Documents to the list of Holders of Bidding Plans. Bidders are cautioned that only Solicitation Documents obtained properly from the Deschutes County website may be used to submit Bids.

Only paper Bids will be accepted.

DESCHUTES MARKET ROAD / HAMEHOOK ROAD INTERSECTION IMPROVEMENT DESCHUTES COUNTY, OREGON

Copies of the Oregon Standard Specifications may be purchased or viewed online at

http://www.oregon.gov/ODOT/Business/Pages/Standard Specifications.aspx.

The Plans, which are applicable to the Work to be performed under the Contract, bear title and date as follows:

DESCHUTES MARKET ROAD / HAMEHOOK ROAD INTERSECTION IMPROVEMENT JANUARY, 2023

00120.10 Bid Booklet – Replace this subsection with the following:

The Bidding Documents Booklet may include, but is not limited to:

- Cover Page
- Index
- Invitation to Bid
- Information for Bidders
- Bid Proposal Form
- Schedule of Bid Items
- Subcontractor Disclosure Form
- Bid Guaranty Form
- Contract Form (for review only)
- Payment and Performance Bond Forms (for review only)

Depending on the Class of Project, other certificates or statements may be bound within the Bidding Documents Booklet. Plans, specifications, and other documents referred to in the Bidding Documents Booklet will be considered part of the Bid.

00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids -

Replace all instances of "ODOT eBIDS" with "Deschutes County Bids and RFPs".

Replace the first paragraph with the following:

The Agency reserves the right to issue Addenda making changes or corrections to the Plans, Specifications, or quantities. The Agency will provide Addenda only by publishing them on the Agency's web site at:

https://www.deschutescounty.gov/rfps

Delete the last paragraph.

00120.40(a) (2) Electronic Bids – Delete this subsection.

00120.40(c) (2) Electronic Bid Schedule Entries – Delete this subsection.

00120.40 (d) Bidder's Address and Signature Pages – Replace this subsection with the following:

DESCHUTES MARKET ROAD / HAMEHOOK ROAD INTERSECTION IMPROVEMENT DESCHUTES COUNTY, OREGON

Bidders shall include in the Bid the address to which all communication concerning the Bid and Contract should be sent. The Bid shall be signed by a duly authorized representative of the Bidder.

00120.40(e) (2) Bid Guaranty with Electronic Bids – Delete this subsection.

00120.40(f) Disclosure of First-Tier Subcontractors – Under the paragraph "The Subcontractor Disclosure Form may be submitted for a paper Bid either," replace the second bulleted item with the following:

 By removing it from the paper Bid Booklet, filling it out and submitting it separately to the Deschutes County Public Works Engineering and Construction Division at the address given in the Bid Booklet.

Delete the third bulleted item.

Delete the paragraph which begins "The Subcontractor Disclosure Form may be submitted for an electronic Bid either:"

Replace the paragraph that begins "Subcontractor Disclosure forms submitted by..." with the following:

Subcontractor Disclosure Forms submitted by any method will be considered late if not received by the Agency within two working hours of the time designated for receiving Bids.

00120.45 Submittal of Bids – Replace this subsection with the following:

Bids shall be submitted in the manner and prior to the time listed in the Bidding Documents Booklet. Bids may be submitted by mail, parcel delivery service, or hand delivery. Bids submitted after the time set for receiving Bids will not be opened or considered. The Agency assumes no responsibility for the receipt and return of late Bids.

00120.50 Submitting Bids for More than One Contract – Delete this subsection.

00120.60(a) Paper Bids – Replace all references to "ODOT Procurement Office" with "Agency."

Delete the third bullet point.

00120.60(b) Electronic Bids – Delete this subsection.

00120.70 Rejection of Nonresponsive Bids – Add the following bullet to the end of the bullet list:

 The Agency determines that any Pay Item is significantly unbalanced to the potential detriment of the Agency.

00120.95 Opportunity for Cooperative Arrangement – Delete this subsection.

SECTION 00130 – AWARD AND EXECUTION

Comply with Section 00130 of the Standard Specifications modified as follows:

00130.10 Award of Contract – Replace the paragraph that begins "The Agency will provide Notice of Intent..." with the following:

The Agency will provide Notice of Intent to Award on the Agency's website:

https://www.deschutescounty.gov/rfps

Delete the paragraph that begins "The Award will not be final until..."

00130.15 Right to Protest Award – Replace this subsection with the following:

Adversely affected or aggrieved Bidders, limited to the three apparent lowest Bidders and any other Bidder directly in line for Contract Award, may submit to the Board of County Commissioners of Deschutes County a written protest of the Agency's intent to Award within five working days following the Bid Opening. The protest shall specify the grounds upon which it is based.

The Agency will not consider late protests.

00130.50 Execution of Contract and Bonds:

- (a) By the Bidder In the sentence that begins "The successful Bidder..." replace "ODOT Procurement Office Construction" with "Agency" and replace "15 Calendar Days" with "the requested amount of time".
- **(b) By the Agency** In the sentence that begins "Within 7 Calendar Days..." replace "7" with "21 (twenty-one)".

SECTION 00140 – SCOPE OF WORK

Comply with Section 00140 of the Standard Specifications.

SECTION 00150 - CONTROL OF WORK

Comply with Section 00150 of the Standard Specifications modified as follows:

00150.05 Cooperative Arrangements – Replace this subsection with the following:

Agency is not, by virtue of this Contract, a partner or joint venturer with Contractor in connection with activities carried out under this Contract, and shall have no obligation with respect to Contractor's debts or any other liabilities of each and every nature.

00150.15(b) Agency Responsibilities - Replace this subsection, except for the subsection number and title, with the following:

DESCHUTES MARKET ROAD / HAMEHOOK ROAD INTERSECTION IMPROVEMENT DESCHUTES COUNTY, OREGON

The Engineer will perform the Agency responsibilities described in the Construction Surveying Manual for Contractors, Chapter 1.5 (see Section 00305).

00150.15(c) Contractor Responsibilities - Replace this subsection, except for the subsection number and title, with the following:

The Contractor shall perform the Contractor responsibilities described in the Construction Surveying Manual for Contractors, Chapter 1.6 (see Section 00305).

The Contractor shall perform slope staking including intersections and set stakes defining limits for clearing which approximate Right-of-Way and easements.

00150.50(c) Contractor Responsibilities – Replace the bullet that begins "Protect from damage or disturbance any Utility that remains..." with the following bullet:

 Protect from damage or disturbance any Utility that remains within the area in which Work is being performed. Maintain and re-establish location marks according to OAR 952-001-0090(3)(a). Coordinate re-establishment of the location marks with the associated Utility;

Replace the bullet that begins "Determine the exact location before excavating within ..." with the following bullet:

 Determine the exact location before excavating within the tolerance zone according to OAR 952-001-0090(3)(c);

Replace the bullet that begins "In addition to the notification required in OAR 952-001-0090(5), notify the Engineer..." with the following bullet:

 In addition to the notification required in OAR 952-001-0090(6), notify the Engineer and the Utility as soon as the Contractor discovers any previously unknown Utility conflicts or issues. Contrary to the OAR, stop excavating until directed by the Engineer and allow the Utility a minimum of two weeks to relocate or resolve the previously unknown Utility issues; and

00150.50(f) Utility Information:

There are no anticipated conflicts with Utilities. The Contractor shall contact those Utilities having buried facilities and request that they locate and mark them for their protection prior to construction.

00150.50(g) Utility Information (Anticipated Relocations):

The following organizations may be adjusting Utilities within the limits of the Project during the period of the Contract with relocation Work estimated to be completed by the following dates and times:

	T	
	Contact Person's Name,	Estimated
	Address, Email, and Phone	Completion

Subsection	Utility	Number	Date
00150.50(g)(1)	Central Electric Cooperative, Inc.	Juan Tovar 2098 NW 6 th Street Redmond, OR 97756 <u>jtovar@cec.coop</u> 541-419-7708	Relocations to be completed prior to construction.
00150.50(g)(2)	Central Oregon Irrigation District	Kelley Hamby 1055 SW Lake Court Redmond, OR 97756 khamby@coid.org 541-504-7585	Relocations to be completed prior to construction.
00150.50(g)(3)	Lumen	Gordon Bates, PE gbates@terratechllc.net 541-410-4936	Relocations to be completed prior to construction.
00150.50(g)(4)	Avion Water Company, Inc.	Mike Heffernan 60813 Parrell Road Bend, OR 97702 mike@avionwater.com 541-382-5342	Avion work to be completed prior to construction with exception of work included in contract plans.

The Contractor shall contact the Engineer to view the approved Utility Relocation Plans.

(1) Central Electric Cooperative – "Power Supplier":

The contractor shall notify the Power Supplier in writing, with a copy to the Engineer, 21 Calendar Days before the Contractor is scheduled to begin performing work.

(2) Central Oregon Irrigation District - "Irrigation District":

The contractor shall notify the Irrigation District in writing, with a copy to the Engineer, 21 Calendar Days before the Contractor is scheduled to begin performing irrigation piping work.

(3) Lumen - "Telecommunication Utility":

The contractor shall notify the Telecommunication Utility in writing, with a copy to the Engineer, 21 Calendar Days before the Contractor is scheduled to begin performing work.

(4) Avion Water Company – "Water Utility":

The contractor shall notify the Water Utility in writing, with a copy to the Engineer, 21 Calendar Days before the Contractor is scheduled to begin performing work.

SECTION 00160 - SOURCE OF MATERIALS

Comply with Section 00160 of the Standard Specifications modified as follows:

00160.30 Agency-Furnished Materials – Add the following paragraph:

No Agency materials are being offered for use on this project. Contractor shall provide all required materials.

00160.40 Agency-Furnished Sources– Add the following paragraph:

No Agency sources are being offered for use on this project. Contractor shall provide all required materials.

SECTION 00165 - QUALITY OF MATERIALS

Comply with Section 00165 of the Standard Specifications modified as follows:

00165.03 Testing by Agency – Delete this subsection.

00165.04 Costs of Testing – Delete this subsection.

00165.10(a) Field-Tested Materials – Add the following sentence to the end of this subsection:

This is a Type D project.

00165.50(b)(1) Specification Materials – Delete the second sentence.

SECTION 00170 – LEGAL RELATIONS AND RESPONSIBILITIES

Comply with Section 00170 of the Standard Specifications modified as follows:

Add the following subsection:

00170.09 Debt Limitation - This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provision herein which would conflict with law are deemed inoperative to that extent.

00170.65(b-1) Minimum Wage Rates – Replace the last two paragraphs in this subsection with the following:

The applicable prevailing wage rates for this project are the most recent version published by the Oregon Labor and Industries at the time the Project was initially advertised (January 5, 2023 Prevailing Wage Rate Book and January 11, 2023 Prevailing Wage Rates Amendment). The wage rates and can be found at the following website:

https://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx

00170.70(a) Insurance Coverages - Add the following to the end of this subsection:

The following insurance coverages and dollar amounts are required pursuant to this subsection:

Insurance Coverages	Combined Single Limit per Occurrence	Annual Aggregate Limit
Commercial General Liability	\$1,000,000	\$2,000,000
Commercial Automobile Liability	\$1,000,000	(aggregate limit not required)

(d) Additional Insured – Replace this subsection except for the subsection number and title with the following:

The liability insurance coverages of 00170.70(a) shall include an Additional Insured Endorsement specifying the "Deschutes County, and its respective officers, agents, employees, and volunteers and the Deschutes County Board of Commissioners" as Additional Insureds, but only with respect to the Contractor's activities to be performed under the Contract. Coverage shall be primary and non-contributory with any other insurance and self-insurance. The liability coverages of 00170.70(a) that are permitted by the Agency to be obtained by an appropriate Subcontractor shall include all of the foregoing as Additional Insureds and shall also include the Contractor and its officers and employees as Additional Insureds.

Additional Insured Endorsements on the Commercial General Liability shall be written on ISO Form CG 20 10 07 04, or equivalent, with respect to liability arising out of ongoing operations and ISO Form CG 20 37 07 04, or equivalent, with respect to liability arising out of completed operations. Additional Insured Endorsements shall be submitted with the Certificate(s) of Insurance and must be acceptable to the Agency.

Add the following as Additional Insureds under the Contract:

- · Deschutes County and its officers, agents, employees, and volunteers
- Deschutes County Board of Commissioners
- Harper Houf Peterson Righellis Inc.
- **(g) Certificate(s) of Insurance** Replace this subsection except for the subsection number and title with the following:

As evidence of the insurance coverages required by the Contract, the Contractor shall furnish Certificate(s) of Insurance to the Agency at the time(s) provided in 00130.50(a). As evidence of insurance coverages required by the Contract but permitted by the Agency under 00170.70(a) to be obtained by an appropriate Subcontractor, the Contractor shall furnish Certificate(s) of Insurance to the Agency for such coverages together with the Contractor's request under 00180.21 for approval of the subcontract with that Subcontractor. The Certificate(s) shall:

- List "Deschutes County and its officers, agents, employees, and volunteers and the Deschutes County Board of Commissioners as a Certificate holder and as an endorsed Additional Insured;
- Include all required endorsements or copies of the applicable policy language effecting coverage required by the Contract;
- Specify that all liability insurance coverages shall be primary and non-contributory with any other insurance and self-insurance, with exception of Workers' Compensation;
- Include a list of all policies that fall under the Excess/Umbrella Insurance if Excess or Umbrella Insurance is used to meet the minimum insurance requirement.

00170.72 Indemnity/Hold Harmless - Add the following paragraph and bullets to the end of this subsection:

Extend indemnity and hold harmless to the Agency and the following:

- Deschutes County and its officers, agents, and employees
- Deschutes County Board of Commissioners
- Harper Houf Peterson Righellis Inc.

SECTION 00180 - PROSECUTION AND PROGRESS

Comply with Section 00180 of the Standard Specifications modified as follows:

00180.40(c) Specific Limitations - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

Limitations	Subsection
Cooperation with Utilities	00150.50
On-Site Work	00180.40(b)
Contract Time	00180.50(h)
Right-of-Way and Access Delays	00180.65
Closed Lanes	00220.40(e)(1)
Limited Duration Road Closure	00220.40(f)
Noise Control	00290.32
Maintenance Under Traffic	00620.43
Opening Sections to Traffic	00744.51

When submitting the supplemental "look ahead" Project Work schedule, the Contractor shall show all Work that impacts the Central Oregon Irrigation District canals and channels.

Irrigators have legal rights to use irrigation water from the canals and channels of the Central Oregon Irrigation District in the project vicinity.

During the irrigation season of April 1 through October 31, the Contractor shall not restrict the flow of water or contaminate the water of the Central Oregon Irrigation District.

During the non-irrigation season of November 1 through March 31, the Contractor shall allow stock water runs according to the Central Oregon Irrigation District stock run schedule. The Contractor shall contact the Central Oregon Irrigation District for the stock water run times.

The Contractor shall be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this subsection.

00180.41 Project Work Schedules - After the paragraph that begins "One of the following Type..." add the following paragraph:

In addition to the "look ahead" Project Work schedule, a Type A schedule as detailed in the Standard Specifications is required on this Contract.

00180.50(h) Contract Time - The Contractor shall complete all Work to be done under the Contract not later than September 30, 2023.

SECTION 00190 - MEASUREMENT OF PAY QUANTITIES

Comply with Section 00190 of the Standard Specifications.

SECTION 00195 - PAYMENT

Comply with Section 00195 of the Standard Specifications modified as follows:

00195.12(d) Steel Materials Pay Item Selection - Add the following to this subsection:

No Pay Items under this Contract qualify for the steel escalation/de-escalation program for this Project.

00195.50(b) Retainage – Replace the first paragraph of this subsection with the following:

The amount to be retained from progress payments will be 5% of the value of Work accomplished, and will be retained in one of the forms specified in Subsection (c) below. No retainage will be withheld from Work performed as Force Account Work, escalation/deescalation, bonuses, or other items decided by the Agency.

00195.50(c-2) Cash, Alternate B (Retainage Surety Bond) - Delete this subsection.

00195.50(c-3) Bonds and Securities – Delete this subsection.

00195.50(d) Release of Retainage – Replace this subsection with the following:

As the Work progresses, release of the amounts retained under (b) above will only be considered for Pay Items that have been satisfactorily completed. For purposes of this Subsection, a Pay Item will be considered satisfactorily completed only if all of the Work for the Pay Item is complete and all contractual requirements pertaining to the Pay Item and Work have been satisfied. Work not included in a Pay Item, or which constitutes part of an uncompleted Pay Item, will not be regarded as satisfactorily completed Work for the purposes of this Subsection.

A determination of satisfactory completion of Pay Items or Work or release of retainage shall not be construed as acceptance or approval of the Work and shall not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

The Contractor shall comply with all applicable legal requirements for withholding and releasing retainage and for prompt payments, including but not limited to those in ORS Chapters 279C and 701, and 49 CFR 26.29.

SECTION 00196 - PAYMENT FOR EXTRA WORK

Comply with Section 00196 of the Standard Specifications.

SECTION 00197 – PAYMENT FOR FORCE ACCOUNT WORK

Comply with Section 00197 of the Standard Specifications.

SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS

Comply with Section 00199 of the Standard Specifications modified as follows:

00199.40 Claim Decision; Review; Exhaustion of Administrative Remedies – Replace the second and third paragraphs with the following:

If the Engineer denies the claim for additional compensation or a combination of additional compensation and Contract Time, in full or in part, according to 00199.40(a), the Contractor may request review of the denial. The disputed claim may then be resolved, in full or in part, at any of the three progressive steps of claim review procedure as set forth in (b) through (d) of this Subsection.

If the Engineer has denied a claim, in full or in part, for Contract Time only according to 00180.80, or has denied a claim, in full or in part, for correction of final compensation according to 00195.95, those disputed claims may then be resolved, in full or in part, at any of the three progressive steps of claim review procedure as specified in (b) through (d) of this Subsection.

Delete the fifth paragraph.

00199.40(b-e) - Replace these subsections in their entirety with the following:

00199.40(b) Step 1: Board of Commissioners Review – The Contractor shall request that the Engineer arrange for a hearing during a regularly scheduled Board of Commissioners Meeting in order to present the denied or partially denied claim for formal review and discussion. The meeting will take place within 21 Calendar Days of the Agency's receipt of the request, or as otherwise agreed by the parties.

If the Board of Commissioners determines that the Contractor must furnish additional information or documentation to allow proper analysis of the claim, the Engineer will prepare a Board meeting agenda item for a second hearing within 14 Calendar Days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information or documentation.

If the Contractor does not accept the Step 1 decision, the Contractor may, within 10 Calendar Days of receipt of the written decision, request in writing through the Engineer that the claim be advanced to Step 3 or 4 (see (c) and (d) below.

00199(c) Step 2: Arbitration - At this step, the claim will be resolved by binding arbitration before a single arbitrator according to the Construction Industry Arbitration Rules of the American Arbitration Association or such other arbitration service and rules as agreed by the parties.

Arbitration filing costs and any arbitrator's fees will be divided equally between the Agency and the Contractor.

00199(d) Step 3: Litigation – This step applies to appeals of arbitration awards issued in Step 2 at 00199.40(c) above, according to ORS 36.600 through ORS 36.740.

The Contractor must follow each step in order, and exhaust all available administrative remedies before resorting to litigation. Lawsuits must be properly filed in a court of competent jurisdiction within 6 months from the date of the final decision that exhausted the Contractor's available administrative remedies under this Section 00199.

The Contractor shall comply with 00170.00.

SECTION 00210 - MOBILIZATION

Comply with Section 00210 of the Standard Specifications.

SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC

Comply with Section 00220 of the Standard Specifications modified as follows:

00220.02(a) General Requirements - Add the following bullets to the end of the bullet list:

- When performing trench excavation or other excavation across or adjacent to a Traffic Lane on a roadway having a pre-construction posted speed greater than 35 mph, backfill the excavation, install surfacing, and open the roadway to traffic by the end of each work shift. Install a "BUMP" (W8-1-48) sign approximately 100 feet before the backfilled area and a "ROUGH ROAD" (W8-8-48) sign approximately 500 feet ahead of the "BUMP" sign. If this requirement is not met, maintain all necessary lane or shoulder closures and provide additional TCM, including flagging, at no additional cost to the Agency. Do not use temporary steel plating to reopen the roadway.
- During stage construction, provide continuous 24-hour flagger operation, with a minimum of two flaggers. Use additional flaggers, as shown. Occupy the advance flagger stations, as directed.

- Before activating a modified traffic signal, revising lane usage, implementing new roadway geometry, or removing a "STOP" sign, protect traffic by installing "NEW TRAFFIC PATTERN AHEAD" (W23-2) signing according to 00222.40. Keep the signs in place for 30 Calendar Days after completing the modifications.
- When an abrupt edge is created by excavation, protect traffic according to the "Excavation Abrupt Edge" and the "Typical Abrupt Edge Delineation" configurations shown on the Standard Drawings.
- Protect pedestrians in pole base excavation areas by placing approved covers over all
 pole base excavations. Place a minimum of two B(II)LR barricades adjacent to and on
 either side of the excavated area, facing pedestrian traffic, or place covers and
 barricades as directed.

00220.03(a) Over-Dimensional Vehicle Restrictions - Replace this subsection, except subsection number and title, with the following:

When the Project restricts the width, length, height, or weight of vehicles through a work zone or detours trucks around a work zone, fill out and submit a completed copy of the "Highway Restriction Notice - Size and/or Weight" form (Form No. 734-2357), available from the ODOT Oregon Trucking Online website (see 00110.05(e)), at least 35 Calendar Days before the restriction or detour takes effect.

00220.40(e)(1) Closed Lanes - Replace this subsection, except for the subsection number and title, with the following:

One traffic lane may be closed on Deschutes Market Road and Hamehook Road when allowed, shown, or directed during the following periods of time except as specified in 00220.40(e)(2):

- Daily, Monday through Friday, between 9:00 a.m. and 4:00 p.m.
- Stage 2: Up to ten (10) consecutive days, one traffic lane on Deschutes Market Road utilizing 24-hour flagging.
- Stage 3 Phase 1: Up to seven (7) consecutive days, one traffic lane on Deschutes Market Road utilizing 24-hour flagging.

Add the following subsection:

00220.40(f) Road Closure - The Contractor will be permitted to close all Traffic Lanes on the following roadways, non-concurrently, for up to the indicated durations:

 Stage 3 Phase 1: Hamehook Road east of Deschutes Market Road for up to twenty-one (21) consecutive days.

SECTION 00221 - COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL

Comply with Section 00221 of the Standard Specifications modified as follows:

00221.03 Traffic Safety and Operations - Replace the bullet that begins "When paving operations create..." with the following bullet:

 When paving operations create an abrupt or sloped edge drop off greater than 1 inch, protect traffic by installing signing according to the "2 Lane, 2 Way Roadway Overlay Area" detail shown on the Standard Drawings. Protect longitudinal and transverse Pavement joints by placing and maintaining an asphalt concrete wedge according to 00221.07(c)(1).

00221.07(c)(1) Paving - Replace this subsection, except subsection number and title, with the following:

When the longitudinal joint is greater than 1 inch in height, install additional TCD according to 00221.03. Complete the placing of ACP and construction of paving joints according to 00735.48, 00735.49, 00743.45, 00744.44, 00744.45, 00745.47, and 00745.48, as applicable.

00221.90(b) Temporary Protection and Direction of Traffic - Delete the bullet that begins "Moving temporary barrier to and from Contractor's stockpile areas".

Replace the bullet that begins "When the Schedule of Items does not include ..." with the following bullet:

 Preparing and signing the daily "Traffic Control Inspection Report", when a TCS is not included in the Schedule of Items or when a TCS is not onsite for a work shift.

SECTION 00222 - TEMPORARY TRAFFIC CONTROL SIGNS

Comply with Section 00222 of the Standard Specifications modified as follows:

00222.40(e) Temporary Sign Placement - Add the following to the end of the bullet list:

- Install a 54-inch "TRUCKS LEAVING HIGHWAY XXXX FT" sign in advance of each
 entrance point to the Work Area at sign spacing "A" from the "TCD Spacing Table"
 shown on the Standard Drawings. Install a 54-inch "TRUCKS ENTERING HIGHWAY
 XXXX FT" sign in advance of each exit point from the Work Area at sign spacing "A"
 from the "TCD Spacing Table" shown on the Standard Drawings.
- Install "ROAD WORK AHEAD" (W20-1-48) signs with a 36 by 24-inch "FINES DOUBLE" (R2-6aP) rider on the Deschutes Market Road and Hamehook Road, according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans except do not install the "FINES DOUBLE" rider on concrete barrier mounted signs.
- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of (A ÷ 2) according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- Install two sign flag boards, as shown on the Standard Drawings, above the following detour and road closed advance warning signs, where applicable:
 - "DETOUR AHEAD", "DETOUR XXXX FT", "DETOUR X/X MILE" (W20-2) signs.
 - "ROAD CLOSED AHEAD", "ROAD CLOSED XXXX FT", "ROAD CLOSED X/X MILE" (W20-3) signs.

- Install a "24 HR FLAGGING AHEAD" (CW20-9) sign in each direction approximately 250 feet prior to the "BE PREPARED TO STOP" sign. Remove the temporary signs when 24-hour flagging is no longer required, or as directed.
- Install a "NEW TRAFFIC PATTERN AHEAD" (W23-2) sign approximately 500 feet in advance of the Deschutes Market Road-Hamehook Road roundabout, facing westbound traffic on Hamehook Road and southbound/eastbound incoming traffic on Deschutes Market Road.
- Keep the "NEW TRAFFIC PATTERN AHEAD" signs in place 30 Calendar Days after installing the roundabout.
- For paving operations on non-freeways, place "ABRUPT EDGE" (CW21-9) and "ROAD WORK XX MPH" (CW20-1a) signs as shown. Use an "XX" value equal to 10 mph below the current posted regulatory speed. If a speed is posted for a temporary regulatory speed reduction, that speed is the current posted regulatory speed.
- For all other moving operations that do not create an abrupt edge adjacent to traffic, omit the "ABRUPT EDGE" signs.
- When construction requires bicycles to use the Traffic Lanes, install a "Bicycle ON ROADWAY" (CW11-1) symbol sign on 1/2 mile spacing through the affected area. Keep the signs in place until completion of the Shoulder or bikeway final surface.
- Install a 72 by 24-inch "CONSTRUCTION VEHICLE DO NOT FOLLOW" (CW23-14) sign on rigid substrate on the back of all Material or Equipment delivery vehicles.

00222.80(a) Area Basis -

Add the following sentence to the end of the paragraph that begins "Temporary signs will...":

No measurement of quantities will be made for "CONSTRUCTION VEHICLE DO NOT FOLLOW" (CW23-14) signs.

00222.90 Payment -

Add the following to the end of this subsection:

No separate or additional payment will be made for furnishing, installing, and maintaining 72 by 24-inch "CONSTRUCTION VEHICLE DO NOT FOLLOW" (CW23-14) signs. Payment will be included in 00221.90(b).

SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES

Comply with Section 00223 of the Standard Specifications modified as follows:

00223.31(b) Traffic Control Inspection Without TCS – Replace the paragraph that begins "When the Schedule of Items does not include an item..." with the following paragraph:

When the Schedule of Items does not include an item for a TCS, or when TCS is not onsite for a work shift, designate a trained person who shall be on the Project Site during work hours and on call at all other times, and who:

Replace the bullet that begins "Prepares and signs a daily "Traffic Control Inspection Report"..." with the following bullet:

• Prepares and signs a "Traffic Control Inspection Report" (Form No. 734-2474) upon the initial installation of TCM and each working day when any modification, removal, or reinstallation of TCM are made, or as directed by the Engineer. Submit completed reports to the Engineer no later than the end of the next working day.

SECTION 00224 - TEMPORARY TRAFFIC CHANNELIZING DEVICES

Comply with Section 00224 of the Standard Specifications modified as follows:

00224.46 Pavement Edge Delineation - Replace the paragraph that begins "Place tubular or conical markers..." with the following paragraph:

Place tubular or conical markers to delineate the edge of Pavement immediately after construction Work or paving operations create an abrupt or sloped edge drop-off greater than 1 inch in height along the right hand or left hand Shoulder.

SECTION 00225 - TEMPORARY PAVEMENT MARKINGS

Comply with Section 00225 of the Standard Specifications modified as follows:

00225.40 Temporary Pavement Markers - Replace the paragraph that begins "Unless otherwise shown..." and the three bullets with the following paragraphs and bullets:

Install temporary flexible overlay pavement markers for temporary centerline marking as follows:

- Place and maintain one temporary flexible overlay pavement marker on 40 foot spacing in tangent and curve sections except as below.
- Place and maintain one temporary flexible overlay pavement marker on 20 foot spacing in curved alignment sections identified by a speed rider displaying less than the posted speed and channelization areas.

Establish alignment for placing the temporary flexible overlay pavement markers as follows:

- Control markers at:
 - 200 foot intervals on tangents
 - 50 foot intervals on curves
 - 40 foot intervals on curves with speed rider
- Use string line or other appropriate means to maintain proper alignment of the markers.
 Adjust placement to avoid straddling a longitudinal joint, while maintaining a suitable alignment of markers.
- Remove and replace misaligned markers at no additional cost to the Agency.

00225.40(b) Flexible Oiling Pavement Markers - Add the following paragraphs to the end of this subsection:

Remove the markers on underlying surfaces before placing the next full Lift of paving that would obliterate the marker.

Use flexible oiling pavement markers with double covers, as directed, when a surface treatment requires two oil applications for a single Pavement Lift. Remove the marker covers, as directed, before reopening the Roadway to traffic.

00225.42(b) Wearing Course - Replace the bullet that begins "For left hand solid lines..." with the following bullet:

 For left hand solid lines and skip lines striping, use temporary removable tape or pavement markers.

SECTION 00228 - TEMPORARY PEDESTRIAN AND BICYCLIST ROUTING

Comply with Section 00228 of the Standard Specifications modified as follows:

00228.00 Scope - Replace this subsection, except subsection number and title, with the following:

In addition to the requirements of Section 00221, this Work consists of furnishing, installing, operating, maintaining, inspecting, and removing temporary devices for accommodating pedestrians and bicyclists through a work zone.

00228.13 Temporary Curb Ramps - Add the following sentence to the end of this subsection:

Furnish truncated dome detectable warning surface for temporary curb ramps from the QPL according to 00759.12.

00228.43 Temporary Curb Ramps - Add the following paragraph to the end of this subsection:

Install a minimum 2 foot wide truncated dome detectable warning surface on temporary curb ramps at pedestrian street crossings. Omit truncated dome detectable warning surfaces on temporary curb ramps that are not at a pedestrian street crossing.

00228.80(a) Length Basis - Replace this subsection, except subsection number and title, with the following:

Pedestrian channelizing devices and bicycle channelizing devices will be measured on the length basis upon delivery to the Project. The quantities will be limited to those in the approved TCP.

00228.80(b) Unit Basis - Replace this subsection, except for the subsection number and title, with the following:

Temporary curb ramps will be measured on the unit basis, at each location where a temporary curb ramp is constructed or placed.

00228.90 Payment - Add the following paragraph after the paragraph that begins "In item (c), the type...":

Item (c) includes furnishing and installing truncated dome detectable warning surfaces.

SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

00280.00 Scope - Replace the paragraph that begins "This Work also consists of providing temporary ..." with the following paragraph:

This Work also consists of providing temporary erosion and sediment control (ESC) measures and furnishing, installing, moving, operating, maintaining, inspecting, and removing ESC throughout the Project area according to the Standard Drawings, the erosion and sediment control plan (ESCP) with an environmental management plan (EMP), when required for the Project, the Specifications, or as directed, until the site is permanently stabilized. Included also is the monitoring of weather, of stormwater and receiving waters, the reporting of monitoring observations, the reporting of corrective actions (when necessary) and the updates and revisions of the ESCP, including ESCP cover sheet, necessary to keep it representative of current site conditions and compliant with the 1200-CA Permit.

00280.02 Definitions -

Replace the sentence that begins "Temporary Stabilization" with the following sentence:

Temporary Stabilization - Measures or methods necessary to prevent erosion until permanent stabilization measures are in place and established.

00280.04 Erosion and Sediment Control Plan on Agency Controlled Lands - Replace the bullets with the following bullets:

- When using the Agency's ESCP with only modifications required to keep the ESCP current during construction, submit a written notification indicating the Agency's ESCP is used without modifications prior to construction.
 - Prior to beginning construction, edit the ESCP to provide a list of all contractors working on the site.
 - Prior to beginning construction edit the ESCP cover sheet to list all personnel by name and position who are responsible for the installation and maintenance of stormwater control measures including their individual responsibilities and certifications. Keep list current for the duration of the project.
- When using a Contractor modified version of the Agency's ESCP, include the following:

- Proposed ESCP showing all ESC Work, and quantities of Work.
- An EMP that addresses pollution prevention and control of potentially contaminated sites or Materials.
- Implementation schedules for the ESCP
- Plans for each phase of Contractor's Work
- Names and positions of all personnel engaged in construction activities.
- Names and positions of all personnel responsible for the installation and maintenance of stormwater control measures.
- Information required under 1200-CA permit.
- When using a Contractor developed ESCP, develop and stamp the ESCP by a
 professional with one of the following credentials. Include their name and credentials in
 the ESCP. The ESCP preparer shall be one of the following:
 - · Oregon Registered Professional Engineer,
 - Oregon Registered Landscape Architect; or
 - Oregon Certified Engineering Geologist
- When using a Contractor developed ESCP where engineered facilities such as sedimentation basins or diversion structures for erosion and sediment control are required, prepare and stamp the ESCP by one of the following:
 - Oregon Registered Professional Engineer; or
 - · Oregon Registered Landscape Architect.
- When using a Contractor developed ESCP, provide plans for each phase of Contractor's work implementation schedule and information required under the 1200-CA permit and as directed in ODOT's Erosion Control Manual.

00280.06 Erosion and Sediment Control Manager - Delete this subsection.

00280.62(a) Inspection - Replace this subsection, except for the subsection number and title, with the following:

Perform site inspection, complete all applicable parts of the ODOT Erosion Control Monitoring Form, and submit the form to the Agency as follows:

- On initial day of construction activity
- Every 14 days
- 24 hours after any rainfall event or snow melt event that results in runoff, including weekends and holidays
- When directed by the Engineer.

00280.90 Payment - In the paragraph that begins "Item (a) includes..." delete the bullet that specifies "providing the Erosion and Sediment Control Manager".

Replace the paragraph that begins "When only Item (a) is..." with the following paragraph:

Additional ESC devices required for permit compliance will be paid for as Extra Work according to Section 00196.

SECTION 00290 - ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications.

SECTION 00305 - CONSTRUCTION SURVEY WORK

Comply with Section 00305 of the Standard Specifications modified as follows:

00305.05 3D Engineered Models - Replace the bullet that begins "A detailed outline and list of..." with the following bullet:

 An automated machine guidance (AMG) work plan containing a detailed outline, list of the Pay Items and Work that will be controlled by the 3D Construction Models, and a narrative outlining any differences between the Agency prepared 3D Engineered Models and the 3D Construction Models.

Delete the bullet that begins "A narrative outlining..."

SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications modified as follows:

00310.90 Payment - Add the following to the end of this subsection:

No separate or additional payment will be made for removal or disposal Work included in Section 00330 according to 00310.02.

No separate or additional payment will be made for backfilling of removal areas.

00310.91 Lump Sum Basis - Add the following to the end of this subsection:

Removal of Pipes includes all pipe, thrust blocks, fittings and appurtenances associated with the pipe.

SECTION 00320 - CLEARING AND GRUBBING

Comply with Section 00320 of the Standard Specifications.

SECTION 00330 - EARTHWORK

Comply with Section 00330 of the Standard Specifications modified as follows:

00330.03 Basis of Performance - Add the following paragraph to the end of this subsection:

Perform all earthwork under this Section on the embankment basis.

00330.14 Selected Granular Backfill - Delete the sentence that begins "Reclaimed glass meeting the requirements of Section 02695..."

00330.15 Selected Stone Backfill - Delete the sentence that begins "Reclaimed glass meeting the requirements of Section 02695..."

00330.42(c)(3) Embankment Slope Protection - Add the following paragraph to the end of this subsection:

Construct the outer 12 inches of embankments with suitable materials to establish slope stabilization through permanent seeding. If suitable material is not available, provide suitable materials from a Contractor-provided source which conforms to the requirements of 00330.11 or 00330.13 and provides favorable conditions for germination of seed and growth of grass.

00330.92 Kinds of Incidental Earthwork - Add the following bullet to the end of the bullet list:

 Earthwork required for driveways and road approaches. Earthwork for driveways and road approaches will be that which is outside the Neat Line limits shown on the typical sections.

SECTION 00340 - WATERING

Comply with Section 00340 of the Standard Specifications modified as follows:

00340.80 Measurement – Replace this subsection, except for the subsection number and title, with the following:

There will be no measurement of watering.

00340.90 Payment – Replace this subsection, except for the subsection number and title, with the following:

There will be no separate or additional payment for watering. Watering is incidental to Section 00330.90.

SECTION 00350 - GEOSYNTHETIC INSTALLATION

Comply with Section 00350 of the Standard Specifications modified as follows:

00350.01 Definitions - Replace the sentence that begins "**Embankment Geotextile** - For installation..." with the following sentence:

Embankment Geotextile - Embankment geotextile is used as a reinforcement within embankments and as a separation and reinforcement under embankments.

Replace the bullet that begins "Nonwoven Geotextile - A textile..." with the following bullet:

• **Nonwoven Geotextile** - A textile produced by bonding or interlocking of fibers by mechanical, heat or chemical means.

Replace the sentence that begins "**Riprap Geotextile** - For installation..." with the following sentence:

Riprap Geotextile - Riprap geotextile is used as a filter and separator behind or beneath riprap, Buttresses, inlays, shear keys and erosion control applications.

Replace the sentence that begins "Subgrade Geotextile - For installation..." with the following sentence:

Subgrade Geotextile - Subgrade geotextile is used as a separator and reinforcement on Subgrades and in other material separation applications.

00350.41(f)(5) Geotextile Placement - Replace the paragraph that begins "Slit wrinkles or folds ..." with the following paragraph:

Slit wrinkles or folds exceeding 1 inch and lay flat. Shingle-lap not more than 6 inches in the direction of the paving. Broom or squeegee to smooth the geotextile and pneumatic roll to maximize geotextile contact with the Pavement surface. Additional hand-placed sealant material may be required at laps as determined.

SECTION 00390 - RIPRAP PROTECTION

Comply with Section 00390 of the Standard Specifications.

SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL

Comply with Section 00405 of the Standard Specifications modified as follows:

00405.90 Payment - Add the following paragraph to the end of this subsection:

When the Contract Schedule of Items does not indicate payment for Work performed under this Section, no separate or additional payment will be made. Payment will be included in payment made for the appropriate items under which this Work is required.

SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE

Comply with Section 00445 of the Standard Specifications.

SECTION 00470 - MANHOLES, CATCH BASINS, AND INLETS

Comply with Section 00470 of the Standard Specifications modified as follows:

00470.41(c) Grates, Frames, Covers and Fittings - Replace this subsection, except for the subsection number and title, with the following:

Set metal frames for manholes on full non-shrink grout beds to prevent infiltration of surface water or groundwater between the frame and the concrete of the manhole section. If concrete is to be poured around the frames, coat the portion of the frame that will contact the concrete with hot asphalt before placing the concrete. Set frames, covers and grates true to the locations and grades established. Clean bearing surfaces and provide uniform contact. The use of a bolt adjustment system for frames from the QPL is allowed. Secure all fastenings. Construct all mortared, sanitary sewer manhole necks and all riser ring joints made with non-shrink grout using an approved commercial concrete bonding agent applied to all cured concrete surfaces being grouted.

00470.42 Precast Concrete Catch Basins and Inlets - Add the following sentence to the end of this subsection:

Grade adjustments using a bolt system from the QPL is allowed.

SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS

Comply with Section 00641 of the Standard Specifications modified as follows:

00641.10(a) Base and Shoulder Aggregate - In the paragraph that begins "Aggregate for bases...", add the following sentence after the first sentence:

Base and shoulder aggregate shall be 3/4"-0 size.

SECTION 00730 - EMULSIFIED ASPHALT TACK COAT

Comply with Section 00730 of the Standard Specifications modified as follows:

00730.11 Emulsified Asphalt - In the paragraph that begins "Obtain samples according to AASHTO T 40..." replace the words "AASHTO T 40" with the words "AASHTO R 66".

00730.42 Preparation of Underlying Surfaces – Add the following to the end of this subsection:

Immediately before applying the tack coat, the surface to be tacked shall be clean and dry. Clean all loose material by brooming, flushing with water or other approved methods. Pavement surface shall be cleaned to the apparent existing edge of pavement. Application of tack coat shall not commence until surface cleanliness has been verified and approved by the Engineer.

00730.44 Applying Tack Coat - Apply the Emulsified Asphalt with a pressure distributor conforming to 00730.22, unless otherwise allowed. Apply the Emulsified Asphalt to the prepared surface at a rate between 0.05 and 0.20 gallons per square yard as directed and with the Emulsified Asphalt temperature between 140 °F and 185 °F as recommended by the manufacturer. Refer to the manufacturer's recommendations for tack coat application rates for the underlying surface type and type of emulsion used. Application rates for tack coat diluted according to 00730.11 will be increased as necessary to provide the same amount of residual asphalt as the application rates specified above.

Do not place hot mixed asphalt concrete Pavement or Emulsified Asphalt Concrete Pavement on the tack coat until the Emulsified Asphalt separates from the water (breaks), but before it loses its tackiness. Refer to manufacturer recommendations regarding break/set time. Minimize truck traffic on the tacked surface.

00730.90 Payment - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for Emulsified Asphalt tack coat. Approximately 2 Tons of Emulsified Asphalt in tack coat will be required on this Project.

SECTION 00744 - ASPHALT CONCRETE PAVEMENT

Comply with Section 00744 of the Standard Specifications modified as follows:

00744.10(a) New Coarse and Fine Aggregates – Replace the last paragraph in this subsection with the following:

Test Aggregates for soundness, durability, and harmful substances at no additional cost to the Agency.

00744.11(a) Asphalt Cement - Add the following to the end of this subsection:

Provide PG 70-28ER & PG 64-28 grade asphalt cement for this Project.

00744.23 Pavers – Replace the bullet that begins with "Provides the specified..." with the following:

 Provides the specified results through mechanical sensors and sensor-directed devices actuated from independent line and grade control references over an array with a minimum length of 35 feet when performing top lift paving or when directed by the Engineer.

00744.43(b) Depositing – Add the following to this subsection:

When performing top lift paving or when directed by the Engineer, ACP shall be windrowed. Pick-up equipment shall be used that is:

- Capable of picking up substantially all of the ACP deposited on the roadway.
- Self-supporting, not exerting any vertical load on the paving machine, or causing vibrations or other motions which could have a harmful effect on the riding quality of the completed pavement.

Add the following subsection:

00744.51 Opening Sections to Traffic - Schedule work so that the surfaces being paved are paved full width and length through the Base or wearing Course at the end of each work week before opening to traffic. Traffic will be allowed on the top Base Course up to 7 Calendar Days.

Before beginning wearing Course paving operations, make repairs to the existing surface as directed. Payment for the repairs will be made according to 00195.20.

SECTION 00749 - MISCELLANEOUS ASPHALT CONCRETE STRUCTURES

Comply with Section 00749 of the Standard Specifications.

SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES

Comply with Section 00759 of the Standard Specifications modified as follows:

00759.03 Required Submittals - Replace this subsection, except for the subsection number and title, with the following:

Material ordered or Work done before the Engineer reviews and returns the documents shall be at the Contractor's risk.

Submit the following:

- (a) ADA Certification for Contractors For all supervisory personnel who directly supervise the curb ramp Work, submit the names, telephone numbers, and copies of the ODOT ADA Certification for Contractors at least 10 Calendar Days before the preplacement conference.
- **(b) Curb Ramp Work Plan** Do not begin any curb ramp Work before the plan for completing the Work has been approved. At least 21 Calendar Days before the curb ramp Work is scheduled to begin, submit a plan for accomplishing all phases of the curb ramp Work, including but not limited to the following (also see 00180.41):
 - Surface preparation
 - Compliance with Working Drawings and details submitted under 00759.03(c)
 - Compliance with current Standard Drawings and Plans
 - Waste handling and disposal
- (c) Working Drawings At least 10 Calendar Days before the construction of a grouping of one or more curb ramp location(s), not to exceed 32 ramps unless otherwise approved under 00180.41, submit unstamped Working Drawings according to 00150.35. Include field verification of each ramp site, and all dimensions, slopes and grades necessary to demonstrate compliance with the Standard Drawings and Plans. Marked up Supplemental Drawings, if field verified, may be submitted as Working Drawings. Notify the Engineer of any deficiencies or noncompliance with the Standard Drawings or Plans. The Engineer will provide additional or modified Plans as needed. Do not begin Work at a curb ramp until submittals for that curb ramp have been received, reviewed, and accepted in writing by the Engineer.

After submittal of the unstamped Working Drawings, according to 00150.35 a site visit may be requested by the Contractor or Engineer. The site visit will include a review of any field

markings and discuss the submitted unstamped Working Drawings. The Engineer will provide additional or modified information, as needed.

Include the following in the Working Drawings:

- Verification of elevations, slopes, grades and dimensions necessary to demonstrate compliance with the Standard Drawings and Supplemental Drawings,
- Verification of potential utility conflicts or other street furnishings that may require relocation or adjustment.
- Identification of infeasibilities or constructability issues with the Standard Drawings and Supplemental drawings.
- **(d) Corrective Action Plan** Unless otherwise approved, notify the Engineer before performing corrective action. Include TPAR necessary to complete corrective action work.

At least 21 Calendar Days before concrete Structures Work is scheduled to begin, submit a corrective action plan. The corrective action plan shall address procedures to correct deficient Structures through minor corrective action or replacement according to 00759.55(a), and include:

- List of minor corrective actions that will be used to correct deficiencies, according to 00759.50 and 00759.55.
- · Procedures for performing corrective action.
- Proposed concrete grinding Equipment and method of grinding.
- Proposed concrete repair Material used for resurfacing ground concrete surfaces according to Section 02015.
- Construction activities, Equipment and staging necessary to complete corrective action Work.

The Engineer will review the corrective action plan(s) and provide a response to the Contractor within 5 Days after receiving the plan. Do not begin concrete Structure Work until the corrective action plan is approved by the Engineer.

- **(e) Stamped Concrete** Provide a 4 ft x 4 ft x 4 in thick sample pad for the agency acceptance of color and pattern.
 - Integral color: Sequoia Sand (#641)
 - Release color: Kailua (#677).
 - Pattern: Random Stone (FM-700)

Add the following subsection:

00759.13 Concrete Mix Designs - Prepare and submit either new mix designs or current mix designs for each class of concrete required according to Section 02001.

Add the following subsection:

00759.23 Concrete Resurfacing Equipment - Furnish power-operated scarifying Equipment capable of uniformly removing and preparing the existing surface to depths required. For concrete grinding operations, furnish 12 segment grinders, fine-toothed scarifying Equipment, or other approved grinding Equipment.

00759.50(c) Driveways, Walks, and Surfacings - Replace this subsection, except for the subsection number and title, with the following:

Prevent segregation of the concrete during placement. Strike-off the concrete to the grade shown, and float the surface smooth. After the water sheen disappears, edge the joints and remove edging tool marks prior to final finishing. Lightly cross-broom the surface to a uniform texture. Do not trowel joints or edges after brooming surface.

The 24 inch smart level will be used to measure driveway and sidewalk cross slopes on the Pedestrian Access Route.

Add the following subsection:

- **00759.55 Correction of Deficient Structures** Unless otherwise approved, notify the Engineer before performing corrective action. Correct deficiencies at no additional cost to the Agency. Perform corrective actions as directed, according to the approved corrective action plan, and according to the following:
 - **(a) Minor Corrective Action** Submit Equipment and procedure for minor corrective action to the Engineer for approval. Minor corrective action can be performed to correct a deficiency up to 1 square foot per panel. Limit minor corrective action to one area per panel. Perform minor corrective action according to the following:
 - (1) Concrete Grinding Grinding to correct high area deficiencies is limited to 3/16 inch. Use equipment meeting the requirements of 00759.23. Resurface all ground concrete surfaces according to 00759.55(a)(2).
 - **(2) Concrete Resurfacing** Resurfacing to correct low area deficiencies is limited to 3/16 inch depth. Existing concrete is to be at least 7 Days old prior to resurfacing. Resurface repair areas according to the following:
 - a. **Keyway** Sawcut a keyway at the boundaries of repair areas that are not already defined by panel control joints. Sawcut is to be 1/8 inch wide by 1/4 inch deep. Bevel inside edge of keyway at a 45 degree angle.
 - b. **Surface Preparation** Prepare limits of repair area by grinding using Equipment from 00759.23. After grinding, sandblast the surface of the repair area. Clean the surface using a low pressure washer, less than 5,000 psi.
 - c. **Presoak** Presoak the repair area for a minimum of 30 minutes to saturated surface dry. Prior to resurfacing, ensure there is no ponding water on the surface.
 - d. **Resurface** Provide concrete resurfacer from the QPL according to 02015.60; refer to QPL remarks to select an appropriate material based on allowable installation depths. Furnish resurfacer in a color that closely matches the color of surrounding concrete surfaces. Mask boundaries of the repair area. Use hand tools to work

resurfacer into keyways and match existing grade at boundaries. Apply a light broomfinish to achieve non-slip surface.

- e. **Curing and Return to Traffic** Wet cure for a minimum of 1 hour or per the manufacturer's recommendation, whichever is more restrictive. Follow manufacturer's recommendation for return to traffic time.
- (3) ACP Grinding Taper grind to match existing Pavement with a minimum grinding width of 1 foot for each 1/4 inch of ACP removed.
- **(b) Acceptance of Structures** Once the corrective work or replacement has been completed, acceptance will be based on the Engineer's inspection and approval of the Structure.

00759.90 Payment – Add the following sentence to the end of this subsection:

No separate or additional payment will be made for sample pads.

SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS

Comply with Section 00850 of the Standard Specifications modified as follows:

00850.45 Installation – Add the following to the end of this subsection:

Do not place liquid thermoplastic striping materials within one week of a rainfall event without prior written approval from the Engineer.

SECTION 00865 - LONGITUDINAL PAVEMENT MARKINGS - DURABLE

Comply with Section 0865 of the Standard Specifications.

SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS

Comply with Section 00867 of the Standard Specifications modified as follows.

00867.90 Payment - Add the following to the list of Pay Items:

Pay Item Unit of Measurement

(t) Pavement Legend, Type AB: Speed Reduction Transverse Bars Each

SECTION 00905 - REMOVAL AND REINSTALLATION OF EXISTING SIGNS

Comply with Section 00905 of the Standard Specifications.

SECTION 00920 - SIGN SUPPORT FOOTINGS

Comply with Section 00920 of the Standard Specifications modified as follows:

00920.80 Measurement - Add the following to the end of this subsection:

The estimated quantities of concrete for minor sign supports are:

Support Type	Quantity
Triangular Base Breakaway Sign Supports	1.58 cu. yd.
Perforated Steel Square Tube Slip Base Sign Supports	2.52 cu. yd.

SECTION 00930 - METAL SIGN SUPPORTS

Comply with Section 00930 of the Standard Specifications modified as follows:

00930.40(d)(1) Bolt Installation for Slip Bases (Breakaway) - Replace the paragraph beginning "Remove any dirt and moisture..." with the following paragraph:

Remove any dirt and moisture from the lubricated anchor rods, and recoat the lubricated fasteners with a fresh, second coat of lubricant to the bolt threads and bearing surfaces that turn during installation according to 02560.70 immediately before tightening. Tighten the bolts, in the presence of the Engineer, to the minimum torque or tension shown to seat the bolts in the base plate slots. After all the bolts in the slip base are tightened, loosen each bolt and retighten to the prescribed torque or tension shown in the same order as the initial tightening.

00930.40(d)(2)(a) Direct Tension Indicator Tightening - Replace the paragraph beginning "After attaining a snug-tight condition,..." with the following paragraph:

After attaining a snug-tight condition, tighten all fasteners in the connection by progressing systematically from the most rigid part of the connection to the free edges until the direct tension indicator spaces between the protrusions refuse entry of a 0.005 inch feeler gauge in all spaces except one. "Cheater" bars, multiplier wrenches, or impact wrenches are allowed. Provide impact wrenches with enough capacity and supplied air to tighten each bolt in 10 seconds or less. Do not use a slugging wrench or similar method for final tightening.

00930.40(e)(1) General - Add the following sentence to the beginning of this subsection:

Notify the Engineer in writing at least 24 hours before starting installation.

00930.40(e)(2) Direct Tension Indicator Method – Replace this subsection, except subsection number and title, with the following:

Upon completion of a bolted joint, the Engineer will determine that all bolts have been tightened. A minimum of 10 percent, but not less than two bolts in each joint, will be inspected. The joint will be accepted as properly tightened when one open space allows entry of a 0.005 inch feeler gauge. If there is more than one space between the direct tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, re-inspect all bolts, retighten bolts in the joint as required, and resubmit the joint for inspection. If no spaces exist between the

direct tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, replace bolt assembly, tighten bolts in the joint as required, and resubmit the joint for inspection. For connections with all bolts fully tightened, one bolt at a time may be replaced without providing crane support of the mast arm.

00930.80 Measurement - Add the following to the end of this subsection:

The estimated quantities of structural steel are as follows:

Item	Estimated Quantity (Pound)				
Mounts	(i ound)				
Secondary Sign Mounts	197				
Minor Sign Supports					
Triangular Base Breakaway Sign Supports Perforated Steel Square Tube Slip Base Sign Supports	1,266 986				

SECTION 00940 - SIGNS

Comply with Section 00940 of the Standard Specifications modified as follows:

00940.46 Inspection - Replace this subsection, except for the subsection number and title, with the following:

The Engineer will inspect signs at the fabrication shop or at the Project Site or both. Inspection will be for conformance to the Plans and Specifications, for conformance to nighttime visibility, and for rejectable defects. Rejectable defects include scratches, scuffs, tears, or any defect that impacts reflectiveness, readability, or performance. Signs not meeting inspection criteria are to be replaced at no additional cost to the Agency. The Contractor's expense for sign inspection will be according to 00165.91.

00940.47 Sign Erecting - Replace the paragraph that begins "When signs are installed on supports..." with the following paragraph:

When signs are installed on supports 10 feet or less from the edge of guardrail, curb, or Shoulder, set them to reflect 0 to 3 degrees away from traffic. When signs are installed on supports more than 10 feet from the edge of guardrail, curb or Shoulder, set them to reflect 0 to 3 degrees toward traffic.

SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS

Comply with Section 00960 of the Standard Specifications modified as follows:

00960.02 Equipment List and Drawing Submittals - Replace the paragraph that begins "Within 30 Calendar Days after execution of the Contract, submit ..." with the following paragraph:

Within 30 Calendar Days after execution of the Contract, submit the Blue Sheets (see 00160.00 and 00160.07) and the Green Sheets (see 00160.00 and 00160.07) according to 00150.37 for all materials the Contractor proposes to install. Blue Sheets and Green Sheets contain submittal instructions and will be made available to the Contractor by the Engineer.

00960.30 Licensed Electricians - Replace the paragraph that begins "According to the Oregon Administrative Rule ..." with the following paragraph:

According to the Oregon Administrative Rule 918-282-0120(1), no person or entity shall allow any individual to perform electrical work for which the individual is not properly registered or licensed. Every person who installs electrical systems on the Project shall submit a copy of their electrical license or apprentice registration to the Engineer prior to performing any Work. They must be licensed as an S or a J under Oregon Administrative Rule 918-282.

00960.46 Service Cabinet and Electrical Energy - Replace this subsection, except for the subsection number and title, with the following:

Install service cabinet and associated equipment, then arrange for the Utility providing power to have the service cabinet inspected and make the electrical hook-up prior to field testing. Field test according to 00990.70(g) for traffic signals, or according to 00970.70 for illumination.

Table 00960-1 contains Utility contact information to arrange for the Utility to make electrical hookups:

Table 00960-1

Location	Utility	Utility Contact Person's Name, Email and Phone Number	Utility Job Number
Deschutes Market Rd & Hamehook Rd	Central Electric Cooperative, Inc.	Juan Tovar <u>jtovar@cec.coop</u> 541-419-7708	WO#426409

Electrical energy is flat-rated. Meter base is not required.

Electrical energy costs will be billed to the Agency for permanent installations.

SECTION 00970 - HIGHWAY ILLUMINATION

Comply with Section 00970 of the Standard Specifications.

SECTION 01012 - STORMWATER CONTROL, WATER QUALITY BIOFILTRATION SWALE

Section 01012, which is not a Standard Specification, is included for this Project by Special Provision.

Description

01012.00 Scope - This Work consists of furnishing and installing a water quality biofiltration swale as shown.

Materials

01012.12 Water Quality Mixture - Furnish medium compost meeting the requirements of Section 03020. Furnish soil meeting the following gradation requirements:

Sieve Size	Percent Passing (by Weight)				
No. 4	100				
No 10	95 - 100				
No. 40	40 - 60				
No. 100	10 - 25				
No. 200	5 - 10				

Sample soil according to AASHTO R 90. Determine sieve analysis according to AASHTO T 27 and AASHTO T 11.

Blend the medium compost and soil so that the mixture:

- Is composed of between 20 percent and 25 percent medium compost material and between 75 percent and 80 percent soil material.
- Has a pH between 5.5 and 8.0.
- Does not have clumps greater than 3 inches in any direction.

Construction

01012.40 General - Construct water quality biofiltration swale facility as shown. Perform excavation, fine grading, and placement work only when the facility area is dry and only from the top of the swale area. Do not stockpile excavated material in the facility area. Perform work in sequence as follows:

- (a) Scarify Scarify the subsoil area a minimum 12 inches deep.
- **(b) Placement of Water Quality Mixture** Place the water quality mixture in two equal Lifts. Compact each Lift with a water filled landscape roller.
- (c) **Seeding** Seed according to 01030.13.

Maintenance

01012.70 Cleaning - If a stormwater control facility is used for erosion and sediment control, remove all accumulated sediment and debris before completing the facility.

01012.71 Removal - Remove temporary erosion and sediment control features according to 00280.70 only after water quality vegetation has met the establishment requirements of 01030.60.

Measurement

01012.80 Measurement - The quantities of Water Quality Swale will be measured on an area basis measured on the ground surface. The square foot price includes the following elements:

- Swale excavation
- Non-woven Geotextile liner
- 1 1/2"-3/4" Crushed Rock
- 1/4"-3/4" Crushed Rock
- Water Quality Soil

Payment

01012.90 Payment - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price for the item "Water Quality Swale", per square yard.

Excavation will be paid according to 00330.90.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

01030.13(c) Pure Live Seed - Replace this subsection, except subsection number and title, with the following subsection:

Use the PLS specified rate listed in 01030.13(f) for determining PLS application rates. Ensure the PLS application rate meets the PLS specified rate. Apply pre blended seed mixes, with multiple species, at a PLS application rate ensuring all species meet or exceed the PLS specified rate for each species in the seed mix.

PLS application rate for an individual seed species is determined as follows:

- PLS specified rate is listed in 01030.13(f)
- PLS factor is obtained by multiplying the seed label germination percentage times the seed label purity percentage. Use the purity and germination percentages from the label on actual bags of seed to be used on the Project.

PLS application rate is obtained by dividing the PLS specified rate by the PLS factor.

For a seed mix, make this calculation for each seed species in the mix and then adjust as follows:

- Using the seed tag, determine the weight of each seed species in the bag and use this
 information to find the percentage, by weight, of each seed species is in 1 pound for the
 pre-blended mix.
- Divide the percentage by weight of each seed species, per pound, for the pre-blended mix, by the PLS application rate for that specific seed species.

Determine the highest application rate in the seed mix and apply the seed mix at that application rate.

01030.13(f) Types of Seed Mixes - Add the following to the end of this subsection:

Provide the following seed mix formulas:

Water Quality Swale Seeding Mixture:

Botanical Name PLS	Specified Rate
(Common Name)	(lb/acre)
Pseudoroegneria spicata	а
(Bluebunch Wheatgrass) 16
Leymus cinereus	
(Great Basin Wild Rye)	8
Deschampsia caespitosa	a
(Tufted Hair Grass)	8
Festuca idahoensis	
(Idaho fescue)	1.6
Koeleria macrantha	
(Prairie Junegrass)	1.6
Poa sandbergii	
(Sandberg's Bluegrass)	1.6

Permanent Seed Mixture:

Name	Mixture %
Anatone Bluebunch Wheatgrass	35
Nezpurs Idaho Fescue	25
Rimrock Indian Ricegrass	15
Canbar Canby Bluegrass	15
Turkey Lake Bottlebrush Squirreltail	7.5
Appar Blue Flax	2.5

01030.13(g) Availability - Add the following sentence to the end of this subsection:

Submit the seed and seed mixes to be used on the project according to 00150.37.

01030.40 General - Add the following sentence after the sentence beginning "Notify the Agency...":

Notify the Agency of the acreage to be seeded at least 7 Days before seeding begins.

01030.43(b) Permanent Seeding – Add the following at the end of this subsection:

All Water Quality Swales are first to be seeded with the Permanent Seeding mixture. The remainder of the disturbed areas of the project shall be seeded with the Permanent Seeding mixture as directed by the Engineer.

Add the following subsection:

01030.43(c) Seed Application Rates - Determine the seeding application rate according to 01030.13(c). Apply seed mixes at the highest application rate calculated to provide not less than the specified application rate for each individual seed species in the mix.

SECTION 01040 - PLANTING

Comply with Section 01040 of the Standard Specifications.

SECTION 01050 - FENCES

Comply with Section 01050 of the Standard Specifications.

SECTION 01070 - MAILBOX SUPPORTS

Comply with Section 01070 of the Standard Specifications modified as follows:

01070.00 Scope - Add the following paragraph to the end of this subsection:

This Work includes removing, maintaining, and reinstalling existing mailboxes and existing supports.

01070.80 Measurement - Add the following paragraph to the end of this subsection:

The quantities of mailboxes and supports removed, maintained, and reinstalled will be measured on the unit basis, regardless of type, installed in permanent locations.

01070.90 Payment - Add the following Pay Item to the Pay Item list:

(d) Remove and Reinstall Mailbox SupportsEach

Item (d) includes removing mailboxes and supports, maintaining them at temporary locations, and reinstalling them at their permanent locations.

SECTION 01140 - POTABLE WATER PIPE AND FITTINGS

Comply with Section 01140 of the Standard Specifications modified as follows:

01140.00 Scope – Add the following to the end of this subsection:

All potable water pipe and fitting installations shall be completed according to the current Avion Water Design Manual and Avion Construction Specifications.

01140.11 Handling Pipe and Fittings – Add the following paragraph to the end of this subsection:

Contractor shall coordinate with the Water Utility regarding installation of pipes and fittings in order for a representative of the Water Utility to be present during installation. Water Utility shall issue a boil notice to residents affected by service interruptions resulting from installation of pipe and fittings.

01140.41(b)(1) Curves – Add the following sentence to the end of this subsection:

Where field conditions require deflection exceeding the pipe manufacturer's recommendations for the amount of deflection at each pipe joint, deflect as necessary to complete the installation as shown. Consult the Water Utility and the pipe manufacturer regarding the proposed pipe deflection.

01140.44 Thrust Restraint – Add the following paragraph to the beginning of this subsection:

All joints, tees, elbows and fittings shall be restrained per the requirements of the Water Utility. Contractor shall consult the Water Utility regarding appropriate thrust restraint sizing and reinforcement requirements, and shall provide a copy of the sizing calculations to the Engineer and the Water Utility for review a minimum of 5 days prior to installation.

Add the following subsection:

01140.47(f) Hot Tapping – Hot tapping of existing water mains shall be performed by the pipe manufacturer or wholesaler. Contractor shall coordinate with pipe manufacturer or wholesaler regarding scheduling for hot tap installation, and shall provide a minimum 7-day written notice to the Water Utility in advance of the Work. All hot tap installations shall be performed according to the current Avion Construction Specifications.

01140.48 Maintaining Service – Add the following paragraph to the end of this subsection:

Service interruptions shall not occur between June 1 and August 31. Work requiring service interruptions shall be coordinated with the Water Utility in advance of the Work, and shall be completed within the timeframe specified by the Water Utility (one day if not specified otherwise).

01140.51(a) General – Add the following sentence to the end of the first paragraph:

Pressure testing shall be the responsibility of the pipe manufacturer or wholesaler. Contractor shall coordinate testing with the pipe manufacturer or wholesaler.

01140.90 Payment - Replace the sentence that begins with "The quantities include the pipe plus..." with the following:

No allowance shall be made for pipe fittings and couplings. These items are incidental to the pipe installation.

In the paragraph that begins "No separate or additional payment will be...", add the following bullet to the bullet list:

· pipe reconnections

SECTION 01150 - POTABLE WATER VALVES

Comply with Section 01150 of the Standard Specifications modified as follows:

01150.00 Scope – Add the following to the end of this subsection:

All potable water valve installations shall be completed according to the current Avion Water Design Manual and Avion Construction Specifications.

01150.10 Materials - Delete "Ball Valves" from the list of materials.

01150.11 Handling – Add the following to the end of this subsection:

Contractor shall coordinate with the Water Utility regarding installation of valves and valve assemblies in order for a representative of the Water Utility to be present during installation. Water Utility shall issue a boil notice to residents affected by service interruptions resulting from installation of pipe and fittings.

Add the following subsection:

01150.42 Maintaining Service – Service interruptions shall not occur between June 1 and August 31. Work requiring service interruptions shall be coordinated with the Water Utility in advance of the Work, and shall be completed within the timeframe specified by the Water Utility (one day if not specified otherwise).

01150.90 Payment - Replace the paragraph that begins "No separate or additional..." with the following paragraph:

No separate or additional payment will be made for:

- earthwork not covered under other Pay Items
- jointing
- blocking of valves
- protective coatings
- · valve boxes
- · valve box extensions

- valve operator extensions
- · valve reconnections
- · hydrostatic testing

SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER

Comply with Section 01170 of the Standard Specifications.

SECTION 02001 - CONCRETE

Comply with Section 02001 of the Standard Specifications modified as follows:

02001.02 Abbreviations and Definitions:

Add the following definition:

Lightweight Concrete - Structural concrete having a specified density using lightweight Aggregates.

Replace the sentence that begins "**Pozzolans** - Fly ash, silica fume..." with the following sentence:

Pozzolans - Fly ash, natural Pozzolans, silica fume, and high-reactivity Pozzolans.

Replace the sentence that begins "**Supplementary Cementitious Materials** - Fly ash, silica fume..." with the following sentence:

Supplementary Cementitious Materials - Pozzolans and ground granulated blast furnace slag.

02001.15(a) Current Mix Designs - Replace this subsection, except for the subsection number and title, with the following:

Mix designs that meet the requirements for the specified class of concrete and are currently being used or have been used within the past 24 months on any project, public or private, may be submitted for review. Provide individual test results that comprise the average if more than one data point exists. For paving designs the flexural strength testing must be from within the last two years. For HPC designs the length change and permeability tests must be from within the last two years.

02001.15(b)(1) Trial Batch Plastic Properties - Replace this subsection, except for the subsection number and title, with the following:

For each trial batch, test according to the following test methods:

Test	Test Method
Sampling Fresh Concrete	WAQTC TM 2
Concrete Temperature	AASHTO T 309
Slump	AASHTO T 119 ¹
Air Content	AASHTO T 152 or T 196 ²
Density	AASHTO T 121
Yield	AASHTO T 121
Molding Concrete Specimens	AASHTO T 23 or R 39 3
Water Cement Ratio	4

- For drilled shaft concrete test the slump retention by subsequent tests at 60 minute intervals for the duration of the estimated drilled shaft placement. Report in table or graphical format.
- Use AASHTO T 196 for lightweight concrete.
- ³ Cast cylinders in single use plastic molds.
- ⁴ Use ODOT's Field Operating Procedure for AASHTO T 121 in the MFTP.

02001.15(c)(10) Plastic Concrete Tests – Replace the bullet that begins "Initial slump test result and subsequent...."

 Initial slump test results and subsequent results at 60-minute intervals, verifying a minimum slump of 4 inches is maintained for the total time estimated for drilled shaft placement, including temporary casing extraction. Report data in a table or graph format.

02001.15(c)(12) Strength Analysis - Replace this subsection, with the following subsection:

02001.15(c)(12) Documentation of Average Compressive Strength - Provide an analysis, showing applicable data and calculations for documentation of average compressive strength according to ACI 301.

02001.20(a) Strength - Replace Table 2001-1 with the following Table 2001-1:

Table 02001-1

Concrete Strength and Water/Cementitious Material (w/cm) Ratio							
Type of Concrete	Strength f'c (psi)	Maximum w/cm Ratio					
	3300	0.50					
	3300 (Seal)	0.45					
Structural	4000						
	4000 (Drilled Shaft)	0.48					
	HPC4500						
	HPC(IC)4500	0.40					
	5000 +						
Paving	4000	0.44					
PPCM's	5000	0.48					
(with cast-in-	5500	0.44					
place decks and no entrained air)	6000 +	0.42					

02001.20(a)(1) Required Average Compressive Strength (f'cr) - Replace this subsection, except for the subsection number and title, with the following:

Except for PPCM designs, provide the required average compressive strength according to ACI 301 for mix design approval.

02001.30(e)(1) HPC Coarse Aggregate Content - Delete the paragraph that begins "Two or more Aggregate products or sources..."

Add the following subsection:

02001.50(d) Concrete Strength Testing Technician (CSTT):

- Receive concrete test cylinders
- Record data
- Strip cylinders
- Store cylinders
- · Test cylinders
- · Record test data
- · Report test data

SECTION 02010 - PORTLAND CEMENT

Comply with Section 02010 of the Standard Specifications.

SECTION 02020 - WATER

Comply with Section 02020 of the Standard Specifications.

SECTION 02030 - SUPPLEMENTARY CEMENTITIOUS MATERIALS

Comply with Section 02030 of the Standard Specifications modified as follows:

02030.00 Scope - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for fly ash, natural pozzolans, silica fume, ground granulated blast furnace slag and high reactivity pozzolans used in portland cement concrete.

02030.10 Fly Ash - Replace this subsection, except for the subsection number and title, with the following:

Furnish Class C and Class F fly ash from the QPL and conforming to AASHTO M 295 (ASTM C618).

Add the following subsection:

02030.15 Natural Pozzolans - Furnish Class N natural pozzolans from the QPL and conforming to AASHTO M 295 (ASTM C618).

02030.50 Metakaolin - Replace this subsection with the following:

02030.50 High Reactivity Pozzolans - Furnish high-reactivity pozzolans from the QPL and conforming to AASHTO M 321.

SECTION 02035 – CONCRETE MODIFIERS

Comply with Section 02035 of the Standard Specifications.

SECTION 02040 - CHEMICAL ADMIXTURES

Comply with Section 02040 of the Standard Specifications.

SECTION 02045 - SYNTHETIC FIBER REINFORCING FOR CONCRETE

Comply with Section 02045 of the Standard Specifications.

SECTION 02050 - CURING MATERIALS

Comply with Section 02050 of the Standard Specifications modified as follows:

02050.10 Liquid Compounds - Replace the paragraph that begins "Furnish liquid membrane-forming curing..." with the following paragraph:

Furnish liquid membrane-forming curing compounds from the QPL and meeting the requirements of ASTM C309. Before use, submit a one quart sample from each lot for testing. Samples will be tested according to ODOT TM 721. Samples are not required for curing compounds used on Commercial Grade Concrete.

SECTION 02320 - GEOSYNTHETICS

Comply with Section 02320 of the Standard Specifications modified as follows:

02320.10(a)(1) Geotextiles - Add the following bullet to the beginning of the bullet list:

QPL approved for the intended application.

02320.10(b) Acceptance Requirements - Replace this subsection with the following subsection:

02320.10(b) Identification - Identify geotextiles by the product name printed directly on the geotextile by the Manufacturer. For all other geosynthetics and when geotextiles are not marked with a product name, identify geosynthetics by the product label attached to the original packaging or the geosynthetic itself by the Manufacturer.

Allow the Engineer to visually verify geosynthetic products before installation. Open packaged geosynthetics before use in the presence of the Engineer to confirm the correct product. Geotextile rolls without the product name printed on the geotextile or the product label affixed to the geotextile or roll core by the Manufacturer will be rejected. Any other geosynthetics that are unwrapped, missing original packaging or previously opened may not be used unless approved by the Engineer.

02320.10(c)(1) Geotextiles - Replace this subsection, except for the subsection number and title, with the following:

Geotextile products listed in the QPL that are identified as "NTPEP listed" in the remarks column have been approved based on participation in the AASHTO National Transportation Product Evaluation Program (NTPEP) and test data from the program. Manufacturer's test certification is not required for NTPEP listed geotextiles from the QPL. For other geotextiles, include the following unless directed otherwise:

- QPL product category and proposed project application.
- Product name printed directly on the geotextile by the Manufacturer. For geotextiles that are not marked with a product name, provide geotextile with product label attached to the geotextile or original packaging by the Manufacturer.

- Manufacturer's name, lot number, roll number, production facility address, and full product information (style, brand, name, etc.).
- Chemical composition of filaments and yarns, including polymer(s) used.
- Minimum average roll values for each of the specified properties from the same lot of geotextiles as the delivered material.

SECTION 02560 - FASTENERS

Comply with Section 02560 of the Standard Specifications modified as follows:

02560.30(b) High Strength Tie Rods, Anchor Bolts and Anchor Rods - Add the following paragraph to the end of this subsection:

End stamp all ASTM F1554, Grade 105 according to ASTM F1554 Supplementary Requirements S2 and S3. If the end of the bolt is to be embedded in concrete, the projecting end from the concrete shall be the marked end.

SECTION 02690 - PCC AGGREGATES

Comply with Section 02690 of the Standard Specifications modified as follows:

02690.20(e) Grading and Separation by Sizes for Prestressed Concrete - Replace this subsection with the following subsection:

02690.20(e) Grading and Separation by Sizes - Sampling shall be according to AASHTO R 90. Sieve analysis shall be according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Table 02690-1 for structural concrete. Provide a CAgT to perform sampling and testing when required.

Table 02690-1Gradation of Coarse Aggregates Percent passing (by Weight)

		Sieve Size											
Size Number	Nominal Size Square Openings	(2½ in.)	(2 in.)	(1½ in.)	(1 in.)	(¾ in.)	(½ in.)	(¾ in.)	(No. 4)	(No. 8)	(No. 16)	(No. 50)	(No. 200)
3	(2 to 1 in.)	100	90 to 100	35 to 70	0 to 15	_	0 to 5	_	_	_	_	_	**
357*	(2 in. to No. 4)	100	95 to 100	_	35 to 70	_	10 to 30	_	0 to 5	_	_	_	**
4	(1½ to ¾ in.)	_	100	90 to 100	20 to 55	0 to 15	_	0 to 5	_	_	_	_	**
467*	(1½ to No. 4)	_	100	95 to 100	_	35 to 70	_	10 to 30	0 to 5	_	_	_	**
5	(1 to ½ in.)	_	_	100	90 to 100	20 to 55	0 to 10	0 to 5	_	_	_	_	**
56	(1 to ¾ in.)	_	_	100	90 to 100	40 to 85	10 to 40	0 to 15	0 to 5	_	_	_	**
57	(1 to No. 4)	_	1-	100	95 to 100	1-1	25 to 60	-	0 to 10	0 to 5	-	-	**
6	(¾ to ¾ in.)	_	1	-	100	90 to 100	20 to 55	0 to 15	0 to 5	_	-	-	**
67	(¾ to No. 4)	_	_	1-	100	90 to 100	1-	20 to 55	0 to 10	0 to 5	_	_	**:
68	(¾ to No. 8)	_	_	-	100	90 to 100	_	30 to 65	5 to 25	0 to 10	0 to 5	_	**:
7	(½ to No. 4)	_	<u></u>		1-	100	90 to 100	40 to 70	0 to 15	0 to 5	_	_	**
78	(½ to No. 8)	_	-	-	_	100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5	_	**
8	(% to No. 8)	_	-	_	_	_	100	85 to 100	10 to 30	0 to 10	0 to 5	_	**
89	(% to No. 16)	-	_	-	-	1-	100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5	**

^{*} Use two or more seperated sizes which when combined meet these gradation limits.

02690.20(f) Grading and Separation by Sizes for Other Concrete - Delete this subsection.

02690.30(g) Grading - In the paragraph that begins "Sampling shall be according to...", replace the words "AASHTO T 2" with the words "AASHTO R 90".

SECTION 02910 - SIGN MATERIALS

Comply with Section 02910 of the Standard Specifications modified as follows:

02910.33(a) General - Replace this subsection, except for the subsection number and title, with the following:

Permanent legends consist of white retroreflective screened, red retroreflective screened, black screened or cut-out white retroreflective sheeting. The letters and numerals of all permanent legends shall conform to the design of the FHWA Standard Rounded Capital Letter Alphabets.

Add following subsection:

02910.50 Digitally Printed Signs, Temporary - Temporary traffic control signs may use digitally printed signs from an integrated engineered match component system on the QPL and applied to furnished substrate according to 00222.10(b).

^{**} See 02690.20(a). Do Not evaluate material passing the No. 200 sieve according to 00165.40.

SECTION 02926 - HIGHWAY ILLUMINATION MATERIALSI

Comply with Section 02926 of the Standard Specifications modified as follows:

Add following subsection:

02926.41(f) Electrical Splice Materials - Furnish electrical splice materials meeting the following requirements:

- **Split bolt** Made of silicon bronze to securely join the wires both mechanically and electrically.
- Heat-shrink tubing Split-resistant and adhesive-lined tube made of polyolefin complying with UL 224 or UL 486D, temperature range -67 °F to 230 °F, with 600 V rated inner melting wall or liner to provide void-free encapsulated insulation.
- **Insulating rubber tape** Electrical grade, nondrying, rubber based, elastic type complying with ASTM D4388.
- **Insulating vinyl plastic tape** Low temperature (0 °F) resistant, vinyl chloride plastic, electrical insulating tape with pressure-sensitive adhesive. Comply with ASTM D3005.