

# PROJECT SPECIFICATIONS

**PROJECT:** LA PINE SAND SHED

**PROJECT #:** W66095

**CONTRACTING AGENCY:**



**ROAD  
DEPARTMENT**

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# PROJECT SPECIFICATIONS

## LA PINE SAND SHED

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## **PROJECT SPECIFICATIONS**

### **WORK TO BE DONE**

The work to be done under this contract consists of the following on the La Pine Sand Shed project.

1. Removal of existing structures.
2. Excavation, grading, backfill and compaction.
3. Construct reinforced concrete foundations for metal building.
4. Place aggregate base.
5. Construct asphalt concrete pavement.
6. Design, furnish and construct a metal sand shed building.
7. Install electrical systems.
8. Perform additional and incidental work as called for by the specifications and plans.

### **APPLICABLE RULES**

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

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

### **CONTRACT TIME**

The Contractor shall complete all Work to be done under the Contract not later than June 30, 2020.

### **CLASS OF WORK**

The Class of Work for this Project is Buildings.

## **PART A - GENERAL CONDITIONS**

The General Conditions that are applicable to the Work on this Project are the 2018 edition of the "Oregon Standard Specifications for Construction", Sections 00100 through 00199.

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

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

[http://www.oregon.gov/ODOT/Business/Pages/Standard\\_Specifications.aspx](http://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx).

### **SECTION 00110 - ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS**

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

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

**Agency** – County of Deschutes

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

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

### **SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES**

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

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

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

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

Bidders shall submit bids by paper.

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

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

Bidders shall obtain solicitation documents from the Deschutes County Bids and RFPs website:  
<https://www.deschutes.org/rfps>

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

Only paper Bids will be accepted.

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

[http://www.oregon.gov/ODOT/Business/Pages/Standard\\_Specifications.aspx](http://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx).

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

LA PINE SAND SHED  
DESCHUTES COUNTY ROAD DEPT.  
APRIL 2019

**00120.10 Bid Booklet** – Replace this subsection with the following:

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

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

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

**00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids** – Replace the first paragraph with the following:

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

<https://www.deschutes.org/rfps>

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

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

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

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

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

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

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

Delete the third bulleted item.

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

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

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

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

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

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

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

Delete the third bullet point.

**00120.60(b) Electronic Bids** – Delete this subsection.

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

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

**00120.95 Opportunity for Cooperative Arrangement** – Delete this subsection.

### **SECTION 00130 – AWARD AND EXECUTION**

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

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

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

<https://www.deschutes.org/rfps>

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

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

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

The Agency is not obligated to consider late protests.

**00130.50 Execution of Contract and Bonds:**

**(a) By the Bidder** – In the sentence that begins “The successful Bidder...” replace “ODOT Procurement Office – Construction” with “Agency” and replace “15 Calendar Days” with “the requested amount of time”.

**(b) By the Agency** – In the sentence that begins “Within 7 Calendar Days...” replace “7” with “21 (twenty-one)”.

### **SECTION 00140 – SCOPE OF WORK**

Comply with Section 00140 of the Standard Specifications.

### **SECTION 00150 - CONTROL OF WORK**

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

**00150.05 Cooperative Arrangements** – Replace this subsection with the following:

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

Add the following subsection:

**00150.50(f) Utility Information (No Anticipated Relocations)** - Within the Project limits, there are no anticipated relocations with Utilities listed below. The Contractor shall contact those Utilities having buried facilities and request that they locate and mark them for their protection prior to construction.

<b>Utility</b>	<b>Contact Person's Name, Address, Email, and Phone Number</b>
MidState Electric Power Company	Melissa Byrd, 541-536-7236 mbyrd@mse.coop

The Contractor shall notify, in writing, the Utilities listed above, with a copy to the Engineer, at least 14 Calendar Days before beginning Work on the Project.

Energized power lines overhang portions of the Work with a minimum vertical clearance of 18 feet. The Contractor shall maintain at least 15 feet of safety clearance. Exceptions require written approval from the Power Supplier. The power may be temporarily disabled if an exception is required, at no cost to the Contractor. The Contractor shall provide the Engineer a copy of the written approval of exception before beginning Work.

**SECTION 00160 – SOURCE OF MATERIALS**

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

**00160.30 Agency-Furnished Materials** – Add the following paragraph:

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

**00160.40 Agency-Furnished Sources**– Add the following paragraph:

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

**SECTION 00165 - QUALITY OF MATERIALS**

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

**00165.03 Testing by Agency** – Delete this subsection.

**00165.04 Costs of Testing** – Delete this subsection.

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

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

This is a Type D project.

### **SECTION 00170 – LEGAL RELATIONS AND RESPONSIBILITIES**

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

Add the following subsection:

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

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

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

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

**00170.70(c) Additional Insured** - Add the following paragraph and bullets to the end of this subsection:

Add the following as Additional Insureds under the Contract:

- Deschutes County and its officers, agents, employees, and volunteers
- Deschutes County Board of Commissioners

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

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

- Deschutes County and its officers, agents, and employees
- Deschutes County Board of Commissioners

### **SECTION 00180 – PROSECUTION AND PROGRESS**

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

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

<b>Limitations</b>	<b>Subsection</b>
Cooperation with Utilities .....	00150.50
Contract Completion Time .....	00180.50(h)
Lane Restrictions .....	00220.40(e)
Maintenance Under Traffic .....	00620.43

Be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this subsection.

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

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

**00180.50(h) Contract Time** - The Contractor shall complete all Work to be done under the Contract not later than June 30, 2020.

### **SECTION 00190 – MEASUREMENT OF PAY QUANTITIES**

Comply with Section 00190 of the Standard Specifications.

### **SECTION 00195 - PAYMENT**

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

**00195.50(c-1) Cash, Alternate A** - Replace the paragraph that begins "The Agency will deposit..." with the following sentence:

The Agency will deposit the cash retainage withheld in an interest-bearing account in a bank, savings bank, trust company, or savings association for the benefit of the Agency, as provided by ORS 279C.560(5).

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

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

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

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

A determination of satisfactory completion of Pay Items or Work or release of retainage shall not be construed as acceptance or approval of the Work and shall not relieve the Contractor of

responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

### **SECTION 00196 – PAYMENT FOR EXTRA WORK**

Comply with Section 00196 of the Standard Specifications.

### **SECTION 00197 – PAYMENT FOR FORCE ACCOUNT WORK**

Comply with Section 00197 of the Standard Specifications.

### **SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS**

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

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

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

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

Delete the fifth paragraph.

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

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

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

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

**00199.40(c) Step 2: Arbitration** - At this step, the claim will be resolved by binding arbitration before a single arbitrator according to the Construction Industry Arbitration Rules of the American Arbitration Association or such other arbitration service and rules as agreed by the parties.

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

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

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

The Contractor shall comply with 00170.00.

## **PART B – SUPPLEMENTAL SPECIFICATIONS**

### **SECTION 01000 – SPECIAL CONDITIONS**

#### **1. GENERAL**

##### **1.01 WARRANTIES**

- A. Warranties and guarantees are for a period of one year from date of final acceptance unless noted otherwise.

##### **1.02 RECORD DRAWINGS**

- A. Furnish to the Engineer one copy of "as-built" Drawings. In addition to finish copies required, one work set shall be maintained on project site at all times and shall be subject to inspection by Engineer. Before delivering finished sets to the Engineer, accurately transpose information from work set showing all deviations from Contract Drawings. Finish copies shall be clean, accurate, easy to read, devoid of dirt, stains, smudges, etc. Contractor is cautioned particularly to indicate by dimension all permanently concealed items. No work may be permanently concealed until it is satisfactorily recorded on work set and evidence of same is presented to the Engineer.

##### **1.03 CLEAN-UP**

- A. In addition to removing rubbish and leaving the facility clean, the Contractor shall clean all surfaces, replace any broken components, clean hardware and fixtures, remove stains, spots, labels and marks from all surfaces.

##### **1.04 SPECIFICATION FORMAT**

- A. Division of these Supplemental Specifications into trade headings conforms roughly to customary practice and to the CSI format. They are used for convenience and identification and may not be consecutive. Divisions included are listed in the index. Contractor shall check his copies of Specifications with index to be sure they are complete. Paragraph numbering may also not be consecutive.

##### **1.06 MEASUREMENTS**

- A. Verify all measurements, dimension and elevations before ordering any material or doing any work. Notify the Engineer of any discrepancies.

##### **1.08 TEMPORARY BARRIERS**

- A. Provide and maintain construction barriers bounding the construction/demolition areas. Remove as soon as construction progress allows.

1.09 EXCESSIVE NOISE

- A. All equipment shall have muffling devices in good working order at all times. Equipment not so equipped will be removed from site.
- B. Cooperate with the Agency in locating high noise producing equipment in areas least offensive and/or provide sound enclosure or shielding to dampen sound.

1.10 PARKING, STAGING AND MATERIAL STORAGE

- A. Utilize areas shown for staging and stockpiles area of materials and equipment. Coordinate with the agency to determine Contractor related vehicle parking during construction.

1.11 REFERENCED STANDARDS

- A. Where standards are referenced in this specification, they shall be the most current edition or as required by code.

**SECTION 01010 - SUMMARY OF WORK**

1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Work covered by this Contract includes furnishing all labor, materials, equipment and permits to design and construct a 60' x 120' metal building to be located at the Deschutes County - La Pine Maintenance Site. This includes all necessary engineering, site plans, drawings, engineering stamps, engineering calculations, plan review and permit fees for all building and trades permits.
- B. Work covered by this Contract also includes, but is not limited to, providing all labor, materials, equipment and permits to construct erosion control, earthwork, aggregate base, paving, reinforced concrete and electrical work as shown or specified in Agency provided or contractor furnished drawings and specifications.
- C. All final plans shall be on 22" x 34" sheets. The specifications may be printed on 8 1/2" x 11" sheets or be listed on the drawing(s). The contractor shall provide all documents and secure all building and other necessary permits to construct the building.
- D. It is the responsibility of the Contractor or Contractor's engineer to coordinate the requirements of Agency provided drawings (structural, site work, etc.) into the metal pole building design.
- E. The Project is located at 51340 Hwy 97, La Pine, OR 97739.

1.02 CONTRACT DOCUMENTS

- A. Agency provided Drawings indicate the location of existing and future facilities and equipment. The Contractor shall verify the location of all items to be furnished, installed, or connected prior to installation of the items.

- B. All Agency provided Drawings, notes, specifications and calculations shall be owned by the Agency. The contractor shall be responsible for verifying the adequacy of these documents for complete design and construction of the building.

#### 1.03 TIME OF COMMENCEMENT AND COMPLETION

- A. Notice to proceed: A written notice to proceed will be provided by the Agency to the Contractor as indicated in the invitation to bid. The Contractor shall begin the work upon receipt of the notice to proceed. Notwithstanding any other provision of the contract, the Owner shall not be obligated to accept or to pay for any work furnished by the Contractor prior to delivery of notice to proceed, whether or not the Owner has knowledge of the furnishing of work.
- B. Completion of all items of work shall be within the time limits indicated in the invitation to bid.

#### 1.04 COORDINATION OF WORK WITH AGENCY AND OTHERS

- A. The Agency will occupy premises during construction period for the conduct of the Agency's normal operations.
- B. Contractor shall coordinate his work with the Agency during construction operations to minimize conflicts and to facilitate the Agency's use of facilities.
- C. Schedule work to maintain Agency's continuous operations.
- D. Move any stored products, which are under Contractor's control, when necessary and when directed, and which interfere with the Agency's operations.

#### 1.05 INFORMATION CONCERNING CONDITIONS

- A. Contractor shall make his own deductions and conclusions as to the nature of the materials to be excavated, the difficulties which may arise from subsurface conditions, and of doing any other work affected by the subsurface conditions and shall accept full responsibility.
- B. Bidders shall satisfy themselves by personal examination and by such other means as they desire with respect to actual conditions of the nature of the ground and subsoil water and in regard to the location of existing groundwater or surface structures. Unforeseen conditions shall not constitute a claim for additional payment under the terms of the contract or constitute a basis of cancellation thereof.

#### 1.06 PERMITS AND FEES

- A. The acquisition of all permits required, and payment of all fees, inspection charges and other similar costs shall be the responsibility of the Contractor. The Contractor must apply for plan review with the Building Official, within 17 calendar days of Notice to Proceed. Contractor shall pay for and obtain a building permit for the project as noted above. The Contractor shall be responsible for obtaining and paying for all other construction and trades permits as may be required by Federal, State and Local Officials.

1.07 NOTICE TO UTILITY COMPANIES AND AGENCIES

- A. Contractor shall notify all utility companies and public agencies affected by the construction 48 hours prior to excavation.

AGENCY/UTILITY  
One Call System

TELEPHONE  
(800)332-2344

The Contractor, in locating and protecting underground utilities, must comply with the regulations of ORS 757.541 to 757.571.

- B. Contractor shall be responsible to mark the location, and if necessary or prudent, to expose the existing utilities prior to construction of the facilities contained in this contract. If in the course of the work required hereunder, it is found necessary to relocate, revise or repair publicly or privately owned utility system, the said relocations, repairs or revisions shall be accomplished by the Contractor or an employee of the utility company.

1.08 EXISTING UTILITIES

- A. In general, the locations of existing underground utilities are indicated on the drawings where known. Information shown has been obtained from available records and field surveys. The Agency does not guarantee the accuracy or completeness of this information, and it is to be understood that other above ground or underground facilities not shown on the drawings are likely to be encountered during the course of the work.
- B. Existing utilities, whether shown on the drawings or not, shall be protected as may be necessary by the Contractor in a manner satisfactory to owners and operators of the utilities and to the Agency. No utilities shall be removed without notifying owners and operators of the utility.

1.09 RESTORATION OF STRUCTURES AND SURFACES

- A. Structures: The Contractor shall remove such existing structures as may be necessary for the performance of the work and, if required, shall rebuild the structures thus removed in as good a condition as found with minimum requirements as herein specified. Contractor shall also repair all existing structures which may be damaged as a result of the work under this contract.
- B. Curbs, gutters, driveways, sidewalks and similar structures that are broken or damaged by the installation of the work shall be reconstructed by the Contractor. Reconstruction shall be of the same kind and finish and in not less than the same dimensions as the original work. Concrete shall be as specified herein unless otherwise indicated. Repairs shall be made by removing and replacing the entire portions between joints or scores and not merely refinishing any damaged part. Work shall match the appearance of the existing improvements as nearly as possible. Repairs shall meet all current code requirements of the jurisdiction having authority.
- C. Cultivated areas, either landscaping or lawns, and other surface improvements which are damaged by actions of the Contractor shall be restored as nearly as possible to their original condition.

1.10 CONSTRUCTION STAKING

- A. Construction staking shall be provided by the Contractor.
- B. Horizontal control shall be obtained by measurement off existing structures as shown on the drawings.
- C. Vertical control shall be coordinated with the Engineer.

1.11 TEMPORARY UTILITIES

- A. Contractor shall make arrangements for utility requirements during construction in accordance with this specification.

1.12 GEOTECHNICAL INFORMATION

- A. Contractor shall make his own deductions and conclusions as to the nature of the materials to be excavated and the difficulties which may arise from subsurface conditions. No subsurface exploration has been conducted.

1.13 EXCESS MATERIALS AND DEBRIS

- A. Excess materials and debris resulting from clearing and grubbing, demolition, excavation, and any of the Contractor's activities, shall be removed from the project site and disposed of at the Contractor's expense, unless otherwise noted on drawings. Disposal shall be made in accordance with applicable laws and regulations.
- B. Excess materials and debris shall not be stockpiled or placed on public or private property except with the express written permission of the property owner. Contractor shall be responsible for obtaining all necessary permits and for paying all fees required for stockpiling or disposal of excess material and debris.

1.14 TESTING

- A. Unless otherwise specified, all testing required to be performed by the Contractor will be at the Contractor's expense.

**SECTION 01040 – PROJECT COORDINATION**

1. GENERAL

1.01 DESCRIPTION

- A. The Contractor shall coordinate the efforts of all suppliers and Subcontractors and shall maintain orderly progress of the work, prevent duplication of effort and ensure proper sequence of operations.
- B. The Contractor shall coordinate with the Agency for the duration of the project.
  - 1. All technical design questions shall be referred to Cody Smith, County Engineer, at (541) 322-7113; cell phone (541) 699-8753.

2. The Contractor will be responsible for keeping the Engineer informed of all activity throughout the project identified in this Contract.

#### 1.02 QUALITY ASSURANCE

- A. Throughout the progress of the work, the Contractor shall provide all necessary personnel thoroughly familiar with the Specifications and Drawings, completely trained and experienced in the necessary skills, who shall be present at the site and direct all work performed.
- B. Conditions of Surfaces: Surfaces previously prepared or installed by another trade shall be inspected carefully before applying subsequent materials or finishes. If an unsatisfactory condition to that finish exists, notify the Engineer in writing, immediately. Otherwise, assume full responsibility for resulting appearance, condition and acceptance of finished surface.
- C. Covering Up: No Contractor or Subcontractor shall cover up or conceal work of other Contractor/Subcontractor until same has been inspected and/or approved.

#### 1.03 SUBMITTALS

- A. Submit the names of Contractor's and all Subcontractor's representatives who shall direct the work.

### 2. PRODUCTS (RESERVED)

### 3. EXECUTION

#### 3.01 COORDINATION

- A. Contractor shall verify and confirm all dimensions and conditions shown or implied on the Drawings and Specifications. Notify the Engineer of discrepancies prior to start of work.
- B. Verify sizes of custom manufactured items with actual job conditions before submitting Shop Drawings or commencing fabrication.
- C. Unless specifically dimensioned on Agency provided Drawings, the locations of fixtures, equipment, and the routing of piping are approximate and shall not be scaled from the drawings. It is the responsibility of the Contractor to coordinate work of his Subcontractors. Contractor shall require that Subcontractors carefully examine and familiarize themselves with the drawings covering work of other trades, and that they consult frequently with all other trades so that work may be properly coordinated. The nature of the drawings and the job conditions will not always permit installation in the location shown. When this situation occurs, it shall be brought to the Engineer's attention. Contractor shall remove and relocate such items at his own expense if so directed by the Engineer.

## SECTION 01045 – CUTTING & PATCHING

### 1. GENERAL

#### 1.01 DESCRIPTION

- A. Perform all cutting, fitting, and patching, including any attendant excavation and backfill, required to complete work and to:
1. Make work fit together properly.
  2. Integrate with other work.
  3. Uncover work for installation of ill-timed work.
  4. Remove and replace defective and non-conforming work.
  5. Remove samples of installed work for testing.
  6. Provide penetrations through non-structural surfaces for mechanical and electrical work.

#### 1.02 SUBMITTALS

- A. Submit written request for cutting approval to the Engineer well in advance of any cutting which affects:
1. Structural integrity of any completed or existing work.
  2. Waterproof integrity of any weather-exposed or moisture-resistant work.
  3. Efficiency, operational life, maintenance, or safety of any completed or existing work.
  4. Visual qualities of any sight-exposed or moisture-resistant.
- B. Request shall include:
1. Project identification.
  2. Location and description of affected work
  3. Necessity for cutting or alteration
  4. Description of proposed work
  5. Alternatives to cutting and patching

### 2. PRODUCTS

#### 2.01 MATERIALS

- A. Patching products shall be similar to those specified or existing, as directed.

### 3. EXECUTION

#### 3.01 EXISTING CONDITIONS

- A. Inspect existing conditions and identify work subject to damage or movement caused by proposed cutting and patching.

- B. After uncovering, inspect conditions affecting performance of work.
- C. Report unsatisfactory and questionable conditions to the Engineer.
- D. Do not proceed with work until the Engineer provides further instructions.

### 3.02 PREPARATION

- A. Protect other portions of project work against damage and discoloration.
- B. Protect work exposed by cutting against damage and discoloration.

### 3.03 PERFORMANCE

- A. When an abutting Structure or part of a Structure is to be left in place, make clean, smooth, vertical cuts with a saw or other approved cutting device. Avoid operations that may damage any portion of the remaining Structure.
- B. Provide proper surfaces for patching and finishing.
- C. Employ qualified installer or fabricator to perform cutting and patching for:
  - 1. Weather-exposed or moisture-resistant surfaces.
  - 2. Sight-exposed finished surfaces.
- D. Cut concrete, asphalt and other rigid materials with masonry saw or core drill. Do not overcut at corners.
- E. Restore cut or removed work with new products to provide work complete in accordance with contract documents. Maintain any original fire-resistance rating.
- F. Where patching occurs, refinish entire surface to provide even finish to match adjacent work.

### 3.04 CLEANING & REPAIRING

- A. Including work of other trades, clean, repair and touch-up, or replace when directed, products which have been soiled, discolored, or damaged by work of this section.
- B. Remove debris from project site upon work completion or sooner, if directed.

## **SECTION 01200 - PROJECT MEETINGS**

### 1. GENERAL

#### 1.01 GENERAL

- A. Project meetings will be held to accomplish the following:
  - 1. Coordinate the work of the project.

2. Establish communication relationship between the Contractor and the Engineer.
3. Establish sound working procedures.
4. Review job progress, quality of work and approval and delivery of materials.
5. Expedite the work to completion within the specified time limit.

#### 1.02 PRECONSTRUCTION CONFERENCE

- A. Before any work is performed, the Contractor shall meet with the Engineer at a mutually agreed upon time to hold a preconstruction conference within 30 calendar days of the Notice to Proceed.
- B. The meeting will be conducted by the Engineer. In order to ensure completeness, uniformity and orderly procedures, an agenda for the meeting may be developed.
- C. 7 calendar days before the preconstruction conference, the Contractor shall submit a detailed Project Work schedule showing his proposed order of work and expected beginning and completion dates of each activity.

#### 1.03 PROGRESS MEETINGS

- A. Meetings shall be held at the jobsite on a weekly basis at the Engineer's discretion.
- B. The meeting will be used for coordination between the Agency, Contractor, Sub-contractors, Suppliers and any other interested parties.
- C. The Contractor shall submit a weekly look-ahead schedule, as supplement to the Project Work schedule submitted before the preconstruction meeting, showing any deviations from previously submitted schedules. Look-ahead schedules shall show at least 3 weeks of activity.

### **SECTION 01300 - SUBMITTALS**

#### 1. GENERAL

##### 1.01 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Other provisions pertaining to submittals are included in the General Conditions, the drawings and in the various sections of the specifications. Additionally, the Engineer may request submittals for any project component to verify compliance with project requirements.

##### 1.02 SUBMITTAL REQUIREMENTS

- A. General: All submittals shall be identified by project title, and number and shall include Contractor's name, date and revision date. In addition, shop drawings, product data and samples shall include names of subcontractor and supplier,

applicable specification section number and Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with contract documents.

- B. Shop drawings: Submit 4 copies (1 if electronic) of each shop drawing required by the specifications. Show the information, dimensions, connections and other details necessary to ensure that the shop drawings accurately interpret the contract documents. Show adjoining work in such detail as required to indicate proper connections. Where adjoining connected work requires shop drawings or product data, submit such information for review at the same time so that connections can be accurately checked.
- C. Product data: Submit 4 copies (1 if electronic) of each item of product data required by the specifications. Modify product data by deleting information which is not applicable to the project or by marking each copy to identify pertinent products. Supplement standard information, if necessary, to provide additional information applicable to project.
- F. Effects of Review of Contractor's Submittals: Review of Drawings, method of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer on behalf of the Agency. The Contractor shall not have claim under the Contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of "APPROVED" or "APPROVED AS NOTED" shall mean that the Engineer has no objection to the Contractor, upon the Contractor's own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

### 1.03 SCHEDULE

- A. The Contractor shall provide the following schedules and submit them not later than 7 calendar days before the preconstruction conference.
  - 1. Contractor's construction schedule
  - 2. Contractor's list of subcontractors and schedule of submittals
    - a) The Contractor's list of subcontractors and schedule of submittals shall be based upon the Contractor's progress schedule so that the work can progress in accordance with the approved progress schedule.
  - 3. Contractor's schedule of values or lump sum breakdown of items.
- B. The Contractor shall immediately advise the Engineer of any proposed changes in his submitted schedules. If, in the opinion of the Engineer, any submitted schedule is inadequate to ensure completion of work within the time limit, or is otherwise not in accordance with the specification, or if the work is not being adequately or properly prosecuted in any respect, the Engineer shall have the right to require the Contractor to submit new schedules providing for proper and timely completion of the work.
- C. During the term of this Contract, the Engineer may require any schedule to be modified so that the changes in the work of this contract or related contracts (if any) are properly reflected in the schedule.

## SECTION 01500 – TEMPORARY FACILITIES

### 1. GENERAL

#### 1.01 CONTRACTOR ACTIVITIES

- A. Contractor shall comply with all governing laws, codes and regulations.
- B. Contractor shall pay required fees related to construction and contractor's activities.
- C. Temporary facilities and construction site shall be maintained in a clean and sanitary condition at all times and shall not interfere with Owner's normal use of existing facilities.
- D. Utilities shall not be used in a wasteful manner.

#### 1.02 ELECTRICITY

- A. Electrical power is not available from existing maintenance facilities on site. Contractor shall provide all power required for construction.

#### 1.03 WATER

- A. Water is available from existing maintenance facilities. Use of water and connection point must be coordinated with the Engineer. In no case shall use of water interfere with maintenance operations.

#### 1.04 SANITARY FACILITIES

- A. The Contractor shall provide adequate toilet facilities for all workers and Agency staff employed on the work. The Contractors shall maintain in a sanitary condition from the beginning of the work until completion and shall then remove the facilities and disinfect the premises. All portions of the work shall be maintained at all times in a sanitary condition.

#### 1.05 TRAFFIC CONTROL

- A. Within Property Lines: Erect barricades sufficient to prevent injury to persons or damage to property. Construction shall conform to requirements of regulatory agencies having jurisdiction.

#### 1.06 PROTECTION OF INSTALLED WORK

- A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
- B. Repair and/or replace all damaged work at no additional cost to the Agency.

#### 1.07 CLEANING DURING CONSTRUCTION

- A. Control accumulation of waste materials and rubbish; periodically dispose of off-site.

1.08 SPECIAL SITE WORKING CONDITIONS

- A. The existing building and grounds adjacent to this work will be in continuous normal working operations by Agency crews.
- B. The construction area will be designated (and changed periodically as necessary) to minimize inconvenience from construction on the Agency crews. The Contractor will be responsible for establishing construction areas.

1.09 REMOVAL

- A. Remove temporary materials, equipment, services, and construction prior to substantial completion inspection.
- B. Clean and repair damage by installation or use of temporary facilities. Remove underground installations; grade site as indicated.

**SECTION 01600 – MATERIALS AND EQUIPMENT**

1. GENERAL

1.01 DESCRIPTION OF WORK

- A. This section includes general requirements pertaining to materials and equipment. Any such requirements as may be specified elsewhere or required by law are additional to the provisions included in this section.

1.02 SOURCE OF MATERIALS

- A. No source has been provided for any of the materials required for construction of this project. The Contractor shall make his own arrangements to obtain materials at Contractor's own expense and all costs of acquiring, producing and placing this material in the finished work will be considered incidental to the bid. Preference shall be given to domestic products.

1.03 QUALITY AND QUANTITY

- A. The Contractor shall incorporate into the Work only Materials conforming to the Specifications and approved by the Engineer. The Contractor shall incorporate in the Work only manufactured products made of new materials, unless otherwise specified in the Contract. The Agency may require additional testing or retesting to determine whether the Materials or manufacture products meet Specifications. Material shall furnished in quantities required to avoid delays in the progress of the work. Mechanical and electrical equipment shall be the products of established manufacturers of good reputation regularly engaged in the fabrication of such equipment.
- B. When materials are specified to conform to ASTM, Federal, or other reference specifications, the materials delivered to the site shall bear the manufacturer's printed labels stating that the materials meet the requirements of such referenced specifications.

1.04 MANUFACTURER'S INSTRUCTIONS

- A. Perform work in accord with manufacturer's instructions.
- B. Do not omit preparatory or installation procedures required by manufacturer.
- C. Handle, install, connect, clean, condition, and adjust products in strict accord with such instructions and in conformance with specified requirements.
- D. Should job conditions or specified requirements conflict with manufacturer's instructions, consult the Engineer. Do not proceed with work without clear instructions.

1.05 TRANSPORTATION AND HANDLING

- A. Factory-packed products shall be delivered in the manufacturer's original containers.
- B. Products shall be transported and handled in such a manner as to prevent their damage.
- C. Arrange for delivery of products within the time limits established by the Engineer.
- D. Furnish labor as necessary to receive and unload products delivered to the site. Do not deliver, or have delivered, any products to the site unless such forces are available.

1.06 STORAGE AND PROTECTION

- A. Neatly pile, store and protect products in locations where shown or directed.
- B. Protect products subject to damage by temperature or other weather conditions.

**SECTION 01700 – PROJECT CLOSEOUT**

1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Contractor shall provide all labor, material, and equipment to remove all temporary structures, all debris and surplus materials from the work site; to clean all interior and exterior surfaces, and equipment; to submit to the Engineer all required test reports, guarantees, warranties, bonds, printed equipment operating and maintenance instructions, maintenance manuals, record drawings, and the like as required by the specifications.
- B. Fill out, sign and date each section of the Agency provided closing document upon completion of the project.

1.02 FINAL CLEANUP

- A. Contractor shall perform the final cleanup of the project with meticulous care.
  - 1. Debris and excess materials shall be removed from the site and disposed of properly.
  - 2. Repair, patch and touch-up marred surfaces to match specified finish and adjacent surfaces.
  - 3. Clean all exposed surfaces of debris, dirt, marks and dust.
  - 4. Maintain cleaning until final acceptance.

1.03 PROJECT RECORD DRAWINGS (AS-BUILT)

- A. Maintain, at the jobsite, one set of the contract drawings for recording as-built conditions. Mark (in red) changes made during the course of construction.
- B. Upon completion of the work, turn over the one marked-up set of prints to the Engineer.
- C. Requests for partial payment will not be approved if the marked-up prints are not kept current and request for final payment will not be approved until the marked-up prints are delivered to the Engineer.
- D. Where specified elsewhere in the technical specification, furnish the Engineer with corrected reproducible tracings of work included in the contract.

1.03 OPERATIONS AND MAINTENANCE MANUALS

- A. Provide notebooks containing all product data, warranty, operation and maintenance data in a neat and organized format.
- B. Provide two copies of all O&M notebooks for each piece of equipment.
- C. Requests for final payment will not be approved until the required manuals are delivered to the Engineer.

1.04 FINAL INSPECTION, TESTING AND START-UP

- A. Final Inspection and Testing
  - 1. Final inspection of the work by Engineer will be made within 5 days after receipt of the Contractor's written request. All field tests and adjustment procedures described in the specifications must be completed, and all defects or omissions noted must be corrected.
- B. Field Tests
  - 1. All systems shall be tested by the Contractor to the satisfaction of the Engineer before any facility is finally tested prior to being placed into operation. Tests shall be made to determine whether the equipment has been properly assembled, aligned, adjusted and connected. Any changes, adjustments or replacements required to make the equipment

operate as specified shall be carried out by the Contractor as part of the work.

2. Testing shall be witnessed by the Engineer.

#### 1.05 INSTRUCTION TO AGENCY PERSONNEL

- A. Prior to Final Inspection, fully instruct the Agency's operating and maintenance personnel in the operation, adjustment, and maintenance of products, equipment, and systems.

## **PART C – TECHNICAL SPECIFICATIONS**

### **SECTION 02220 - EXCAVATING, BACKFILLING & COMPACTION**

#### PART 1 GENERAL

##### 1.01 WORK INCLUDED

- A. Excavating, backfilling, trenching, embankment construction, grading, leveling and compaction to the lines, grades and Cross Sections shown or established.

##### 1.02 PROJECT CONDITIONS

- A. Contractor shall follow all applicable rules adopted by the Oregon Utility Notification Center. Notify all affected utilities at least 48 hours in advance of actual excavation. The utilities notification system telephone number is 811 or 1-800-332-2344.
- B. Field locate all utilities including but not limited to gas, water, sewer, telephone, power and storm drain lines in advance of trenching operations.

#### PART 2 PRODUCTS

##### 2.01 MATERIALS

- A. Furnish general backfill containing no particle with any dimension greater than 3 inches, or other unsuitable material.
- B. Acceptance will be visual by the Engineer.

#### PART 3 EXECUTION

##### 3.01 EXCAVATION

- A. Contractor shall inspect the site before starting work. The Contract documents shall be field-verified and the Contractor shall notify the Engineer of discrepancies detrimental to completing the work as specified.

- B. General: Remove and dispose of all materials encountered to obtain required sub-grade elevations. Do not carry excavations deeper than necessary. All over-excavated areas shall be corrected at the Contractor's expense with crushed aggregate fill to the satisfaction of the Engineer. Remove unacceptable or excess material from the site. Immediately after excavation is completed, the Engineer upon notification will make an inspection to determine if testing or additional excavation is required. The Contractor shall provide a minimum of forty-eight hours' notice for inspection.
- C. Excavate to lines and grades shown or established. The subgrade upon which the fill or structure is to be placed shall be undisturbed, true to grade and compacted to a density of not less than 95% of the maximum density to a depth of 1 foot below established subgrade elevation. Notify the Engineer of unacceptable conditions prior to proceeding.
- D. Locate excavated material in such a manner that it does not create a hazard to pedestrian or vehicular traffic, nor interfere with existing drainage.
- E. Known utilities and structures expected to be adjacent to or encountered in the work are shown on the drawings. It is expected that there may be discrepancies and omissions in the location of utilities and structures shown, and no responsibility is assumed by the Agency for their accuracy. The Contractor shall be responsible for the actual locating and protecting of existing utilities.
- F. The surface of the excavation shall be restored to original condition. All grading, subgrade preparation, and surfacing shall be installed accurately to the satisfaction of the Engineer. Where the excavation is made adjacent to an existing surface to remain, preform cutting according to Section 01045.
- H. If existing pavement areas that will be left in place are damaged due to hauling or to any other activity of the Contractor, repair the damaged areas according to 01045 at the Contractor's expense.
- I. Spillage of excavation materials on paved areas shall be immediately cleaned up by the Contractor. If required by the Engineer, cleanup shall include brooming and flushing with water.
- J. Contractor is responsible for design and installation for all required shoring necessary to complete excavations.

### 3.02 UNEXPECTED HAZARDOUS WASTE CONTAMINATION

- A. If unanticipated hazardous substances are discovered during construction, that threaten the health and safety of workers, the public, or the environment, the Contractor shall remove all affected employees and secure the area to prevent access and notify the Engineer immediately and provide written notification within 24 hours, setting forth a description of the incident.
- B. The Engineer will attempt to resolve the unanticipated situation expeditiously. Delays to work due to the discovery of unexpected contamination will be considered for exclusion from contract time.

### 3.03 EMBANKMENT, FILLS AND BACKFILLS

- A. Place embankment, fill and backfill sequentially as work progresses to prevent contamination of imported materials. Do not place embankment, fills or backfills until a relative compaction of 95% the maximum density has been achieved in the underlying surface.
- B. Do not place embankment, fill or backfill until all underground/underslab utilities are in place and approved by the Engineer or building officials, as required.
- C. Place in nearly horizontal layers not to exceed 8" thick. Compact to required density before placing subsequent layer.
- D. Use approved vibratory mechanical compacting equipment to achieve density required on drawings, but not less than 95% of maximum density.
- E. Test in-place materials for compaction according to the MFTP.

## SECTION 02270 – EROSION CONTROL

### 1. GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. The Contractor shall maintain and construct temporary erosion control structures as necessary to prevent erosion.

#### 1.02 EROSION CONTROL REQUIREMENTS

- A. All work shall conform to applicable local, State and Federal erosion and sediment control regulations.
- B. Prior to any construction activity, provisions shall be made for the interception of all potential silt-laden runoff that could result from construction activity. Interception shall preclude any silt-laden runoff from discharging from the proposed construction to downstream properties. Specific laws, ordinances and resolutions regarding pollution prevention and natural resource preservation that may affect this project include, but are not limited to, the following:
  - 1. Federal Clean Water Act
  - 2. ORS 468-740 and OAR 340-41-455 (3)
- C. Contractor shall submit a written Erosion and Sediment Control Plan (ESCP) to the Engineer prior to the start of construction.
- D. Contractor shall obtain erosion control permits and shall comply with all permit provisions, when required by the Agency, State, Federal or other local jurisdictions having authority.

2. PRODUCTS

2.01 BIOFILTER BAGS

- A. Provide minimum size 18" x 6" x 30" plastic mesh bags with ½" openings filled with approximately 45 pounds of clean, 100% recycled wood-product waste, as needed.

2.02 SAND BAGS

- A. Provide 24" x 12" x 6" durable, weather-resistant, tightly woven bags sufficient to prevent leakage of filler material. Fill bags with at least 75 pounds of firmly packed fine aggregate 3/8" minus or 3/8" to 3/16" pea gravel, as needed.

2.03 SEDIMENT FENCE

- A. Provide prepared fence comprised of geotextile fabric with integral 2 x 2 wood stakes. Embed base of fence in soil to block sediment passage.

2.04 OTHERS

- A. Provide other products and materials as necessary for a successful ESCP.

3. EXECUTION

3.01 GENERAL

- A. All erosion control products and materials shall be installed in accordance with the manufacturer's recommendations and shall conform to the requirements of applicable permits.
- B. Maintain all erosion control and sediment prevention elements to ensure that no sediments are allowed to leave the construction area. Make necessary adjustments to the erosion control plan throughout the project as required.
- C. Inspect erosion control elements at least once every 7 days, but within no more than 24 hours in the event of a significant rainfall event. Correct any deficiencies immediately upon discovery.
- D. All sediment barriers shall remain in place for the duration of work and shall be removed after surface restoration and cleanup has occurred.

**SECTION 03000 – CONCRETE**

1. GENERAL

- A. This work consists of furnishing, placing and finishing Concrete.
- B. Comply with the General Structural Notes on Agency provided drawings.

2. PRODUCTS

A. Furnish the proposed concrete mix design to the Engineer at least 7 calendar days before using any Concrete. The concrete mix design shall list the proportions by weight of the following Materials:

- Air entraining admixtures
- Cement
- Each size of aggregate
- Fly ash
- Other admixtures
- Water

B. Furnish a workable concrete mixtures that is uniform in composition and consistency, and unless otherwise shown or specified, has the following characteristics:

- Entrained Air – 4.0 to 7.0 percent
- Slump – 5 inches or less
- Compressive Strength – Minimum 3,000 psi at 28 days
- Temperature – Minimum 50 degrees Fahrenheit to maximum 90 degrees

Fahrenheit

C. Do not used field-mixed concrete unless approved by the Engineer.

D. Sampling and Testing shall be performed at the site of placement from the discharge of the delivery vehicle. All sampling and testing shall be performed by a certified Quality Control Technician (QCT).

E. Send delivery tickets with each load of concrete recording the source, Day, time of batch, size of load, and quantity of individual constituents in the load.

F. Acceptance of plastic concrete will be based off of tests performed by a QCT according to the MFTP and constituents shall be in accordance with part 2.B of this section.

G. Acceptance of hardened concrete will be according to part 2.B of this section. Cast one set of (3) cylinders per 20 cubic yards, with a maximum of 1 set per Day.

### 3. EXECUTION

A. Place concrete using best common practices to avoid segregation. Spade to achieve a homogeneous concrete, free of voids, and Rock pockets. Place within 90 minutes after batching and mixing.

B. Place shoring and forms to the lines and grades shown or directed.

C. Do not place concrete when the air temperature is below 40 degrees Fahrenheit without approval. Protect concrete from freezing if the air temperature is expected to drop below 40 degrees Fahrenheit during the first 5 Calendar days after placement.

D. Cure concrete by covering with wet burlap, canvas, sand or other acceptable material and keep moist for a minimum of 7 Calendar days.

E. Give concrete surfaces a general surface finish.

- Remove form bolts and metal to a depth of 1 inch.
- Remove rock pocket and unsound concrete.
- Fill holes and depressions at least ¼ inch in depth or diameter with an approved Portland cement concrete repair material.
- Correct bulges, fins, depressions stains discolorations and imperfections as directed.
- The Engineer will determine the extent of the required repairs.

F. Remove concrete represented by cylinders that fail to meet the minimum strength requirement and replace at no additional cost to eh Agency. If the Engineer determines that the low strength concrete is suitable for the purpose intended, the Contractor may accept a price reduction established by the Engineer instead of removal and replacement.

## SECTION 03100 – STEEL REINFORCEMENT FOR CONCRETE

### 1. GENERAL

- A. This work consists of furnishing and placing steel reinforcement of the grade, type and size shown or specified.
- B. Comply with the General Structural Notes on Agency provided drawings.

### 2. PRODUCTS

- A. Furnish Materials meeting the requirements shown or specified. All reinforcing steel shall conform to ASTM A615, Grade 60. Smooth bars or welded bars shall conform to ASTM A185.
- B. Before ordering material, submit all shop drawings to the Engineer for approval. Do not order material until Shop Drawings have been approved. The review of Shop Drawings by the Engineer will not relive the Contractor of responsibility for the correctness of such Drawings. Revise Shop Drawings as required to make them comply with the design drawings at no additional cost to the Agency.
- C. Fabrication – Cold bend reinforcement bars to the shapes shown. Make bends, tag, mark and ship reinforcement bars according to the current edition of the CRSI “Manual of Standard Practice.”

### 3. EXECUTION

- A. Store reinforcement above the surface of the ground on dunnage. Protect reinforcement from damage at all times. Ensure reinforcement is free of dirt, detrimental rust or scale, paint, oil and other foreign substances when place in the Work.
- B. Place all reinforcement within the tolerances recommended in the CRSO “Manual of Standard Practice” unless otherwise specified. Hold reinforcement firmly during the placing and setting of concrete.
- C. Ties and Supports – Keep reinforcement properly positions during placement of concrete according to the following:
  - In top mats of footings and deck slabs, tie bars at all intersections except where bar spacing is less than 6 inches, tie bars at alternate intersections.
  - Tie all other bars at all intersection except where bar spacing is less than 1 foot in each direction, tie bars at alternate intersection.
  - Use precast concrete bar supports with approved shape and dimensions, and equal or greater compressive strength as the concrete to be placed.
  - When precast concrete bar supports are used, provide Wired Blocks. Provide tie wires that are either plastic or epoxy coated.
  - Turn up the legs of steel wire bar supports a minimum of 1/8 inch.
  - Separate layers of bars with precast concrete bar supports or by other approved bar support devices.

- Do not use pebbles, broken stone or brick, metal pipe or wooden blocks as bar supports.
- D. Clearances
- Provide the same surface clearance for ties and splices that is shown or specified for the reinforcement.
  - Maintain clearance distance from the forms with stays, precast concrete blocks, ties, hangers or other approved supports.
- E. Furnish full length reinforcing bars the specific length shown or the calculated length for those designated "continuous". If specific locations are designated for splices, make splices only at those locations, or use full-length bars. In the absence of other directions, furnish reinforcing bars to provide the minimum practical number of bars.
- F. In lapped splices, place bars in contact and fasten together with a minimum of 3 ties per splice.
- G. Do not place concrete until steel members have been inspected and approved according to the inspection schedule shown. Concrete places in violation of this provision may be rejected and removal required.
- H. Do not substitute different size bars unless approved.

## **SECTION 04000 – AGGREGATE BASE**

### **1. GENERAL**

A. This work consists of furnishing and placing one or more courses of Aggregate base on prepared surfaces to the lines, grades, thicknesses and cross sections shown or established.

### **2. PRODUCTS**

A. Furnish crushed aggregate base: Washed, sound, durable rock free of soft, friable, thin, elongated, or laminated pieces, disintegrated material, organic matter, oil, alkali, or other deleterious substance. 3/4"-0 mechanically crushed aggregate. No more than 5% passing the No. 200 sieve. Material shall be free of non-aggregate debris.

### **3. EXECUTION**

A. Provide a firm surface in which aggregates are to be placed according to Agency provided Drawings and section 02220.

B. Transport the Aggregate to the job site, add water to obtain proper moisture content, and place on the prepared surface or material by means acceptable to the Engineer.

C. If the required compacted depth of the Base exceeds 6 inches, construct it in two or more layers of nearly equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches. Place each layer in spreads as wide as practice and to the full with of the course before a succeeding layer is placed.

D. Use rollers or other approved vibratory mechanical compacting equipment to achieve adequate density to show no reaction or yielding observed under the compactor. Provide water over the materials for proper compaction, and as directed.

E. The finished surface and the surface of each underlying layer of the Aggregate shall parallel the established grade and Cross Section for the finished surface within 0.04 foot. The finished surface of compacted Aggregate Base, when tested with a 12-foot straight edge shall not vary by more than ½ inch at any point. Furnish and operate the straightedge as directed.

F. After construction of each layer and completion of Base, 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 Work is completed.

G. Acceptance will be based on visual inspection by the Engineer.

### **SECTION 04100 – COMMERCIAL ASPHALT CONCRETE PAVEMENT (CACP)**

#### **1. GENERAL**

A. This work consists of furnishing and placing commercial asphalt concrete pavement (CACP) to the lines, grades, thicknesses and Cross Sections shown or established.

#### **2. PRODUCTS**

A. Furnish CACP that is well-graded, uniform, durable commercial mix. All new materials, or a combination of new materials and reclaimed materials, may be used.

B. Provide a copy of the Job Mix Formula (JMF) to the Engineer before paving.

C. Use PG 64-22 or 64-28 asphalt cement unless otherwise approved. Provide asphalt cement conforming to the requirement of ODOT's publication "Standard Specifications for Asphalt Materials." Copies of the publication are available on from ODOT's website.

D. Furnish tack coat CSS-1, CSS-1h, CMS-2, CMS-2S, CMS-2h, CRS-1, CRS-2, HFRS-2, or HFMS-2 as the Contractor elects. Provide emulsified asphalt conforming to the requirement of ODOT's publication "Standard Specifications for Asphalt Materials."

#### **3. EXECUTION**

A. Immediately before applying the tack coat, the surface to be tacked shall be clean and dry. Clean all loose material by brooming, flushing with water or other approved methods.

B. Apply tack coat at a rate between 0.05 and 0.20 gallons per square yard as directed and with a temperature between 140 and 185 degrees Fahrenheit.

C. Place asphalt concrete structures by either mechanical extrusion methods or between suitable forms, as the Contractor elects. The Engineer may allow small or special pavers, spreader boxes, or blade graders or placing asphalt concrete. The Engineer may allow mixture to be placed by hand methods.

D. Compaction of CACP to a specified density will not be required, regardless of thickness. Perform breakdown and intermediate rolling until the entire surface has been compacted with at least four coverages by the rollers. Perform additional coverages, as directed, to obtain finish rolling of the CACP.

E. Acceptance will be based on visual inspection by the Engineer.

## **SECTION 05100 – METAL BUILDINGS**

### **1. GENERAL**

#### **1.01 SCOPE**

- A. This work consists of designing, furnishing and erecting steel framed metal buildings as shown or established. Work includes the complete design, furnishing and erection of a metal frame building, including but not limited to, steel frame members, bracing, siding, roofing, hardware, connections, sealants, accessories and other components necessary to complete the work as shown or specified.
- B. Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all permits, governmental fees, licenses and inspections necessary for the proper execution and completion of the Work as shown or specified.

#### **1.02 DESIGN REQUIREMENTS**

- A. In accordance with 2012 International Building Code as Amended by the State of Oregon (2014 OSSC).
- B. The manufactured steel building shall be designed by a Registered Professional Engineer licensed by the State of Oregon.
- C. Satisfy the minimum design criteria shown on Agency provided drawings.

#### **1.03 SHOP DRAWINGS**

- A. Submit in accordance with Section 01300 for review and approval. Any Work done before review of these drawings shall be at the Contractor's risk. Submit copies of revisions to the working drawings for review.

- B. Include type, size and stress grade of members; location; and complete fabrication and installation details, including required bearing, bracing, bridging, blocking, fastening, attaching devices, spacing, and load capacities.
- C. Include complete calculations for each design showing internal layout member forces and reactions.
- D. Bear designer's Seal of License.

#### 1.04 MANUFACTURER'S INSTRUCTIONS

- A. Prior to installation submit handling and erection instruction to general contractor including bracing requirements.
- B. Furnish test results certificates, showing chemical analysis and physical tests for each heat or plate of steel, for all members. Test results certificates shall:
  - Be from the manufacturer, verifying the Material furnished has been sampled and tested and the test results meet the Specifications.
  - Include, or be accompanied by, a copy of the specified test results (AASHTO, ASTM, UL or other)
  - Identify the testing agency and the representative responsible for the test results
  - Permit positive determination that Material delivered to the Project is the same Material covered by the test results.
  - Be delivered to the Engineer prior to incorporating the material into the Work.

#### 1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. In transporting, handling and storing materials, avoid bending, scraping or overstressing the materials. Reject pieces bent or otherwise damaged.
- B. Store according to manufacturer's instructions.

#### 1.06 FIELD MEASUREMENTS

- A. Verify prior to fabrication.
- B. If field measurements differ slightly from drawing dimensions modify work as required for accurate fit. If measurements differ substantially, notify the Engineer prior to fabrication.

#### 1.07 INSPECTIONS

- A. All erecting Work is subject to the Engineer's inspection and approval. Provide facilities required for thorough inspection of the Work.
- B. Contractor shall be responsible for ensuring all special inspections required by local, State and Federal law, building codes and others as applicable are

completed before proceeding with the Work. Contractor shall be responsible for costs associated with special inspections.

### 3. EXECUTION

#### 3.01 EXISTING CONDITIONS

- A. Verify that structure and surfaces to support the metal building are rigid, secure, accurately sized and located, and otherwise properly prepared.
- B. Do not start work until conditions are satisfactory.

#### 3.02 PROTECTING OTHER WORK

- A. Protect against damage and discoloration caused by work of this section.

#### 3.03 ERECTION

- A. Follow manufacturer's directions and approved shop drawings.
- B. Hoist steel members by picking at designated lifting points.
- C. Prohibit excessive out-of-plane bending.
- D. Do not perform hammering which will injure or distort the members.
- E. Accurately locate and install steel members plumb, secure, and rigid with adjacent members in true alignment, following any match marks.
- F. Provide necessary bridging, bearing plates, anchoring clips, and bracing required to resist temporary and permanent vertical and lateral loads.

#### 3.04 MISFITS

- A. The correction of minor misfits involving small amounts of reaming, cutting and chipping will be considered legitimate part of the erection. However, immediately report to the Engineer any error in the shop fabrication or deformation resulting from handling, storage and transportation which prevents the proper assembling and fitting up of parts by the moderate use of drift pins, or by a moderate amount of reaming and slight chipping or cutting. Have the correction method approved. Make the correction in the Engineer's presence. The Contractor shall be responsible for all misfits, errors and injuries. Make the necessary corrections and replacement as approved by the stamping engineer of the metal building, the manufacturer and the Engineer.

#### 3.04 CLEANING AND REPAIRING

- A. Including work of other sections, clean, repair and touch-up, or replace when directed, products which have been soiled, discolored, or damaged by work of this section.
- B. Remove debris from project site upon work completion or sooner, if directed.

## SECTION 09900 – PAINTING AND FINISHING

### PART 1 GENERAL

#### 1.01 SCOPE

A. This work includes preparing and coating new metal Structures and features in the field, including metal panels and roofing. If coating is completed by the manufacturer prior to delivery to the site, this section will not apply.

#### 1.02 DESCRIPTION

A. The term "Paint" as used herein includes enamels, paints, sealers, fillers, and other coatings, whether or not pigmented and whether used as a prime, intermediate or top coat.

#### 1.03 QUALITY ASSURANCE

A. Labels: Each Product container shall bear Manufacturer's label indicating: Manufacturer's name, Type of Material, Manufacturer's stock or product number, and if applicable color and instructions for reducing.

#### 1.04 SUBMITTALS

A. Submit color samples to the Engineer prior to painting.

#### 1.05 DELIVERY STORAGE AND PROTECTION

- A. Deliver materials in original sealed containers; Manufacturer's labels intact and legible at time of use.
- B. Store only approved materials at job site and in areas that ensure protection from contamination or damage by the elements.
- C. Use all means necessary to insure safe storage and use of materials. Remove waste, debris, rags, and empty cans daily.
- D. Do not deliver or store any painting material in building until Engineer and painting contractor agree that the area in question is thoroughly dry and proper temperatures will be maintained.
- E. Protect Painting Work and Work of other trades with suitable coverings.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURER

A. Materials selected for coating systems for each type surface shall be the product of a single Manufacturer.

- B. Products manufactured by Sherwin-Williams, or approved alternate.
- C. Use only products which are recommended by approved Manufacturer for use with the materials, and under conditions of service to be encountered by the Work.

## 2.02 MIXING AND TINTING

- A. Color as shown, or directed by the Engineer.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. Inspection and Coordination:
  - 1. Inspect surfaces to receive Finishes. Notify the Engineer of unsatisfactory conditions requiring correction. Do not proceed until all conditions are satisfactory.
  - 2. Verify that Work of other Trades is sufficiently completed, cured, approved, and ready to receive finishes.
  - 3. Test surfaces to be painted with standard moisture meter and do not apply initial coating until moisture content is within required limits.
  - 4. Do not paint putty, caulking or sealants, concrete, plaster, or other similar products (which are required to cure), until thoroughly cured.
- B. Job Conditions:
  - 1. Apply paint only under dry and dust free conditions; maintain conditions until paint is cured.

### 3.02 SURFACE PREPARATION

- A. General: Strictly comply with Product Manufacturer's recommendations.
- B. Galvanized Metal and Zinc Alloy: Thoroughly clean with surface conditioner, and dry with clean cloth.
- C. Non-galvanized Steel: Remove all oil, rust, scale and dirt; touch up damaged Shop Coat areas. Where shop coat is asphalt Base Paint, apply one coat Polyvinyl Acetate Asphalt sealer before applying Finish Coats hereinafter specified.

### 3.03 APPLICATION

- A. General:
  - 1. Do not apply initial coating until moisture content of surface is within limitations recommended by paint Manufacturer.
  - 2. Apply coating with suitable brushes, rollers or spraying equipment. Rate of application shall not exceed that as recommended by paint Manufacturer for the surface involved.
  - 3. Comply with Product Manufacturer's recommendations for drying time between succeeding coats.
  - 4. Sand and dust between each coat to remove defects visible at 5 ft. distance.
  - 5. Finish coats shall be smooth, free of brush marks, streaks, laps, pile-up, and skipped or missed areas.

6. Cut paint edges clean and sharp against other materials or colors, without overlap.
- B. Coverage: Provide additional coats as required to meet the following requirements:
  1. With the exception of semi-transparent stains and clear finishes, all paint films shall be completely and uniformly opaque, regardless of the Dry Mil Thickness (DMT) or number of coats specified.
  2. Dry Mil Thickness (DMT) shall be no less than recommended by Manufacturer or scheduled herein, whichever is greater.
  3. Both the number of coats and Dry Mil Thickness (where scheduled) are minimums and independent of each other.

### 3.04 CLEANING AND REPAIR

- A. Immediately remove spills, and splatters. Repair or replace all Work damaged or stained by painting, when directed, and leave in acceptable condition at time of final acceptance.

### 3.05.1 PAINTING SCHEDULE

- A. General:
  1. Prime coats may be omitted from existing finished surfaces, provided existing coating is sound.
  2. DMT (Dry Mil Thickness) is minimum total including primers where scheduled.
- B. Exterior Coatings:
  1. Metal siding and roofing  
Prime: 1 coat rust inhibiting primer  
Finish: 2 coats semi-gloss alkyd enamel  
DMT: 4.0 mils

## **SECTION 16000 - BASIC ELECTRICAL REQUIREMENTS**

### PART 1 - GENERAL

#### 1.01 DEFINITIONS

- A. The Work consists of furnishing and installing Materials for electrical systems.

#### 1.02 REGULATORY REQUIREMENTS

- A. Conform to the requirements of the Oregon Electrical Specialty Code, latest adopted edition. If any conflict occurs between adopted code rules and this Specification, the codes are to govern. Nothing in these drawings and specifications shall be construed to permit work not conforming to governing codes.
- B. All electrical equipment shall bear the label of the testing laboratories recognized by the State of Oregon as meeting the testing standards for minimum electrical safety.

- C. Materials shall, where rated, be UL listed and conform to applicable ANSI, NFPA, NEMA, ISA and OSHA, or other recognized standards.

#### 1.03 DESIGN

- A. Major components of electrical system are shown on the drawings. Work must incorporate at a minimum the components and functionality shown on the drawings.
- A. The Contractor is responsible for the design of electrical system circuits and components. Design must incorporate at a minimum the components and functionality shown on the drawings.

#### 1.04 QUALITY ASSURANCE

- A. Every person engaged in the installation of electrical Equipment and wiring systems shall possess a valid Oregon Electrical Supervising or Journeyman's License, or be registered as an Electrical Apprentice.
- B. All work shall be in accordance with all applicable codes, rules and laws of the jurisdiction having authority.

#### 1.05 SUBMITTALS

- A. Provide submittals for all equipment and materials.

#### 1.06 DESCRIPTION

- A. Furnish labor, supervision, and permits and provide all materials and equipment required to complete the work specified herein and shown on the Drawings.
- B. Provide complete and fully operational systems with facilities and services to meet requirements indicated in accordance with applicable codes and ordinances.
- C. The Drawings indicate schematic locations. Verify all locations with actual field conditions and avoid installation conflicts.
- D. Record drawings are to be maintained to reflect installed circuiting.

#### 1.07 PERMITS AND FEES

- A. Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all permits, governmental fees, licenses and inspections necessary for the proper execution and completion of the Work as shown or specified.

#### 1.08 COORDINATION

- A. Electrical subcontractor shall coordinate with work of all other trades for proper execution of the work.

#### 1.09 PROJECT/SITE CONDITIONS

- A. Install work in locations shown on Drawings, modify and make minor adjustments as required to fit actual conditions.

## PART 2 PRODUCTS

### 2.01 GENERAL

- A. All materials shall be new, of the best quality and free from defects. They shall be designed to insure satisfactory operation and operating life in the environmental conditions which will exist where they are being installed.
- B. Each type of material shall be of the same make and quality. The materials furnished shall be of the standard products of manufacturers regularly engaged in the production of such equipment.
- C. Protection. Materials and equipment delivered to the site shall be stored and protected in such a manner as to effectively prevent damage from climatic conditions, condensation, dust, physical abuse. A location shall be chosen which will not interfere with the operations of other contractors or the Owner. Storage and handling shall be performed in manners which will afford maximum protection to the equipment and materials.

### 2.02 QUALITY

- A. At no additional charge to the Agency, replace or repair any work or Material which develops defects, except from abuse, within one year from the Agency's written acceptance.

### 2.03 LIGHTS AND FIXTURES

- A. Provide the following light fixtures, or approved equal, at locations shown:  
Manufacturer: e-conolight  
Model: E-DD1L66C1  
Light Output: 7500 Lumens  
Color: Cool White  
Power consumption: 66W

## PART 3 EXECUTION

### 3.01 CODES, ORDINANCES AND REGULATIONS

- A. All work shall conform to all applicable Federal, State and Local Codes, Ordinances, Regulations and Laws.
- B. All work shall conform to the current edition of the National Electrical Code and the Oregon Electrical Specialty Code.
- C. Furnish products listed and classified by the Underwriters Laboratories, Inc. as suitable for the purpose specified and shown.
- D. Code requirements shall be considered a minimum guide for the work. Where Drawings or Specifications require wiring or materials in excess of Code minimum, install work as called for in contract documents.

### 3.02 COORDINATION

- A. Coordinate work with shop drawings of others. Coordinate work with other trades and determine in advance where conflicts occur.
- B. Report immediately any error, conflict or discrepancy in the Drawings, Specifications and/or existing conditions. Do not proceed until clarifications of all errors, conflicts or discrepancies have been made.
- C. Contractor shall coordinate work with the power utility company to verify conditions, locations, and equipment is in accordance with power company standards and to ensure any inspections shown, specified or otherwise required, are completed.

### 3.03 INSTALLATION AND WORKMANSHIP

- A. Materials and equipment shall be installed in accordance with the approved recommendations of the manufacturer to conform to the contract documents.
- B. Work shall be performed in a neat and professional manner. Sloppy or poorly executed work shall be removed and replaced at no additional cost to the Agency.

### 3.05 TRENCHING

- A. Excavate trenches to the lines, grades and cross sections established or approved. Furnish, place, and remove any shoring required to prevent caving of the walls.
- B. When excavating in paved areas, cut with an approved Pavement cutting saw to a depth of at least 2 inches along the neat boundaries of the area to be removed. Cut sharp, and well-defined Pavement edges with no evidence of cracking, delaminating, or stressing.
- C. Excavate for conduit to provide a minimum of 36" of cover as shown.
- D. Backfill according to the following:
  - Bedding: Place 2 inches of sand blanket in trench bottom before placing conduit.
  - Cover: Cover conduit with 2 inches of additional sand blanket.
  - Backfill: Place aggregate base material meeting the requirements of Section 04000 Part 2(A) in layers not greater than 6".
  - Compaction: Compact each layer using vibratory mechanical compacting equipment to achieve adequate density to show no reaction or yielding observed under the compactor. Provide water over the materials for proper compaction, and as directed.
- E. All construction materials damaged or cut into during the installation of this work must be repaired or replaced with materials of like kind and quality as original materials by skilled labor experienced in that particular building trade.

### 3.05 CUTTING OF BUILDING CONSTRUCTION

- A. Obtain permission from the Engineer prior to cutting. Locate cuttings so they will not weaken structural components. Cut carefully and only the minimum amount necessary. Cut concrete with diamond core drills except where space limitations prevent the use of such drills.
- B. All construction materials damaged or cut into during the installation of this work must be repaired or replaced with materials of like kind and quality as original materials by skilled labor experienced in that particular building trade.

### 3.06 DRAWINGS/OPERATING MANUALS

- A. At the project completion, provide to the Engineer one complete set of "As-constructed" drawings to show all electrical work as-installed.
- B. Provide schematic drawings for all electrical systems that differ from the contract drawings at the conclusion of the project. The schematic drawings shall be clearly legible and fully descriptive of the system installation and operation.