AN ORDINANCE ADOPTING	)	**ORDINANCE BILL NO. 10**
THE 2002 OREGON STANDARD	)	**For 2005**
SPECIFICATIONS FOR CONSTRUCTION	)	**ORDINANCE NO. 2379**
AND THE CITY OF LEBANON	)	
SUPPLEMENTAL SPECIFICATIONS	)	

WHEREAS, it is desirable and in the public interest that the construction of public improvements and the construction of private improvements within the city right-of-way conform to contemporary standards of engineering and safety and ;

WHEREAS, construction standards not formally adopted through action by the governing body of a local agency may be subject to legal challenge by parties affected by the standards and ;

WHEREAS, the City Engineer has recommended the 2002 Oregon Standard Specifications for Construction, APWA Oregon Chapter and the Oregon Department of Transportation as a widely recognized and appropriate standard to govern construction in Lebanon;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LEBANON AS FOLLOWS:

Section 1. The 2002 Oregon Standard Specifications for Construction, attached hereto and incorporated by this reference as Exhibit "A" are hereby adopted as the standards for construction within the city.

Section 2. The City Of Lebanon Supplemental Specifications, attached and incorporated by this reference as Exhibit "B" are adopted by the City to supplement the 2002 Standard Specifications for Construction, Exhibit "A".

Section 3. Except as otherwise provided by written contracts with the city or by supplemental specifications and plans authorized and maintained by the City Engineer, all public improvements, all private improvements located within or affecting city rights-of-way or easements, and all improvements affecting city-owned utilities shall be constructed, reconstructed, repaired, and maintained in accordance with 2002 Oregon Standard Specifications of Construction, APWA Oregon Chapter and the Oregon Department of Transportation, manual published jointly by the American Public Works Association, Oregon Chapter.

Section 4. For the purpose of administration of the provisions of the manual, the term "Owner" shall refer to the city and the term "Contractor" shall refer to the person, persons or firm responsible for the construction, reconstruction, repair, and maintenance of the improvements.

Section 5. Exceptions and additions to the plans and specifications contained in the manual may be authorized or required by the City Engineer. With regard to a particular project or class of project, the City Engineer may disapprove any specification or material otherwise permitted if, in the engineer's opinion, the use of the specification or material would not be suitable or would not conform with the highest standards of safety, engineering, and construction practice.

Passed by the Lebanon City Council by a vote of 6 for and 0 against and approved by the Mayor this 8 day of June, 2005.

Kenneth I. Toombs

Kenneth I. Toombs, Mayor

ATTEST:

John E. Hitt

John E. Hitt, City Recorder

City of Lebanon
Oregon

2005
SUPPLEMENTAL STANDARD SPECIFICATIONS

TO THE

2002 Oregon Standard Specifications for Construction

Approved By:

City Engineer
City of Lebanon

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PART 00100 - GENERAL REQUIREMENTS

Section 00110 – Organization, Conventions, Abbreviations and Definitions

The General Requirements Section shall be administered in conformance with Section 00110 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Abbreviations

00110.10 Abbreviations – Add the following items:

CWCA – Certification of Work Completion and Acceptance
SPCC – Spill Prevention Control and Countermeasures

Definitions

00110.20 Definitions – Replace or add the following definitions:

Agency – The City of Lebanon, OR or an authorized representative thereof.

As-Built Documents – A complete set of Contract Documents, to include a full-size set of drawings that has recorded in permanent red ink any and all changes, additions, deletions or deviations made during the course of construction. These documents are to be delivered to the Engineer upon completion of the Project.

Certification of Work Completion and Acceptance – See **Third Notification**.

Punch List – A detailed list of outstanding construction items issued to the Contractor once construction is substantially completed. This list may include, but is not limited to, construction omissions, damages or other shortcomings that must be remedied before Final Payment or Notice of Final Acceptance.

Submittal – Documentation provided by a Contractor relating to any substantial material or work installed during the course of a project. They shall include but not be limited to, all pertinent manufactures information, shop drawings, material certifications, test procedures, samples, etc.

00110.31 Use of Metric or Customary ("English") System – Add the following to this subsection:

All Agency projects not funded by state or federal monies implement the use of Customary ("English") units for measurement and pay items.

Section 00120 – Bidding Requirements and Procedures

The Bidding Requirements and Procedures Section shall be administered in conformance with Section 00120 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00120.00 Prequalification of Bidders – Delete this subsection and replace with the following:

The Agency will prequalify Bidders according to OAR Chapter 734, Division 10, and OAR 731-005-0025. A Bidder must file for prequalification and pay a non-refundable $50 application or renewal fee. Prequalification must be renewed on an annual basis; it is the responsibility of potential Bidders to maintain a current and accurate prequalification status. Bidders shall make application for prequalification by one of the following methods:

- City of Lebanon Contractor's Prequalification Application or Renewal Application. These forms are available at the following location:

  City of Lebanon Community Development Center
  853 Main Street
  Lebanon, OR 97355
  Telephone: (541) 258-4271
  Fax: (541) 258-4955

- ODOT Standard Prequalification Forms. These forms are available at the following location:

  ODOT Construction Contracts Unit
  Transportation Building, Room 212
  355 Capitol St. NE
  Salem, OR 97301-3871
  Telephone: (503) 986-3877

Bidders shall return or fax completed forms to the City of Lebanon Community Development Center.

Contracts will only be awarded to Bidders who, at the time of Bid Opening, are prequalified in the Class or Classes of Work designated in the Special Provisions, except that a Bidder whose prequalification has been revoked or revised as provided in ORS 279B.125(3) may also be eligible for Award under that statute if the Project was advertised prior to the revocation or revision. The Agency will consider a Bid from a Bidder whose complete application for prequalification has been received by the Agency at least five (5) Calendar Days before the opening of Bids. Bidders shall submit Bids in the same company name used on the prequalification application. Should the Bidder's legal name have changed since the submittal of its application for prequalification, it shall submit its Bid under its current legal name with the former name referenced by "formerly known as".

The Agency will regularly evaluate the performance of Contractors on its projects for purposes of responding to reference checks, future prequalification and determinations of responsibility.

00120.05 Requests for Solicitation Documents – Delete this subsection and replace with the following:

Bidders must obtain Solicitation Documents from the following location:

City of Lebanon Community Development Center
853 Main Street
Lebanon, OR 97355
Telephone: (541) 258-4272

Each request must 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 from the Agency's Community Development Center may be used to submit Bids.

Informational Plans and Specifications (not for bidding) and copies of the Agency's Supplemental Specifications (based on Oregon Standard Specifications) may be purchased at the Community Development Center. Oregon Standard Specifications may be purchased at the ODOT Contractor Plans Office:

ODOT Contractor Plans Office
Transportation Building, Room 28
355 Capitol St. NE
Salem, OR 97301-3871
Telephone: (503) 986-3720

00120.10 Bid Booklet – Add the following bullet to the second list in this subsection:

- Bid Item Descriptions

00120.16 Material, Equipment and Method Substitutions

(a) Add the following sentence to this subsection:

Written requests are to be submitted on the Request For Information (RFI) form included in the Appendix of the Bid Booklet.

00120.30 Changes to Plans, Specifications, or Quantities Before Opening of Bids – Replace this subsection 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 by fax, delivery service or mail to all holders of bidding plans.

The Agency will not be responsible for failure of bidders to receive addenda sent as described in the preceding paragraph. Bids may be rejected if opened and found by the Agency not to be based on Addenda issued before bids were opened.

00120.40 Preparation of Bid:

(e) Bid Guaranty – In the last sentence of the first paragraph, replace "ORS 279.027(5)" with "ORS 279C.365 (4)".

(f) Disclosure of First-Tier Subcontractors – Delete this subsection and replace with the following:

If a Bidder's Bid on a public improvement project exceeds $100,000, the Bidder shall, within two working hours of the time Bids are due to be submitted, submit to the Agency on a form provided by the Agency, a disclosure identifying any 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, Bidders shall state:

- The name of the Subcontractor,
- The category of Work that the Subcontractor will be performing and
- The dollar amount of the Subcontract.

If no subcontracts subject to the above disclosure requirements are anticipated, a Bidder shall so indicate by entering "NONE" or by filling in the appropriate check box. For each Subcontractor listed, Bidders shall provide all requested information. An incomplete form will be cause for rejection of the Bid.

The Subcontractor Disclosure Form may be submitted either:

- By filling our the Subcontractor Disclosure Form included in the Bid Booklet and submitting it together with the Bid at the time and place designated for receipt of Bids, or
- By removing it from the Bid Booklet, filling it out and submitting it separately to Community Development Center at the address or facsimile (FAX) number given in the bid booklet.

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

E-mail submissions will not be accepted. The Agency is not responsible for partial, failed, illegible or partially legible FAX transmissions. Such forms may be rejected as incomplete.

Bids not in compliance with the requirements of this Subsection will be considered non-responsive.

00120.45 Submittal of Bids – Delete this subsection and replace with the following:

Bids may be submitted by mail, parcel delivery service, courier or in person to the Community Development Center at the address given in the Bid Booklet in a sealed envelope. All Bids shall have the following information clearly marked on the outside of the envelope:

- The words "Bid" and "To Be Opened By Authorized Personnel Only"
- Project Name
- Bid Opening Time and Date
- Bidder's Name
- Contractor's License Number

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 Revision or Withdrawal of Bids – Delete this subsection and replace with the following:

Information entered into the Bid Booklet by the Bidder may be revised after the Bid has been delivered to the Community Development Center, with the following provisions:

- Revisions can only be made to unit prices and/or total prices.
- Revisions or Withdrawals shall be submitted in writing and signed by an authorized representative of the Bidder and must clearly show the following information:
    - The words "Bid Revision"
    - Project Name
    - Bid Opening Time and Date
    - Bidder's Name
- Revisions or Withdrawals may be delivered by mail, parcel delivery service, courier, FAX or in person to the Community Development Center, but must be received no later than the time designated for receiving bids. Revisions or Withdrawals submitted after the time set for receiving Bids will not be considered by the Agency.

00120.65 Opening and Comparing Bids – Add the following to this subsection:

The results of Bid comparisons and considerations will be made available to the public within a reasonable time after opening of the Bids.

00120.70 Rejection of Nonresponsive Bids – Delete this subsection and replace with the following:

- The Bid Section documents provided are not properly used or contain unauthorized alterations.
- The Bid is incomplete or incorrectly completed.
- The Bid is submitted on documents not obtained directly from the Community Development Center or is submitted by a Bidder who has not been identified by the Agency as a Holder of Bidding Plans as required by 00120.05.
- A member of a joint venture and the joint venture submit Bids for the same Project. Both bids may be rejected.
- The Bid has entries not typed or in permanent (non-erasable) ink, or has signatures or initials not in permanent ink.
- Each erasure, change or correction is not individually initialed by an authorized Bidder representative.
- The price per unit is illegible or cannot otherwise be determined.
- The Bid guaranty is insufficient or improper.
- The original Bid Bond form is not used or is altered.
- The Oregon Construction Contractor's Board registration number and expiration date are not shown on the Bid if required in the Solicitation Document. This requirement applies to State-funded Projects with the exception of Aggregate production and landscape Projects. (Not required on Federal Aid Projects.)
- A disclosure of first-tier Subcontractors, if required under 00120.40(f), is not received within two working hours of the time Bids are due to be submitted, or the disclosure form is not complete.
- The Bidder has not complied with the DBE requirements of the solicitation.
- The Bid does not evidence recognition of Addenda, if applicable.

00120.80 Reciprocal Preference for Oregon Resident Bidders – In the paragraph that begins "In determining the lowest...", replace both "ORS 279.029(2)" and "ORS 279.029(3)" with "ORS 279A.120".

00120.90 Disqualification of Bidders – In the bullet that begins "Any of the grounds...", replace "ORS 279.037" with "ORS 279C.440". In the bullet that begins "been declared ineligible...", replace "ORS 279.361" with "ORS 279C.860". In the bullet that begins "Not been registered...", replace "ORS 279 .027(1)(k)" with "ORS 279C.365(1)(k)".

00120.91 Rejection of Bids on Grounds of Nonresponsivity of Bidder – Replace "ORS 279.029(6)" with "ORS279C.375(2)".

Section 00130 - Award and Execution of Contract

The Award and Execution of Contract Section shall be administered in conformance with Section 00130 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00130.00 Consideration of Bids – In the paragraph that begins "The Agency reserves the right...", replace "ORS 279.035" with "ORS 279C.440".

00130.10 Award of Contract – Delete this subsection and replace with the following:

After the Bids have been opened and the Agency's City Council has authorized the Engineer to award the project, the Contract will be awarded to the lowest responsible bidder. For the purposes of this Section, "lowest responsible Bidder" means the lowest Bidder who is not on the list created by the Construction Contractors Board pursuant to ORS Chapter 701, and who has:

- Substantially complied with all prescribed public bidding procedures and requirements
- Available the appropriate financial, Materials, Equipment, facility and personnel resources and expertise, or ability to obtain the resources and expertise, necessary to indicate the capability of the prospective Bidder to meet all contractual responsibilities
- A satisfactory record of performance
- A satisfactory record of integrity
- Qualified legally to contract with the Agency
- Supplied all necessary information in connection with the inquiry concerning responsibility. If a prospective Bidder fails to promptly supply information requested by the Agency concerning responsibility, the Agency shall base the determination of responsibility upon any available information, or may find the prospective Bidder not to be responsible
- Not been disqualified by the public contracting agency under ORS 279C.440.

If the Bidder is found not to have a satisfactory record of performance or integrity, the Agency will document the record and the reasons for the unsatisfactory finding.

The Agency will issue Notice of Intent to Award either verbally or in writing to the lowest responsible Bidder within three working days of the bid opening. The Award will not be final until the later of the following:

- The Lebanon City Council has approved the Agency's intent to Award, or
- The Agency has provided a written response to each timely protest lodged by adversely affected or aggrieved Bidders, denying the protest(s) and affirming the Award.

If the Agency accepts a Bid and awards a Contract, the Agency will send the successful Bidder written notice of acceptance and Award.

Notice of Award and Contracts will be sent within 30 Calendar Days of the opening of Bids or within the number of Calendar Days specified in the Special Provisions.

00130.15 Right to Protest Award – Delete this subsection and replace with the following:

Adversely affected or aggrieved Bidders, limited to the three apparent lowest Bidders, may submit to the Agency a written protest of the Agency's intent to Award within three Working Days following issuance of Notice of Intent to Award. The protest shall specify the grounds upon which it is based.

The Agency is not obligated to consider late protests.

00130.20 Cancellation of Award – Replace "ORS 279.035" with "ORS 279C.395".

00130.60 Failure to Execute Contract and Bonds – In the paragraph that begins "Failure of the successful...", replace "ORS 279.031" with "ORS 279C.385".

00130.90 Notice to Proceed – Delete this subsection and replace with the following:

Notice to Proceed will be issued within ten Calendar Days after the Contract is executed by the Agency, or as otherwise indicated in the Project Special Provisions.

Should the Agency fail to issue the Notice to Proceed within ten Calendar Days of Contract execution, or as otherwise indicated in the Project Special Provisions, the Contractor may apply for an adjustment of Contract Time according to 00180.80(c).

Section 00140 – Scope of Work

The Scope of Work Section shall be administered in conformance with Section 00140 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00140.50 Environmental Pollution Changes – Replace this Subsection with the following:

ORS 279C.525 will govern any increases in the scope of the Work required as a result of environmental or natural resources laws enacted after the submission of Bids for the Contract.

Oregon Revised Statutes 2003
Excerpt from Chapter 279C
(Public Contracting - Public Improvements and Related Contracts)

279C.525 Provisions concerning environmental and natural resources laws; remedies.

(1) Solicitation documents for a public improvement contract shall make specific reference to federal, state and local agencies that have enacted ordinances, rules or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the contract. If the successful bidder awarded the project is delayed or must undertake additional work by reason of existing ordinances, rules or regulations of agencies not cited in the public improvement contract or due to the enactment of new or the amendment of existing statutes, ordinances, rules or regulations relating to the prevention of environmental pollution and the preservation of natural resources occurring after the submission of the successful bid, the contracting agency may:

(a) Terminate the contract;
(b) Complete the work itself;
(c) Use non-agency forces already under contract with the contracting agency;
(d) Require that the underlying property owner be responsible for cleanup;
(e) Solicit bids for a new contractor to provide the necessary services under the competitive bid requirements of this chapter; or
(f) Issue the contractor a change order setting forth the additional work that must be undertaken.

(2) In addition to the obligation imposed under subsection (1) of this section to refer to federal, state and local agencies with ordinances, rules or regulations dealing with the prevention of environmental pollution and the preservation of natural resources, a solicitation document must also make specific reference to known conditions at the construction site that may require the successful bidder to comply with the ordinances, rules or regulations identified under subsection (1) of this section.

(3) If the successful bidder encounters a condition not referred to in the solicitation documents, not caused by the successful bidder and not discoverable by a reasonable prebid visual site inspection, and the condition requires compliance with the ordinances, rules or regulations referred to under subsection (1) of this section, the successful bidder shall immediately give notice of the condition to the contracting agency.

(4) Except in the case of an emergency and except as may otherwise be required by any environmental or natural resource ordinance, rule or regulation, the successful bidder may not commence work nor incur any additional job site costs in regard to the condition encountered and described in subsection (3) of this section without written direction from the contracting agency.

(5) Upon request by the contracting agency, the successful bidder shall estimate the emergency or regulatory compliance costs as well as the anticipated delay and costs resulting from the encountered condition. This cost estimate shall be promptly delivered to the contracting agency for resolution.

(6) Within a reasonable period of time following delivery of an estimate under subsection (5) of this section, the contracting agency may:

(a) Terminate the contract;
(b) Complete the work itself;
(c) Use non-agency forces already under contract with the contracting agency;
(d) Require that the underlying property owner be responsible for cleanup;
(e) Solicit bids for a new contractor to provide the necessary services under the competitive bid requirements of this chapter; or
(f) Issue the contractor a change order setting forth the additional work that must be undertaken.

(7)(a) If the contracting agency chooses to terminate the contract under subsection (1)(a) or (6)(a) of this section, the successful bidder shall be entitled to all costs and expenses incurred to the date of termination, including overhead and reasonable profits, on the percentage of the work completed. The contracting agency shall have access to the contractor's bid documents when making the contracting agency's determination of the additional compensation due to the contractor.

(b) If the contracting agency causes work to be done by another contractor under subsection (1)(c) or (e) or (6)(c) or (e) of this section, the initial contractor may not be held liable for actions or omissions of the other contractor.

(c) The change order under subsection (1)(f) or (6)(f) of this section shall include the appropriate extension of contract time and compensate the contractor for all additional costs, including overhead and reasonable profits, reasonably incurred as a result of complying with the applicable statutes, ordinances, rules or regulations. The contracting agency shall have access to the contractor's bid documents when making the contracting agency's determination of the additional compensation due to the contractor.

(8) Notwithstanding subsections (1) to (7) of this section, a contracting agency:
(a) May allocate all or a portion of the known environmental and natural resource risks to a contractor by listing such environmental and natural resource risks with specificity in the solicitation documents; and

(b) In a local improvement district, may allocate all or a portion of the known and unknown environmental and natural resource risks to a contractor by so stating in the solicitation documents.

In addition to ORS 279C.525, the Agency has compiled a list at 00170.01 of those federal, State and local agencies, of which the Agency has knowledge, that have enacted ordinances or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that may affect the performance of Agency contracts.

00140.90 Final Trimming and Cleanup – Add the following to this subsection:

If the Contractor fails to adequately trim and clean the project site as specified, the Agency reserves the right to perform these tasks with Agency personnel and/or equipment and deduct incurred costs from monies due or to become due to the Contractor under the Contract.

Section 00150 – Control of Work

The Control of Work Section shall be administered in conformance with Section 00150 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00150.00 Authority of the Engineer – Delete the last paragraph in this section and replace with the following:

Interim approvals issued by the Engineer will not discharge the Contractor from responsibility for errors in prosecution of the Work, for improper fabrication, for failure to comply with Contract requirements, or for other deficiencies, the nature of which are within the Contractor's control.

No verbal agreement or conversation with the Engineer, either before or after execution of the Contract, shall affect or modify any of the terms or obligations contained in the Contract.

00150.01 Project Manager's Authority and Duties – Replace the second paragraph in this subsection with the following:

The Contractor should direct all requests for clarification or interpretation of the Contract in writing to the Engineer or Project Manager, if designated. All requests shall be in writing and submitted on a Request for Information (RFI) form, which is included in the Contract Documents. The Engineer or Project Manager shall respond within a reasonable time. Contract clarification or interpretation obtained from persons other than the Engineer or Project Manager will not be binding on the Agency.

00150.15 Construction Stakes, Lines and Grades

(a) General – Delete this subsection and replace with the following:

Unless otherwise specified in the Contract Documents, all construction stakes, lines and grades shall be established by the Engineer. Work performed without field controls will be subject to removal at the Contractor's expense.

Should the Contract Documents specify that the Contractor is responsible for setting construction stakes, lines and grades, the Contractor will be solely responsible for work outlined in 00150.15(b-c).

(c) Contractor Responsibilities – Delete the first bulleted item in this subsection and replace with the following:

- Inform the Engineer of staking requirements at least three Working Days before the staking needs to begin;

00150.20 Inspection

(c) Sampling – Delete this subsection and replace with the following:

The Contractor shall furnish the Engineer with samples of Materials that the Engineer deems necessary for testing. The Contractor shall provide access in accordance with 00150.20(b) for acquisition of testing samples. All costs related to required sampling shall be in accordance with 00165.06.

00150.35 Plans and Working Drawings

(b) Working Drawings – Add the following to this subsection:

All working drawings, stamped or unstamped, shall be submitted in accordance with 00160.60(d).

(c) Number and Size of Drawings – Delete the first sentence in this subsection and replace with the following:

The Contractor shall submit four copies of Working Drawings for steel structures and three copies of Working Drawings for other Structures to the Engineer.

(d) Processing Working Drawings:

(2) Unstamped Working Drawings – Delete this subsection and replace with the following:

Unstamped Working Drawings will be designated by the Engineer on the accompanied Submittal Transmittal Form as "No Exceptions Taken" (NET), "Make Corrections Noted" (MCN), "Amend and Resubmit" (A&R) or "Rejected" (R).

The Contractor shall not fabricate or construct any structural components until the stamped or unstamped Working Drawings are returned by the Engineer with written notation of approval or review, as applicable, of the Working Drawings.

The Engineer's processing of the Working Drawings does not amend any contractual obligations of the parties.

The Engineer will process and return working drawings within 15 Working Days (65 Calendar Days if Railroad approval is required) after receipt by the Engineer. If the Engineer fails to return such drawings within this period of time, the Engineer will consider granting a Contract Time extension according to 00180.80.

00150.37 Equipment Lists and Other Submittals – Delete the first sentence in this subsection and replace with the following:

The Contractor shall submit Equipment lists and other required submittals for approval by the Engineer in accordance with 00160.60(d).

00150.40 Cooperation and Superintendence by the Contractor

(a) General – Delete the first bulleted item in this subsection and replace with the following:

- Keep and maintain one complete set of Contract Documents on the Project Site at all times, to include one full-size set of Contract Drawings for recording 'as-built' conditions. The Contractor shall mark in red all changes, additions, deletions or deviations made during the course of construction. These Documents shall be made available to the Engineer for review at any time during construction. The Contractor shall deliver the As-Built Documents to the Engineer prior to issuance of a CWCA.

  Requests for partial payment may not be approved if the As-Built Documents are not kept current; requests for final payment will not be approved until accurate, legible and complete As-Built Documents are received by the Engineer.

00150.50 Cooperation with Utilities

(a) General – Delete the first sentence in this subsection and replace with the following:

Unless otherwise set forth in any Supplemental Specifications, in the Special Provisions or on the Plans, existing Utilities requiring adjustments shall be adjusted by the Utility before or during Project Construction.

00150.56 Cooperation with the Public, Other Agencies – Add this subsection:

(a) General – The Contractor shall make a reasonable effort to accommodate affected businesses, residents, motorists and public or private entities serving the general populace, including but not limited to public and/or private transportation services, public and/or private school systems, solid waste services and postal, parcel and newspaper delivery services.

Project Sites closed to through traffic shall be reasonably accessible to affected residents and businesses during construction. Access to affected residences and businesses shall be unrestricted during off-construction hours.

(b) Notification – Prior to closing or limiting access to any public thoroughfare or pedestrian access, the Contractor shall provide a minimum of ten (10) Working Days notification to all affected businesses, residents and public service agencies, including but not limited to local and county law enforcement, fire and ambulance services, public and/or private transportation services, public and/or private school systems, solid waste services and postal, parcel and newspaper delivery services.

The Contractor shall provide a copy of any notification to the Engineer for review and comment before such notices are distributed. Notices shall contain a minimum of the following information:

- Date and time of commencement and completion of the work;
- Names of affected streets, alleys, intersections or other areas of work;
- Type of work that is being done;
- Routes of detours where possible; and
- Agency contact phone number

The Contractor shall be responsible for re-notifying affected businesses, residents and public service agencies if the schedule of work is changed. Damages or claims resulting from improper or insufficient notification shall be the sole responsibility of the Contractor. See 00220.02 for further information.

00150.60 Construction Equipment Restrictions

(a) Load and Speed Restrictions for Construction Vehicles and Equipment – Delete this subsection and replace with the following:

(a) Load, Speed and Noise Restrictions for Construction Vehicles and Equipment – The Contractor shall comply with legal mass (weight), speed and noise restrictions when moving Materials or Equipment beyond the limits of the Project Site.

The Contractor shall control vehicle and Equipment loads, speeds and noise within the Project Site according to the following restrictions, unless the Special Provisions provide otherwise:

- The Contractor shall restrict loads and speeds as necessary to avoid displacement or loss of Materials on Subgrades and Aggregate Bases.

- The Contractor shall restrict masses (weights) to legal loads, and shall travel at speeds of no more than 40 km/h (25 mph) or the posted construction speed, whichever is less, at any location of the Project Site, to include areas adjacent to Site accesses and exits.

- The Contractor shall not cross Bridges or other Structures with Equipment or vehicles exceeding the legal load limit without prior written permission of the Engineer. The Contractor shall make any such request in writing, describing the loading details and the arrangement, movement and position of the Equipment on the Structure. The Contractor shall comply with any restrictions or conditions included in the Engineer's written permission.

- Noise levels within and adjacent to the Project Site shall comply with all applicable local, state and federal regulations and in accordance with 00290.

00150.75 Protection and Maintenance of Work During Construction – Delete the first paragraph in this subsection and replace with the following:

The Contractor shall protect and maintain the Work and Project Site during construction and until Certification of Work Completion and Acceptance (CWCA) has been issued, unless otherwise provided in the Contract. For the purposes of this Subsection, "maintenance" shall include measures to prevent deterioration of Roadway and Structures at the Project Site and to keep them in good condition at all times during the prosecution of the Work.

The Contractor shall maintain the Project Site in a neat, orderly manner and immediately clear away debris, garbage and other materials deemed unsightly or hazardous by the Engineer. The Contractor shall continuously allocate sufficient Equipment and workers to achieve such maintenance.

00150.90 Final Inspection

(a) On-Site Construction Work – Delete the second paragraph in this subsection and replace with the following:

When all On-Site Work on the Project is completed, including but not limited to Change Order Work and Extra Work, the Engineer will develop and issue a Punch List as needed and issue it to the Contractor.

(b) All Contract Work – Delete the first sentence in this subsection and replace with the following:

The Engineer will issue a CWCA when the Contractor has satisfactorily accomplished all of the following:

00150.95 Final Acceptance – Delete this subsection and replace with the following:

When all work by the Contractor has been completed and accepted, the Agency will issue a CWCA, which will contain the date of final acceptance of the Project.

00150.96 Maintenance Warranties and Guarantees – Delete this subsection and replace with the following:

(a) Project Warranty – The work is guaranteed by the Contractor for a specified period from the date of final acceptance by the Agency. If no warranty period is specified, the work shall be guaranteed for a period of one year from the date of final acceptance by the Agency. If the Contract contains a warranty clause, the CWCA will indicate when that warranty period will expire.

If, within the warranty period, repairs or changes are required in connection with the work, the Contractor shall promptly, without expense to the Agency:

(1) Place in satisfactory condition all guaranteed work;

(2) Correct all damage to structures, sites, equipment or contents thereof which is the result of the use of materials, equipment or workmanship that is inferior, defective or not in accordance with the terms of the Contract; and,

(3) Correct any damage to structures, sites, equipment or contents thereof sustained during the fulfillment of corrective work.

Repairs, replacements or changes made under the warranty requirements shall be warranted for the warranty period as specified in this section, beginning on the date of the acceptance of the repairs, replacements or changes.

If the Contractor fails within ten (10) days to proceed to comply with the terms of the specified warranty, the Agency may have the defects corrected with Agency personnel and equipment or by independent contract. The Contractor and Contractor's surety shall be liable for all expenses incurred. In case of an emergency where delay would cause serious loss or damage, repairs may be made without notice to the Contractor and the Contractor or Contractor's surety shall be responsible for all costs incurred.

(b) Manufacturers' Warrantees – Before the CWCA will be issued, the Contractor shall transfer to the Agency all unexpired manufacturers' warranties and guarantees for Materials and Equipment installed on the Project. Such warranties and guarantees shall indicate that they are enforceable by the Agency.

Section 00160 – Source of Materials

The Source of Materials Section shall be administered in conformance with Section 00160 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00160.10 Ordering, Producing and Furnishing Materials

(a) Contractor's Duties – Delete the last paragraph in this subsection and replace with the following:

It is the sole responsibility of the Contractor to ensure that full quantities of Materials are available to complete the required Work. Quantity estimates by the Engineer are approximate and should be verified by the Contractor before bidding.

00160.20 Preferences for Materials:

(c) Recycled Materials – Replace "ORS 279.545 to 279.650" with "ORS 279A.010, ORS 279A.125, ORS 279A.145, ORS 279A.150, and ORS 279A.155".

00160.50 Agency-Controlled Land; Limitations and Requirements:

(b) Waste, Excess and By-Product Materials – Delete this subsection and replace with the following:

All waste, excess and by-product materials collectively referred to in this Subsection as "By-Products", from the manufacture or production of Materials shall become the property and responsibility of the Contractor, unless specifically stated otherwise in the Contract Documents.

By-Products shall be removed from Agency-Controlled Land in such a manner as to avoid fouling areas containing useable materials or interfering with future plant setups to use materials from the property.

There will be no additional payment for removal of waste, excavation spoils and by-product materials unless otherwise indicated in the Contract Documents.

00160.60 Contractor-Furnished Materials and Sources:

(c) Additional Requirements – Add the following subsection:

(3) Provided all required product certification as required in 00160.60(d).

(d) Materials Conformance Documentation – Add the following subsection:

The Contractor shall provide the Engineer documentation and certification for all substantial Materials installed during the course of the Project. Required Submittals shall include manufacturer's information, shop drawings, test procedures and results, samples, substitution requests and other miscellaneous work-related items.

The Contractor shall furnish all drawings, specifications, data, test results, certificates, manufacturer's recommended installation procedures as well as other information specifically required by the Contract Documents that is needed to demonstrate that the submitted materials; equipment and procedures comply with the provisions and intent of the Contract Documents.

(1) Contractor Responsibility – The Contractor shall be responsible for the accuracy and completeness of the information contained in the required Submittals and shall assure that the material, equipment and methods of work shall be as described in the Submittal. The Contractor shall verify that all product features conform to the Specifications. All Submittals shall be clearly edited to indicate only those items that pertain to the material or equipment

Under review. The Contractor is responsible for ensuring that all submitted materials, equipment and procedures are compatible and do not adversely affect the work of the Agency or other contractors.

The Contractor shall coordinate Submittals in such a manner that review and processing of those Submittals shall not adversely affect construction scheduling. No extensions will be allowed due to improperly scheduled Submittals. The Contractor shall not proceed with any work covered by a Submittal until the Submittal process is completed and documented. This requires that Submittals have been returned to the Contractor marked either No Exceptions Taken (NET) or Make Corrections Noted (MCN) as defined in this subsection.

The Contractor shall certify on each Submittal that he has reviewed and verified that the materials, equipment or methods meet specifications or the intent thereof.

(2) Transmittal Procedures – Unless otherwise specified in the Contract Documents, all Submittals shall be accompanied by the Submittal Transmittal form included in the Contract Documents. A separate form shall be used for each specific class of equipment, materials or procedures required. Submittals for various items constituting one manufacturer's package or closely related materials, equipment and procedures may be included in a single Submittal.

All Submittals shall be identified by project name and number and shall include the Contractor's name, Submittal date and revision date. In addition, shop drawings, product data and samples shall include names of the subcontractor, supplier and applicable specification section number. The Contractor's stamp must be initialed or signed to certify review of Submittal, verification of field measurements and compliance with the Contract Documents.

The Contractor shall assign a unique, sequential number to each Submittal. Resubmittals shall be assigned the original Submittal number with the addition of an appropriate sequential suffix. An example would be "Submittal 005 – Rock Materials". Should the Submittal need to be amended or resubmitted, subsequent Submittals shall be numbered "Submittal 005-A", "Submittal 005-B", etc. The Contractor shall supply four (4) complete copies of all required Submittals.

If the Contractor proposes a deviation from the specified materials, equipment or procedures, the Submittal shall clearly indicate and describe the deviation. Incomplete Submittals or undocumented deviations shall be returned to the Contractor without review.

(3) Review Procedure – Submittals are called out for Materials, equipment or procedures that may be selected by the Contractor using his best judgment regarding their conformance with Specifications. The review procedure is based on the Contractor's verification that the materials will meet Specifications. Review does not extend to methods, techniques or fabrication processes unless specifically called out. Acceptance of any particular item does not indicate approval of improper implementation or installation of that item.

Unless otherwise specified, the Engineer shall review, complete and return two (2) copies of a Submittal within 15 Working Days of receipt with one of the following marks:

a. No Exceptions Taken (NET) – If the Submittal is marked "No Exceptions Taken" (NET), this indicates that the material, equipment or procedures meet project specifications and the Contractor may implement materials covered by that Submittal.

b. Make Corrections Noted (MCN) – If the submittal is marked "Make Corrections Noted" (MCN), this indicates that limited corrections are required. The Contractor may

Implement materials covered by that Submittal, provided that the needed corrections have been made prior to work on that item.

c. Amend and Resubmit (A&R) – If the Submittal is marked "Amend and Resubmit" (A&R), this indicates that the Submittal is insufficient or contains incorrect information. The Contractor shall not proceed with any work covered by such a Submittal until it has been revised, resubmitted and approved.

d. Rejected (R) – If a Submittal is marked "Rejected" (R), this indicates that the material, equipment or procedure in the Submittal does not comply with project specifications and a new Submittal must be tendered.

If the Engineer fails to return any Submittal within 15 Working Days of receipt, the Contractor may submit for a Contract Time extension in accordance with 00180.80.

(4) Effect of Submittal Review – A mark of 'NET' or 'MCN' on a Submittal indicates that the Agency has no objections to the Contractor, under his own responsibility, using the material, equipment or procedures proposed. Engineering review of a Submittal shall not relieve the Contractor of his responsibility to provide material, equipment or procedures that meet project Specifications. The Agency does not assume any risk or liability associated with insufficient, incomplete or unacceptable work on the part of the Contractor. The Contractor shall have no claim under the Contract on account of the failure or partial failure of the material, equipment or procedures reviewed under any Submittal.

(5) Shop Drawings – All submitted drawings shall be in accordance with 00150.35 unless otherwise specified in the Contract Documents.

Section 00165 - Quality of Materials

The Quality of Materials Section shall be administered in conformance with Section 00165 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00165.01 Rejected Materials – Add the following sentence to this subsection:

Failure of the Contractor to comply with the Engineer's directions shall be cause for the Engineer to have the defective Materials removed from the Project Site and to deduct the cost of removal from payments due or to become due to the Contractor.

00165.03 Testing by Agency – Delete this subsection.

00165.04 Costs of Testing – Delete this subsection.

00165.05 Sampling and Testing – Add this subsection:

The Contractor shall be responsible for process control testing necessary to insure that materials comply with the Specifications. The Engineer reserves the right to require additional samples and testing of Materials for compliance regardless of prior certification. All testing of Materials will be made in accordance with the methods described or designated in the Specifications or as required, and may be conducted at any time during the production, fabrication, preparation and use of the materials.

The Contractor shall furnish and make available the required samples without charge and shall provide suitable facilities for collecting samples in accordance with 00150.20. The Contractor shall withhold from use the Materials represented by the samples until tests have been made and the Materials found to comply with the Specifications. Testing results shall be made available in English Units to the Engineer in ample time to permit review prior to use. The Contractor shall have no claim for any delay caused by awaiting test results.

All required testing shall be performed by an independent laboratory designated by the Contractor and approved by the Engineer, even though certain ASTM, AASHTO, AWWA and other Materials specifications may require testing at the place of manufacture. Test methods shall be the most current method used by ODOT for the test specified. In the absence of any reference specification, Materials shall meet the specifications and requirements of the ASTM, AASHTO or AWWA. When there is no coverage under ASTM, AASHTO or AWWA, Materials shall meet the commercial standards of the Commodity Standards Division of the U.S. Department of Commerce. Lacking such coverage, the Materials shall meet requirements established by reputable industry for high quality products of the kind involved.

00165.06 Costs of Sampling and Testing – Add this subsection:

All Materials sampling and testing required as part of the Materials submittals process (00160.60(d) of the Agency Supplemental Specifications) shall be the responsibility of the Contractor.

If the Engineer determines that additional sampling and testing is necessary, such sampling and testing shall be performed by the Contractor and paid for as follows:

- The Agency shall reimburse the Contractor for all incurred costs associated with such sampling and testing. No allowance shall be made for markup or profit.

- **Contractor Expense** – If the Materials tested are found to be out of compliance with the Specifications, all associated costs shall be the sole responsibility of the Contractor.

(d) Certificate of Origin of Steel Materials – Delete the last paragraph in this subsection and replace with the following:

Materials will be subject to acceptance testing in accordance with 00165.05 if the Engineer so elects. The Engineer may reject damaged or non-Specification Materials regardless of the Materials Conformance Documents furnished in Submittals.

00165.40 Statistical Analysis – Delete this subsection.

00165.50 Statistical Acceptance Sampling and Testing – Delete this subsection.

00165.70 Use of Materials without Acceptable Materials Conformance Documents

(a) General – Delete this subsection and replace with the following:

The Contractor shall not incorporate Materials into the Project prior to submittal and review of Materials Conformance Documentation in accordance with 00160.60(d). The Engineer may waive this requirement temporarily if Materials are necessary for immediate traffic safety.

(c) Contractor's Request for Testing Assistance – Delete this subsection.

Section 00170 - Legal Relations and Responsibilities

The Legal Relations and Responsibilities Section shall be administered in conformance with Section 00170 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00170.02 Permits, Licenses, and Taxes – Delete this subsection and replace with the following:

Except as specified in the Special Provisions, the Contractor shall do the following as required to accomplish the Work:

- Obtain all necessary permits and pay all applicable charges, including but not limited to the following:
    - All necessary Rights-of-Way;
    - Permits required for crossing or encroaching upon navigable streams;
    - Permits required for removing materials from or depositing materials in waterways;
    - Permits required for operating in privately owned or Agency-controlled sources of Materials or waste disposal areas;
    - System development fees charged by local units of government;
    - Building construction permits, to include specialty work such as heating, ventilation, air conditioning, or electrical and
    - Cost of referencing and replacing endangered survey monuments;
- Give all notices required by applicable Laws, or under the terms of the Contract;
- Comply with ORS 274.530 relating to lease of stream beds by Oregon Division of State Lands;
- License, in the State of Oregon, all vehicles subject to licensing;
- Comply with ORS 477.625 and ORS 527.670 relating to clearing and fire hazards on forest lands;
- Comply with all orders and permits issued by a governmental authority, whether local, State or federal; and
- Pursuant to ORS 468A.720, obtain a valid DEQ asbestos abatement license for any Project Work involving asbestos abatement.

00170.03 Furnishing Right-of-Way and Permits – Delete this subsection.

00170.10 Required Payments by Contractor – Replace "ORS 279.312 and ORS 279.314" with "ORS 279C.505 and ORS 279C.515".

(a) Prompt Payment by Contractor for Labor and Materials – Replace "ORS 279.312" with "ORS 279C.505".

(b) Prompt Payment by Contractor to First-Tier Subcontractor(s) – Replace "ORS 279.445(4)(a)" with "ORS 279C.580(3)(a)".

(c) Interest on Unpaid Amount – In the paragraph that begins "If the Contractor or...", replace "ORS 279.445(4)" with "ORS 279C.580(3)" and replace "ORS 279.445" with "ORS 279C.580(5)(b)".

In the paragraph that begins "As required by...", replace "ORS 279.314(2)" with "ORS 279C.515(2)".

(e) Right to Complain to Construction Contractors Board – Replace "ORS 279.445" with "ORS 279C.580(5)(b)".

(f) Notice of Claim Against Bond – Add the following Subsection:

An Entity claiming not to have been paid in full for labor or Materials supplied for the prosecution of the Work may have a right of action on the Contractor's bond, cashier's check, or certified check as provided in ORS 279C.600 and ORS 279C.605.

00170.60 Safety, Health and Sanitation Provisions – Delete this subsection and replace with the following:

(a) General – The Contractor shall comply with all Laws concerning safety, health and sanitation standards. The Contractor shall not require workers to perform Work under conditions that are hazardous, dangerous or unsanitary.

Workers that are exposed to traffic shall wear upper body garments or safety vests that are highly visible and meet the requirements of 00225.27.

Workers exposed to falling or flying objects or electrical shock shall wear approved hard hats. All workers shall have access to adequate hearing protection in noisy environments.

Workers exposed to concrete dust or other sources of silica-based particulates shall have access to approved respirators.

(b) Sanitary Accommodations – The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of employees as may be necessary to comply with requirements and regulations of the State Department of Health and of other bodies or officers having jurisdiction there over. The Contractor shall permit no public nuisance.

(c) First Aid and Accident Reporting – The Contractor shall maintain at the work site all articles necessary for giving first aid to the injured and establish procedures for the immediate removal of employees or other persons injured on the job site to a hospital or doctor's care.

All accidents causing death or serious injuries or damages shall be reported immediately to the Engineer. The Contractor shall promptly report, in writing, to the appropriate authorities all accidents arising out of, or in connection with, the performance of the work. If any claim is made against the Contractor or and subcontractor on account of any accident, the Contractor shall promptly report the facts, in writing, to the Engineer.

(d) Compliance and Inspection – Upon their presentation of proper credentials, the Contractor shall allow inspectors of the U.S. Occupational Safety and Health Administration (OSHA) and the Oregon Occupational Safety and Health Division (OR-OSHA) to the inspect the Work and Project Site without delay and without an inspection warrant.

00170.63 Payment for Medical Care – Replace this subsection with the following:

The Contractor shall comply with ORS 279C.530:

279C.530 Condition concerning payment for medical care and providing workers' compensation.

(1) Every public contract shall contain a condition that the contractor shall promptly, as due, make payment to any person, copartnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

(2) Every public contract shall contain a clause or condition that all subject employers working under the contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126.

00170.65 Minimum Wage and Overtime Rates for Public Works Projects – Modify this Subsection as follows:

(a) General - Replace the paragraph that begins "The Contractor shall comply...", with the following:

The Contractor shall comply with the pertinent provisions of ORS 279C.520:

279C.520 Condition concerning hours of labor.

(1) Every public contract subject to this chapter must contain a condition that a person may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires it, and in such cases, except in cases of contracts for personal services designated under ORS 279A.055, the employee shall be paid at least time and a half pay:

(a)(A) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

(B) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

(b) For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

(2) An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(3) In the case of contracts for personal services as described in ORS 279A.055, the contract shall contain a provision that the employee shall be paid at least time and a half for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

(4) In the case of a contract for services at a county fair or for other events authorized by a county fair board, the contract must contain a provision that employees must be paid at least time and a half for work in excess of 10 hours in any one day or 40 hours in any one week. An employer shall give notice in writing to employees who work on such a contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that employees may be required to work.

(5)(a) Except as provided in subsection (4) of this section, contracts for services must contain a provision that requires that persons employed under the contracts shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in ORS 279C.540 (1)(b)(B) to (G) and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

(b) An employer shall give notice in writing to employees who work on a contract for services, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(b) When Federal Funds Are Involved – Replace this Subsection with the following:

(b) When Federal Funds Are Involved – The Contractor shall pay the wage rate and fringe benefits listed in the publication "General Wage Determinations Issued Under the Davis-Bacon and Related Acts" from the U.S. Secretary of Labor.

For Federal-Aid projects, the Contractor shall comply with the provisions of FHWA Form 1273, "Required Contract Provisions Federal-Aid Construction Contracts", and ORS 279C.520 and ORS 279C.540.

With regard to overtime pay, the Contractor shall comply with the provision affording the greatest compensation.

279C.540 Maximum hours of labor on public contracts; holidays; exceptions; liability to workers; rules.

(1) When labor is employed by the state or a county, school district, municipality, municipal corporation or subdivision thereof through a contractor, a person may not be required or permitted to labor more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity or emergency or when the public policy absolutely requires it, in which event, the person so employed for excessive hours shall receive at least time and a half pay:

(a)(A) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

(B) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

(b) For all work performed on Saturday and on the following legal holidays:

(A) Each Sunday.
(B) New Year's Day on January 1.
(C) Memorial Day on the last Monday in May.
(D) Independence Day on July 4.
(E) Labor Day on the first Monday in September.
(F) Thanksgiving Day on the fourth Thursday in November.
(G) Christmas Day on December 25.

(2) An employer shall give notice in writing to employees who perform work under subsection (1) of this section, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that employees may be required to work.

(3) For the purpose of this section, each time a legal holiday, other than Sunday, listed in subsection (1) of this section falls on Sunday, the succeeding Monday shall be recognized as a legal holiday. Each time a legal holiday listed in subsection (1) of this section falls on Saturday, the preceding Friday shall be recognized as a legal holiday.

(4) Subsections (1) and (2) of this section do not apply to a public improvement contract or a contract for services if the contractor is a party to a collective bargaining agreement in effect with any labor organization.

(5) When specifically agreed to under a written labor-management negotiated labor agreement, an employee may be paid at least time and a half pay for work performed on any legal holiday specified in ORS 187.010 and 187.020 that is not listed in subsection (1) of this section.

(6) This section does not apply to labor performed in the prevention or suppression of fire under contracts and agreements made under the authority of the State Forester or the State Board of Forestry, under ORS 477.406.

(7) This section does not apply to contracts for personal services designated under ORS 279A.055, provided that persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in subsection (1)(b)(B) to (G) of this section and for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

(8) Subsections (1) and (2) of this section do not apply to contracts for services at a county fair or for other events authorized by a county fair board if persons employed under the contract receive at least time and a half for work in excess of 10 hours in any one day or 40 hours in any one week.

(9)(a) Subsections (1) and (2) of this section do not apply to contracts for services. However, persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in subsection (1)(b)(B) to (G) of this section and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

(b) An employer shall give notice in writing to employees who work on a contract for services, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(10) Any contractor or subcontractor or contractor's or subcontractor's surety that violates the provisions of this section is liable to the affected employees in the amount of their unpaid overtime wages and in an additional amount equal to the unpaid overtime wages as liquidated damages. If the violation results from willful falsification of payroll records, the contractor or subcontractor or contractor's or subcontractor's surety is liable to the affected employees in the amount of their unpaid overtime wages and an additional amount equal to twice the unpaid overtime wages as liquidated damages.

(11) An action to enforce liability to employees under subsection (10) of this section may be brought as an action on the contractor's payment bond as provided for in ORS 279C.610.

(12) This section does not apply to financial institutions as defined in ORS 706.008.

(13) In accordance with ORS chapter 183, the Commissioner of the Bureau of Labor and Industries may adopt rules to carry out the provisions of this section.

(b) When Federal Funds Are Involved – Replace this Subsection with the following:

(b) When Federal Funds Are Involved – For this local road or rural minor collector Federal-Aid Project, the Contractor shall comply with 00170.65(c) modified as follows:

(c) When No Federal Funds Are Involved – Replace this Subsection with the following:

(c) When Local Road or Rural Minor Collector Federal Funds Are Involved – The Contractor shall pay the wage rate and fringe benefits listed in the "Prevailing Wage Rates for Public Works Contracts in Oregon," that is bound within these Special Provisions.

The Contractor shall comply with the provisions of FHWA Form 1273, "Required Contract Provisions Federal-Aid Construction Contracts," except delete Sections IV and V. Also, except for businesses subject to the Federal Contract Work Hours and Safety Standards Act as described in 00170.65(a), the Contractor shall comply with the overtime requirements of ORS 279C.520, ORS 279C.540, and ORS 279C.845.

279C.540 Maximum hours of labor on public contracts; holidays; exceptions; liability to workers; rules.

(1) When labor is employed by the state or a county, school district, municipality, municipal corporation or subdivision thereof through a contractor, a person may not be required or permitted to labor more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity or emergency or when the public policy absolutely requires it, in which event, the person so employed for excessive hours shall receive at least time and a half pay:

(a)(A) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

(B) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

(b) For all work performed on Saturday and on the following legal holidays:

(A) Each Sunday.
(B) New Year's Day on January 1.
(C) Memorial Day on the last Monday in May.
(D) Independence Day on July 4.
(E) Labor Day on the first Monday in September.
(F) Thanksgiving Day on the fourth Thursday in November.
(G) Christmas Day on December 25.

(2) An employer shall give notice in writing to employees who perform work under subsection (1) of this section, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that employees may be required to work.

(3) For the purpose of this section, each time a legal holiday, other than Sunday, listed in subsection (1) of this section falls on Sunday, the succeeding Monday shall be recognized as a legal holiday. Each time a legal holiday listed in subsection (1) of this section falls on Saturday, the preceding Friday shall be recognized as a legal holiday.

(4) Subsections (1) and (2) of this section do not apply to a public improvement contract or a contract for services if the contractor is a party to a collective bargaining agreement in effect with any labor organization.

(5) When specifically agreed to under a written labor-management negotiated labor agreement, an employee may be paid at least time and a half pay for work performed on any legal holiday specified in ORS 187.010 and 187.020 that is not listed in subsection (1) of this section.

(6) This section does not apply to labor performed in the prevention or suppression of fire under contracts and agreements made under the authority of the State Forester or the State Board of Forestry, under ORS 477.406.

(7) This section does not apply to contracts for personal services designated under ORS 279A.055, provided that persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in subsection (1)(b)(B) to (G) of this section and for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

(8) Subsections (1) and (2) of this section do not apply to contracts for services at a county fair or for other events authorized by a county fair board if persons employed under the contract receive at least time and a half for work in excess of 10 hours in any one day or 40 hours in any one week.

(9)(a) Subsections (1) and (2) of this section do not apply to contracts for services. However, persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in subsection (1)(b)(B) to (G) of this section and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

(b) An employer shall give notice in writing to employees who work on a contract for services, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(10) Any contractor or subcontractor or contractor's or subcontractor's surety that violates the provisions of this section is liable to the affected employees in the amount of their unpaid overtime wages and in an additional amount equal to the unpaid overtime wages as liquidated damages. If the violation results from willful falsification of payroll records, the contractor or subcontractor or contractor's or subcontractor's surety is liable to the affected employees in the amount of their unpaid overtime wages and an additional amount equal to twice the unpaid overtime wages as liquidated damages.

(11) An action to enforce liability to employees under subsection (10) of this section may be brought as an action on the contractor's payment bond as provided for in ORS 279C.610.

(12) This section does not apply to financial institutions as defined in ORS 706.008.

(13) In accordance with ORS chapter 183, the Commissioner of the Bureau of Labor and Industries may adopt rules to carry out the provisions of this section.

279C.845 Certified statements regarding payment of prevailing rates of wage.

(1) The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works, and further certifying that no worker employed upon the public works has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certificate and statement shall be verified by the oath of the contractor or the contractor's surety or subcontractor or the subcontractor's surety that the contractor or subcontractor has read the statement and certificate and knows the contents thereof and that the same is true to the contractor or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid.

(2) The contractor or subcontractor shall deliver or mail each certified statement required by subsection (1) of this section to the public agency. Certified statements for each week during which the contractor or subcontractor employs a worker upon the public works shall be submitted once a month, by the fifth business day of the following month. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870.

(3) Each contractor or subcontractor shall preserve the certified statements for a period of three years from the date of completion of the contract.

(4) Certified statements received by a public agency are public records subject to the provisions of ORS 192.410 to 192.505.

(c) When No Federal Funds Are Involved – Replace this Subsection with the following:

(c) When No Federal Funds Are Involved – The Contractor shall pay the wage rate and fringe benefits listed in the "Prevailing Wage Rates for Public Works Contracts in Oregon" that is bound within these Special Provisions.

Except for businesses subject to the Federal Contract Work Hours and Safety Standards Act as described in 00170.65(a), the Contractor shall comply with the overtime requirements of ORS 279C.520, ORS 279C.540, and ORS 279C.845.

279C.540 Maximum hours of labor on public contracts; holidays; exceptions; liability to workers; rules.

(1) When labor is employed by the state or a county, school district, municipality, municipal corporation or subdivision thereof through a contractor, a person may not be required or permitted to labor more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity or emergency or when the public policy absolutely requires it, in which event, the person so employed for excessive hours shall receive at least time and a half pay:

(a)(A) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

(B) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

(b) For all work performed on Saturday and on the following legal holidays:

(A) Each Sunday.
(B) New Year's Day on January 1.
(C) Memorial Day on the last Monday in May.
(D) Independence Day on July 4.
(E) Labor Day on the first Monday in September.
(F) Thanksgiving Day on the fourth Thursday in November.
(G) Christmas Day on December 25.

(2) An employer shall give notice in writing to employees who perform work under subsection (1) of this section, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that employees may be required to work.

(3) For the purpose of this section, each time a legal holiday, other than Sunday, listed in subsection (1) of this section falls on Sunday, the succeeding Monday shall be recognized as a legal holiday. Each time a legal holiday listed in subsection (1) of this section falls on Saturday, the preceding Friday shall be recognized as a legal holiday.

(4) Subsections (1) and (2) of this section do not apply to a public improvement contract or a contract for services if the contractor is a party to a collective bargaining agreement in effect with any labor organization.

(5) When specifically agreed to under a written labor-management negotiated labor agreement, an employee may be paid at least time and a half pay for work performed on any legal holiday specified in ORS 187.010 and 187.020 that is not listed in subsection (1) of this section.

(6) This section does not apply to labor performed in the prevention or suppression of fire under contracts and agreements made under the authority of the State Forester or the State Board of Forestry, under ORS 477.406.

(7) This section does not apply to contracts for personal services designated under ORS 279A.055, provided that persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in subsection (1)(b)(B) to (G) of this section and for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

(8) Subsections (1) and (2) of this section do not apply to contracts for services at a county fair or for other events authorized by a county fair board if persons employed under the contract receive at least time and a half for work in excess of 10 hours in any one day or 40 hours in any one week.

(9)(a) Subsections (1) and (2) of this section do not apply to contracts for services. However, persons employed under such contracts shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in subsection (1)(b)(B) to (G) of this section and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

(b) An employer shall give notice in writing to employees who work on a contract for services, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(10) Any contractor or subcontractor or contractor's or subcontractor's surety that violates the provisions of this section is liable to the affected employees in the amount of their unpaid overtime wages and in an additional amount equal to the unpaid overtime wages as liquidated damages. If the violation results from willful falsification of payroll records, the contractor or subcontractor or contractor's or subcontractor's surety is liable to the affected employees in the amount of their unpaid overtime wages and an additional amount equal to twice the unpaid overtime wages as liquidated damages.

(11) An action to enforce liability to employees under subsection (10) of this section may be brought as an action on the contractor's payment bond as provided for in ORS 279C.610.

(12) This section does not apply to financial institutions as defined in ORS 706.008.

(13) In accordance with ORS chapter 183, the Commissioner of the Bureau of Labor and Industries may adopt rules to carry out the provisions of this section.

279C.845 Certified statements regarding payment of prevailing rates of wage.

(1) The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works, and further certifying that no worker employed upon the public works has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certificate and statement shall be verified by the oath of the contractor or the contractor's surety or subcontractor or the subcontractor's surety that the contractor or subcontractor has read the statement and certificate and knows the contents thereof and that the same is true to the contractor or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid.

(2) The contractor or subcontractor shall deliver or mail each certified statement required by subsection (1) of this section to the public agency. Certified statements for each week during which the contractor or subcontractor employs a worker upon the public works shall be submitted once a month, by the fifth business day of the following month. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870.

(3) Each contractor or subcontractor shall preserve the certified statements for a period of three years from the date of completion of the contract.

(4) Certified statements received by a public agency are public records subject to the provisions of ORS 192.410 to 192.505.

(d) Time Limitation on Claim for Overtime – In the paragraph that begins "Pursuant to...", replace "ORS 279.336" with "ORS 279C.545".

In paragraph (1), replace "ORS 279.336" with "ORS 279C.545".

00170.67 Contractor Fee – Add the following subsection:

Contractors awarded public works Contracts subject to State of Oregon prevailing wage law of $25,000 or more must pay a fee to the Oregon Bureau of Labor and Industries for each Contract. The fee is 0.1 of 1% of the Contract Price. The fee can be no more than $5,000 and no less than $100 per Contract, regardless of the Contract size. The fee shall be paid on or before the first progress payment or 60 days from the date Work first began on the Contract, whichever comes first. Final adjustments to the fee must be made within 30 days of the final progress payment after completion of the Contract. A form for submitting information to the Bureau of Labor and Industries titled "Public Work Contract Fee Information Form" is included in the "Prevailing Wage Rates for Public Works Contracts in Oregon" that is bound within these Special Provisions.

00170.80 Responsibility for Damage to Work

(d) Vandalism – Delete the first sentence in this subsection and replace with the following:

The Contractor shall provide reasonable protection of the Work from vandalism until Certification of Work Completion and Acceptance has been issued.

00170.82 Responsibility for Damage to Property and Facilities – Delete this subsection and replace with the following:

(a) In General – As used in this subsection, the term "Contractor" shall include the Contractor's agents, Subcontractors and all workers performing Work under the Contract; the term "damage" shall include without limitation soiling or staining surfaces by tracking or splashing mud, asphalt and other materials, as well as damage of a more serious nature.

The Contractor shall be solely responsible for damages arising from:

- The Contractor's operations;
- The Contractor's negligence, gross negligence, or intentional wrongful acts; and
- The Contractor's failure to comply with any Contract provision.

The Agency may withhold funds due the Contractor or the Contractor's Surety until all lawsuits, actions and claims for injuries or damages are resolved and satisfactory evidence of resolution is furnished to the Agency.

(b) Protection and Restoration of Agency Property and Facilities – The following requirements apply to streets, roads, structures and other improvements that are existing, under construction or completed. The Contractor shall:

- Provide adequate protection to avoid damaging Agency property and facilities;
- Be responsible for damage to Agency property and facilities caused by or resulting from the Contractor's operations; and
- Clean up and restore such damage by repair, rebuilding, replacement or compensation, as determined by the Engineer.

(c) Protection and Restoration of Non-Agency property and Facilities – Prior to commencing any Project Work, the Contractor shall determine the location of properties that could be damaged or otherwise adversely affected by the Contractor's operations and shall protect them from damage. The Contractor shall give at least ten Work Days notice to owners of property that may be affected to permit removal, salvage and relocation of items including but not limited to plants, trees, fences, landscaped areas or sprinkler systems. The Contractor shall restore property or facilities damaged by its operations to the condition that existed before Construction at no additional compensation.

The Contractor shall provide temporary facilities when needed to maintain normal service for services including, but not limited to garbage pickup and package delivery as directed by the Engineer. Mailboxes removed during the course of Work shall be relocated as specified by the Engineer and in accordance with the Postal Service requirements.

The Contractor shall protect specific service signs, e.g. business logos and tourist-oriented directional signs ("TODS") from damage, whether the signs are to remain in place or be placed on temporary supports. The Contractor shall repair or replace damaged signs at no cost to the owner or Agency. Liquidated Damages will be assessed against the Contractor in the amount of $200 per Calendar Day for each sign out of service for more than five Calendar Days because of Contractor's operations.

(d) Protection of Permanent Survey Markers – The Contractor shall notify the Engineer not less than seven Work Days prior to starting Work so that the Engineer may take necessary measures to insure the preservation of affected survey monumentation, property corners, stakes and bench marks. The Contractor shall not disturb permanent survey monuments, stakes or bench marks without the consent of the Engineer and shall notify the Engineer and bear the expense of replacing any that are disturbed without permission or proper notification. Replacement of damaged or disturbed monumentation shall be done by a Professional Land Surveyor registered in the state of Oregon pursuant to ORS 209.150–155.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the monument cover shall be adjusted to the new grade without disturbing the underlying monument.

(e) Protection, Preservation of Historic Objects – If objects of archeological or paleontological nature, including ruins, sites, buildings, artifacts, fossils and other objects of antiquity are encountered within the Project Site, the Contractor shall cease construction operations in the area, preserve the objects from disturbance or damage and immediately notify the Engineer of their existence and location.

00170.89 Protection of Utility, Fire-Control, and Railroad Property and Services; Repair; Roadway Restoration – Delete this subsection and replace with the following:

(a) Protection of Utility, Fire-Control, and Railroad Property and Services; Coordination – The Contractor shall avoid damaging the properties of Utilities, Railroads, railways and fire-control authorities during performance of the Work. The Contractor shall cooperate with and facilitate the relocation or repair of all Utilities and Utility services, as required under 00150.50, and of Railroad and fire-control property and railways.

Whenever the Work involves the crossing of any railway or encroachment on any Railroad right-of-way, the Contractor shall submit to the Engineer a schedule of proposed operations within the Railroad right-of-way which has been approved by the appropriate Railroad authority. The Contractor shall comply with all requirements of the Railroad at no cost to the Agency.

When indicated in the Contract Documents, the Contractor shall give bond or insurance of the kind and in the amount specified to each corporation, company, partnership or individual owning or operating any of the properties affected. Any extension of time granted the Contractor to complete the Work shall not relieve the Contractor or the Contractor's Surety from this responsibility.

The Contractor shall conduct no activities of any kind around fire hydrants until the local fire-control authority has approved provisions for continued service.

The Contractor shall immediately notify the Engineer and any Utility, Railroad or fire-control authority whose facilities have been damaged by Contractor operations.

If an Entity has a valid permit from the proper authority to construct, reconstruct or repair Utility, Railroad or fire-control service in the Roadway, the Contractor shall allow the permit holder to perform the work.

(b) Restoration of Roadway after Repair Work – The Contractor shall restore the Roadway to a condition at least equal to that which existed before the repair work addressed under this Subsection was performed, as directed by the Engineer. Restoration will be paid as provided in the Special Provisions or may be paid as Extra Work.

00170.94 Use of Explosives – Delete this subsection and replace with the following:

Unless otherwise noted in the Special Provisions, the use of explosives is prohibited.

Section 00180 – Prosecution and Progress

The Prosecution and Progress Section shall be administered in conformance with Section 00180 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00180.21 Subcontracting

(c) Substitution of Disclosed Subcontractors – In the paragraph that begins "The Contractor may only...", replace "ORS 279.322" with "ORS 279C.585". In the same paragraph, replace "ORS 279.322(1) through (10)" with "ORS 279C.585(1) through (10)".

(d) Terms of Subcontracts – Replace the paragraph that begins "Subcontracts shall provide..." with the following paragraph:

Subcontracts shall provide that work performed under the subcontract shall be conducted and performed according to the terms of the Contract. All subcontracts, including Contractor's with the first-tier Subcontractors and those of the first-tier Subcontractors with their subcontractors, and any other lower tier subcontracts shall contain a clause or condition that if the Contractor or a Subcontractor fails, neglects, or refuses to make payment to an Entity furnishing labor or Materials in connection with the Contract, the Entity may file a complaint with the Construction Contractors Board, unless payment is subject to a good-faith dispute as defined in ORS 279C.580. Additionally, in accordance with the provisions of ORS 279C.580, subcontracts shall include:

In paragraph (3), replace "ORS 279.445" with "ORS 279C.580".

00180.31 Required Materials, Equipment and Methods:

(b) Substitution of Materials and Equipment to be Incorporated into the Work:

(2) Submittal of Request – Replace this subsection with the following:

The Contractor shall submit requests for substitution to the Engineer, including manufactures' brochures and other information needed to verify equality of the proposed item(s) in accordance with 00160.60d

00180.33 Metric Submittals – Delete this subsection.

00180.34 English Submittals – Add this subsection:

The Contractor shall use English Units for all calculations and measurements, working drawings, materials certifications, delivery tickets, and other documents submitted in conjunction with performance of the contract.

00180.40 Limitation of Operations:

(b) On-Site Work – Add the following bulleted item to the subsection:

- The Contractor shall confine construction activities within rights of way, easements, or limits of construction permits. Prior to the use of any property outside these specified boundaries, the Contractor shall file, with the Engineer, the written permission of the property owner. Upon terminating such usage, the Contractor shall file, with the Engineer, a release from all damages signed by the property owner.

00180.50 Contract Time to Complete Work:

(g) End of Contract Time – Delete the phrase "Second Notification" throughout this subsection and replace it with "Substantial Completion Notice".

00180.80 Adjustment of Contract Time:

(b) Contractor's Request required – Replace the second bulleted item of this subsection with the following:

- Are not otherwise deemed waived and are submitted within 21 days after the "Substantial Completion Notice" has been issued.

Section 00190 – Measurement of Pay Quantities

The Measurement of Pay Quantities Section shall be administered in conformance with Section 00190 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00190.00 Scope – In the first sentence of this subsection, replace the word "International" with "English".

Section 00195 – Payment

The Payment Section shall be administered in conformance with Section 00195 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00195.50 Progress Payments and Retained Amounts

(C) Forms of Retainage:

(2) Cash Alternate, B – In the paragraph that begins "Upon the Contractor's written...", replace "ORS 279.420(4)" with "ORS 279C.560(4)".

(3) Cash Alternate, C – In the paragraph that begins "If the Contractor elects...", replace the sentence that begins "If the Contractor elects..." with the following sentence:

If the Contractor elects this form of retainage, the Agency will withhold from progress payments up to 5% of the value of the Work accomplished as cash retainage until the retained amount equals $10,000.

In the paragraph that begins "If an acceptable retainage surety...", replace "ORS 279.420(6)" with "ORS 279C.560(6)".

(4) Bonds and Securities – In the paragraph that begins "The Contractor may deposit...", replace "ORS 279.420" with "ORS 279C.560".

(f) Prompt Payment Policy – Replace "ORS 279.435" with "ORS 279C.570".

00195.90 Final Payment –

(b) Final Payment – In the third paragraph of this subsection replace the text "of Third Notification" with the following:

"that the "Certification of Work Completion and Acceptance" has been executed..."

And replace "ORS279.435" with "ORS279C.570".

Section 00199 – Disagreements, Protests, and Claims

The Disagreements, Protests, and Claims Section shall be administered in conformance with Section 00199 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00199.40 Claim Decision; Review; Exhaustion of Administrative Remedies

(e) Step 4: Litigation – In the second bullet, replace "ORS 36.300 through 36.365" with "ORS 36.600 through ORS 36.695".

PART 00200 – TEMPORARY FEATURES AND APPURTENANCES

Section 00205 – Field Laboratory, Weighhouse, Etc.

The Field Laboratory, Weighhouse, Etc. Section shall be administered in conformance with Section 00205 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Delete this Entire Section.

Section 00220 – Accommodations for Public Traffic

The Accommodations for Public Traffic Section shall be administered in conformance with Section 00220 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00220.02 Public Safety and Convenience – Delete the last bulleted item and add the following items:

- Allow emergency vehicles and incidence response units immediate passage at all times.

- When construction requires the closure of a sidewalk or sidewalk ramp, place a Type "W1" "SIDEWALK CLOSED" (OR22–12–21) sign at each point of closure. Use a Type "W1" directional arrow (M6–1–15) rider, as needed, to direct pedestrian traffic. Mount each sign above the striped panel of a Type II barricade placed across the sidewalk, facing pedestrians approaching the work area. Close the sidewalk at a point where there is an alternate way to proceed or provide an alternate pedestrian route. Pave the alternate pedestrian route surface or provide an approved, non-slip 910 mm (36 inch) minimum wide surface meeting the requirements of the Americans with Disabilities Act (ADA). If appropriate, delineate this route and protect pedestrians by placing pedestrian work zone delineation fencing. Fencing is to remain in place, except as required for actual work, until the sidewalk is reopened to pedestrian traffic. Reopen the sidewalk during non-work hours or continue to provide an alternate route for pedestrians. Provide additional TCM to meet the accessibility requirements in Part VI of the 2003 MUTCD to match the existing facility as a minimum.

- When construction requires the closure of a sidewalk, notify the Agency in writing at least ten (10) Working Days in advance of the closure. Do not close the sidewalk until the Agency provides written approval. After approval, provide 48 hour public notification prior to closing the sidewalk.

- Obtain permission from the Agency before closing any city street. No city street closure will be permitted until the Engineer approves it and the area is signed according to Section 00225.

- If construction involves encroachment onto a state highway or designated truck route, the following applies: When narrowing the roadway to less than 5.4 m (18 feet) for one lane between positive barriers or reducing vertical clearance, the Contractor must notify the Engineer, in writing, at least 30 days before this work begins. Include the reduced lane width dimension of each stage and the anticipated duration of the reduction. The reduction will not be permitted until the Engineer approves it and the area is adequately signed according to the TCP and Sections 00220 and 00225.

- For open trench pipe installation across 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. If this requirement is not met, maintain all necessary lane closures and provide additional TCM, including flagging, at the Contractor's expense. Do not use temporary steel plating to reopen the roadway unless approved by the Engineer.

- If portable changeable message signs are used to provide appropriate work zone information to the public, place signs and display messages as directed or approved. When signs are in use, protect them according to 00225.46(b) and the "Portable Changeable Message Sign (PCMS) Installation" detail shown on Standard Drawing RD945.

Construction

00220.40 General Requirements

(e) Lane Restrictions – Add the following subsection:

Unless prior written authorization has been provided by the Engineer, the following restrictions apply:

The Contractor shall not close any public thoroughfares between:

- 3:00 p.m. on Fridays and midnight on Sundays.

- Noon on the day preceding legal holidays or holiday weekends and midnight on legal holidays or the last day of holiday weekends, except for Thanksgiving, when no thoroughfares may be closed between noon on Wednesday and midnight on the following Sunday.

- Noon on the Thursday prior to the first full weekend in June and midnight on the following Sunday in conjunction with the Lebanon Strawberry Festival.

For the purposes of this section, legal holidays are as follows:

- New Year's Day on January 1
- Memorial Day on the last Monday in May
- Independence Day on July 4
- Labor Day on the first Monday in September
- Thanksgiving Day on the fourth Thursday in November
- Christmas Day on December 25

When a holiday falls on Sunday, the following Monday shall be recognized as a legal holiday. When a holiday falls on a Saturday, the preceding Friday shall be recognized as a legal holiday.

Roadways and sidewalks shall be free of barricades or other obstructions and all lanes opened to traffic during all of the restricted periods listed above.

(f) Bridge Work – Add the following subsection:

Before starting any grading or pavement removal at bridge ends or removal of pavement from bridge decks, arrange so that all equipment, labor, and materials required to complete the pavement replacement work and bridge deck waterproofing work are on hand or are guaranteed to be delivered. Once grading and pavement removal begins, vigorously prosecute and complete this work. Complete paving and membrane waterproofing work in the shortest possible time.

Temporarily taper or bevel longitudinal and transverse grade changes or drop-offs resulting from grading and pavement removal and membrane waterproofing work with asphalt concrete mixture to provide a smooth and safe transition. Construct and maintain a 1V:10H or flatter slope along longitudinal joints. Construct and maintain a 15 m per 25 mm (50 feet per 1 inch) or flatter taper across transverse joints.

If the road is to be closed during bridge reconstruction, do not close the road until all materials and equipment are on hand or guaranteed to be delivered so that the work can be done in an efficient manner with a minimum period of road closure.

No road closure will be permitted until the area is signed according to the TCP and the requirements of Section 00225.

Maintenance

00220.60 Surface Maintenance Responsibilities

(a) During Construction – Delete this subsection and replace with the following:

The responsibility for maintaining surfacings during construction is as follows:

(1) Contractor Responsibility – Do the following at Contractor's expense:

- Keep surfaces within project limits being used by public traffic free of dirt, mud, snow and other harmful materials. Sand icy pavements and remove sand residue as required.
- Repair damage to surfaces caused by the Contractor's operations.
- Maintain any detour or stage construction surfacings not constructed as specified or directed.

(2) Agency Responsibility – The Agency will be responsible to do the following at Agency expense:

- Maintain surfacings and shoulders in existence outside the project limits which have not been damaged by Contractor operations.
- Maintain surfaces of detours outside the project limits, provided they are within the maintenance jurisdiction of the Agency and constructed according to the plans or as directed.
- Keep the surface being used by bicycles free of all dirt, mud, gravel and other harmful materials. The bicycle surface, if defined, includes bike paths, bike lanes, roadway shoulders or the outside 1.8m (6 feet) of the roadway.
- During emulsified asphalt surface treatment operations, broom the surface being used by bicycles as soon as practical to keep it free of all dirt, mud, gravel and other harmful materials. The bicycle surface, if defined, includes bike paths, bike lanes, roadway shoulders or the outside 1.8m (6 feet) of the roadway.

This work may be performed by Agency forces, or, if directed, by the Contractor according to Section 00196.

Section 00225 – Work Zone Traffic Control

The Work Zone Traffic Control Section shall be administered in conformance with Section 00225 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00225.01 Abbreviations, Definitions and Standards:

(c) Standards – Add the following to this subsection:

The Agency may provide the Contractor with a traffic control plan that outlines minimum requirements for the TCM. These requirements are to be incorporated into the Contractor's TCM and do not constitute a complete plan for traffic control.

00225.02 General Requirements – Delete the first paragraph in this subsection and replace with the following:

The Contractor shall be responsible for providing and maintaining all TCM. Be responsible to provide and maintain all TCM. The Engineer may verbally or in writing require immediate changes to the TCM being used on the Project, to include the use of flaggers. Immediately make these changes as directed. Submit all proposed TCM revisions to the Engineer for approval.

00225.03 Traffic Control Outside Project Site – Delete this subsection and replace with the following:

Provide TCM outside the Contract limits when required. The Contractor is responsible for coordinating traffic control with adjacent work by utilities, Agency or other contractors working in the Project area.

00225.05 Contractor's Traffic Control Plan – Delete this subsection and replace with the following:

Submit the following in writing five days before the pre-construction conference for approval:

- Proposed TCP showing all TCM and quantities of all TCD. Submit dimensioned drawings for any required signs not covered by the ODOT Sign Policy or MUTCD
- Proposed order and duration of the TCM
- A detailed temporary striping plan in compliance with the current ODOT Traffic Line Manual, if required by the Engineer.
- Two copies of a sketch map of the Project showing all existing tourist-oriented directional (TOD) and business signs and a written narrative describing how these signs will be kept in service and protected throughout all the construction stages.

TCP revisions will be subject to a Contract change order.

TCP revisions will be subject to a Contract change order before implementation.

Materials

00225.10 General – Add the following paragraph to the end of this subsection:

All work zone TCD on the National Highway System (NHS) are required to comply with the NCHRP 350 report and be crashworthy. Category IV trailer mounted devices are currently exempt from the NCHRP 350 requirements; however, additional guidance will be issued by FHWA by October, 2006.

00225.11 Temporary Signing – Replace the sentence that begins "Use new temporary signs..." with the following:

Use temporary signs meeting the requirements of the "Acceptable" category shown in the American Traffic Safety Services Association (ATSSA) "Quality Standards for Work Zone Traffic Control Devices" handbook and the following:

(a-2) Type – Replace the sentence that begins "Use type "OO" signs..." with the following:

Use either type "O4" or "OO" signs, unless otherwise indicated in this Section or in the TCP. Type "OO" signs will not be allowed in contracts awarded after January 1, 2006.

Add the following bullet to the end of the bulleted list:

- Extruded aluminum panels

(a-4) Reflective Sheeting – Delete this subsection and replace with the following:

(a-4) Retroreflective Sheeting (Prismatic Lens) – Use Type "B" sheeting that is Fluorescent Orange (Wide Angle, Prismatic) only on signs that are specifically indicated as using this sheeting in 00225.02 or as shown. The sheeting shall meet the photometric properties of 02910.31.

(a-5) Roll-up Signs – Replace the sentence with the following:

Use roll-up signs with fluorescent orange roll-up sign sheeting from the QPL.

Add the following subsection:

(a-6) Light-Weight Sign Substrate – Use light-weight sign substrates from the QPL.

(b-1) Wood Sign Posts – Replace this subsection with the following:

(1) **Wood Sign Posts** – Provide wood sign posts in the sizes and quantities determined from Standard Drawing TM100 and according to 02110.40 except preservative treatment is not required.

(b-3) Concrete Barrier Sign Supports – Replace the bullet that begins "Conform to Standard..." with the following:

- Conform to Standard Drawing RD911

(b-4) Temporary Sign Supports – Replace this subsection, except for the heading, with the following:

Fabricate TSS according to Standard Drawing RD911 and according to 02110.40 except preservative treatment is not required.

Add the following subsection:

(b-5) Square Tube Sign Supports – Provide and use square tube sign supports from the QPL and Standard Drawing TM239. To determine proper steel post size, gauge, and number of posts for given sign size, refer to manufacturer specifications.

00225.12 Temporary Barricades, Guardrail, Barrier, Attenuators, and Pedestrian Fencing

(b) Guardrail – In the second sentence, replace "RD416 and RD417" with "RD420 and RD425"

(c) Concrete Barrier – Replace the paragraph that begins "Use pin-and-loop concrete barrier..." with the following two paragraphs:

Use pin-and-loop concrete barrier conforming to Standard Drawing RD500, dated 2002 (three ASTM A 36 M loops, 810 mm (32 inch) height) and the applicable requirements of Section 00820.

Use tall concrete barrier conforming to Standard Drawing RD545, (two ASTM A 36 M perforated C-shapes, 1065 mm (42 1/2 inch) height) and the applicable requirements of Section 00820.

In the paragraph that begins "Provide concrete barrier...", replace the first sentence with the following:

Provide concrete barrier that is in "Acceptable" condition, without cracks, chips, spalls, corroded loops or C-shape connectors.

(d) Impact Attenuators – Replace this subsection with the following:

Use temporary impact attenuators from the QPL and conforming to Standard Drawing RD955 or RD960.

00225.13 Temporary Traffic Delineation

(d) Plastic Drums – Add the following sentence:

Provide drums with Type "OO" encapsulated lens reflective sheeting.

(f-1) Reflective Pavement Markers – Replace this subsection with the following:

Use new Type 1 reflective pavement markers from the QPL.

(g) Temporary Tape – Replace this subsection, except for the heading, with the following:

Use temporary non-removable, temporary removable, and temporary non-reflective tape from the QPL.

00225.14 Temporary Illumination – Replace this subsection, except for the heading, with the following:

Materials for temporary illumination shall conform to Sections 00960, 00970, and 02920.

00225.15 Temporary Traffic Signals

(d) Traffic Signal Control Devices – Delete the last two sentences from this subsection and

replace with the following:

The controller program, PROM and monitor will be furnished by the Contractor.

00225.16 Temporary Electrical Signs

(a) Sequential Arrow Signs – Replace this subsection, except for the heading, with the following:

Use trailer mounted Type "C" sequential arrow signs from the QPL.

(b) Portable Changeable Message Signs – Replace this subsection, except for the heading, with the following:

Use trailer mounted PCMS's from the QPL.

Equipment

00225.27 Flaggers – Replace the bullet that begins "Portable, self-contained two-way..." with the following bullet:

- Portable, self contained two-way radio and repeaters, as required, with a range suitable for communications throughout the Project limits

Labor

00225.32 Traffic Control Supervisor – Under the paragraph that begins "The TCS's duties include...", replace the last bullet with the following bullet:

- Providing supervision over all TCM on a 24-hour per day basis

Add the following to the end of the paragraph that begins "Notify the Engineer of an alternate...":

Notify the Engineer within 24 hours of designating the TCS for the following 24-hour period. Make succeeding notifications within 24 hours every time a subsequent TCS is appointed to the Project.

Construction

00225.40 General – Add the following to the bulleted list:

- FLAGGER AHEAD (W20-7a) and BE PREPARED TO STOP (W20 7-b) signs are to be deployed or obscured by flaggers immediately prior to or following a flagging operation. At no time shall FLAGGER AHEAD or BE PREPARED TO STOP signs be displayed when a flagging operation is not in progress.

00225.41 Temporary Signing – Add the following paragraph to the end of this subsection:

Install temporary signs according to 00940.47.

(b-2) Portable Sign Supports – Replace the last bullet with the following bullet:

- Use only with roll-up signs from the QPL

(b-4) Temporary Sign Supports – Add the following bullet to the end of this subsection:

- When single-post temporary sign supports, as shown on RD911, are not in use, move the sign support outside the clear zone or cover and delineate them with Type III barricades.

Add the following subsection:

(b-5) Square Tube Sign Supports – Square tube sign supports may be used as a substitute for wood sign posts. Install square tube sign supports according to Standard Drawing TM100 and TM239.

00225.42 Temporary Barricades, Guardrail, Barrier, Attenuators and Pedestrian Fencing

(d) Impact Attenuators – Replace the sixth bulleted item with the following:

For narrow site systems, attach the first two barrier sections to the concrete pavement as shown.

(e) Reflectors – Replace the first bulleted item with the following bullet:

- Space on 8 m (25 foot) centers. Closer spacing may be required as directed.

00225.43 Temporary Traffic Delineation

(e) Pavement Markers – Replace the sentence that begins with "Unless shown on the plans..." and the following bulleted list with the following:

Unless shown otherwise on the Project Plans, install temporary flexible overlay pavement markers for temporary centerline marking as follows:

- Place and maintain one temporary flexible overlay pavement marker on 6.1 m (20 foot) spacings in tangent sections.

- Place and maintain one temporary flexible overlay pavement marker on 3.0 m (10 foot) spacings in curved alignment section.

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

- Control markers at:
  - 30 m (100 foot) intervals on tangents
  - 9.1 m (30 foot) intervals on curves
- Use string line or other appropriate means to maintain proper alignment of the markers. Adjust placement to avoid straddling a longitudinal paving joint while maintaining a suitable alignment of markers.
- Remove and replace misaligned markers at Contractor's expense.

(g) Striping – Add the following paragraph after the first paragraph:

For temporary striping on new bridge deck surfaces, use temporary removable tape.

(g-1) Base Courses – Delete this subsection and replace with the following:

On pavement base courses, apply bead binder at a thickness of 380 µm (15 mils) wet, equivalent to 40 L/km (17 gallons/mile) for a 100 mm (4 inch) wide solid line. Apply glass beads at a rate of 0.6 kg/L (5 pounds/gallon) of paint. Apply 100 mm (4 inch) wide by 1.5 m (5 feet) long stripes with 4.6 m (15 feet) gaps for skip striping. Apply 100 mm (4 inch) wide continuous striping for edge line striping.

(g-3) Stripe Removal and Durable Stripe Removal – Replace the first paragraph with the following:

(3) Stripe Removal and Durable Stripe Removal - Remove striping by sandblasting, hydro-blasting, steel shot blasting, or grinding so the pavement surface is not damaged below a depth of 7 mm (1/4 inch). Remove durable striping by steel shot blasting or grinding the pavement surface to a depth no greater than 7 mm (1/4 inch), or other approved method so the pavement surface is not damaged. Do not use paint or asphalt to cover existing stripes. Repair any damaged surfaces to the Engineer's satisfaction at no additional compensation.

Do not use grinding to remove non-durable stripes from the wearing course or existing surfaces, unless the area is to be paved over during the Project.

(h) Pavement Edge Delineation – Delete this subsection and replace with the following:

Place tubular or conical markers to delineate the edge of pavement when construction work obscures the painted shoulder stripe (fog line) or when paving creates an abrupt or sloped edge drop-off 25 mm (1 inch) or more in height along the shoulder. Locate and maintain the markers as follows:

- Place markers immediately following any work that obscures or obstructs the painted shoulder stripe or obscured edge
- Space markers not to exceed 3 m (10 feet) apart
- Place markers between traffic and abrupt or obscured edges
- Patrol daily and restore markers to their proper position at least once in the early morning and once in the late afternoon or as directed by the Engineer until the markers are no longer required
- Remove after a new edge stripe has been painted or the existing stripe has been sufficiently unobscured

00225.44 Temporary Illumination – Add the following sentence to the end of this subsection:

Install temporary illumination in a manner that does not shine the light directly into approaching traffic.

00225.46 Temporary Electrical Items

(b) Portable Changeable Message Signs (PCMS) – Add the following bullet to the end of the bullet list:

- Use clear, concise messages that convey applicable work zone information to the motorist that has been approved by the Engineer.

Maintenance

00225.62 Impact Attenuators and Portable Electric Signs

(a) Impact Attenuator – Replace the paragraph that begins "When narrow site systems..." with the following paragraph:

When temporary impact attenuator, truck mounted attenuator, or narrow site attenuator systems are used, have enough modules, cartridges, components, and replacement parts on-site to replace one complete installation.

Measurement

00225.80 General

(a) Quantity Limitations – Replace this subsection with the following:

(a) Quantity Limitations – The quantities for work zone traffic control measures will be limited to the following, unless otherwise specified:

- The initial installation of quantities necessary to complete the Project based on the Schedule of Items
- The initial installation of additional TCD and TCM that the Engineer and Contractor agree are necessary to ensure a safe work zone
- The replacement of TCD and TCM, except temporary signing and temporary electrical signs, damaged by public traffic and replaced by the Contractor
- The quantities approved in contract change orders

Temporary signing, temporary electrical signs, and temporary impact attenuators damaged by public traffic and replaced or repaired by the Contractor will not be measured.

00225.81 Temporary Signing

(a) Signs – Add the following to the end of this subsection:

Route markers and other signs fastened to the face of larger signs will be measured as separate signs.

00225.83 Temporary Traffic Delineation

(b) Temporary Removable and Non-Removable Tape – Replace this subsection with the following:

(b) Temporary Tape – Temporary tape will be measured as follows:

- **Removable and Non-Removable Tape** – Temporary removable and temporary non-removable tape will be determined by measuring the actual length of the 100 mm (4 inch) wide tape in place, as accepted.

- **Non-Reflective Tape** – Temporary non-reflective tape will be determined by measuring the actual length of the 150 mm (6 inch) wide tape in place, as accepted.

(d) Stripe Removal and Durable Stripe Removal – Delete this subsection and replace with the following:

Stripe removal and durable stripe removal will be determined by measuring the overall length of 100 mm (4 inch) line removed. The quantity of stripe removal and durable stripe removal will be the computed length of lines removed based on a nominal width of 100 mm (4 inches). For computations, the width of a line is defined as the normal standard line width applied during original placement of solid no-passing lines, broken (skip) lines, edge lines and any other lines normally 100 mm (4 inches) wide. For purposes of computations, the length of continuous lines will be as measured, while the length of broken (skip) stripes will be defined as the standard length of a skip line normally painted during original placement of the lines (1.5m (5 feet) of paint per 6.1 m (20 feet) of roadway length). If the plans call for, or the Engineer requires removal of standard 200 mm (8 inch) or 300 mm (12 inch) wide stripes, the computed length will be adjusted by converting to equivalent length of 100 mm (4 inch) width line. No conversion or adjustment will be allowed for lines that are wider or longer due to improper placement or retracing deviations.

(e) Striping and Stripe Removal Mobilization – Replace this subsection with the following subsection:

No separate measurement will be made for mobilization to perform striping, stripe removal, or durable stripe removal or for mobilization to place or remove temporary flexible pavement markers.

00225.88 Traffic Control Supervisor – Add the following paragraph after the bulleted list:

Quantities will be limited to those days authorized by the Engineer and documented by a daily Traffic Control Report submitted by the end of the next working day.

Payment

00225.90 Method "A" – Unit Basics

(a) Pay Quantities – Replace the first and second sentences of the paragraph that begins "All TCD damaged by ..." with the following sentence:

All TCD damaged by public traffic and replaced by the Contractor, except temporary signing, temporary electrical signs, and temporary impact attenuators will be paid for at the Contract price for the pay items listed in the Schedule of Items or in approved Contract change orders, unless otherwise specified.

(b) Temporary Protection and Direction of Traffic – Add the following bullets:

- Moving temporary impact attenuators of any type to and from Contractor's stockpile areas
- Providing, surfacing, maintaining, removing, and restoring the alternate pedestrian route.

00225.92 Temporary Barricades, Guardrail, Barrier, and Attenuators – Replace Item (i) with the following:

Item (i) will be payment in full for each move of the device from one location of actual use to another, regardless of size or type.

Add the following paragraph:

Item (f) includes tall concrete barrier.

00225.93 Temporary Traffic Delineation – Add the following paragraph to the end of this subsection:

No separate or additional payment will be made for mobilization to perform striping, stripe removal, or durable stripe removal or for mobilization to place or remove temporary flexible pavement markers. Payment is incidental and included in payment made for the appropriate pay items.

Section 00280 – Erosion and Sediment Control

The Erosion and Sediment Control Section shall be administered in conformance with Section 00280 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00280.10 - General

(n) Sediment Barriers – Add the following bulleted item:

- **Pump Discharge Preliminary Filter** – Provide as required an approved bag filter attached to discharge pump lines. Filter bags shall be manufactured from tightly-knit burlap or woven geotextile fabric.

Construction

00280.46 Application

(m) Sediment Barriers: – Add the following item:

Type 8: Pump Discharge Preliminary Filter – Install approved filter bags to outlet lines on discharge pumps as shown in project plans or according to manufacturer's recommendations. Filters shall be attached to discharge pump lines in such a manner as to prevent leakage of unfiltered effluent from the pipe attachment point.

Section 00290 – Environmental Protection

The Environmental Protection Section shall be administered in conformance with Section 00290 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00290.20 Hazardous Waste and Hazardous Substances

(c) Fuel Storage – Add the following paragraph:

If above-ground fuel storage will exceed 2498 L (660 gallons) per container or 4996 L (1,320 gallons) aggregate, develop and submit for approval 10 days before the pre-construction conference a spill prevention control and countermeasures (SPCC) plan, signed and stamped by a professional engineer, in accordance with 40 CFR 112. The SPCC plan requirement is in addition to the PCP requirement described above. Employees must be trained as specified in 40 CFR 112 and the SPCC plan. Maintain a copy of the SPCC plan on-site at all times during construction activities, readily available to employees and inspectors.

(d-2) Inert Material – Add the following paragraph:

Retain landfill disposal receipts for all non-inert solid waste generated from the Project site for at least one year after completion of the Project. Provide landfill disposal receipts to the Engineer if requested.

(e) Hazardous Waste Management – Add the following to the end of this subsection:

If the quantity of hazardous waste projected to be generated meets the requirements for a Conditionally Exempt Generator (CEG), in accordance with 40 CFR 261.5, store hazardous wastes on-site for no more than 180 days, with the total stored not to exceed 1000 kg (2,200 pounds) at any one time. All hazardous waste containers shall be in good condition, sealed and labeled with the words "Hazardous Waste" and the accumulation start and end dates. All employees involved in the handling and/or management of hazardous wastes shall comply with the federal and State regulatory requirements for hazardous waste management. If the quantity of hazardous waste generated in a given month exceeds the CEG limits, immediately comply with the requirements for small and large quantity generators, as set forth below, and for the remainder of the calendar year. Within 30 days of such exceedance, complete additional documentation and training required as a result of this change in status.

If the quantity of hazardous waste projected to be generated meets the requirements for a Small Quantity Generator (SQG) or a Large Quantity Generator (LQG), prepare a Hazardous Waste Contingency Plan, in accordance with 40 CFR 262.34 and 265.51. Maintain a copy of the Contingency Plan on-site at all times during construction activities, readily available to employees and inspectors. Employees must receive hazardous waste training as specified in 40 CFR 262.34 and 265.16. On-Site storage of hazardous waste shall comply with the requirements of 40 CFR 262 and 265, OAR 340-102-034 and all other applicable federal, State and local laws and regulations. Submit monthly records of hazardous waste generation, transportation and disposal to the Engineer by the 15th day of the following month. A Certified Hazardous Materials Manager (CHMM) in good standing and with experience managing the hazardous wastes associated with the Project must be available to oversee and direct hazardous waste management at the site.

If hazardous waste is to be treated on-site, all treatment activities shall comply with 40 CFR 262.34 and 268, and ORS 466.095. No on-site hazardous waste treatment may begin prior to receipt of Engineer approval.

00290.30 Pollution Control

(d) Noise Control – Delete the third bulleted item and replace with the following:

- Use equipment complying with pertinent equipment noise standards of the EPA. Low Noise pumps, generators and other equipment are required in areas adjacent to hospitals, residences, places of business or other areas identified by the Agency.
- Noise control devices on all equipment shall be no less effective than those provided on original equipment.
- All engine exhausts shall be properly muffled.

PART 00300 – ROADWORK

Section 00310 – Removal of Structures and Obstructions

The Removal of Structures and Obstructions Section shall be administered in conformance with Section 00310 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00310.43 Disposal of Material:

(a) Burnable Material – Delete this subsection.

(d) Other Disposal – Delete the first paragraph in this subsection and replace with the following:

All other materials not covered in 00310.43(b) and (c) become the property of the Contractor at the place of origin. Dispose of at own expense.

Section 00320 – Clearing and Grubbing

The Clearing and Grubbing Section shall be administered in conformance with Section 00320 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00320.02 Definitions:

(c) Clear Zone – Delete this subsection and replace with the following:

The clear zone is the roadside border area, starting at the edge of the traveled way, available for safe use by an errant vehicle. The minimum clear zone line, for purposes of this Section shall be the established right-of-way (ROW) line in the project area.

Construction

00320.40 Clearing Operations:

(b) Preserving and Trimming Vegetation:

(3) Tree Trimming - Delete the second bulleted item in this subsection and replace with the following:

- Branches over roadways and bridges to provide the following clearances according to Agency ordinance:
  - 4.0 m (13 feet) over street surfaces
  - 4.3 m (14 feet) over established truck routes
  - 2.4 m (8 feet) over sidewalks

(4) Trees To Be Saved – The Engineer will identify and mark trees to be saved. Provide and place orange plastic mesh fencing, from the QPL, around critical root zones of marked trees or tree groups as directed. Do not begin construction activity or move equipment into existing tree areas until the plastic mesh fencing is in place.

Do not work within the critical root or canopy zone of marked trees unless written approval is obtained from the Engineer. Where construction operations are necessary within the critical root or canopy zone of marked trees, the Contractor shall make arrangements for alternative construction methods to minimize or eliminate damage to the trees in question.

The Contractor shall be responsible for any damage to or removal of marked trees. Tree damage will be determined by a certified arborist selected by the Engineer.

00320.42 Ownership and Disposal of Matter

(a) Burning – Delete this subsection.

(b) Chipping – Delete this subsection and replace with the following:

With Engineer's approval, woody matter may be disposed of by chipping and spreading the chips (not to exceed 50 mm (2 inches) in any dimension) uniformly in loose layers over selected areas as directed.

(c) Burying – Delete this subsection.

(d) Other Disposal Methods – Delete this subsection and replace with the following:

Dispose of all other material or debris not disposed of according to 00320.42(b), (d) or (e), according to 00310.43(d).

Add the following subsection:

(e) Timber Salvage – Unless otherwise indicated in the Special Provisions, all merchantable timber shall become the property of the Contractor and shall be removed from the project area immediately following the salvage operation.

Payment

0320.91 Incidental Basis – Add the following paragraph:

No separate payment will be made for plastic mesh fencing or alternative construction methods required by 00320.40(b-4).

Section 00330 – Earthwork

The Earthwork Section shall be administered in conformance with Section 00330 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Equipment

00330.21 Vibratory Rollers – Add the following subsection:

If specified, use vibratory rollers having a smooth drum and exerting a dynamic force of at least 134 kN (30,000 pounds) per impact and operating at a frequency of at least 1000 vibrations per minute. Limit roller speed to no more than 2.5 km/h (1 1/2 mph).

Construction

00330.41 Excavations

(a) General:

(6) Excavation of Existing Surfaces – Add the following paragraph to this subsection:

When excavating existing roadways, no rubber tired equipment such as scrapers, graders, or front end loaders will be allowed on the subgrade due to possible unstable subgrade conditions and/or the close proximity of underground utilities to the subgrade elevation.

(7) Abandoned Pipes and Miscellaneous Matter – Delete the last paragraph in this subsection and replace with the following:

Place watertight caps or plugs in inlets and outlets of remaining abandoned pipes. Pipe ends must be buried a minimum of 0.6 m (2 feet) below finish grade. Shape and finish the affected area so no evidence of their existence is apparent upon completion of the work.

(9) Excavation Below Grade: – Replace the last bulleted item with the following:

- Where unstable material is encountered below subgrade in roadbed excavations, excavate such material below subgrade as directed by the Engineer. Dispose of these unstable materials according to 00330.41(a-5). Install an approved subgrade geotextile fabric prior to backfilling any excavations below subgrade. Backfill shall be 3"-0" well graded, clean, durable, angular quarry rock with less than 5% fines passing the #200 sieve. The rock shall have a minimum specific gravity of 2.55. Flat or elongated rock will not be accepted unless individual pieces have a minimum thickness of 1/3 the length.

(c) Embankment Construction:

(3) Embankment Slope Protection – Add the following paragraph:

Construct the outer 300 mm (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.

(6) Embankment Construction at Pipes – Replace the two bulleted items which discuss "...less than 1200 mm (48 inch)..." and "...1200 mm (48 inch) to 1800 mm (72 inch)..." pipes with the following:

- 300 mm (12 inches) minimum above the outside top of pipe elevation.

(e) Blasting - Delete this subsection and replace with the following:

Unless otherwise noted in the Special Provisions, the use of explosives is prohibited.

00330.42 Embankment, Fills and Backfills

(a) Embankment Foundation Preparation

(2) Ends of Abandoned Pipe – Delete this subsection and replace with the following:

Place watertight caps or plugs in inlets and outlets of remaining abandoned pipes. Pipe ends must be buried a minimum of 0.6 m (2 feet) below finish grade.

00330.43 Earthwork Compaction Requirements:

(a) General - Add the following to this subsection:

If the specified compaction is not obtained, the Contractor shall notify the Engineer. The Contractor may be required to use a modified compaction procedure or apply additional compactive effort. If approved materials meeting the specifications cannot be compacted to the required density regardless of compactive effort or method, the Engineer may reduce the required density or direct that alternate materials be used. In no case shall earthwork operations proceed until the Contractor is able to compact the material to the satisfaction of the Engineer.

(b) Moisture-Density Testable Materials:

(2-c) Deflection Requirement – Replace this subsection with the following:

In addition to moisture density testing, conduct at least one deflection test for each meter (3 feet), or portion of a meter (3 feet), of embankment placed according to ODOT TM 158. If the layer being tested exhibits any yielding, deflection, reaction or pumping, rework the area to provide acceptable test results prior to placement of any additional material.

Conduct deflection tests, witnessed by the Engineer, on the finish grade of all subgrades. During placement of subbase or base aggregates or HMAC, if deflection is observed, remove the HMAC, base and subbase aggregates and correct the deflecting areas at the Contractor's expense.

Provide a signed test report to the Engineer at the end of each shift after completing the required testing. Remove and replace embankment constructed thicker than one meter (3 feet) that was not deflection tested at the Contractor's expense.

(c) Non-Moisture Density Testable Materials – Delete this subsection and replace with the following:

When material is not moisture-density testable because rock fragments in the material prevent moisture-density testing, place and compact the material as follows:

- Place non-moisture density testable material in nearly horizontal layers with thickness not exceeding 300 mm (12 inches).
- Water or aerate the material to ensure each layer can be compacted to form a dense mass, free of pumping.
- Compact each layer uniformly with a minimum of four full coverages using a smooth drum vibratory roller.
- Conduct at least one deflection test for each layer of embankment placed according to ODOT TM 158. If the layer being tested exhibits any yielding, deflection, reaction or pumping, rework the area to provide acceptable test results prior to placement of any additional material.

(d) Small, Irregular Fill Areas – Add the following subsection:

The density requirements of 00330.43 do not apply to irregular fill areas that have a total volume of no more than 100 m^3 (150 cubic yards) outside of the travel lanes. Construct these areas according to the following:

- Place embankment material in nearly horizontal layers with thickness not exceeding 200 mm (8 inches).
- Water or aerate the material to ensure each layer does not deflect under the action of the roller used for compaction.
- Compact each layer using a roller appropriate to the material being placed and as directed. Use a smooth drum vibratory roller for sands and gravels; use a sheepsfoot or tamping foot roller for silts and clays. The Engineer will determine the classification of the embankment soil.
- Compact each layer uniformly with a minimum of five full coverages of the specified roller.
- In areas not accessible to rollers, use compaction equipment suitable for the area and compact each layer with sufficient coverages to produce a firm unyielding surface.

Measurement

00330.80 General – Add the following bulleted item:

- Not include the earthwork 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 section(s).

Payment

00330.91 Kinds of Pay Excavation

(e) General Excavation – Delete the last bulleted item in this subsection and replace with the following:

- Includes unsuitable material excavated below subgrade in roadbed excavations according to 00330.41(a-9), when the Engineer has determined that such excavation is neither more or less difficult to remove than the material above subgrade in the whole of the cut. If the Engineer has determined that such excavation is either more or less difficult to remove than the material above subgrade in the whole of the cut, payment will be according to Section 00196.

00330.92 Kinds of Incidental Earthwork – Add the following to the end of this subsection:

(i) Driveway and Road Approaches – Earthwork outside the neat lines as shown on the Typical Sections, necessary to construct driveways and road approaches.

Section 00331 – Subgrade Stabilization

The Subgrade Stabilization Section shall be administered in conformance with Section 00331 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00331.16 Acceptance of Backfill – Replace this subsection with the following:

Backfilling for subgrade stabilization shall conform to the following and will be visually inspected by the Engineer. The backfill shall be 3"-0" well graded, clean, durable, angular quarry rock with less than 5% fines passing the #200 sieve. The rock shall have a minimum specific gravity of 2.55. Flat or elongated rock will not be accepted unless individual pieces have a minimum thickness of 1/3 the length.

Construction

00331.40 Excavation – Delete this subsection and replace with the following:

Excavate unstable material to the lines and grades as shown or directed. Dispose of the excavated material according to 00330.41(a-5).

Material that is too wet to be compacted to specified density, but which in the judgment of the Engineer otherwise meets the requirements, may be scarified and aerated to provide optimum moisture content. The scarification and aeration shall be performed at no additional expense to the Agency.

Payment

00331.90 General – Delete the last paragraph in this subsection and replace with the following:

Payment will be payment in full for furnishing all materials, equipment, labor and incidentals necessary to complete the work as specified. No separate or additional payment will be made for excavation, scarification, aeration, geotextile, stone embankment or aggregate backfill material or water. These items will be included in the subgrade stabilization item.

Section 00332 – Surfacing Stabilization

The Subgrade Stabilization Section shall be administered in conformance with Section 00331 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00332.40 Excavation – Delete this subsection and replace with the following:

Excavate unstable material to the lines and grades as shown or directed. Dispose of the excavated material according to 00330.41(a-5).

Section 00333 – Aggregate Ditch Lining

The Aggregate Ditch Lining Section shall be administered in conformance with Section 00333 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00333.00 Scope – This work consists of furnishing and placing aggregate ditch lining at locations shown or directed.

Materials

00333.10 Aggregate Ditch Lining – Provide hard durable rock or gravel with a moisture binder of clay material that provides a tight, erosion-resistant surface meeting the following grading requirements:

METRIC		ENGLISH	
Sieve Size Passing	**Percentages (by mass)**	**Sieve Size Passing**	**Percentages (by weight)**
150 mm	100	6"	100
100 mm	30 - 50	4"	30 - 50
50 mm	20 - 30	2"	20 - 30
75 μm	15 - 25	No. 200	15 - 25

Construction

00333.40 General – Place the aggregate material to the lines and grades established and as shown.

Measurement

00333.80 General – Aggregate ditch lining will be measured by the m^2 (square yard). Measurement will be the actual surface area of the wetted perimeter of the lined ditch.

Ditch excavation will be measured according to 00330.80 and 00330.81.

Payment

00333.90 General – The accepted quantities of aggregate ditch lining will be paid for at the Contract price per m^2 (square yard) for the item "Aggregate Ditch Lining".

Payment will be payment in full for furnishing all materials, equipment, labor, and Incidentals necessary to complete the work as specified.

Ditch excavation will be paid for according to 00330.90, 00330.91, and 00330.93.

Section 00335 – Blasting Methods and Protection of Excavation Backslopes

The Blasting Methods and Protection of Excavation Backslopes Section shall be administered in conformance with Section 00335 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Delete this Entire Section.

Section 00340 – Watering

The Watering Section shall be administered in conformance with Section 00340 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00340.40 Watering:

(a) General – Delete the first paragraph in this subsection and replace with the following:

The Contractor must request metered water from the Agency if needed and notify the Agency a minimum of three Working Days in advance as to the desired location of the water source. Maintain an adequate supply of water at all times.

Measurement

00340.80 Watering – Delete the first paragraph of this subsection and replace with the following:

If Agency water is not available, the pay quantities of Contractor supplied water shall be determined by any of the following measurements:

Payment

00340.90 General – Delete the first paragraph of this subsection and replace with the following:

The accepted quantities of Contractor supplied water and additives will be paid for at the Contract unit price per unit of measurement for the following items:

Section 00344 – Treated Subgrade

The Treated Subgrade Section shall be administered in conformance with Section 00344 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00344.41 Addition of Stabilizing Material – Add the following paragraph to this subsection:

Stabilizing materials shall be applied only when the temperature is above freezing and when wind and other weather conditions are not detrimental to the work or to the public. The Contractor shall take all precautions necessary to prevent injury to persons, livestock or property. Any material which is spilled or deposited at places other than on areas designated to be treated shall be immediately picked up, buried or otherwise made harmless at no expense to the Agency.

00344.46 Compaction:

(c) Replace the second sentence in this subsection with the following:

Place fabric and backfill the over-excavated subbase area up to the subgrade elevation with 152 mm (6 inch) lifts of 76 mm - 0 (3" - 0) crushed rock and compact.

Section 00360 – Drainage Blankets

The Drainage Blankets Section shall be administered in conformance with Section 00360 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00360.10 Sand Drainage Blanket – In the first sentence, replace "AASHTO T 27" with "AASHTO T 11/T 27".

Section 00390 – Riprap Protection

The Riprap Protection Section shall be administered in conformance with Section 00390 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00390.11 Riprap Requirements:

(b) Test Requirements – Under the "Material Test" column, replace "Soundness (ODOT TM 206)" with "Soundness (AASHTO T 104)".

Under the "Requirement" column next to "Sediment Height" replace "(8")" with "(8.0")".

00390.43 Riprap Backing – Add the following to this subsection:

Use either riprap geotextile or a filter blanket under the riprap.

PART 00400 – DRAINAGE AND SEWERS

Section 00405 – Trench Excavation, Bedding and Backfill

The Trench Excavation, Bedding and Backfill Section shall be administered in conformance with Section 00405 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00405.02 Definitions – Add the following definition to this subsection:

Rock Excavation – No soft or disintegrated rock; hard-pan or cemented gravel that can be removed with a hand pick, or power operated excavator or shovel; no loose shaken, or previously blasted rock, or broken stone in rock filings or elsewhere; and no rock outside of the minimum limits of measurement allowed, which may fall in the excavation, will be considered as rock excavation.

Construction

00405.41 Trench Excavation

(c) Trench Width – Replace this subsection with the following:

Trench width at ground surface shall be kept to the minimum necessary to install the pipe in a safe manner, but not less than 24 inches. In all cases, make trenches of sufficient width to allow for shoring and to permit proper jointing of the pipe and backfilling of material along the sides of the pipe. The minimum trench width in the pipe zone must provide a clear working space of 6 inches outside the maximum outside diameter of the pipe. Make excavations for manholes and other structures wide enough to provide a minimum of 12 inches between the structure surface and the sides of the excavation. Keep the top of the trench within right-of-way or permit limits.

There will be no additional compensation for trench widths that are larger than required due to improper shoring techniques and or poor trench wall material.

(h) Root Pruning – Add the following subsection to this section:

Tree roots will be encountered during trench excavation. The contractor may do his own root pruning, but shall have a licensed arborist as a subcontractor to provide advice on root pruning. The arborist will supply written guidelines on root pruning procedures. These will include proper methods for cutting roots, maximum root size that may be cut without review (in inches or a percentage of caliper), and a list of tools required to be kept on-site for pruning. Roots will be properly removed prior to placing new materials. If the contractor does not follow the guideline, the engineer may require that the arborist does the required pruning at no additional cost to the City.

If root pruning will endanger the life or stability of a tree, the arborist will supply a brief written description of the problem and indicate possible options. Options may include, but are not limited to, realigning the facility, deflecting the facility, or removal of the tree. The contractor will notify the engineer immediately and forward the arborist's report. If any option(s) requires work in addition to defined bid items, the contractor will provide a proposed cost for the additional work. If the contractor is directed to do additional work, a change order to compensate the contractor will be executed prior to performing the work. No additional payment will be made for realignment or deflection to a facility.

00405.46 Backfilling –

(c) Trench Backfill –

(2) Class A, B, C, or D Backfill – Replace this subsection with the following:

The Contractor shall backfill the trench above the pipe zone in successive lifts. Backfill shall not be allowed to free-fall into the trench until at least 1 m (3 feet) of cover is provided over the top of the pipe. The method of compaction shall be modified as necessary to protect the pipe.

Trench backfill lifts shall not exceed 1 foot. Each lift shall be compacted to a minimum of 95 percent of the maximum density as determined by AASHTO T 99, Method D. At a minimum, the Contractor will be required to take compaction tests every 25 lineal feet along the trench, or as directed by the Engineer. If the specified compaction is not obtained, the Contractor may be required to use a modified compaction procedure and/or reduce the thickness of the lifts. If approved materials meeting the specifications cannot be compacted to the required density regardless of compactive effort, the Engineer may reduce the required density or direct that alternate materials be used. In no case shall excavation and pipe laying operations proceed until the Contractor is able to compact the backfill to the satisfaction of the Engineer.

If the material is not density testable, the Engineer will observe each layer for deflection or reaction under the compaction equipment to verify that no soft or pumping areas remain. Compact until there is no perceptible deflection under the compaction equipment.

When the backfilling is complete, finish the surface area as specified. In paved or graveled areas, maintain the surface of the trench backfill level with the existing grade with ¾"-0" crushed aggregate material. On paved streets that will be open to through traffic, the Contractor must provide temporary surfacing such as hot mix asphalt concrete or cold mix until final pavement replacement is complete and accepted.

Payment

00405.92 Incidental Basis – Add the following to the end of this subsection:

Compaction testing for trench backfill shall be considered incidental and no separate payment will be made.

Root pruning and any associated reports from the Contractor's Certified Arborist shall be considered incidental and no separate payment will be made.

Section 00445 – Sanitary, Storm, Culvert, Siphon and Irrigation Pipe

The Sanitary, Storm, Culvert, Siphon and Irrigation Pipe Section shall be administered in conformance with Section 00445 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00445.12 Asphalt Mastic – Replace this subsection, except for the heading, with the following:

The asphalt mastic specified in 00445.47 for aluminum and concrete contact surfaces shall consist of a mixture of asphalt, mineral stabilizer, and fillers conforming to AASHTO M 243 or ASTM D 4586. An approved product from the QPL may be used.

Construction

00445.40 General –

(b) Line and Grade – Replace this subsection with the following:

Centerline and grade control will be established prior to the start of construction. The Special Provisions will indicate whether it will be done by the Agency or the Contractor.

Do not vary from established line and grade by more than 1/32 inch per inch of pipe diameter. Variances shall not exceed ½ inch, subject to the following limitations:

- The variation does not result in a level or reverse sloping invert
- The variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surfaces and pipe interior surfaces, does not exceed 1/64 inch per inch of pipe diameter, or ½ inch, whichever is less.

The Contractor shall coordinate alignment and grade of new sewer service lines to avoid conflicts with existing and or new utilities. The Contractor shall maintain proper clearances with all potable water lines.

(f) Installation of Sanitary Sewer Services Tees and Wyes – Replace this subsection with the following:

Provide a compacted base of pipe bedding material under all tees, wyes and branch fittings, extending to the springline of the fittings. The last length of all service lines shall be a manufactured wye with pipe extended to the ground surface as a cleanout as required or specified. The cleanout, and the building side service of the wye, on service lines not connecting to an existing sewer, shall be plugged with a removable watertight cap. No additional length of pipe shall be added beyond the wye unless otherwise specified.

Cap all service lines for sanitary sewers with watertight plug suitable for resisting the pressures of hydrostatic or air testing.

The maximum line or grade change accomplished with any one fitting shall not exceed 45 degrees and shall be accomplished with long radius curves or bends.

(h) Markers – Add the following subsection to this section:

The contractor shall install markers at the end of those service lines not scheduled for user connection under the contract. All markers shall be #2 rebar, three (3) feet in length, install vertically, with the top six inches below the finish grade.

Finishing, Clean Up and Testing

00445.72 Pipe Testing:

(a) General – Replace this subsection with the following:

After completing installation of the system, including all service connections, backfilling and compaction, conduct a low-pressure air test. Provide all equipment and personnel for the test. Conduct tests during normal working hours. The Engineer may require testing of manhole-to-manhole sections as they are completed in order to expedite the acceptance of the system and allow connections.

When sanitary sewer lines are replaced "in place", pipe and joint testing shall be visual and performed by the Agency's authorized representative. If adequate construction is questionable, the contractor may be required to provide testing of part or all sanitary sewer pipe and/or services as described in this subsection.

The method, equipment and personnel used in testing shall be subject to approval of the Engineer. The Engineer may, at any time, require a calibration check of the instrumentation used.

(1) Safety Precautions – Only qualified personnel will be permitted to conduct the test. All plugs used to close the system for the testing shall be capable of resisting the expected internal pressures. Securely brace plugs, if necessary. Testing equipment shall be placed above ground and personnel will not be permitted to enter a manhole or trench while a line is pressurized. The air or water pressure shall be released before the plugs are removed.

(2) Ground Water – The presence of groundwater will affect the results of the test. Determine the average height of groundwater over the lines immediately before starting the test, using an approved method.

(b) Hydrostatic Testing – Delete this subsection entirely. Hydrostatic testing will not be allowed.

00445.73 Deflection Testing for Flexible Pipe – Replace the last paragraph of this subsection with the following:

Conduct testing on a manhole-to-manhole basis after the line has been completely flushed out with water. Conduct the tests not less than 30 days after the trench backfill and compaction have been completed, but prior to final surfacing. The test may be conducted concurrently with television inspection.

00445.74 Television Inspection of Sanitary Sewer and Storm Sewers – Replace this subsection with the following:

After laying and joining sanitary and storm sewer pipe installations from 6 inches to 72 inches in diameter, including backfill and compaction of trenches, but prior to finish surfacing or final paving, conduct a television inspection an make a written report of all sanitary and storm sewer pipes.

The television inspection shall be conducted by a technical service that is equipped to make audio-visual tape recordings.

The audio-visual tape recording shall:

- Be in color VHS or CD ROM format
- Be clear and usable
- Include a visual footage meter recording on the tape
- Include a voice recording of suspected deficiencies
- Identify, visually and by footage meter, groundwater infiltration sources associated with the construction/material defects.

Submit the audio-visual tape and written report to the Engineer for review. Correct all deficiencies that are revealed in the tape and written report. Make an additional television inspection of repairs at no cost to the agency.

All tapes and written reports shall become the property of the agency.

Section 00470 – Manholes, Catch Basins and Inlets

The Manholes, Catch Basins and Inlets Section shall be administered in conformance with Section 00470 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00470.19 Manhole Steps – Add the following subsection:

The Contractor shall provide steps in all sanitary and storm sewer manholes exceeding a depth of 3 feet. The steps shall have a neoprene coating and be made of either structural steel galvanized or reinforcing steel galvanized.

Section 00490 – Work on Existing Sewers and Structures

The Work on Existing Sewers and Structures Section shall be administered in conformance with Section 00490 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00490.42 Service Line Connections to Existing Sanitary Sewers – Replace this subsection with the following:

All service line connections to existing sewers shall be made watertight. Make connections, where possible, to existing tees or wyes that have been previously installed and plugged. Remove the plug and make the connection according to section 00445. Make transition couplings between dissimilar pipe materials using approved commercial adapters with stainless steel bands.

Where tees and wyes for connection are absent or unusable, connect service lines with approved commercial taps. Do not backfill any tap until it is inspected and approved by the Engineer.

Install taps without protrusion into, or damage to, the existing sewer. Support the sewer and replace bedding material, as necessary, to prevent settlement to the sewer grade.

Previous use of the service line or building sewer for septic tank or other application, or absence of usable cleanouts for accessing the building sewer, shall not excuse the requirement for testing except as may be authorized by the state building codes inspector.

Service connections shall be made as quickly as possible. The Contractor shall sequence construction and provide a temporary service so as not to interrupt sewer service or flows. Any costs incurred due to a failure of the temporary service shall be the responsibility of the contractor. Flow shall be through the existing or new sewer pipe only. In no case shall sewer flow be allowed into any excavation. The contractor shall also verify that any sanitary sewer service line to be abandoned is out of service.

Section 00495 – Trench Resurfacing

The Work on Trench Resurfacing Section shall be administered in conformance with Section 00495 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00495.40 General – Add the following paragraph to this subsection:

Prior to placement of any trench resurfacing, all utility work, including sanitary, storm drainage, water and any private utilities shall be completed, inspected and accepted by the Agency.

PART 00600 – BASES

Section 00610 – Reconditioning Existing Roadway

The Reconditioning Existing Roadway Section shall be administered in conformance with Section 00610 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

00610.42 Aggregate Subbase, Base and Surfacing – Add the following paragraph to this subsection:

Where directed by the Engineer, excavate and replace deficient surfacings, base and subbase as indicated in the plans and specifications under 'Base Repair'. All work shall be performed in accordance with applicable Sections.

00610.43 Surfacings – Delete this subsection and replace with the following:

Clean existing surfacings of all loose material, vegetation, dirt, dust and other deleterious material by power brooming and flushing with water. Use other approved methods as necessary.

Measurement

00610.80 General – Delete this subsection and replace with the following:

No measurement will be made of reconditioning and preparation work unless specifically noted in the plans and specification.

Materials used in the replacement of unsuitable materials according to 00610.40 will be measured in the manner applicable to the pay item under which the materials are furnished.

Base Repair shall be measured for on a m^2 (square yard) basis to the nearest 0.1 m^2 (0.1 square yard).

Payment

00610.92 Area – Work listed as 'Base Repair' in the plans and specifications shall be paid for on a m^2 (square yard) basis. Payment includes excavation of established areas to adequate depth, disposal of unsuitable materials as well as furnishing and placement of approved geotextile fabric, base aggregate, HMAC and all incidentals needed to complete the work as specified.

Section 00620 – Cold Plane Pavement Removal

The Cold Plane Pavement Removal Section shall be administered in conformance with Section 00620 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00620.21 Equipment for Grinding on Bridge Decks – In the sentence that begins "To remove AC from..." replace "AC" with "pavement".

(b) Micro-milling

(1) Cold Plane or Rotomill Grinders – Replace the sentence that begins "Limit forward speed..." with the following sentence:

Limit machines to a gross operational mass (weight) of no more than 32 Mg (35 tons) and forward speed to 0.76 m/min (2.5 feet/minute).

(2) Shot-Blasters – Delete this subsection and replace with the following:

Mono-directional or bi-directional electric-powered shot blast machines with single or multiple blast wheels. Each blast wheel shall be capable of imparting a minimum energy (E_K) of 67 800 N·m/s (50,000 ft-lb/sec), as calculated according to the following formula:

METRIC

$$E_k = \frac{Mv^2}{2}$$

Where:
M = mass of shot blend expelled per second (kg/s)
v = dr
d = diameter of blast wheel (m)
r = blast wheel speed in revolutions per second (s^{-1})

ENGLISH

$$E_k = \frac{Wv^2}{2g}$$

Where:
W = weight of shot blend expelled per second (lbf/s)
g = gravitational acceleration, 32.4 ft/s^2
v = dr
d = diameter of blast wheel (ft)
r = blast wheel speed in revolutions per second (s^{-1})

Machines shall cover at least 1.2 m (4 feet) per pass, and shall conform to EPA air pollution requirements by containing dust and steel abrasive media. If the equipment is not equipped simultaneous bi-directional blasting, make separate passes in opposite directions to ensure equal cleaning on all sides of the exposed aggregate. Limit forward speed to 0.76 m/min (2.5 feet/minute).

(c) Hydroblasting – Replace this subsection with the following:

Hydroblasting equipment shall be capable of removing concrete at a rate and volume acceptable to the Engineer without leaving a striated surface. Remove the entire original deck surface to a minimum depth of 3 mm (0.125 inch). Demonstrate the removal rate and accuracy of the equipment to the Engineer prior to commencing work.

Construction

00620.40 Pavement Removal

(f) Pavement Removal on Bridges – Delete this subsection and replace with the following:

Remove pavement from bridges according to the following:

(1) General:

- Before removing the wearing surfaces, do the following:
  - Determine the actual depth of pavement to be removed.
  - Block all deck drains and all catch basins. Do not allow any grinding, chipping, sweeping, flushing, or shot blasting material to enter them.
- Remove material that is within 300 mm (12 inches) of all joints in a manner acceptable to the Engineer. Do not damage any joints.
- Remove AC, laitenance, and residual film by approved hand methods in areas that cannot be reached by grinding machines.
- Hydroblast all deck surfaces before placing high performance concrete.
- Repair all damage to abutting concrete surfaces or other surfaces that are damaged by the Contractor's operations at the Contractor's expense.

(2) AC Surfacing – Do not grind into the existing concrete bridge deck.

(3) PCC Surfacing – If diamond grinders are used, clean the entire surface with a shot blaster after completion of the diamond grinding operation.

(4) Scheduling – Schedule the work so the full width and length of travel lane pavement can be removed during the same shift. Remove the shoulder area within 24 hours after removing the travel lane pavement.

00620.42 Disposal of Materials – Replace the first sentence in this subsection with the following:

Materials removed under this Section that are not used on the Project become the property of the Contractor at the point of removal, unless otherwise specified in the Special Provisions.

Payment

00620.90 General – Add the following to this subsection:

Hauling and stockpiling of materials salvaged by the Agency to specified sites shall be considered incidental to this item.

Section 00635 – Grid-Rolled Aggregate Subbase

Description

00635.00 Scope – This work consists of furnishing, placing, and compacting with a perforated or grid-type roller, one or more layers of aggregate mixed with water, on a prepared surface to the lines, grades, thicknesses and cross sections shown or established.

Materials

00635.10 General – Grid rolled aggregate subbase material shall be rock having a maximum size of 150 mm (6 inches) meeting the following requirements:

- **Abrasion** – The source materials for aggregate subbase shall not exceed 45 percent wear when tested according to AASHTO T 96.

- **Sand Equivalent** – Aggregate subbase material shall have a sand equivalent of not less than 25 when tested according to AASHTO T 176.

Equipment

00635.20 Compacting Equipment – Provide perforated or grid-type metal twin-drum rollers meeting the following requirements:

- Drums with an outside diameter of at least 1.6 m (5 feet).
- Maximum drum width of 800 mm (32 inches).
- Capable of a 13.5 Mg (15 ton) loading. The specific loaded weight will be as directed.

Use self-propelled or tractor pulled type rollers of sufficient size to propel it at 25 kilometers per hour (15 miles per hour).

Construction

00635.40 Preparation of Foundation – Provide a firm surface on which aggregate subbase is to be placed according to Section 00320, 00330, or 00610 as applicable.

00635.42 Thickness and Number of Layers – If the required compacted depth of the subbase exceeds 200 mm (8 inches), construct it in two or more layers of nearly equal thickness. The maximum compacted thickness of any one layer shall not exceed 200 mm (8 inches).

00635.43 Shaping and Compacting – Compact each layer of the subbase by as many passes of the roller as necessary to attain the desired fracture and compaction of the material. Operate the roller at the highest speed possible without bounce and without unevenness of compaction.

Perform blading and watering as necessary to provide uniformity of crown, cross section, and compaction.

Apply water according to Section 00340, and as directed.

Maintenance

00635.60 Care of the Work – After constructing each layer and completing the subbase, maintain the layer to specified conditions, and prevent or repair segregation, raveling, or rutting until it is covered with a following layer or until all Contract work is completed.

Measurement

00635.80 General – Grid-rolled aggregate subbase will be measured by the m^2 (square yard) of grid-rolled aggregate subbase constructed to the full thickness. The thickness will be indicated on the plans. The surface area will be determined by horizontal measurements. In areas where directed to grid-roll to thicknesses other than indicated on the plans, the areas will be adjusted by converting to an equivalent number of m^2 (square yard) on a proportionate volume basis.

No separate measurement will be made for water used to bring the mixture to optimum moisture for mixing and compacting and used in the care of the work.

Payment

00635.90 General – The accepted quantities of grid-rolled aggregate subbase will paid for at the Contract unit price per m^2 (square yard) for the item "Grid-Rolled Aggregate Subbase, ____ mm (_____ inches) Thick". The thickness of the subbase will be inserted in the blank.

Payment will be payment in full for furnishing and placing the materials, including furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for water used to bring the mixture to optimum moisture content or for water used in the care of the work.

Section 00640 – Aggregate Base and Shoulders

The Aggregate Base and Shoulders Section shall be administered in conformance with Section 00640 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Delete this Entire Section.

Section 00641 – Aggregate Subbase, Base and Shoulders

Construction

00641.44 Shaping and Compacting

(c) Open Graded Aggregates – Add the following subsection:

The specified percent of relative maximum density for open-graded aggregates will not be required. Compact the surface of each layer of material using rollers conforming to 00641.24. Roll until there is no appreciable reaction or yielding under the compactor.

PART 00700 – WEARING SURFACES

Section 00705 – Asphalt Prime Coat and Emulsified Asphalt Fog Coat

The Asphalt Prime Coat and Emulsified Asphalt Fog Coat Section shall be administered in conformance with Section 00705 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00705.11(a) General – Replace the first sentence of the second paragraph with the following:

Obtain samples of emulsified asphalt according to AASHTO T 40, prior to dilution with water, at the frequency indicated in the MFTP.

Section 00730 – Asphalt Tack Coat

The Asphalt Tack Coat Section shall be administered in conformance with Section 00730 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00730.11 Asphalt – In the first sentence of the third paragraph, replace "for chip seal use" with "for tack coat use".

Add the following paragraph after the third paragraph:

Dilution of the tack coat material may be performed when allowed by the Engineer. If dilution is allowed, for every part emulsion, do not add more than one part water. Add water and mix with emulsified asphalt as recommended by the asphalt supplier. The exact proportion of added water will be determined in a manner acceptable to the Engineer.

Construction

00730.40 Temperature Limitations – Replace "00735.40 or 00745.40" with "00735.40, 00744.40, or 00745.40".

00730.44 Applying Tack Coat – Add the following to the end of the first paragraph:

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.

Measurement

00730.81 Water – Replace this subsection with the following:

Water added to dilute the emulsified asphalt tack coat after it is manufactured will not be measured.

Payment

Add the following subsection:

00730.92 Incidental Basis – When not listed in the Schedule of Items, asphalt tack coat shall be considered incidental to other Contract items.

Section 00735 – Emulsified Asphalt Concrete Pavement

The Emulsified Asphalt Concrete Pavement Section shall be administered in conformance with Section 00735 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00735.05 Precrushing and Prepaving Conferences: – Delete this subsection and replace with the following:

Supervisory personnel of the Contractor, including the CAT-1 and any subcontractors who are to be involved in the paving work, shall meet with the Engineer at a mutually agreed time to discuss methods of accomplishing all phases of the paving work.

00735.10 Aggregates:

(b) Soundness – Replace this subsection with the following:
Provide coarse and fine aggregate with a weighted loss not exceeding 12% when subjected to five cycles of the soundness test using sodium sulfate solution according to AASHTO T 104.

(c) Durability – Under the "Maximum Values" column next to "Sediment Height", replace "(3")" with "(3.0")".

(d) Fractured Faces – In the first sentence, replace "WAQTC TM 1" with "AASHTO TP 61".

(f) Grading – Delete the requirements for the 600μm (No. 30) sieve.

00735.11 Emulsified Asphalt – In the first sentence of the third paragraph, replace "asphalt" with "emulsified asphalt".

Delete the last paragraph in this subsection and replace with the following:

Obtain asphalt samples according to AASHTO T 40 at the frequency indicated in the MFTP. Samples will be tested by an approved independent laboratory as designated by the Contractor within 30 calendar days from the day the sample was taken.

00735.13 Job Mix Formula (JMF) – In the second sentence of the first paragraph replace "4.0%" with "5.0%".

00735.14 Choke Aggregate – Replace the gradation table with the following:

METRIC		ENGLISH	
Sieve Size	**Percent Passing (by mass)**	**Sieve Size**	**Percent Passing (by weight)**
9.5 mm	100	3/8"	100
6.3 mm	90 - 100	1/4"	90 - 100
2.36 mm	30 - 66	No. 8	30 - 66
600 μm	8 - 28	No. 30	8 - 28
150 μm	0 - 5	No 100	0 - 5

00735.17 EAC Mixture Production Quality Control

(e) Quality Control Compliance – Replace this subsection with the following:

Evaluate EAC mixture for compliance according to Section 00165 and the MFTP.

00735.20 EAC Mixing Plant – Replace the sentence that begins "Provide mixing plants..." with the following:

Provide mixing plants with the following operating equipment:

Payment

00735.90 General – Add the following:

All labor and materials associated with asphalt sampling and testing will be considered incidental.

Section 00744 – Hot Mixed Asphalt Concrete (HMAC) Pavement

The Hot Mixed Asphalt Concrete (HMAC) Pavement Section shall be administered in conformance with Section 00744 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Delete this Entire Section.

Section 00745 – Hot Mixed Asphalt Concrete (HMAC)

The Hot Mixed Asphalt Concrete (HMAC) Section shall be administered in conformance with Section 00745 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00745.03 Reclaimed Asphalt Pavement (RAP) Material – Delete the second sentence in this subsection and replace with the following:

No more than 20% RAP material will be allowed in Level 1, Level 2, Level 3, and Level 4 HMAC base and wearing courses. RAP material will not be permitted in open graded HMAC

General

00745.05 Prepaving Requirements – Add the following subsection:

Prior to placement of any base course surfacing, all utility work, including sanitary, storm drainage, water and private utilities shall be completed, inspected and accepted by the Agency.

The Contractor shall notify and obtain permission from the Engineer prior to placement of any final wearing course.

Materials

00745.10 Aggregate

(a) General

(4) Durability – Under the "Aggregates/Coarse" column next to "Sediment height", replace "(3")" with "(3.0")". Under the "Aggregates/Fine" column next to "Sediment height", replace "(4")" with "(4.0")".

(4) Fractured Faces – Replace "WAQTC TM 1" with "AASHTO TP 61".

(b) Coarse Aggregate –

(3) Grading – In the second sentence, replace "two shifts have" with "10 percent of planned stockpile quantity has".

00745.11 Asphalt Cement, Additives and Aggregate Treatment –

(a) Asphalt Cement – Replace this subsection with the following:

Use PG 64-22 or PG 70-22 asphalt unless otherwise specified in the contract documents. Provide asphalt cement conforming to ODOT's publication, "Standard Specifications for Asphalt Materials. Copies of the publication are available from ODOT's Pavement Services Engineer. The applicable specifications are those contained in the current publication on the date the project is advertised.

00745.13 Job Mix Formula (JMF) Requirements –

(b) JMF Requirements – Replace the Dense Graded Mixture table with the following:

METRIC
Dense Graded Mixture

	Level 1	Level 2	Level 3	Level 4	
Design Method	50 Blow Marshall		Superpave	Superpave	Superpave
Compaction Level	50 Blows	75 Gyrations	100 Gyrations	125 Gyrations	
Air Voids, %	3.5	4.0	4.0	4.0	
VMA, % minimum	12.5 mm –14.0	19.0 mm – 13.0	19.0 mm – 13.0	25 mm – 12.0	
	9.5 mm – 15.0	12.5 mm – 14.0	12.5 mm – 14.0	19.0 mm – 13.0	
		9.5 mm – 15.0	9.5 mm – 15.0	12.5 mm – 14.0	
				9.5 mm –15.0	
P75 µm/ Eff AC ratio	0.8 to 1.6	0.8 to 1.6	0.8 to 1.6	0.8 to 1.6	
TSR, % minimum	80	80	80	80	
VFA, %	70 – 80	65 – 78	65 – 75	65 – 75	
N initial, % of AASHTO T209		—	< 90.5	< 89.0	< 89.0

ENGLISH
Dense Graded Mixture

	Level 1	Level 2	Level 3	Level 4	
Design Method	50 Blow Marshall		Superpave	Superpave	Superpave
Compaction Level	50 Blows	75 Gyrations	100 Gyrations	125 Gyrations	
Air Voids, %	3.5	4.0	4.0	4.0	
VMA, % minimum	1/2 inch – 14.0	3/4 inch – 13.0	3/4 inch – 13.0	1 inch – 12.0	
	3/8 inch – 15.0	1/2 inch – 14.0	1/2 inch – 14.0	3/4 inch – 13.0	
		3/8 inch – 15.0	3/8 inch – 15.0	1/2 inch – 14.0	
				3/8 inch – 15.0	
P No. 200 / Eff AC ratio	0.8 to 1.6	0.8 to 1.6	0.8 to 1.6	0.8 to 1.6	
TSR, % minimum	80	80	80	80	
VFA, %	70 – 80	65 – 78	65 – 75	65 – 75	
N initial, % of AASHTO T209		—	< 90.5	< 89.0	< 89.0

(d) Rut Susceptibility Testing – Add the following subsection:

For each dense graded Level 3 wearing course mix design and each dense graded Level 4 mix design submitted for review, perform the following in addition to the performance testing required by 00745.13(c).

Test laboratory batched samples of each JMF in an Asphalt Pavement Analyzer according to ODOT TM 320. This requirement also applies to mix designs submitted for use according to the "transfer" policy in the ODOT Contractor Mix Design Guidelines for Asphalt Concrete if this test has not been previously conducted. Submit test results in the format required by ODOT TM 320 to the Engineer within 30 days of submitting the mix design for review.

00745.16 HMAC Production QC/QA

(a) Quality Control

(1) Personnel Requirements – Add the following bulleted item:

- Providing at least one CAT-1 full-time at each plant site when producing mixture for the Project.

(4) Testing Frequency – Delete the second and the last paragraph in this subsection.

(5) Plant Calibration – Add the following subsection:

Calibrate all meters and belt scales at the HMAC mixing plant according to ODOT TM 322 prior to beginning production.

(b) Mix Design Verification (MDV) –

(1) MDV Quality Control – Replace this subsection with the following:

a. General – Perform MDV testing on projects with Level 2, Level 3, or Level 4 dense graded HMAC. Perform MDV tests on every sublot and as required at start up according to 00745.16(b-1-c) and the MFTP. Perform gradation and asphalt content testing with each MDV test. Calculate the following values for each MDV test.

- Air Voids
- Voids in Mineral Aggregate (VMA)
- Voids Filled with Asphalt (VFA)
- P 75 µm (P No. 200) / Effective AC (Pbe) Ratio

The running averages of four MDV results shall be within the limits given below:

	Average of	**Limit**
Air Voids	4 samples	JMF Target -0.5% / +1.5%
VMA	4 samples	11.5 – 18.0 (25 mm (1") – Mix) 12.5 – 18.0 (19 mm (3/4") – Mix) 13.5 – 18.0 (12.5 mm (1/2") – Mix) 14.5 – 18.0 (9.5 mm (3/8") – Mix)
VFA	4 samples	65 – 75 (Level 3 and Level 4) 65 – 78 (Level 2)
P 75 µm (P No. 200) / Pbe	4 samples	0.80 – 1.60

The CDT shall provide the results from the initial control strip to the CAT II for evaluation and comparison with the MDV results. If the MDV and density test results are contradictory, initiate an investigation. The CAT II shall recommend a plan to the Engineer for resolving the discrepancy based on the results of the investigation.

Take corrective action when required by the MDV start-up process of 00745.16(b-1-c). After the requirements of 00745.16(b–1–c) have been met, take corrective action if the MDV test results show that two consecutive running average of four samples are outside the above limits for air voids, VMA, VFA, or P 75 µm (No. 200) / Pbe ratio. Document the corrective action and notify the Engineer. If test results continue to be outside the tolerance, stop production and make adjustments. Restart production only after the Engineer has approved the proposed adjustments. If the MDV test results are outside tolerance, but the mixture meets the current requirements for gradation and asphalt content, an adjustment to the JMF targets is required. Do not start a new lot as a result of the adjustment.

A request for an adjustment to the JMF targets may be made to the Engineer by the Contractor's CAT-II. The requested change will be reviewed and documented by the Engineer. If acceptable, a revised JMF will be allowed. Clearly document the sublot test for which the adjusted targets are in effect. Adjustments for gradation shall not exceed the tolerances specified for the original JMF limits. Adjustments for AC content shall be within 0.5% of the original JMF. The JMF asphalt content may only be reduced if the production VMA meets or exceeds the above requirements. Adjustments for RAP content shall be within 5% of the original JMF, but shall not exceed the requirements of 00745.03. Regardless of these tolerances, the adjusted JMF shall be within the mixture specification control points of 00745.12. If a redesign of the mixture becomes necessary, submit a new JMF according to the requirements of these specifications.

Perform a Tensile Strength Ratio (TSR) test (AASHTO T 283) on a sample obtained during the first two days of production after QC test results verify that HMAC constituents with a weighting factor greater than one according to 00745.95 are in tolerance. Provide test results to the Engineer within four working days of obtaining the sample. Stop production and make adjustments if the TSR is less than 70. Restart production only after the Engineer has approved the proposed adjustments.

b. Laboratory Compactor Selection – Use a Gyratory compactor for MDV when a Gyratory compactor is used to develop the JMF. For all other cases, use a Gyratory compactor or Marshall compactor, as selected by the Contractor.

c. MDV Requirements at Start-Up – Perform MDV testing at the start-up of the JMF production according to the following process:

1. Obtain a sample during the first 100 Mg (100 tons) of production and immediately perform MDV testing.

2. If air voids and VMA are within tolerance, then continue remaining MDV testing at the established random QC sublot interval. If not, then go to step "3".

3. If air voids and/or VMA are out of tolerance according to 00745.16(b–1–a), then make adjustments and immediately obtain another sample and perform MDV testing. Go to step "4".

4. If air voids and VMA from the MDV testing in step "3" are within tolerance, then continue remaining MDV testing at the established random QC sublot interval. If not, go to step "5".

5. If air voids from step "3" are more than plus or minus 1.5% from the target, then stop production immediately and make adjustments. If they are not, then go to step "6". Obtain approval of the Engineer before restarting production. Begin MDV testing again at step "1".

6. If air voids from step "3" are out of tolerance and 1.5% or less from the target, or the VMA from step "3" is out of tolerance, then make adjustments and immediately obtain another sample and perform MDV testing. Go to step "4".

The initial MDV sample shall be used as the first random QC sublot test. Subsequent MDV samples required due to failure of start-up criteria will be used for a sublot QC test if the sample is taken within 100 Mg (100 tons) of the scheduled random QC sample location. If not, the MDV testing shall be performed separate from, and not included in, the random QC testing program. Any required MDV testing will be completed at the Contractor's expense.

d. Rut Susceptibility Testing – Perform rut susceptibility testing on samples of produced HMAC mixture for each dense graded Level 3 wearing course mixture and all dense graded Level 4 mixtures as follows:

- After all adjustments for each JMF have been completed, save the two gyratory samples generated for each MDV sublot test according to ODOT TM 326 for four consecutive sublot tests.
- Test six of the eight samples in an Asphalt Pavement Analyzer according to ODOT TM 320.
- Submit, to the Engineer, test results in the format required by ODOT TM 320 within 30 days of the date the fourth sublot sample was generated.
- Package and ship the gyratory samples to the laboratory performing ODOT TM 320 in a manner that will not result in deformation or damage to the samples.

00745.17 Small Quantity Acceptance – Replace the first sentence of this subsection with the following:

When the quantity of HMAC on a Project is less than 2500 Mg (2,500 tons), the Engineer may accept the HMAC according to Section 4(B) of the MFTP or by test results according to the following:

Equipment

00745.22 Hauling Equipment – Add the following sentence to this subsection:

Truck beds shall have a 9.5 mm (⅜ inch) diameter hole near the middle of the left side wall to allow access for a thermometer.

00745.24 Compactors

(a) Steel-Wheeled Rollers – Replace this subsection with the following:

Provide steel-wheeled rollers with a minimum gross static mass (weight) as follows:

	Level 1 and Level 2	Level 3	Level 4
Breakdown and Intermediate	7 Mg (8 ton)	9 Mg (10 ton)	10.9 Mg (12 ton)
Finish	5.4 Mg (6 ton)	7 Mg (8 ton)	9 Mg (10 ton)

(b) Vibratory Rollers – Replace the fourth bulleted item of the first group of bullets and replace the first bulleted item of the second group of bullets with the following:

- Have a minimum gross static mass (weight) meeting the requirements of 00745.24(a).

Construction

00745.40 Season and Temperature Limitations – Replace the table column headings with the following column headings:

Nominal Compacted Thickness of Individual Lifts and Courses as shown on the typical section of the plans	All Levels	Level 1 and Level 2	Level 3 and Level 4	
		All Courses	Travel Lane Wearing Course	All Other Courses
	Surface Temperature*	From To Inclusive	From To Inclusive	From To Inclusive

In the table, for Surface Temperature of Dense Graded Mixes 40 to 65 mm (1 1/2" to 2 1/2"), replace "10° C (50° F)" with "5° C (40° F)".

00745.41 Prepaving Conference – Delete the last sentence in this subsection and replace with the following:

A representative of the Contractor responsible for quality control shall also attend for all Level 3 and Level 4 mixes.

00745.42 Preparation of Underlying Surfaces – Delete the first paragraph in this subsection and replace with the following:

All bases and foundations on which the pavement is to be constructed shall meet the applicable Specifications and be approved prior to the start of paving. Recondition existing bases and foundations according to Section 00610. Trim broken or ragged edges to firm material when directed.

All cuts in existing pavement shall be clean, straight and a minimum depth of 50 mm (2 inches) or half the thickness of the pavement, whichever is greater. Pavement cuts damaged by construction equipment or other means shall be recut at no expense to the Agency prior to the start of paving.

All cracks in existing underlying pavement shall be cleaned and repaired according to Section 00746 prior to the start of paving.

00745.45 HMAC Storage – Add the following item to this subsection:

(f) Open Stockpiles - Storage or holding of HMAC in open stockpiles will not be permitted.

00745.48 Hauling, Depositing and Placing

(a) Hauling – Add the following sentence to this subsection:

Each load of mixture delivered to the project shall have a weigh memo provided by the Contractor.

(c) Placing – Delete this subsection and replace with the following:

Alternative equipment and means may be allowed by the Engineer if the use of a paver is impractical.

Do not place HMAC during rain or other adverse weather conditions, unless allowed by the Engineer. HMAC in transit at the time adverse conditions occur may be placed if:

- It has been covered during transit
- The HMAC temperature is satisfactory
- It is placed on a foundation free from pools or flow of water
- All other requirements are met

When leveling irregular surfaces and raising low areas, do not exceed 50 mm (2 inches) actual compacted thickness of any one lift. This may require portions of the mixture to be laid in two or more lifts.

Place the mixture in the number of lifts and courses, and to the compacted thickness for each lift and course as shown. Place each course in one lift unless otherwise specified. Do not exceed a compacted thickness of 76 mm (3 inches) for any lift. Limit the minimum lift thickness to twice the maximum aggregate size in the mix.

Do not intermingle HMAC produced from more than one JMF. Each base course panel placed during a working shift shall conform to a single JMF. The wearing course shall conform to a single JMF, except for adjustments in the JMF according to 00745.16 (b-1).

00745.49 Compaction, QC

(a) General – Add the following to this subsection:

The specified compaction for all levels of dense graded HMAC shall be a minimum of 92% of theoretical maximum density as determined by ODOT TM 306.

(b) Normal Pavement (Nominal Thickness 50 mm (2 Inches) or Greater) – Replace the subsection heading with the following:

(b) Normal Pavement (Nominal Thickness 40 mm (1 ½ inches) or Greater

(1) General – Delete this subsection and replace with the following:

Compliance with the density specifications for dense graded HMAC shall be determined by random testing of the compacted road surface with calibrated nuclear gauges.

A pneumatic roller is not required for Level 1, Level 2 HMAC or paving sections less than 152 m (500 feet) in length. The Contractor shall have at least one available pneumatic tired roller conforming to 00745.24(c) on the project and in good operating condition for Level 3 and Level 4 HMAC.

The CDT shall notify the Engineer when the average density of a sublot falls below 90% or exceeds 95% of theoretical maximum density.

(2) Random Testing – Delete this subsection and replace with the following:

Determine the density of each sublot by averaging five QC tests performed at random locations with the nuclear gauge operated in the backscatter mode. Lots and sublots shall correspond with those defined in 00745.02. In addition, perform at least one density test each day of production. The additional testing may be waived by the Engineer.

When a Contract indicates placement of less than one sublot (1000 Mg (1000 ton)), random compaction tests shall be conducted at one per every two hundred Mg (ton) placed unless otherwise indicated in the Special Provisions.

a. Testing – After completion of the finish rolling, test according to WAQTC TM 8. Do not locate the center of a density test less than 0.3 m (1 foot) from the panel edge. Complete density testing before traffic is allowed on the new mat.

b. Core Correlation of Nuclear Gauge Readings – When requested by the Contractor or Engineer, correlation of nuclear gauge readings shall be according to WAQTC TM 8 and ODOT TM 327.

If correlations are requested, correlate each nuclear gauge used on the project. New correlations are required if the aggregate source or the asphalt cement source changes.

Apply correlation factors to all nuclear gauge readings for all dense graded mixtures placed on the project. Cut the required cores and patch the core holes with dense graded HMAC to match grade. Seal cored pavement with CSS-1 and sand. Determine the core correlation factor according to WAQTC TM 8 and provide the results to the Engineer. Costs of the core correlation will be paid for by the requesting party.

c. Aggregate Gradation and Asphalt Content Sampling – The Contractor shall take samples from the grade, unless otherwise directed by the Engineer, on a random basis determined by the Engineer. The samples for acceptance testing shall be taken in the presence of the Engineer. One sample per 500 Mg (500 ton) shall be taken, with a minimum of three samples per project of each JMF.

When samples are not obtained as required, the Engineer may require the gradation and asphalt content to be determined by core samples. Core samples will be tested by an independent testing laboratory at the direction of the Engineer. The Contractor shall bear all costs associated with coring and testing.

(3) Moving Average Maximum Density (MAMD) Method – Delete this subsection.

(4) Control Strip Method – Delete this subsection.

(6) Compaction Standard Testing – Add this subsection:

The Engineer shall have the right to test any areas that appear defective in compaction. If the areas are found deficient, the Engineer may require the Contractor to bring the areas into conformance with the Specifications.

Acceptance will not be made for mixture compacted to less than 88% of theoretical maximum density (Rice Density), or 94% of target density. The Engineer may decide to allow the deficient pavement to remain in place. In that case, the Engineer and Contractor shall agree in writing that the pavement will remain in place.

If the Contractor takes core samples to verify the densities, core holes shall be filled with dense graded HMAC to match grade. Seal cored pavement with CSS-1 and sand. The density of the core samples shall be tested by an independent testing laboratory in accordance with ASTM 2726. All verifying work shall be performed by the Contractor at no expense to the Agency.

Where placed pavement fails to meet minimum compaction standards, the Engineer may accept the pavement and adjust Contractor payment according to Section 00745.96.

In addition to adjusted payment, if the in place compaction of more than 25% of the top pavement lift is 90% or less of Rice Density, the Engineer may require the Contractor to fog coat the top lift of paving in the affected area according to Section 00705 and as directed. This treatment will be at no expense to the Agency.

Additional remedial work or replacement of HMAC compacted to 88% or less of Rice Density may be required by the Engineer. Remedial work or replacement shall be at no expense to the Agency.

(f) Pavement Thickness – Add this subsection:

The Engineer may select locations for non-destructive measurement or core samples of in place HMAC to determine pavement thickness.

If non-destructive measurement indicates a pavement section is less than the thickness shown on the plans or is otherwise out of specification, the Contractor may take cores at the locations in question to verify the Engineer's measurements. If the pavement section is found to comply with specification requirements, coring and restoration will be paid for as extra work. Pavement found to be out of specification shall be subject to remedial work, adjusted payment or replacement in accordance with Section 00746.98.

In determining deficient or excessive thickness in HMAC overlays, the Engineer may adjust the cross section measurement sequence, average series of measurements or take other appropriate steps to allow for the desirable leveling of low or high areas on the existing pavement.

In determining payment adjustment for deficient or excessive pavement thickness, a section of pavement will normally be one full roadway section (30 m (100 feet)). For non-roadway paving and in other situations where the Engineer determines the above section is inappropriate, the Engineer may establish a different unit of work on which to calculate average thicknesses and price adjustments according to Section 00745.98.

Where a deficiency is found and the Engineer determines the deficiency or excess serious enough to impair the traffic service expected from the pavement, the area in question shall be removed by the Contractor and replaced with pavement meeting specification requirements at no expense to the Agency.

When pavement thickness, as determined by the Engineer's measurements or test cores, is found deficient by more than the thickness of the specified wearing course of HMAC, the Engineer may allow the Contractor to place an additional lift (overlay) of HMAC to bring the total thickness of the pavement into conformance with specifications. Overlays shall be subject to all applicable specification requirements.

Temporary

00745.50 Temporary Surfacing Course – Delete the last sentence in this subsection.

00745.61 Longitudinal Joints

(a) Location

(2) Wearing Course – Add the following sentence to this subsection:

The placement of HMAC along existing concrete gutters shall be raked in such a manner that the compacted pavement shall not vary more than 6 mm (¼" inch) from the top face of gutter unless otherwise approved by the Engineer.

00745.62 Transverse Joints:

(a) Travel Lanes

(1) Temporary End Panel – Delete this subsection and replace with the following:

Maintain pavement depth, line and grade at least 1.2 m (4 feet) beyond the selected transverse joint location. From that point, wedge down on the appropriate slope until the top of the course being laid meets the underlying surface (assuming a pavement course thickness of 50 mm (2 inches) as follows:

- For wedges that will be under traffic for less than 24 hours, construct a 1.2 m (4 foot) long wedge (1V:25H taper rate)
- For wedges that will be under traffic for 24 hours or longer, construct a 2.5 m (8 foot) long wedge (1V:50H taper rate)
- Construct, maintain, remove and dispose of the temporary wedge at no expense to the Agency. HMAC for the temporary wedge will be paid for at the pay item price.

When the pavement course thickness is different than the above 50 mm (2 inch) example, use the appropriate taper rate to compute the length of the wedge. The wedge length plus the 1.2 m (4 feet) or longer panel form the "temporary end panel".

(6) Matching Existing Pavements – Add this subsection:

Where new HMAC is constructed to join or overlay existing pavements, the Contractor shall seal the joints and taper edges with CSS–1 and sand.

Finishing and Cleaning Up

00745.75 Correction of Pavement Roughness

(a) Methods

(2) Wearing Course – Add the following item to this subsection:

- Apply emulsion fog coat

(d) Other Action – Add this subsection:

Where surface irregularities are localized or where the Engineer determines corrective work would not be in the Agency's best interests, The Engineer may deduct from payment due the Contractor amounts equivalent to the Engineer's estimate or work costs had the corrective work been done.

Measurement

00745.80 General – Delete this subsection and replace with the following:

The accepted quantities of HMAC will be measured by the Mg (ton) according to Section 00190 with no separate measurement being made for the asphalt concrete mixture and the asphalt cement contained in the mixture. No deduction will be made for lime, RAP or any other approved additive used in the mixture.

00745.83 Other Items – Add the following to this subsection:

AC saw cutting shall be measured by the m (foot) as marked in the field.

Payment

00745.90 General – Delete this subsection and replace with the following:

The accepted quantities of HMAC incorporated into the project, whether or not recycled materials are used, will be paid for at the contract price per Mg (ton) for the following item:

Pay Item

Level ____, ____, ____, HMAC, ____

No separate payment will be made for asphalt cement used in the mixture.

The following information will be inserted in the blanks:

- The level(s) of HMAC (1, 2, 3, 4) will be inserted in the first blank
- The type(s) of HMAC (25 mm (1 inch) Dense, 19 mm (¾ inch) Dense, 12.5 mm (½ inch) Dense, 9.5 mm (⅜ inch) Dense, 19 mm (¾ inch) Open, 12.5 mm (½ inch) Open, 19 mm (¾ inch) ATPB), will be inserted in the second blank
- The words "Lime Treated" will be inserted in the third blank when applicable
- The words "in Leveling", "in Temporary", or "in Leveling and Temporary" will be inserted in the fourth blank when applicable

Payment will be payment in full for furnishing and placing the materials and for furnishing all equipment, labor and incidentals necessary to complete the work as specified.

00745.95 HMAC Price Adjustments – Delete this subsection

00745.97 Price Adjustment for Compaction – Add this subsection:

HMAC pavement which does not comply with compaction requirements shall be removed, replaced or subject to a price reduction credited to the Agency at the discretion of the Engineer. Price reductions are determined from the following table:

Compaction Adjustment Schedule

% Maximum Density (ODOT TM 306)	% Pay for HMAC Bid Item
92.0 and above	100
91.5 - 91.9	95
91.0 - 91.4	90
90.5 - 90.9	85
90.0 - 90.4	80
89.5 - 89.9	70
89.0 - 89.4	60
88.1 - 89.0	0 - 50 [1]
88.0 and below	0 [2]

[1] As determined by the Engineer
[2] No payment will be made for any area of HMAC with 88.0% or less compaction, even though the pavement may be allowed by the Engineer to remain in place.

00745.98 Price Adjustment for Thickness – Add this subsection:

When the pavement in any section of HMAC is found deficient in thickness by less than the specified thickness of the wearing course and the Engineer allows the pavement to remain in place, payment for that pavement will be made at an adjusted price determined from the following table. The reduced payment shall be credited to the Agency.

Thickness Adjustment Schedule

% Deficiency in Thickness	% Pay Reduction for HMAC Bid Item
0.0 – 5.0	No deduction
5.0 – 10.0	0.5 x Deficiency
10.0 – 15.0	1.0 x Deficiency
15.0 – 20.0	1.5 x Deficiency
20.0 – 25.0	2.0 x Deficiency
25.0 – 30.0	2.5 x Deficiency
30.0 and greater	100 [1]

[1] No payment will be made for any area of HMAC found deficient in thickness by 30.0% or greater, even though the pavement may be allowed by the Engineer to remain in place.

When HMAC in any section is found to exceed the specified thickness by more than 6.3 mm (¼ inch), the Engineer shall calculate the tonnage of material in the excess thickness of the pavement and deduct that quantity from tonnage payment due under the Contract.

Section 00746 – Crack Sealing Flexible Pavements

The Crack Sealing Flexible Pavements Section shall be administered in conformance with Section 00746 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00746.10 Sealants – Replace the paragraph that begins "Provide hot-poured sealants..." with the following paragraph:

Provide hot-poured sealants of the type intended for use in sealing cracks in asphalt concrete pavement that meet the requirements of 02440.30.

Construction

00746.42 Installation Procedure – Delete the last paragraph in this subsection.

Payment

00746.90 Payment – Delete the last paragraph in this subsection and replace with the following:

Payment will be payment in full for furnishing and placing all material, including cleaning as required and furnishing all equipment, labor and incidentals necessary to complete the work as specified.

00755.55 Surface Tolerance, Testing and Correction

(b) Graphic Profile Testing (GPT) and Tolerance:

(2) Surface Test – Delete the second paragraph in this subsection and replace with the following:

Obtain profiles on the pavement surface along lines parallel to and approximately 1 m (3 feet) from each edge and longitudinal joint(s) for 3.6 m (12 foot) wide lanes and 1.2 m (4 feet) from each edge and longitudinal joint(s) for 4.2 m (14 foot) wide lanes or as necessary to provide a profile in each vehicle wheel path. Take profiles through transition areas as close to the wheel path as practical.

Section 00756 – Plain Concrete Pavement

The Plain Concrete Pavement Section shall be administered in conformance with Section 00756 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00756.04 Aggregate Production and Prepaving Conference: – Delete this subsection and replace with the following:

00756.04 Prepaving Conference – Supervisory personnel of the Contractor and any subcontractors who are to be involved in the concrete paving work shall meet with the Project Manager at a mutually agreed time to discuss methods of accomplishing all phases of the paving work.

Construction

00756.41 Preparation of Base – Add the following to this subsection:

All cuts in existing pavement shall be clean, straight and a minimum of 50 mm (2 inches) or half the thickness of the pavement, whichever is greater. Pavement cuts damaged by construction equipment or other means shall be recut at no expense to the Agency prior to the start of paving.

00756.47 Test Strip – Delete this subsection and replace with the following:

At the beginning of paving operations, construct one initial test strip of concrete pavement at least 91 m (300 feet), but not more than 152 m (500 feet) in length at the specified paving width. use the same equipment for the remainder of the paving. Do not perform further paving until the test strip is evaluated according to 00756.55. An additional test strip will be required when:

- The Contractor proposes using different paving equipment
- Any portion of a test strip fails to meet the smoothness requirements of 00755.55

Change methods and/or equipment and construct additional test strips until a test strip meets smoothness requirements without grinding or other corrective work. Limit these additional test strips to 91 m (300 feet).

If three test strips fail to meet smoothness requirements before grinding, remove all three strips at the Contractor's expense and construct additional test strips.

00756.55 Surface Tolerance, Testing and Correction

(b) Graphic Profile Testing (GPT) and Tolerance:

(2) Surface Test – Delete the second paragraph in this subsection and replace with the following:

Obtain profiles on the pavement surface along lines parallel to and approximately 1 m (3 feet) from each edge and longitudinal joint(s) for 3.6 m (12 foot) wide lanes and 1.2 m (4 feet) from each edge and longitudinal joint(s) for 4.2 m (14 foot) wide lanes or as necessary to provide a profile in each vehicle wheel path. Take profiles through transition areas as close to the wheel path as practical.

Section 00759 – Miscellaneous Portland Cement Concrete Structures

The Miscellaneous Portland Cement Concrete Structures Section shall be administered in conformance with Section 00759 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00759.12 Sidewalk Ramp Treatment – Add the Following Subsection –

Ramp texturing shall be done with an expanded metal grate, "Stamped" into the wet concrete to leave a diamond pattern. The long axis of the diamond pattern shall be in the direction of the slope of the ramp. Grooves shall be a minimum of 1/8 inch deep and ¼ inch wide. See City of Lebanon Standard Drawing Number 00700-5 for further information.

Construction

00759.48 Expansion Joints

(b) Driveways, Walks, Monolithic Curbs and Sidewalks and Surfacings – Delete the second bullet in this subsection and replace with the following:

- Transversely in walks opposite expansion joints in adjoining curbs and elsewhere so the distance between joints does not exceed 154 m (50 feet)

00759.49 Contraction Joints

(a) Locations – Delete the last bullet in this subsection and replace with the following:

- At locations to confine joint spacing to the width of the panel pour or 4.6 m (15 feet), whichever is less

00759.50 Surface Finishing

(c) Driveways, Walks, and Surfacing – Add the following to this subsection:

On all sidewalk ramps and accessible route islands, construct texturing per City of Lebanon Standard Drawing Number 00700-5.

Payment

00759.90 General – Delete this subsection and replace with the following:

The accepted quantities of structures will be paid at the Contract price per unit of measurement for the following:

	Pay Item	Unit of Measurement
(a)	_____ Concrete Curbs	m (Foot)
(b)	Concrete Islands	m^2 (Square Foot)
(c)	Concrete Driveways	m^2 (Square Foot)
(d)	Concrete Driveways, Reinforced	m^2 (Square Foot)
(e)	Concrete Walks	m^2 (Square Foot)
(f)	Monolithic Curb and Sidewalks	m^2 (Square Foot)
(g)	_____ Concrete Surfacing	m^2 (Square Foot)
(h)	Concrete Stairs	m^3 (Cubic Foot)
(i)	Concrete Straight Curbs	m (Foot)

In item (a), the type of curb will be inserted in the blank, if appropriate.

Item (b) includes traffic separators.

Items (c) and (d) includes monolithic curb at driveway locations.

Item (e) includes sidewalk access ramps.

In item (g), the specified thickness or type of concrete surfacings will be inserted in the blank, if appropriate.

Item (h) includes pipe handrail.

Saw cutting, excavation, earthwork, disposal, and aggregate base as well as all equipment, labor, testing and incidentals necessary to complete the work as specified shall be considered incidental to the above pay items unless specifically noted in the Special Provisions.

PART 00800 – PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES

Section 00815 – Bollard

The Bollard Section shall be administered in conformance with Section 00815 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Materials

00815.11 Posts and Sleeves – Replace this subsection with the following:

Use 102 mm (4 inch) steel pipe or square tubing (0.250 gauge) for posts and 89 mm (3-1/2 inch) steel pipe or square tubing (0.250 gauge) for sleeves.

00815.13 PVC Pipe – Replace this subsection with the following:

The use of PVC pipe will not be allowed in the construction of either bollards or removable bollards.

Section 00850 – Pavement Markings for Legends

The Pavement Markings for Legends Section shall be administered in conformance with Section 00850 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00850.02 Definitions – Replace this subsection, except the heading, with the following:

Type A – Liquid Hot-Laid Thermoplastic – Liquid, hot-laid, thermoplastic containing integral reflective elements, with a separate application of additional reflective elements on the surface.

Type B – Preformed Fused Thermoplastic Film – Preformed, fused, thermoplastic film with intermixed reflective elements; with or without a separate application of additional reflective elements on the surface.

Type C – Cold-Applied Plastic Film (Tape) – Cold-applied plastic film (tape) with intermixed reflective elements.

Type D – Methyl Methacrylate – Methyl methacrylate, including integral aggregate and reflective elements, with additional reflective elements on the surface.

Materials

00850.10 General – In the listed items, replace "Traffic Paint Beads" with "Reflective Elements".

Add the following subsection:

00850.30 Manufacturer's Representative – Provide the services of a manufacturer's representative (the "Manufacturer's Representative"), authorized to sign a warranty ("the Warranty") on behalf of the manufacturer (See 00850.75). The Manufacturer's Representative shall observe the placement of the legend materials. The Contractor shall require the Manufacturer's Representative to immediately alert the Contractor and the Engineer of anything that could affect the performance of the product or the Warranty. Cooperate with the Manufacturer's Representative and the Engineer to ensure that the materials are placed in accordance with the manufacturer's recommended procedures. The Contractor shall require the Manufacturer's Representative to fill out the Warranty form and sign it on behalf of the manufacturer.

Construction

00850.40 General – Replace the first sentence of the first paragraph with the following:

Place markings as shown or as directed, and in compliance with the MUTCD.

00850.42 Application of Pavement Marking Materials – Add the following sentence after the first sentence of the first paragraph:

Pay particular attention to the manufacturer's recommendations when placing material over an asphalt construction joint.

00850.75 Warranty – Replace this subsection with the following:

00850.75 Manufacturer's Warranty – Furnish a Warranty, signed by the Manufacturer's Representative, that all lines will stay in place, and maintain their color and retroreflectivity for 18 months.

The Warranty period will start on the date the Engineer accepts the work and authorizes final payment.

The Warranty shall recite that the manufacturer is required to repair or replace, at the discretion of the Engineer and at no additional cost to the Agency, all markings that fail to bond, drop below the required minimum retroreflectivity, or show insufficient color stability, within six months of the Agency's request to do so.

Perform Warranty repair work when weather permits. At the discretion of the Agency, temporary pavement markings may be required, at the Contractor's expense, to protect traffic until repairs can be made.

When the Agency makes written request to the manufacturer for repair or replacement, the Warranty period will stop until the requested repair(s) or replacement(s) are made and accepted.

(a) Retroreflectivity – Markings shall maintain a minimum retroreflectivity of 100 millicandellas. If retroreflectivity becomes a concern at any time during the Warranty period, the Agency will measure the retroreflectivity for compliance, with a Mirolux 12, Mirolux 30, Ecolux, LTL 2000, or other similar device. No correlation will be made between these pieces of equipment. Each legend will be tested separately, at several random locations chosen by the Engineer. Clean areas of obvious contamination and remove loose debris prior to testing.

The wheel tracks will be measured and averaged separately. If just the wheel tracks become deficient during the Warranty period, replace the sections having low retroreflectivity. If a larger section has low readings, replace the entire legend. Repair markings that drop below the required minimum retroreflectivity during the Warranty period.

(b) Color Stability – Yellow markings will be compared to the PR-1 chart, and shall meet 33538 Federal Yellow. White markings shall have a minimum daylight reflectance of 84 throughout the Warranty period. Failure of the material to maintain color stability will be considered a complete failure of the material on that legend.

(c) Adhesion – Markings shall remain in place and bonded to the substrate during the Warranty period.

Payment

00850.90 General – Add the following paragraph after the paragraph that begins "In items (b) through (j)...":

Items (b) through (j) include preparing, cleaning, and priming pavement surfaces and laying out the locations of new pavement markings.

Add the following paragraphs to the end of this subsection:

Payment includes providing the Manufacturer's Representative and furnishing the Warranty.

Payment for work under this Section will be limited to 90% of the amount due until the Agency has received the signed Warranty

Section 00861 – Painted Permanent Pavement Striping

The Painted Permanent Pavement Striping Section shall be administered in conformance with Section 00861 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00861.00 Scope – In the first sentence, replace the words "in accordance to the ODOT Traffic Line Manual" with "in compliance with the MUTCD".

Construction

00861.40 General – Replace the first sentence of this subsection with the following:

Before striping, prepare the surface according to the paint manufacturer's recommendations. Apply striping to the lines and locations shown, or as directed.

00861.45 Placement Tolerance – Replace this subsection with the following:

Place striping parallel and true to line. Make skip ends square and clean. Place skip stripes so that they are in cycle with at least one end of any adjacent project.

Allowable tolerances for installation are:

- **Side to side** – 13 mm (½ inch) on tangents; 25 mm (1 inch) on curves
- **Length of skips** – 1.5 m ± 50 mm (5 feet ± 2 inches)
- **End to end on skips** – 4.6 m ± 50 mm (15 feet ± 2 inches). Place skips on a cycle to a tolerance of 50 mm (2 inches).
- **Double Lines** – Parallel, with a gap tolerance of ± 13 mm (± ½ inch).

PART 00900 – PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS

Section 00930 – Metal Sign Supports

The Metal Sign Supports Section shall be administered in conformance with Section 00930 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

00930.02 Working Drawings – Replace this section with the following:

Submit four copies of stamped working drawings, plans, details, and calculations according to 00150.35(b-1) for all structural metal work. Any material ordered or work done before the review of working drawings shall be at the Contractor's risk. All engineered details and drawings that are not prepared by the Agency but are required in the Contract Documents and Specifications for the Project shall be submitted for review prior to fabrication.

In addition to the working drawings, submit four copies of all available data including Manufacture's pamphlets and brochures, technical bulletins, working drawings and other technical information relative to products used on the Project. After installation, submit corrected working drawings that represent the material as installed and in operation. Include sufficient information to enable the Agency's maintenance forces to replace all or part of the commercially manufactured sign structures, under routine or emergency maintenance, by direct reference to the information furnished by the Contractor.

Working drawings are not required for the following types of steel supports:

- Single Post Breakaway Sign Supports
- Triangular Base Breakaway Sign Supports
- Multi-Post Breakaway Sign Supports

Working Drawings for the supports will be provided by ODOT's Sign Design Unit or City of Lebanon Standard Drawings.

Materials

00930.10 General – Replace this subsection with the following:

Provide structural steel materials conforming to the applicable portions of Section 02530, with masses (weights) and sizes as shown or specified.

Provide galvanized bolts, nuts, hardened washers and direct tension indicators conforming to 02560.20.

All components of steel sign structures shall be galvanized after fabrication and before assembly. Galvanizing shall conform to the requirements of Section 02530.

(a) Sign Posts – All sign posts shall be round 60 mm (2 ⅜ inch), 16 gauge galvanized post, 3.2 m (10 foot, 6 inches) in length unless otherwise specified.

(b) Sign Supports – All sign mounting supports shall "V-Loc Socket System" or an approved equal. Soil bearing or pavement supported V-locs shall be installed as per manufactures specifications.

(c) Sign Mounting Hardware – All sign mounting hardware shall be clamp-on U-brackets or approved equal. Single or double clamp-on U-brackets shall be installed as per manufactures specifications. Use 13 mm (½ inch) wide hex nut bolts with a rubber or neoprene washer to mount signs to bracket. Metal washers will not be accepted.

Section 00940 – Signs

The Signs Section shall be administered in conformance with Section 00940 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

00940.00 Scope – Add the following:

Paint the backs of aluminum substrate signs, and all metal sign supports, according to Section 00937.

00940.01 Sign Backgrounds –

(a) Color – Replace the paragraph that begins "Use sign background colors..." with the following:

Use sign background colors conforming to the Federal Highway Administration "Color Specifications for Retroreflective Sign and Pavement Marking Materials". Non-reflective, reflective, and retroreflective sheeting shall conform to Section 02910.

00940.02 Types of Signs – Replace sign types "B" through "YG" with the following:

"B" Blue encapsulated lens retroreflective sheeting background with silver-white encapsulated lens retroreflective permanent or removable legend, or silver-white encapsulated lens retroreflective sheeting overlaid with blue transparent paste background, with retroreflective silver-white screened legend on extruded panels, sheet aluminum, or plywood.

"B1" Blue enclosed lens reflective sheeting background with silver-white encapsulated lens permanent or removable legend, or silver-white encapsulated lens retroreflective sheeting overlaid with blue transparent paste background, with retroreflective silver-white screened legend on extruded panels, sheet aluminum, or plywood.

"B2" Blue encapsulated lens retroreflective sheeting on extruded aluminum panels, with white prismatic lens retroreflective removable legend.

"B3" Blue prismatic lens retroreflective sheeting on extruded or sheet aluminum, with white prismatic lens retroreflective permanent or removable legend.

"C" Brown encapsulated lens retroreflective lens sheeting background with silver-white encapsulated lens retroreflective permanent or removable legend, or silver-white encapsulated lens retroreflective sheeting overlaid with brown transparent paste background, with retroreflective silver-white screened legend on extruded aluminum panels, sheet aluminum, or plywood.

"C1" Brown encapsulated lens retroreflective sheeting on extruded aluminum panels, with white prismatic lens retroreflective removable legend.

"C2" Brown prismatic lens retroreflective sheeting on sheet aluminum, with white prismatic lens retroreflective permanent legend or white prismatic lens retroreflective sheeting with screened brown legend.

"C3" Brown prismatic lens retroreflective sheeting on extruded aluminum panels, with white prismatic lens retroreflective removable legend.

"F" Silver-white encapsulated lens retroreflective sheeting overlaid with red and blue transparent paste background, with silver-white screened legend or encapsulated lens retroreflective permanent legend on sheet aluminum or plywood.

"F1" White prismatic lens retroreflective sheeting overlaid with red and blue transparent paste background on sheet aluminum, with white prismatic lens retroreflective permanent legend.

"G" Green encapsulated lens retroreflective sheeting background with silver-white encapsulated lens retroreflective permanent or removable legend, or silver-white encapsulated lens retroreflective sheeting overlaid with green transparent paste background with retroreflective silver-white screened legend on extruded aluminum panels, sheet aluminum, or plywood.

"G1" Green encapsulated lens retroreflective sheeting on extruded aluminum panels, with white prismatic lens retroreflective removable legend.

"G2" Green encapsulated lens retroreflective sheeting on sheet aluminum, with white prismatic lens retroreflective permanent legend.

"G3" Green prismatic lens retroreflective sheeting on sheet aluminum, with white prismatic lens retroreflective permanent legend or white prismatic lens retroreflective sheeting with green screened legend.

"G4" Green prismatic lens retroreflective sheeting on extruded aluminum panels, with white prismatic lens retroreflective removable legend.

"O" Orange enclosed lens reflective sheeting background on extruded aluminum panels, sheet aluminum, or plywood, with nonreflective black legend.

"OO" Orange encapsulated lens retroreflective sheeting background on extruded aluminum panels, sheet aluminum, or plywood, with nonreflective black legend.

"O3" Orange encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with nonreflective black screened or cut-out permanent legend and retroreflective red symbol. (Stop or Yield Ahead Symbol sign)

"O4" Orange fluorescent prismatic lens retroreflective sheeting background on sheet aluminum or plywood, with nonreflective black screened or cut-out permanent legend.

"O5" Orange fluorescent prismatic lens retroreflective sheeting on extruded aluminum panels, with black nonreflective removable legend.

"R" Silver-white encapsulated lens retroreflective sheeting overlaid with red transparent paste background on sheet aluminum or plywood, with encapsulated lens retroreflective silver-white permanent legend. (Stop Sign, Wrong-Way, Do Not Enter, etc.)

"R1" White prismatic lens retroreflective sheeting overlaid with red transparent paste background on sheet aluminum or plywood, with white prismatic lens retroreflective permanent legend.

"R2" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, overlaid with screened red transparent paste triangle and legend or encapsulated lens red retroreflective triangle and legend. (Yield Sign)

"R3" White prismatic lens retroreflective sheeting background on sheet aluminum or plywood, overlaid with screened red transparent paste triangle and legend.

"R4" Rubber STOP flap made of natural rubber with a red background and white lettering.

"W1" Silver-white encapsulated lens retroreflective sheeting background with nonreflective black screened, cut-out permanent, or removable legend on extruded aluminum panels, sheet aluminum, or plywood.

"W2" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with a screened nonreflective black legend and a retroreflective circle and continuous diagonal bar overlaid with red transparent paste. (Prohibition)

"W3" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with transparent brown screened legend or brown encapsulated lens retroreflective cut-out permanent legend.

"W4" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with transparent red screened legend or red encapsulated lens retroreflective cut-out permanent legend.

"W5" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with green transparent screened legend or green encapsulated lens retroreflective cut-out permanent legend.

"W6" White prismatic lens retroreflective sheeting on sheet aluminum, with a screened or cut-out nonreflective black legend and a retroreflective circle and continuous diagonal bar overlaid with red transparent paste.

"W7" White prismatic lens retroreflective sheeting background on sheet aluminum, with nonreflective black screened or cut-out permanent legend.

"W8" Silver-white encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with transparent blue screened legend or blue encapsulated lens retroreflective cut-out permanent legend.

"W9" Silver-white encapsulated lens retroreflective sheeting background on plywood, with orange fluorescent prismatic lens retroreflective border and OTIA logo permanent legend. Lower legend is nonreflective black screened or cut-out permanent legend.

"W10" White prismatic lens retroreflective sheeting on extruded aluminum panels, with black nonreflective removable legend.

"Y1" Yellow encapsulated lens retroreflective sheeting background with nonreflective black screened, cut-out permanent, or removable legend on extruded aluminum panels, sheet aluminum, or plywood.

"Y2" Yellow encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with a screened or cut-out nonreflective black legend and encapsulated lens retroreflective red and green circles. The center yellow circle shall be part of the background. (Signal Ahead Symbol Sign)

"Y3" Yellow prismatic lens retroreflective sheeting background with nonreflective black screened, cut-out permanent or removable legend on extruded aluminum panels or sheet aluminum.

"Y4" Yellow encapsulated lens retroreflective sheeting background on sheet aluminum or plywood, with nonreflective black screened or cut-out permanent legend and encapsulated lens retroreflective red symbol. (Stop or Yield Ahead Symbol Sign)

"Y5" Yellow fluorescent prismatic lens retroreflective sheeting background on sheet aluminum, with nonreflective black screened or cut-out permanent legend.

"Y6" Yellow prismatic lens retroreflective sheeting background on sheet aluminum, with nonreflective black screened or cut-out permanent legend and prismatic lens retroreflective sheeting red and green circles. (Signal Ahead Symbol Sign)

"Y7" Yellow prismatic lens retroreflective sheeting background on sheet aluminum, with nonreflective black screened or cut-out permanent legend and prismatic lens retroreflective sheeting red symbol. (Stop or Yield Ahead Symbol Sign)

"YG" Yellow-green fluorescent prismatic lens retroreflective sheeting background on sheet aluminum, with nonreflective black screened or cut-out permanent legend.

00940.03 Drawings – Replace the second sentence with the following:

Standard signs called for in the Contract Documents shall be constructed using drawings available in FHWA's "Standard Highway Signs" (FHWA English Version) or ODOT's "Sign Policy and Guidelines for the State Highway System".

00940.04 Construction – Add the following subsection:

Signs shall be fabricated of matched components from the same supplier, to ensure that all components of each sign are compatible, and are warrantable by the manufacturer.

Materials

00940.10 General – Add the following to this subsection:

The use of reinforced sheet aluminum signs is not allowed.

The use of medium-density overlay (MDO) plywood for permanent signs is not allowed.

Construction

00940.40 Aluminum Panel Sign Fabrication –

(b) Extruded Aluminum – Replace this paragraph, except for the heading, with the following:

Each panel of extruded aluminum panel signs shall be a continuous section. Apply the sign sheeting to the extrusion a sufficient distance around the edge to ensure that no aluminum surface is visible on the face of the sign.

Measurement

00940.80 General – Replace the first sentence of the first paragraph with the following:

The quantity of signs measured will be the area, to the nearest 0.01 m^2 (0.1 square foot), computed by multiplying height and width, using the dimensions shown.

PART 01100 – WATER SUPPLY SYSTEMS

Section 01140 – Potable Water Pipe and Fittings

The Potable Water Pipe and Fittings Section shall be administered in conformance with Section 01140 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

01140.39 Operation of Valves on City Water System – Add the following subsection:

At no time shall the Contractor operate a live valve. Only the City Engineer or authorized representative shall operate live valves. The Contractor shall make arrangements with the Engineer prior to needing valves operated.

01140.40 Trench Work – Replace this subsection with the following:

Excavate trench, prepare bedding, install pipe zone material, backfill, and dispose of excavated material according to Section 00405 and the following:

(a) Dewatering Trenches – Remove water encountered in the trench during pipe laying operations and keep trench free of water until the ends of the pipe are sealed and a provision is made to prevent floating of the pipe. Do not allow trench water or deleterious materials to enter the pipe at any time.

(b) Bedding and Pipe Zone – For the purposes of these specifications, all potable water pipes are considered flexible pipes. Use bedding and pipe zone material for flexible pipes as described in 00405.12 and 00405.13.

(c) Alignment and Grade – The Contractor shall coordinate alignment and grade of new waterlines to avoid conflicting with other utilities. The Contractor shall deflect the water pipe as required to maintain proper clearances under existing structures and major tree roots as recommended by the Contractor's licensed arborist and approved by the Engineer.

Minimum Cover over new water mains shall be 914 mm (36 inches) below finished grade. Minimum cover over new water services shall be 610 mm (24 inches) from finished grade.

(d) Installation in Paved Areas – If pipe is installed within paved areas to be preserved, perform the installation according to Sections 00405 and 00495.

01140.44 Concrete Thrust Blocks – Replace this subsection with the following:

Place concrete thrust blocks as shown, at bends, tees, dead ends, and crosses. Pour concrete thrust blocks in place against solid, undisturbed earth at the sides and bottom of the trench excavation. Shape the blocks so as not to obstruct access to the joints of the pipe, fittings, or bolts.

No tie-rods or alternate thrust restraints shall be used unless otherwise approved by the Engineer. Retainer glands may be used in addition to specified thrust blocks at no expense to the owner.

01140.47 Connections to Existing Mains – Replace this subsection with the following:

All connections to existing mainlines and existing service lines shall be made under the supervision of the Engineer. The Contractor shall notify the Engineer and all affected water customers, in writing, 36 hours prior to the scheduled connection. The maximum down time shall be six (6) hours per day. The Contractor shall pay to the Owner, as liquidated damages, $100.00 per hour for each hour elapsed in excess of the six (6) hours allowed for down time.

Service connections shall be made as quickly and safely as possible. The Contractor shall notify and coordinate with each customer for making the service connection. Following the service connection, the Contractor shall flush the new service line.

Measurement

01140.83 Fittings and Couplings – Delete this subsection and replace with the following:

All fittings and couplings shall be measured on a per-item basis as described in the Schedule of Bid Items and/or Special Provisions.

Payment

01140.91 Pipe, Fittings and Couplings – Delete this subsection and replace with the following:

(a) ___ mm (inch), ___ Potable Water Pipe, with Class ___ Backfill
(b) ___ mm (inch), ___ Potable Water Pipe with Restrained Joints and Class ___ Backfill
(c) ___ mm (inch), ___, ___Fitting

The nominal diameter of pipe, fittings and couplings will be inserted in the first blank. The type of material will be inserted into the second blank. In (a) and (b) above, the class of backfill will be inserted into the third blank. In (c) above, the type of fitting will be inserted into the third blank.

Section 01170 – Potable Water Service Connections, 50mm (2 Inch) and Smaller

The Potable Water Service Connections, 50mm (2Inch) and Smaller Section shall be administered in conformance with Section 01170 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Construction

01170.41 Reconnecting Existing Services – Replace this subsection with the following:

Where shown, reconnect existing service connections to new mains. Verify the location of existing service connections in the field. Notify affected customers of the service interruption, in writing, at least 36 hours prior to service interruption.

01170.43 Meter Installation – Add the following subsection:

Meters shall be installed per the manufactures recommendation unless otherwise specified.

The top of the meter shall be a minimum of 76 mm (3 inches) and a maximum of 203 mm (8 inches) inches below the finish grade of the top of the meter box and centered in the box. Fill around meter with top soil so as to cover the meter body and yet expose the meter stop and the customers hand valve handle and shaft.

PART 02000 – MATERIALS

Section 02001 – Concrete

The Concrete Section shall be administered in conformance with Section 02001 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

Description

02001.01 Abbreviations and Definitions – Add the following abbreviations and definition:

cm - Cementitious Materials (Portland cement, fly ash, silica fume, ground granulated blast furnace slag)

GGBFS - Ground Granulated Blast Furnace Slag

High Performance Concrete (HPC) – Structural concrete, with enhanced durability and strength characteristics, for use in structures where improved durability and performance is required.

Materials

02001.10 General – Replace the "Modifiers" reference with the following:

Modifiers (fly ash, silica fume, latex, GGBFS).....02030

Classes of Concrete

02001.30 General

(a) Structural Concrete – Add the following after the parenthesis:

"or when high performance concrete (HPC) is specified"

(d) Classes – Add the following paragraph before Table 02001-1:

HPC is required when the letters "HPC" precede the $f'c$. For example, Class HPC30 - 19.0 (Class HPC4400 - 3/4) indicates high performance concrete with an $f'c$ of 30 MPa (4400 psi) with a nominal maximum size aggregate of 19.0 mm (3/4 inch).

Add the following to Table 02001–1:

METRIC

Type of Concrete	Class	Minimum Cementitious Content	Maximum Water Cementitious Ratio	Trial Batch for New Designs	Test Records for Existing Designs	Aggregate Source Quality Tests	Aggregate Quality Control Testing	Certified Technicians Required
Structural Concrete	HPC25 MPa	340 kg [2]	0.40 [2]	Required	Required	Required	Required	QCT CCT CAgT
	HPC30 MPa	370 kg [2]	0.40 [2]					
	HPC35 MPa and above	390 kg [2]	0.40 [2]					

ENGLISH

Type of Concrete	Class	Minimum Cementitious Content	Maximum Water Cementitious Ratio	Trial Batch for New Designs	Test Records for Existing Designs	Aggregate Source Quality Tests	Aggregate Quality Control Testing	Certified Technicians Required
Structural Concrete	HPC3600	570 lb [2]	0.40 [2]	Required	Required	Required	Required	QCT CCT CAgT
	HPC4350	630 lb [2]	0.40 [2]					
	HPC5000 and above	660 lb [2]	0.40 [2]					

[2] All cementitious material (Portland cement, fly ash, and silica fume). Fly ash shall be 30% by mass (weight) of the total cementitious materials. Silica fume shall be 4% by mass (weight) of the total cementitious materials.

Concrete Mix Designs

02001.41 Concrete Mix Design Constituents:

(b) Fly Ash – Replace this subsection with the following:

Except for HPC, fly ash may be used in concrete to replace a portion of the cement and as an additive to increase the total amount of cementitious materials. As a replacement for cement, fly ash may comprise up to 20% of the minimum specified cement content.

Additionally, the maximum allowable percent of fly ash shall be 35% of the total cementitious materials, provided that the mix design contains at least 80% of the minimum specified cement content as shown in Table 02001-1.

(d) Chemical Admixtures – Add the following paragraph after the first paragraph:

Use high range water reducing admixtures (HRWRA) in all HPC. Add other water reducing admixtures (WRA) as needed.

(e) Coarse Aggregates – Add the following bullet to the end of the bulleted list:

- Proportion all HPC to include a minimum course aggregate solid volume of 0.40 m^3/m^3 (cubic yard per cubic yard) of concrete.

02001.42 New Mix Designs – In the sentence that begins "Structural concrete on projects...", add the following after the parentheses:

"and all structural concrete, Class HPC"

(a) Trial batch Method – Replace this subsection with the following:

Make at least one trial batch for each class of mixture, except for CGC. Prepare and test the trial batch using the same ingredients and proportions that will be used on the Project. In order to ensure proper workability on site, simulate the haul time and mixing conditions that are forecast to occur on the Project. Cast, cure and test three or more cylinders for compressive strength. Notify the

Engineer at least 48 hours in advance of when trial batches will be performed. The Engineer may witness the preparation and testing.

(b) Plastic Concrete – Replace all references of "water-cement ratio" with "water-cementitious ratio".

02001.45 Required Submittals for All New Structural Mix Designs –

(h) Additional Requirements for Structural Concrete –

(1) Test on Plastic Concrete – Replace "cement content and water-cement ratio" to "cementitious content and "water-cementitious ratio".

(i) Latex – Add the following subsection:

Identify the:

- Manufacturer or Brand
- Type

(j) Silica Fume – Add the following subsection:

Identify the:

- Manufacturer or Brand
- Trade name
- Type - slurry or dry densified

02001.50 Concrete Mix Tolerances and Limits General – Modify Table 02001-3 as follows:

Under the Limits column, replace "75 mm - 200 mm (3" - 4")" with "75 mm - 200 mm (3" - 8")".

In the last row of the table, replace "Maximum Water-Cement Ration express as w/(c+p)" with "Maximum water-cementitious ratio express as w/cm", and replace "Water-cement ratio may not exceed the values in Table 02001-1" with "Water-cementitious ratio may not exceed the values in Table 02001-1".

Section 02010 – Portland Cement

The Portland Cement Section shall be administered in conformance with Section 02010 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02010.20 Blended Hydraulic Cement – In the paragraph that begins with "Blended Hydraulic Cement...", replace the words "Type SM slag-modified Portland cement" with the words "Type I(SM) slag-modified Portland cement".

Replace the second bulleted item with the following bullet:

- The pozzolan constituent of the blended cement shall be a fly ash conforming to 02030.10 or GGBFS conforming to 02030.40.

Section 02030 – Modifiers

The Modifiers Section shall be administered in conformance with Section 02030 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02030.00 Scope – Replace this subsection with the following:

This Section includes the requirements and tolerances for fly ash, silica fume, latex and ground granulated blast furnace slag (GGBFS) used in Portland cement concrete.

Section 02050 – Curing Materials

The Curing Materials Section shall be administered in conformance with Section 02050 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02050.00 Scope – Replace this subsection with the following:

This Section includes the requirements for liquid compounds, evaporation reducers, polyethylene films and curing blankets used to cover concrete and other surfaces to retain moisture and to cure.

Add the following subsections:

02050.30 Curing Blankets – Add the following subsection:

Furnish curing blankets from the QPL.

02050.40 Liquid Evaporation Reducer Compounds – Add the following subsection:

Furnish evaporation reducer compounds from the QPL.

Section 02320 – Geosynthetics

The Geosynthetics Section shall be administered in conformance with Section 02320 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02320.20 Geotextile Property Values – In the metric and English tables 02320-1, replace the "Test Method" for the "Burst Strength, Diaphragm method" with ASTM D 3786 and remove footnote number 2.

Section 02410 – Concrete and Plastic Pipe

The Concrete and Plastic Pipe Section shall be administered in conformance with Section 02410 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02410.70 Polyvinyl Chloride (PVC) Pipe – Replace this subsection with the following:

Provide PVC subsurface drain pipe and fittings meeting the requirements of ASTM D 2729.

Provide PVC sanitary, storm, culvert, siphon, and irrigation pipe and fittings with 600 mm (2 feet) or more cover that have a minimum pipe stiffness of 320 kPa (46 psi) or a minimum SDR of 35 and meet the requirements of sewer pipe ASTM D 3034, ASTM F 679, ASTM F 789 or ASTM F 794 as appropriate.

Provide PVC sanitary, storm, culvert, siphon, and irrigation pipe and fittings with less than 600 mm (2 feet) but at least 300 mm (1 foot) cover meeting the requirements of AWWA C 900 or AWWA C 905.

Section 02420 – Metal Pipe

The Metal Pipe Section shall be administered in conformance with Section 02420 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02420.20 Protective Coatings – Add the following subsection:

(d) Polymeric Coatings – If polymeric coating is shown on the pipe data sheet, use a coating from section 02420.20 of the QPL.

Section 02440 – Joint Materials

The Joint Materials Section shall be administered in conformance with Section 02440 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02440.30 Poured Joint Filler – Replace this subsection with the following subsection:

02440.30 Hot Poured Joint Filler – Use hot poured joint filler from the QPL and conforming to the requirements of AASHTO M 324 Type II (ASTM D 6690 Type II).

Section 02470 – Potable Water Pipe Materials

The Potable Water Pipe Materials Section shall be administered in conformance with Section 02470 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02470.20 Ductile Iron Pipe – Replace this subsection with the following:

Use centrifugally cast ductile iron pipe meeting the requirements of AWWA C151. Ductile iron pipe shall have cement-mortar lining and seal coating meeting the requirements of AWWA C104. Ductile iron pipe to be joined using bolted flanged joints shall be Standard Thickness Class 53. All other ductile iron pipe shall be Standard Thickness Class 52 or the thickness class specified or indicated.

Section 02475 – Potable Water Fitting Materials

The Potable Water Fitting Materials Section shall be administered in conformance with Section 02475 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02475.10 General – Replace this subsection with the following:

Bolts, nuts, and washers used for securing fittings shall be of similar materials. Steel bolts shall meet the requirements of ASTM A 307for carbon steel, or ASTM F 593 for stainless steel. Nuts shall meet the requirements of ASTM A 563 for carbon steel, or ASTM F 594 for stainless steel. Iron bolts and nuts shall meet the requirements of ASTM A 536, grade 65-45-12. Galvanize carbon steel bolts, nuts and washers according to 02560.40.

T-Bolts for all flanged and mechanical joints shall be of domestic origin high strength, low alloy steel bolts only, meeting the current provisions of American National Standard ANSI/AWWA C111/A2.11-90 for rubber gasket joints for ductile iron pressure pipe and fittings. Bolt manufacturer's certifications of compliance must accompany each shipment.

Pipe fittings shall be at least equal in class to the pipe on which they are used. Joint materials shall be compatible with the adjacent pipe.

Main line tapping sleeves shall be either an all ductile M.J. tapping sleeve or an all stainless steel Ford Fast or JCM tapping sleeve.

Section 02480 – Potable Water Valve Materials

The Potable Water Valve Materials Section shall be administered in conformance with Section 02480 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02480.20 Gate Valves – Replace this subsection with the following:

Gate valves shall be resilient seat and only be installed on waterline 50 mm (2 inches) to 200 mm (8 inches) in diameter. Gate valves shall meet the requirements of AWWA C500 or AWWA C509. The minimum design working pressure shall be 1380 kPa (200 psi) for pipe 50 mm (2 inches) to 200 mm (8 inches) in diameter.

02480.22 Butterfly Valves – Replace this subsection with the following:

All valves 200 mm (8 inches) and above in diameter shall be butterfly type valves. Butterfly valves shall be rubber seated and shall meet the requirements of AWWA C504, Class 150B. Shaft seals shall be standard O-ring seals, designed for replacement under line pressure.

02480.25 Valve Boxes – Replace this subsection with the following -

Install valve boxes on all buried valves. The valve box components shall be Rich 925 Columbia, Tens-O-Loy 926, Tyler 7000 or approved equal with a magnet imbedded and weighted lid. The cover shall have the word "WATER" cast in it. Align covers with "ears" or "tabs" in the direction of the mainline the valve is associated with.

Section 02485 – Hydrant and Appurtenance Materials

The Hydrant and Appurtenance Materials Section shall be administered in conformance with Section 02485 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02485.10 Fire Hydrants – Replace this subsection with the following -

Fire hydrants shall be dry barrel, conforming to AWWA C502. Hydrants shall be designed for a minimum working pressure of 1050 kPa (150 psi) and the bury shall be a minimum of 1.1 m (3 ½ feet).

Hydrants shall be Mueller Super Centurion or Kennedy Guardian.

Hydrants shall be furnished with pentagonal top operation nut, two 64 mm (2 ½ inch) hose nozzles and one 114 mm (4 ½ inch) steamer nozzle configured per City of Lebanon standard drawing. A Storz adaptor cap shall be installed on the steamer nozzle. The Storz Adaptor shall be a Hydra-Shield HYST-5054-ST CAP.

The nominal diameter of the main valve opening shall be 133 mm (5 ¼ inches).

Hydrants shall be furnished with a 150 mm (6 inch) M.J. shoe.

Section 02490 – Potable Water Service Connection Materials, 50 mm (2 Inch) and Smaller

The Potable Water Service Connection Materials, 50mm (2 Inch) and Smaller Section shall be administered in conformance with Section 02490 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02490.10 General – Replace this subsection with the following:

Service line materials shall conform to AWWA C800 and these specifications. Service line materials shall be designed for a working pressure of 1050 kPa (150 psi).

All materials in contact with potable water shall conform to ANSI.NSF Standard 61, Drinking Water System Components – Health Effects, or equivalent.

Service saddle tap, corporations stop, and the pipe coupling side of the meter stop shall be a minimum size of 25 mm (1 inch) in diameter. For meters greater than 25 mm (1 inch), the service saddle, corporation stop, and meter stop shall be sized according to the size of meter to be installed.

02490.20 Saddles – Replace this subsection with the following:

Service saddles shall be ductile iron bodied stainless steel strapped Romac 101-N saddles or approved equal.

Saddles used for 19 mm (¾ inch) and 25 mm (1 inch) services shall be single strap. Saddles used for 38 mm (1 ½ inch) and 50 mm (2 inch) services shall be double strap.

02490.35 Meter Stops – Add the following subsection:

Meter Stops shall be angle type, Ford, McDonald, or Mueller, with a lockwing.

02490.36 Hand Valves – Add the following subsection:

The hand valve on the customer side of the water meter shall be either a straight or angled, Ford, McDonald, or Mueller globe meter valve.

02490.60 Meter Types – Add the following subsection:

Meters shall be Rockwell SR II or approved equal with a test bypass provided for meters 50 mm (2 inches) and larger.

02490.70 Meter Boxes – Replace this subsection with the following:

For meters that are 5/8 inch to 1 inch, use a Brooks #37, Old Castle or approved equal meter box with cover and reading lid. For meters that are 1 ½ inches to 2 inches, use a Brooks #66 meter box with cover and reading lid or an approved equal.

In areas of vehicular traffic, use an approved traffic rated cover.

Section 02510 – Reinforcement

The Reinforcement Section shall be administered in conformance with Section 02510 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02510.20 Mechanical Splices – In the first sentence of the first bullet, remove the words "in compression and".

Section 02530 – Structural Steel

The Structural Steel Section shall be administered in conformance with Section 02530 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02530.20 Structural Steel for Non-Bridge Structures – In the paragraph that begins "Notch toughness of all plates…", insert "structural steel members and" between the words "all" and "plates".

Section 02630– Base Aggregate

The Base Aggregate Section shall be administered in conformance with Section 02630 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02630.10 Dense Graded Aggregate –

(b) Fracture of Round Rock – In the first sentence, replace "WAQTC TM1" with "AASHTO TP 61".

(c) Durability – Under the "Requirements" column next to "Sediment Height" replace "(3")" with "(3.0")".

Section 02640– Shoulder Aggregate

The Shoulder Aggregate Section shall be administered in conformance with Section 02640 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02640.10 Aggregate –

(b) Fracture of Round Rock – In the first sentence, replace "WAQTC TM1" with "AASHTO TP 61".

(c) Durability – Under the "Requirements" column next to "Sediment Height" replace "(3")" with "(3.0")".

Section 02690– PCC Aggregate

The PCC Aggregate Section shall be administered in conformance with Section 02690 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02690.20 Coarse Aggregate –

(d) Durability - Under the "Requirements" column next to "Sediment Height" replace "(3")" with "(3.0")".

(e) PCC Paving Aggregate –

(1) Fracture - In this subsection, replace "WAQTC TM1" with "AASHTO TP 61".

02690.30 Fine Aggregates –

(h) Grading – In footnote number 1, replace the first sentence with the following:

Determine the fineness modulus according to AASHTO T 27/T 11.

Section 02910– Sign Materials

The Sign Materials Section shall be administered in conformance with Section 02910 of the 2002 Oregon Standard Specifications for Construction supplemented and/or modified as follows:

02910.30 Reflective Sheeting (Encapsulated Lens) – Change the heading of this subsection to: "Retroreflective Sheeting (Encapsulated Lens)".

02910.31 Retroreflective Sheeting (Wide-Angle, Prismatic) – Change the heading of this subsection to: "Retroreflective Sheeting (Prismatic Lens)".

02910.32 Reflectorized Removable Legend – Change the heading of this subsection to: "Retroreflective Removable Legend".

(b) Reflective Sheeting Legend – Change the heading of this subsection to: "Retroreflective Sheeting Legend".

Replace the paragraph that begins "The white letters, numerals, symbols...", with the following:

The silver-white or white letters, numerals, symbols and borders shall be of adhesive-coated retroreflective sheeting permanently adhered to a flat aluminum frame. The white retroreflective sheeting shall consist of wide-angle prismatic sheeting conforming to 02910.31. The silver-white retro-reflective sheeting shall consist of encapsulated lens sheeting conforming to 02910.30.

02910.33 Permanent Legends –

(c) Reflectorized Silver Cut-out Legend – Replace this subsection with the following:

(c) Retroreflective Cut-out Legend – The material used for retroreflective cut-out legend shall conform to the requirements of 02910.30 or 02910.31.