



Oregon State University

INVITATION TO BID #198817

2019 PATH OF TRAVEL IMPROVEMENTS

ISSUE DATE: March 27, 2019

ITB CLOSING (DUE) DATE: May 2, 2019 at 10:00AM Pacific Time

MANDATORY PRE-BID CONFERENCE: April 8, 2019 at 10:00AM Pacific Time in the Oak Creek Building
Conference room #201 located at 3015 SW Western Blvd, Corvallis, OR 97331.

QUESTION DEADLINE: April 22, 2019 at 5:00 PM Pacific Time

PROJECT NUMBER: 2181-19

CONTRACT ADMINISTRATOR:

Kelly Oar, Purchasing Analyst III

Construction Contract Administration

Oregon State University

644 SW 13th Ave.

Corvallis, OR 97333

Phone: (541) 737-4672

FAX: (541) 737-5546

Email: kelly.oar@oregonstate.edu

AWARD DECISION APPEALS:

Hanna Emerson, Construction Contracts Manager

Construction Contract Administration

Oregon State University

644 SW 13th Ave.

Corvallis, OR 97333

Phone: (541) 737-7342

FAX: (541) 737-5546

Email: hanna.emerson@oregonstate.edu

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Prepared by Michael S. Blair dated March, 2019

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Prepared by Michael S. Blair dated March 24, 2019

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OREGON STATE UNIVERSITY

NOTICE OF OPPORTUNITY – RETAINER INVITATION TO BID

THIS OPPORTUNITY IS ONLY AVAILABLE TO CONTRACTORS WITH A CURRENT OREGON STATE SYSTEM (OSU) RETAINER CONTRACT FOR CONSTRUCTION RELATED SERVICES.

2019 PATH OF TRAVEL IMPROVEMENTS

Oregon State University (“Owner”) is accepting sealed bids from Contractors on the OSU Retainer list for a public improvement project at Construction Contracts Administration, Oregon State University, 644 SW 13th Ave., Corvallis, Oregon, until **10:00AM** local time, **May 2, 2019** for the 2019 Path of Travel Improvements project located on the campus of Oregon State University, Corvallis, Oregon.

A **MANDATORY PRE-BID CONFERENCE** and examination of the site and conditions will take place on **April 8, 2019** at **10:00AM** Pacific Time in the in conference room #201 in Oak Creek Building (3015 SW Western Blvd, Corvallis, OR 97331). Attendance will be documented through a sign-in sheet prepared by the Owner’s Representative. Prime bidders who arrive more than 5 minutes after start time of the meeting or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the project.

Plans and specifications for this bid along with the Request for Qualifications for the 2018-2020 Construction Related Services Retainer are available at the following website: <https://bid.oregonstate.edu/>

All bidders must comply with requirements of the prevailing wage law in ORS 279C.800 through ORS 279C.870. All bidders must be registered with the Construction Contractor's Board at the time of bid submission. No bid will be considered unless fully completed in the manner provided in the "Instructions to Bidders" upon the Bid Form provided. OSU encourages bids from Minority, Women, and Emerging Small Businesses.

OREGON STATE UNIVERSITY

By: Kelly Oar
Purchasing Analyst III
Oregon State University

DATE OF POSTING:

Wednesday March 27, 2019

OREGON STATE UNIVERSITY

BID FORM

PROJECT: 2019 PATH OF TRAVEL IMPROVEMENTS

BID CLOSING: THURSDAY MAY 2, 2019 10:00 AM LOCAL TIME

BID OPENING: THURSDAY MAY 2, 2019 10:00 AM LOCAL TIME

FROM: _____
Name of Contractor

TO: Oregon State University (“Owner”)
 Construction Contract Administration
 644 SW 13th Ave.
 Corvallis, Oregon 97333

1. The Undersigned (*check one of the following and insert information requested*):

___ a. An individual doing business under an assumed name registered under the laws of the State of _____; or

___ b. A partnership registered under the laws of the State of _____; or

___ c. A corporation organized under the laws of the State of _____; or

___ d. A limited liability corporation/company organized under the laws of the State of _____;

2. The Undersigned proposes to add to or deduct from the Base Bid indicated below the items or work relating to the following Unit Price(s) as designated in the Specifications, for which any adjustments in the Contract amount will be made in accordance with Section D of the OSU General conditions.

Item No.	Exhibit or Spec.	Schedule of Items	MM*	Quantity	Unit	Unit Price	Total Price
OSU Path of Travel Improvements							
1	Section 03 30 53; SHTS C1.1-C1.3	Remove ext’g sidewalk & improvements; replace with 4-inch concrete sidewalk per Construction Item #1	DQ	2,338	SF		
2	Section 03 30 53; SHTS C1.1-C1.3	Remove ext’g sidewalk & improvements; replace with 6-inch concrete sidewalk per Construction Item #2	DQ	5,646	SF		
3	Section 03 30 53; SHTS C1.1-C1.3	Remove ext’g curb or improvement; replace with 16-inch curb per Construction Item #3	DQ	414	LF		
4	Section 03 30 53; SHT C1.1	Remove ext’g tooled concrete; replace per Construction Item #4	DQ	1	Each		

5	Section 03 30 53; SHT C1.1	Remove ext'g curb ramp & associated curb; replace per Construction Item #5	DQ	3	Each		
6	Section 03 30 53; SHT C1.1	Payment for Construction Item #6 will be paid through Construction Items # 2 and #11	DQ	N/A	N/A		
7	Section 03 30 53; SHT C1.1	Remove ext'g curb, sidewalk, and ramp; replace per Construction Item #7	DQ	1	Each		
8	Section 03 30 53; SHT C1.1	Remove ext'g curb, ramp, and sidewalk; replace per Construction Item #8	DQ	4	Each		
9	Section 03 30 53; SHTS C1.1- C1.3	Remove ext'g improvement; replace per Construction Item #9	DQ	729	SF		
10	Section 03 30 53; SHT C1.1	Remove ext'g curb ramp & transition curb; replace per Construction Item #10	DQ	2	Each		
11	Section 03 30 53; SHTS C1.1- C1.3	Remove ext'g improvement per plans; Install concrete truncated domes per Construction Item #11	DQ	132	SF		
12	Section 03 30 53; SHTS C1.2	Remove asphalt and improvements over tunnel; replace per Construction Item #12	DQ	242	SF		
13	Section 32 12 16; SHT C1.3	Grind/Inlay asphalt & install detectable warning system; per Construction Item #13	DQ	1	Each		
14	Section 03 30 53; SHT C1.3	Payment for Construction Item #14 will be paid through Construction Items # 2 and #11	DQ	N/A	N/A		
15	Section 03 30 53; SHT C1.3	Remove ext'g curb, ramp, and sidewalk; replace per Construction Item #15	DQ	1	Each		
16	Section 03 30 53; SHTS C1.1- C1.3	Salvage ext'g Meter Box, Adjust to New Finish Grade	DQ	5	Each		
17	Section 32 12 16; SHTS C1.1- C1.3	Remove ext'g asphalt and rock; replace with 2-2.5-inch lifts asphalt and 15 inches baserock per Construction Items #17	DQ	433	SF		
18	Section 32 12 16; SHTS C1.1- C1.3	Remove ext'g asphalt and rock; replace with 2-3-inch lifts asphalt and 15 inches baserock per Construction Items #18	DQ	936	SF		

19	Section 31 05 00	Remove damaged or ext'g irrigation lateral; replace with new rerouted 5-foot section of irrigation lateral per Section 31 05 00	DQ	10	Each (per 5' section of new pipe)		
20	Section 31 05 00	Remove damaged or lost Rainbird 1800 sprinkler head; replace with new Rainbird 1800 per Section 31 05 00	DQ	10	Each		
21	Section 31 05 00	Remove damaged or lost Hunter I-20 rotor head; replace with new Hunter I-20 per Section 31 05 00	DQ	5	Each		
22	Section 02 22 00	Mobilization; Traffic, Pedestrian, Fencing Control, Clean-up	AQ	1	LS		

MM* DQ-Design Quantity, AQ-Actual Quantity; LS-Lump Sum
 Units: LS-Lump Sum; SF-Square Foot; LF-Lineal Feet; CY-Cubic Yard

BASE BID (the sum of Total Price column (Dollars)) (\$_____)

and the Undersigned agrees to be bound by the following documents:

- Notice of Opportunity
 - Supplemental Instructions to Bidders
 - Performance Bond and Payment Bond
 - Supplemental OSU General Conditions
 - Prevailing Wage Rates
 - Plans and Specifications
 - Instructions to Bidders
 - Sample Contract
 - OSU General Conditions
 - Payroll and Certified Statement Form
 - Drawings and Details
- ADDENDA numbered ____ through ____, inclusive (*fill in blanks*)

3. The work shall be completed within the time stipulated and specified in Division 1, Section 01 11 00, of the Specifications.

4. The Undersigned certifies that: (1) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (2) The contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any Bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

5. The undersigned **HAS, HAS NOT** (*circle applicable status*) paid unemployment or income taxes in Oregon within the past 12 months and **HAS, HAS NOT** (*circle applicable status*) a business address in Oregon..

6. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

7. Contractor's CCB registration number is _____. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in

accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will render the bid unresponsive and it will be rejected, unless contrary to federal law.

8. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the Contract.

9. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is _____, Policy No. _____, and that Contractor shall submit Certificates of Insurance as required.

10. Contractor's Project Manager for this project is: _____, Office Phone: _____ Cell Phone: _____.

11. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

12. The Undersigned agrees, if awarded the Contract, to execute and deliver to Owner, within twenty (20) calendar days after receiving the Contract Documents, an Agreement Form and a satisfactory Performance Bond and Payment Bond, each in an amount equal to one hundred (100) percent of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be: _____.

(name of surety company - not insurance agency) The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM _____

ADDRESS _____

FEDERAL TAX ID _____

TELEPHONE NO _____

FAX NO _____

SIGNATURE 1) _____

Sole Individual - Signature

Sole Individual - Printed Name

or 2) _____

Partner

or 3) _____

Authorized Officer of Corporation - Signature

Authorized Officer of Corporation Printed Name

(SEAL)

Attested: Secretary of Corporation

*Payment information will be reported to the IRS under the name and taxpayer ID # provided above.
Information not matching IRS records could subject Contractor to 31 percent backup withholding.*

******* END OF BID *******

**OSU RETAINER CONTRACT SUPPLEMENT
OSU RETAINER CONTRACT FOR CONSTRUCTION
RELATED SERVICES
SUPPLEMENT NO.: OSU-xxx-C-16-xx
PROJECT NAME**

This OSU Retainer Contract Supplement dated XXXX (the "Supplement") is entered into between:

"Contractor":

and "Owner": Oregon State University
Construction Contract Administration
644 SW 13th Ave
Corvallis, OR 97333

(collectively the "Parties") pursuant to the OSU Retainer Contract for Construction Related Services between the Parties (the "Retainer Contract"). Capitalized terms have the meaning defined in the Retainer General Conditions unless otherwise defined in the Retainer Contract or herein.

- 1. DESCRIPTION OF THE PROJECT.** The project to which this Supplement pertains is described as follows: (the "Project").
- 2. WORK TO BE PERFORMED.** Contractor shall perform the following work on the Project: (the "Work"). Contractor will perform the Work according to the terms and conditions of this Supplement and the Contract Documents, which are incorporated herein by this reference.
- 3. SCHEDULE.** Contractor shall perform the Work according to the following schedule: (the "Schedule").
- 4. COMPENSATION.** Owner shall compensate Contractor for Work in the firm, fixed-price amount of \$XXX.XX in accordance with the requirements of the OSU Retainer General Conditions.

The cost of the Work under this Supplement, even if this Supplement is later amended to include additional work, must not exceed the greater of \$1,000,000 or the maximum allowable under OSU standards and policies.

Contractor hereby agrees that the Work set forth in this Supplement may continue beyond the Term of the Retainer Contract and will be performed through final completion of Contractor's Work, including completion of all warranty work. The Parties expressly agree that they may execute a Supplement Amendment and extend the date which Contractor's Work may be completed, which may include a date beyond the Term of the Retainer Contract.

Termination or suspension does not extinguish or prejudice Owner's right to enforce the Supplement with respect to any breach by the Contractor that has not been cured.

5. TERM. This Supplement is effective on the date it has been signed by every Party hereto (the "Supplement Effective Date"). No Work shall be performed or payment made prior to the Supplement Effective Date. Contractor shall perform its obligations in accordance with the Contract Documents, unless this Supplement is earlier terminated or suspended.

6. PERFORMANCE AND PAYMENT BONDS. The performance and payment bond requirements for this Project are as follows (check one of the following):

As a condition precedent to the effectiveness of this Supplement and to Owner's obligation to make payment for the Work, Contractor shall provide the Owner with a performance bond and a separate payment bond in a sum equal to the Contract Price stated in Section 4 of this Supplement.

This Project has a Contract price of \$100,000 or less, and Owner has determined that performance and payment bonds will not be required for this Project.

7. PREVAILING WAGE RATES.

Prevailing Wage Rates requirements apply to this Project. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates and the required public works bond, as outlined in Sections C.1, C.2 and G.2.3 of the Retainer General Conditions. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Supplement:

PREVAILING WAGE RATES for Public Works Contracts in Oregon, XXXX, as amended XXXX, which can be downloaded at the following web address:

[http://www.boli.state.or.us/BOLI/WHD/PWR/pwr_book.shtml]

The Work will take place in XXX County, Oregon.

8. INSURANCE REQUIREMENTS.

Contractor shall comply with and obtain the insurance coverage amounts stated in the Retainer General Conditions.

The Owner has determined that the Contractor shall obtain insurance in the amount described in the Retainer Supplemental General Conditions, attached hereto.

9. OTHER TERMS. Except as specifically modified by this Supplement, all terms of the Retainer Contract remain unchanged.

10. EXECUTION AND COUNTERPARTS. This Supplement may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.

Contractor hereby confirms and certifies that the representations, warranties, and certifications contained in the Retainer Contract remain true and correct as of the Effective Date of this Supplement.

IN WITNESS HEREOF, the Parties have duly executed this Supplement as of the dates indicated below.

, Contractor

Oregon State University, Owner

Print Name: _____

Print Name: Anita Nina Azarenko

Signature: _____

Signature: _____

Title: _____

Title: Associate Vice President for
University Facilities, Infrastructure and
Operations

Date: _____

Date: _____

OREGON STATE UNIVERSITY

PERFORMANCE BOND

Bond No. _____
Solicitation _____
Project Name _____

_____ (Surety #1)	Bond Amount No. 1:	\$ _____
_____ (Surety #2)*	Bond Amount No. 2:*	\$ _____
<i>* If using multiple sureties</i>	Total Penal Sum of Bond:	\$ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Oregon State University (OSU), the sum of (Total Penal Sum of Bond)

(Provided, that we the Sureties bind ourselves in such sum “jointly and severally” as well as “severally” only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into contract No. _____ with the OSU, the plans, specifications, terms and conditions of which are contained within the Contract resulting from the above-referenced Solicitation;

WHEREAS, the terms and conditions of the Contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of Contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called “Contract”); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall (1) faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, (2) shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, (3) shall save, defend, indemnify and hold harmless OSU and its officers, board members, employees, agents and other representatives, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by

the Principal or its subcontractors, and (4) shall in all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond, nor shall OSU be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 352, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, 20__.

PRINCIPAL: _____

By _____

Signature

Official Capacity

Attest: _____

Corporation Secretary

SURETY: _____

[Add signatures for each surety if using multiple bonds]

BY ATTORNEY-IN-FACT:

[Power-of-Attorney must accompany each surety bond]

Name

Signature

Address

City

State

Zip

Phone

Fax

OREGON STATE UNIVERSITY

PAYMENT BOND

Bond No. _____
Solicitation _____
Project Name _____

_____ (Surety #1) Bond Amount No. 1: \$ _____
_____ (Surety #2)* Bond Amount No. 2:* \$ _____
* *If using multiple sureties* Total Penal Sum of Bond: \$ _____

We, _____, as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Oregon State University (OSU) the sum of (Total Penal Sum of Bond) _____ (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into contract No. _____ with OSU, the plans, specifications, terms and conditions of which are contained within the Contract resulting from the above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall (1) faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, (2) shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, (3) shall save, defend, indemnify and hold harmless OSU, and its officers, board members, employees, agents and other representatives, against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, (4) shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; (5) shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its

subcontractors in connection with the performance of the Contract; (6) shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167;(7) shall permit no lien nor claim to be filed or prosecuted against the State or OSU on account of any labor or materials furnished; and (8) shall do all things required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond, nor shall OSU be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 352, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

Dated this _____ day of _____, 20__.

PRINCIPAL: _____

By _____

Signature

Official Capacity

Attest: _____

Corporation Secretary

SURETY: _____

[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:

[Power-of-Attorney must accompany each bond]

Name

Signature

Address

City State Zip

Phone Fax

OREGON STATE UNIVERSITY GENERAL CONDITIONS FOR RETAINER CONTRACTS

November 1, 2018

INSTRUCTIONS: The attached **Oregon State University General Conditions for Retainer Contracts** ("Retainer General Conditions") apply to all designated retainer contracts. Changes to the Retainer General Conditions (including any additions, deletions or substitutions) should only be made by attaching Retainer Supplemental General Conditions. The text of these Retainer General Conditions should not otherwise be altered.

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**OREGON STATE UNIVERSITY
GENERAL CONDITIONS FOR RETAINER CONTRACTS
("Retainer General Conditions")**

**SECTION A
GENERAL PROVISIONS**

A.1 DEFINITION OF TERMS

In the Contract Documents, the following terms shall be as defined below:

AMENDMENT, means a writing which, when fully executed by the Parties to this Contract, constitutes a change to a Contract Document. Amendments to Supplements (hereinafter a "Supplement Amendment") shall be issued in accordance with the changes provisions of Section D and, if applicable, establish a Contract Price or Contract Time adjustment.

APPLICABLE LAWS, means federal, state and local laws, codes, rules, regulations and ordinances applicable to the Work and to the Contract.

ARCHITECT/ENGINEER, means the Person appointed by the Owner to make drawings and specifications and, to provide contract administration of the Work contemplated by the Contract to the extent provided herein or by supplemental instruction of Owner (under which Owner may delegate responsibilities to the Architect/Engineer), in accordance with ORS Chapter 671 (Architects) or ORS Chapter 672 (Engineers) and administrative rules adopted thereunder.

CHANGE ORDER, means a written order issued by the Owner to be later included as an Amendment. A Change Order shall not be effective until codified as an Amendment.

CLAIM, means a demand by Contractor pursuant to Section D.3 for review of the denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, submitted in accordance with the requirements and within the time limits established for review of Claims in these Retainer General Conditions.

CONSTRUCTION CHANGE DIRECTIVE, means a written order by the Owner to the Contractor requiring a change in the Work within the general scope of the Contract Documents, issued under the changes provisions of Section D.

CONSTRUCTION SCHEDULE, means the schedule prepared by the Contractor in CPM format and approved by the Owner, and all adjustments thereto approved by the Owner, that describes sequence and timing of the Work.

CONTRACT, means the written agreement between the Owner and the Contractor comprised of the Contract Documents which describe the Work to be done and the obligations between the parties.

CONTRACT DOCUMENTS, means the Retainer Contract, Retainer General Conditions, Supplemental General Conditions if any, Supplements, the accepted Offer, Plans, Specifications, Change Orders, Amendments, Construction Change Directives, Solicitation Document and addenda thereto, Instructions to Offerors, and Supplemental Instructions to Offerors, the Construction Schedule prepared and approved in accordance with the Construction Documents, and all other required Submittals.

CONTRACT PERIOD, as set forth in the Contract Documents, means the total period of time beginning with the full execution of a Supplement and, if applicable, the issuance of a Notice to Proceed and concluding upon Final Completion.

CONTRACT PRICE, means the total of the awarded Offer amount, as increased or decreased by the price of approved alternates, as indicated in the Contract Documents.

CONTRACT TIME, means any incremental period of time allowed under the Contract to complete any portion of the Work as reflected in the project schedule.

CONTRACTOR, means the Person awarded the Contract for the Work contemplated.

CPM, means a critical path method format to be used for the Construction Schedule.

DAYS, are calendar days, including weekdays, weekends and holidays, unless otherwise specified.

DIRECT COSTS, means, unless otherwise provided in the Contract Documents, the cost of materials, including sales tax, cost of delivery; cost of labor, including social security, Medicare and unemployment insurance, and fringe benefits required by agreement or custom; worker's compensation insurance; project specific insurance (including, without limitation, Builder's Risk Insurance and Builder's Risk Installation Floater); bond premiums, rental cost of equipment, and machinery required for execution of the Work; and the additional costs of field personnel directly attributable to the Work.

FINAL COMPLETION, means the final completion of all requirements under the Contract, including Contract Closeout as described in Section K but excluding Warranty Work as described in Section I.2, and the final payment and release of all retainage, if any, released.

FINAL PAYMENT, means the last payment to the Contractor, including retainage, in connection with the Work.

FORCE MAJEURE, means an act, event or occurrence caused by fire, riot, war, acts of God, nature, sovereign, or public enemy, strikes, freight embargoes or any other act, event or occurrence that is beyond the control of the party to this Contract who is asserting Force Majeure.

MWESB REPORT, means an accurate report by the Contractor to the Owner identifying all Minority, Women and Emerging Small Business (MWESB) enterprises, as those terms are defined in ORS 200.005, receiving contracts throughout the course of the Work. An initial MWESB report is required (see Section E.2.9) and MWESB Reports are required annually (see Section E.2.9) and as a condition of final payment (see Section K.1). The initial report shall include the total number of contracts and subcontracts awarded to MWESB enterprises and the dollar value of their respective contracts and subcontracts. The annual reports shall include the total number of contracts and subcontracts awarded to MWESB enterprises, the dollar value of each, and the expenditure toward each contract and subcontract during the previous twelve (12) months. The final report shall include the total number of contracts and subcontracts awarded to MWESB enterprises and the dollar value of their respective contracts and subcontracts including all Supplements and Amendments incorporated during the course of the project. The reports shall only include enterprises certified with the State of Oregon as MWESB enterprises and shall include individual identification of each enterprise as a Minority business enterprise, a Women business enterprise, and/or an Emerging Small Business Enterprise, as applicable.

NOTICE TO PROCEED, means the official written notice from the Owner stating that the Contractor is to proceed with the Work defined in the Contract Documents. Notwithstanding the Notice to Proceed, Contractor shall not be authorized to proceed with the Work until all initial Contract requirements, including the Contract, performance bond and payment bond, and certificates of insurance, have been fully executed and submitted to Owner in a suitable form.

OFFER, means a bid in connection with Instructions to Bidders or a proposal in connection with a Request for Proposals.

OFFEROR, means a bidder in connection with Instructions to Bidders or a proposer in connection with a Request for Proposals.

OVERHEAD, means those items which may be included in the Contractor's markup (general and administrative expense and profit) and that shall not be charged as Direct Cost of the Work, including without limitation such Overhead expenses as wages or salary of personnel above the level of foreman (i.e., superintendents and project managers), expenses of Contractor's offices and supplies at the job site (e.g. job trailer) and at Contractor's principal place of business and including expenses of personnel staffing the job site office and Contractor's principal place of business, and Commercial General Liability Insurance and Automobile Liability Insurance.

OWNER, means Oregon State University (OSU). Owner may elect, by written notice to Contractor, to delegate certain duties to more than one party, including without limitation, to an Architect/Engineer. However, nothing in these Retainer General Conditions is intended to abrogate the separate design professional responsibilities of Architects under ORS Chapter 671 or of Engineers under ORS Chapter 672.

PERSON, means a natural person or entity doing business as a sole proprietorship, a partnership, a joint venture, a corporation, a limited liability company or partnership, or any other entity possessing the legal capacity to contract.

PLANS, means the drawings which show the location, type, dimensions, and details of the Work to be done under the Contract.

PROJECT, means the total design, development and construction of which the Work performed under the Construction Documents may be the whole or a part.

PUNCH LIST, means the list of Work yet to be completed or deficiencies which need to be corrected in order to achieve Final Completion of the Contract.

RECORD DOCUMENT, means the as-built Plans, Specifications, testing and inspection records, product data, samples, manufacturer and distributor/supplier warranties evidencing transfer of ownership to Owner, operational and maintenance manuals, shop drawings, Construction Change Directives, MWESB Reports, correspondence, certificate(s) of occupancy, and other documents listed in Subsection B.9.1 of these Retainer General Conditions, recording all Services performed.

RETAINER SUPPLEMENTAL GENERAL CONDITIONS, means those conditions that remove from, add to, or modify these Retainer General Conditions. Retainer Supplemental General Conditions may be included in the Solicitation Document or may be a separate attachment to the Contract.

SOLICITATION DOCUMENT, means Instructions to Bidders or Offerors or a Request for Proposal or a Request for Quotes.

SPECIFICATION, means any description of the physical or functional characteristics of the Work, or of the nature of a supply, service or construction item. Specifications may include a description of any requirement for inspecting, testing or preparing a supply, service or construction item for delivery and the quantities or qualities of materials to be furnished under the Contract. Specifications generally

will state the results or products to be obtained and may, on occasion, describe the method and manner of doing the Work to be performed. Specifications may be incorporated by reference and/or may be attached to the Contract.

SUBCONTRACT, means a contract between the Contractor and a subcontractor for the performance of a portion of the Work.

SUBCONTRACTOR, means a Person having a direct contract with the Contractor, or another Subcontractor, to perform one or more items of the Work.

SUBSTANTIAL COMPLETION, means the date when the Owner accepts in writing the construction, alteration or repair of the improvement to real property constituting the Work or any designated portion thereof as having reached that state of completion when it may be used or occupied for its intended purpose. Substantial Completion of facilities with operating systems occurs only after thirty (30) continuous Days of successful, trouble-free operation of the operating systems as provided in Section K.3.2.

SUBSTITUTIONS, means items that in function, performance, reliability, quality, and general configuration are the same or better than the product(s) specified. Approval of any substitute item shall be solely determined by the Owner. The decision of the Owner is final.

SUPPLEMENT, means a writing which, when fully executed by the Parties thereto, constitutes written agreement between the Owner and the Contractor comprised of the Contract Documents which describe the Work to be done and the obligations between the parties.

WORK, means the furnishing of all materials, equipment, labor, transportation, services and incidentals necessary to successfully complete any individual item or the entire Contract and the carrying out of duties and obligations imposed by the Contract Documents.

A.2 SCOPE OF WORK

The Work contemplated under this Contract includes all labor, materials, transportation, equipment and services for, and incidental to, the completion of all construction work in connection with the project described in the Contract Documents. The Contractor shall perform all Work necessary so that the project can be legally occupied and fully used for the intended use as set forth in the Contract Documents. Execution of the Contract by the Contractor is an express representation (1) that the Contractor understands the intent stated herein with respect to the Preconstruction Phase Services, and (2) the Contractor's execution of an Amendment, including the GMP Amendment, shall be an express and unqualified representation that the Contractor understands the intent stated herein and therein.

A.3 INTERPRETATION OF CONTRACT DOCUMENTS

A.3.1 Unless otherwise specifically defined in the Contract Documents, words which have well-known technical meanings or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Contract Documents are intended to be complementary. Whatever is called for in one is interpreted to be called for in all. However, in the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following descending order of precedence:

- (a) Contract Supplements, Amendments and Construction Change Directives, with those of later date having precedence over those of an earlier date;
- (b) The Retainer Supplemental General Conditions;
- (c) Retainer General Conditions;
- (d) The Retainer Contract Supplements;

- (e) Construction Change Directive;
- (f) Division One (General Requirements) of the Specifications;
- (g) Detailed Schedules of finishes, equipment and other items included in the Specifications;
- (h) Plans and Specifications (other than Division One and the Detailed Schedules to the Specifications);
- (i) Large-scale drawings on Plans;
- (j) Small-scale drawings on Plans;
- (k) Dimension numbers written on Plans which shall prevail and take precedence over dimensions scaled from Plans;
- (l) The Solicitation Document, and any addenda thereto;
- (m) The Retainer Contract.

A.3.2 In the case of an inconsistency between Plans and Specifications or within either document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Owner's interpretation in writing.

A.3.3 If the Contractor finds discrepancies in, or omissions from the Contract Documents, or if the Contractor is in doubt as to their meaning, the Contractor shall at once notify the Owner. Matters concerning and interpretation of requirements of the Contract Documents will be decided by the Owner, who may delegate that duty in some instances to the Architect/Engineer. Responses to Contractor's requests for interpretation of Contract Documents will be made in writing by Owner (or the Architect/Engineer) within any time limits agreed upon or otherwise with reasonable promptness. Interpretations and decisions of the Owner (or Architect/Engineer) will be consistent with the intent of and reasonably inferable from the Contract Documents. Contractor shall not proceed without direction in writing from the Owner (or Architect/Engineer).

A.3.4 References to standard specifications, manuals, codes of any technical society, organization or association, to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, laws or regulations in effect in the jurisdiction where the project is occurring on the first published date of the Solicitation Document, except as may be otherwise specifically stated.

A.4 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

A.4.1 It is understood that the Contractor, before submitting an Offer, has made a careful examination of the Contract Documents; has become fully informed as to the quality and quantity of materials and the character of the Work required; and has made a careful examination of the location and conditions of the Work and the sources of supply for materials. The Owner will in no case be responsible for any loss or for any unanticipated costs that may be suffered by the Contractor as a result of the Contractor's failure to acquire full information in advance in regard to all conditions pertaining to the Work. No oral agreement or conversation with any officer, agent, or personnel of the Owner, or with the Architect/Engineer either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

A.4.2 Should the Plans or Specifications fail to particularly describe the materials, kind of goods, or details of construction of any aspect of the Work, Contractor shall have the duty to make

inquiry of the Owner and Architect/Engineer as to what is required prior to performance of the Work. Absent Specifications to the contrary, the materials or processes that would normally be used to produce first quality finished Work shall be considered a part of the Contract requirements.

A.4.3 Any design errors or omissions noted by the Contractor shall be reported promptly to the Owner, and confirmed in writing including without limitation, any nonconformity with Applicable Laws.

A.4.4 If the Contractor believes that adjustments to cost or Contract Time is involved because of clarifications or instructions issued by the Owner (or Architect/Engineer) in response to the Contractor's notices or requests for information, the Contractor must submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt by Contractor of the clarifications or instructions issued. If the Owner denies Contractor's request for additional compensation, additional Contract Time, or other relief that Contractor believes results from the clarifications or instructions, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process. If the Contractor fails to perform the obligations of Sections A.4.1 to A.4.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

A.5 INDEPENDENT CONTRACTOR STATUS

The service or services to be performed under this Contract are those of an independent contractor as defined in ORS 670.600. Contractor represents and warrants that it is not an officer, employee or agent of the Owner as those terms are used in ORS 30.265.

A.6 RETIREMENT SYSTEM STATUS AND TAXES

Contractor represents and warrants that it is not a contributing member of the Public Employees' Retirement System and will be responsible for any federal or state taxes applicable to payment received under this Contract. Contractor will not be eligible for any benefits from these Contract payments of federal Social Security, employment insurance, workers' compensation or the Public Employees' Retirement System, except as a self-employed individual. Unless the Contractor is subject to backup withholding, Owner will not withhold from such payments any amount(s) to cover Contractor's federal or state tax obligations.

A.7 GOVERNMENT EMPLOYMENT STATUS

A.7.1 If this payment is to be charged against federal funds, Contractor represents and warrants that it is not currently employed by the Federal Government. This does not preclude the Contractor from holding another contract with the Federal Government.

A.7.2 Contractor represents and warrants that Contractor is not an employee of the State of Oregon for purposes of performing Work under this Contract

**SECTION B
ADMINISTRATION OF THE CONTRACT**

B.1 OWNER'S ADMINISTRATION OF THE CONTRACT

B.1.1 The Owner shall administer the Contract as described in the Contract Documents (1) during construction (2) until Final Payment is due and (3) during the one-year period for correction of Work. The Owner will act as provided in the Contract Documents, unless modified in writing in accordance with other provisions of the Contract. In performing these tasks, the Owner

may rely on the Architect/Engineer or other consultants to perform some or all of these tasks.

- B.1.2 The Owner will visit the site at intervals appropriate to the stage of the Contractor's operations (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Owner will not make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner will neither have control over or charge of, nor be responsible for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work. Inspection of the progress, quantity, or quality of the Work done by the Owner, any Owner representative, and public agency, the Architect/Engineer, or any inspector, shall not relieve the Contractor of any responsibility for the compliance of all Work with the Contract Documents.
- B.1.3 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall communicate with each other about matters arising out of or relating to the Contract. Communications by and with the Architect/Engineer's consultants shall be through the Architect/Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.
- B.1.4 Based upon the Architect/Engineer's evaluations of the Contractor's Application for Payment, or unless otherwise stipulated by the Owner, the Architect/Engineer will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

B.2 CONTRACTOR'S MEANS AND METHODS; MITIGATION OF IMPACTS

- B.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures.
- B.2.2 The Contractor is responsible to protect and maintain the Work during the course of construction and to mitigate any adverse impacts to the project, including those caused by authorized changes, which may affect cost, schedule, or quality.
- B.2.3 The Contractor is responsible for the actions of all its personnel, laborers, suppliers, and Subcontractors on the project. The Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of persons who are unfit or unskilled for the tasks assigned to them.

B.3 MATERIALS AND WORKMANSHIP

- B.3.1 The intent of the Contract Documents is to provide for the construction and completion in every detail of the Work described. All Work shall be performed in a professional manner and unless the means or methods of performing a task

are specified elsewhere in the Contract Documents, Contractor shall employ methods that are generally accepted and used by the industry, in accordance with industry standards.

- B.3.2 The Contractor is responsible to perform the Work as required by the Contract Documents. Defective Work shall be corrected at the Contractor's expense.
- B.3.3 Work done and materials furnished shall be subject to inspection and/or observation and testing by the Owner to determine if they conform to the Contract Documents. Inspection of the Work by the Owner does not relieve the Contractor of responsibility for the Work in accordance with the Contract Documents.
- B.3.4 Contractor shall furnish adequate facilities, as required, for the Owner to have safe access to the Work including without limitation walkways, railings, ladders, tunnels, and platforms. Producers, suppliers, and fabricators shall also provide proper facilities and access to their facilities.
- B.3.5 The Contractor shall furnish Samples of materials for testing by the Owner and include the cost of the Samples in the Contract Price.

B.4 PERMITS

Contractor shall obtain and pay for all necessary permits and licenses, except for those specifically excluded in the Supplemental General Conditions, for the construction of the Work, for temporary obstructions, enclosures, opening of streets for pipes, walls, utilities, environmental Work, etc., as required for the Project. Owner shall obtain and pay for the general building permit and pay for any specialty permits required for the Work. Contractor shall be responsible for all violations of the law, in connection with the construction or caused by obstructing streets, sidewalks or otherwise. Contractor shall give all requisite notices to public authorities. The Contractor shall pay all royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent or other proprietary rights and save harmless and blameless from loss, on account thereof, Oregon State University, and its departments, divisions, members and employees.

B.5 COMPLIANCE WITH GOVERNMENT REGULATIONS

- B.5.1 Contractor shall comply with Applicable Laws pertaining to the Work and the Contract. Failure to comply with such requirements shall constitute a breach of Contract and shall be grounds for Contract termination. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following, as applicable:
- (i) Title VI and VII of Civil Rights Act of 1964, as amended;
 - (ii) Section 503 and 504 of the Rehabilitation Act of 1973, as amended;
 - (iii) the Health Insurance Portability and Accountability Act of 1996;
 - (iv) the Americans with Disabilities Act of 1990, as amended;
 - (v) ORS Chapters 659 and 659A; as amended;
 - (vi) all regulations and administrative rules established pursuant to the foregoing laws; and
 - (vii) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.
- B.5.2 Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations, and
- (a) Contractor shall not discriminate against Disadvantaged, Minority, Women or Emerging Small Business enterprises, as those terms are defined in ORS 200.005, or a business enterprise that is owned or controlled by or that employs a disabled veteran, as that term is defined in ORS 408.225, in the awarding of subcontracts.

(b) Contractor shall maintain, in current and valid form, all licenses and certificates required by Applicable Laws or this Contract when performing the Work.

- B.5.3 Unless contrary to federal law, Contractor shall certify that it shall not accept a bid from Subcontractors to perform Work as described in ORS 701.005 under this Contract unless such Subcontractors are registered with the Construction Contractors Board in accordance with ORS 701.021 to 701.068 at the time they submit their bids to the Contractor.
- B.5.4 Unless contrary to federal law, Contractor shall certify that each landscape contractor, as defined in ORS 671.520(2), performing Work under this Contract holds a valid landscape contractor's license issued pursuant to ORS 671.560.
- B.5.5 The following notice is applicable to Contractors who perform excavation Work. ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0100. You may obtain copies of the rules by calling the center at (503)232-1987.
- B.5.6 Failure to comply with any or all of the requirements of B.5.1 through B.5.5 shall be a breach of Contract and constitute grounds for Contract termination. Damages or costs resulting from such noncompliance shall be the responsibility of Contractor.

B.6 SUPERINTENDENCE

Contractor shall keep on the site, during the progress of the Work, a competent superintendent and any necessary assistants who shall be satisfactory to the Owner and who shall represent the Contractor on the site. Directions given to the superintendent by the Owner shall be confirmed in writing to the Contractor.

B.7 INSPECTION

- B.7.1 Owner shall have access to the Work at all times.
- B.7.2 Inspection of the Work will be made by the Owner at its discretion. The Owner will have authority to reject Work that does not conform to the Contract Documents. Any Work found to be not in conformance with the Contract Documents, in the discretion of the Owner, shall be removed and replaced at the Contractor's expense.
- B.7.3 Contractor shall make or obtain at the appropriate time all tests, inspections and approvals of portions of the Work required by the Contract Documents or by Applicable Laws or orders of public authorities having jurisdiction. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner.
- B.7.4 As required by the Contract Documents, Work done or material used without required inspection or testing and/or without providing timely notice to the Owner may be ordered removed at the Contractor's expense.

- B.7.5 If directed to do so any time before the Work is accepted, the Contractor shall uncover portions of the completed Work for inspection. After inspection, the Contractor shall restore such portions of Work to the standard required by the Contract. If the Work uncovered is unacceptable or was done without required testing or inspection or sufficient notice to the Owner, the uncovering and restoration shall be done at the Contractor's expense. If the Work uncovered is acceptable and was done with sufficient notice to the Owner, the uncovering and restoration will be paid for pursuant to a Supplement Amendment.
- B.7.6 If any testing or inspection reveals failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Owner's and Architect/Engineer's services and expenses, shall be at the Contractor's expense.
- B.7.7 When the United States government participates in the cost of the Work, or the Owner has an agreement with other public or private organizations, or if any portion of the Work is being performed for a third party or in close proximity to third party facilities, representatives of these organizations shall have the right to inspect the Work affecting their interests or property. Their right to inspect shall not make them a party to the Contract and shall not interfere with the rights of the parties of the Contract. Instructions or orders of such parties shall be transmitted to the Contractor, through the Owner.

B.8 SEVERABILITY

If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

B.9 ACCESS TO RECORDS

- B.9.1 Contractor shall keep, at all times on the Work site, one record copy of the complete Contract Documents, including the Plans, Specifications, Construction Change Directives and addenda, in good order and marked currently to record field changes and selections made during construction, and one record copy of Shop Drawings, Product Data, Samples and similar submittals, and shall at all times give the Owner access thereto.
- B.9.2 Contractor shall retain and the Owner and its duly authorized representatives shall have access, for a period not less than ten (10) years, to all Record Documents, financial and accounting records, and other books, documents, papers and records of Contractor which are pertinent to the Contract, including records pertaining to Overhead and indirect costs, for the purpose of making audit, examination, excerpts and transcripts. If for any reason, any part of the Work or this Contract shall be subject to litigation, Contractor shall retain all such records until all litigation is resolved and Contractor shall continue to provide Owner and/or its agents with full access to such records until such time as all litigation is complete and all periods for appeal have expired and full and final satisfaction of any judgment, order or decree is recorded and Owner receives a record copy of documentation from Contractor.

B.10 WAIVER

Failure of the Owner to enforce any provision of this Contract shall not constitute a waiver or relinquishment by the Owner of the right to such performance in the future nor of the right to enforce any other provision of this Contract.

B.11 SUBCONTRACTS AND ASSIGNMENT

- B.11.1 Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound by the terms and conditions of these Retainer General Conditions, and to assume toward the Contractor all of the obligations and responsibilities which the Contractor assumes toward the Owner thereunder, unless (1) the same are clearly inapplicable to the subcontract at issue because of legal requirements or industry practices, or (2) specific exceptions are requested by Contractor and approved in writing by Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors at any level.
- B.11.2 At Owner's request, Contractor shall submit to Owner prior to their execution either Contractor's form of subcontract, or the subcontract to be executed with any particular Subcontractor. If Owner disapproves such form, Contractor shall not execute the form until the matters disapproved are resolved to Owner's satisfaction. Owner's review, comment upon or approval of any such form shall not relieve Contractor of its obligations under this Agreement or be deemed a waiver of such obligations of Contractor.
- B.11.3 Contractor shall not assign, sell, or transfer its rights, or delegate its responsibilities under this Contract, in whole or in part, without the prior written approval of the Owner. No such written approval shall relieve Contractor of any obligations of this Contract, and any transferee shall be considered the agent of the Contractor and bound to perform in accordance with the Contract Documents. Contractor shall remain liable as between the original parties to the Contract as if no assignment had occurred.

B.12 SUCCESSORS IN INTEREST

The provisions of this Contract shall be binding upon and shall accrue to the benefit of the parties to the Contract and their respective permitted successors and assigns.

B.13 OWNER'S RIGHT TO DO WORK

Owner reserves the right to perform other or additional work at or near the project site with other forces than those of the Contractor. If such work takes place within or next to the project site, Contractor shall coordinate work with the other contractors or forces, cooperate with all other contractors or forces, carry out the Work in a way that will minimize interference and delay for all forces involved, place and dispose of materials being used so as not to interfere with the operations of another, and join the Work with the work of the others in an acceptable manner and perform it in proper sequence to that of the others. The Owner will resolve any disagreements that may arise between or among Contractor and the other contractors over the method or order of doing all work (including the Work). In case of unavoidable interference, the Owner will establish work priority (including the Work) which generally will be in the sequence that the contracts were awarded.

B.14 OTHER CONTRACTS

In all cases and at any time, the Owner has the right to execute other contracts related to or unrelated to the Work of this Contract. The Contractor of this Contract shall fully cooperate with any and all other contractors without additional cost to the Owner in the manner described in section B.13.

B.15 GOVERNING LAW

This Contract shall be governed by and construed in accordance with the laws of the State of Oregon without regard to principles of conflict of laws.

B.16 LITIGATION

Any Claim between Owner and Contractor that arises from or relates to this Contract and that is not resolved through the Claims Review Process in Section D.3 shall be brought and conducted solely and exclusively within the Circuit Court of Benton County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the State of Oregon on any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. CONTRACTOR, BY EXECUTION OF THIS CONTRACT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF THE COURTS REFERENCED IN THIS SECTION B.16.

B.17 ALLOWANCES

- B.17.1 The Contractor shall include in the Contract Price all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.
- B.17.2 Unless otherwise provided in the Contract Documents:
- (a) When finally reconciled, allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
 - (b) Contractor's costs for unloading and handling at the site, labor, installation costs, Overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Price but not in the allowances;
 - (c) Whenever costs are more than or less than allowances, the Contract Price shall be adjusted accordingly by Amendment. The amount of the Amendment shall reflect (i) the difference between actual costs and the allowances under Section B.17.2(a) and (2) changes in Contractor's costs under Section B.17.2(b).
 - (d) Unless Owner requests otherwise, Contractor shall provide to Owner a proposed fixed price for any allowance work prior to its performance.

B.18 SUBMITTALS, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- B.18.1 The Contractor shall prepare and keep current, for the Architect's/Engineer's approval (or for the approval of Owner if approval authority has not been delegated to the Architect/Engineer), a schedule and list of Submittals which is coordinated with the Contractor's construction schedule and allows the Architect/Engineer reasonable time to review Submittals. Owner reserves the right to finally approve the schedule and list of Submittals. Submittals include, without limitation, Shop Drawings, product data, and samples which are described below:
- (a) Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor (including any sub-subcontractor), manufacturer, supplier or distributor to illustrate some portion of the Work.
 - (b) Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

(c) Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

Architect/Engineer, or in the event no Architect/Engineer is employed by Owner on the project, all obligations and duties assigned to the Architect/Engineer hereunder shall be performed by the Owner.

B.18.2 Shop Drawings, Product Data, Samples and similar Submittals are not Contract Documents. The purpose of their Submittal is to demonstrate for those portions of the Work for which Submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review of Submittals by the Architect/Engineer is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, or for approval of safety precautions or, unless otherwise specifically stated by the Architect/Engineer, of any construction means, methods, techniques, sequences or procedures, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect/Engineer's review of the Contractor's Submittals shall not relieve the Contractor of its obligations under the Contract Documents. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Informational Submittals upon which the Architect/Engineer is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect/Engineer without action.

B.18.3 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect/Engineer Shop Drawings, Product Data, Samples and similar Submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect/Engineer without action.

B.18.4 Approving and submitting shop drawings, product data, samples and similar Submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents.

B.18.5 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar Submittals until the respective Submittal has been approved by the Architect/Engineer.

B.18.6 The Work shall be in accordance with approved Submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect/Engineer's review or approval of Shop Drawings, Product Data, Samples or similar Submittals unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submittal and (i) the Architect/Engineer has given written approval to the specific deviation as a minor change in the Work, or (ii) a Supplement Amendment or Construction Change Directive has been executed by Owner authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar Submittals by the Architect/Engineer's review or approval thereof.

B.18.7 In the event that Owner elects not to have the obligations and duties described under this Section B.18 performed by the

B.19 SUBSTITUTIONS

The Contractor may make Substitutions only with the written consent of the Owner, after evaluation by the Owner and only in accordance with a Supplement Amendment or Construction Change Directive. Substitutions shall be subject to the requirements of the bid documents. By making requests for Substitutions, the Contractor: represents that the Contractor has personally investigated the proposed substitute product; represents that the Contractor will provide the same warranty for the Substitution that the Contractor would for the product originally specified unless approved otherwise; certifies that the cost data presented is complete and includes all related costs under this Contract including redesign costs, and waives all claims for additional costs related to the Substitution which subsequently become apparent; and will coordinate the installation of the accepted Substitution, making such changes as may be required for the Work to be completed in all respects.

B.20 USE OF PLANS AND SPECIFICATIONS

Plans, Specifications and related Contract Documents furnished to Contractor by Owner or Owner's Architect/Engineer shall be used solely for the performance of the Work under this Contract. Contractor and its Subcontractors and suppliers are authorized to use and reproduce applicable portions of such documents appropriate to the execution of the Work, but shall not claim any ownership or other interest in them beyond the scope of this Contract, and no such interest shall attach. Unless otherwise indicated, all common law, statutory and other reserved rights, in addition to copyrights, are retained by Owner.

B.21 FUNDS AVAILABLE AND AUTHORIZED

If Owner fails to receive funding, appropriations, allocations or other expenditure authority as contemplated by Owner's budget and Owner determines, in its assessment and ranking of the policy objectives explicit or implicit in Owner's budget, Owner may determine it is necessary to and may terminate the Retainer Contract, Supplements.

B.22 NO THIRD PARTY BENEFICIARIES

Owner and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly, or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

SECTION C WAGES AND LABOR

C.1 MINIMUM WAGE RATES ON PUBLIC WORKS

Contractor shall comply fully with the provisions of ORS 279C.800 through 279C.870. Documents establishing those conditions, as determined by the Commissioner of the Bureau of Labor and Industries (BOLI), are included as attachments to or are incorporated by reference in the Contract Documents. Pursuant to ORS 279C.830(1)(c), Contractor shall pay workers at not less than the specified minimum hourly rate of wage, and shall include that requirement in all subcontracts. If the Work is subject to both the state prevailing wage rate law and the federal Davis-Bacon Act, Contractor shall pay the higher of the applicable state or federal prevailing rate of wage. Contractor shall provide written notice to all workers of the number of hours per day and days per week such workers may be

required to work.

C.2 PAYROLL CERTIFICATION AND FEE REQUIREMENTS

C.2.1 In accordance with ORS 279C.845, the Contractor and every Subcontractor shall submit written certified statements to the Owner, on the form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker which the Contractor or the Subcontractor has employed on the project and further certifying that no worker employed on the project has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the Contract, which certificate and statement shall be verified by the oath of the Contractor or the Subcontractor that the Contractor or Subcontractor has read the certified statement, that the Contractor or Subcontractor knows the contents of the certified statement, and, that to the Contractor's or Subcontractor's best knowledge and belief, the certified statement is true. 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. Certified statements for each week during which the Contractor or Subcontractor has employed a worker on the project shall be submitted once a month, by the fifth business day of the following month. The Contractor and Subcontractors shall preserve the certified statements for a period of ten (10) years from the date of completion of the Contract.

C.2.2 Pursuant to ORS 279C.845(7), the Owner shall retain 25 percent of any amount earned by the Contractor on this public works project until the Contractor has filed the certified statements required by section C.2.1. The Owner shall pay to the Contractor the amount retained under this subsection within 14 days after the Contractor files the required certified statements, regardless of whether a Subcontractor has failed to file certified statements.

C.2.3 Pursuant to ORS 279C.845(8), the Contractor shall retain 25 percent of any amount earned by a first-tier Subcontractor on this public works project until the first-tier Subcontractor has filed with the Owner the certified statements required by C.2.1. Before paying any amount retained under this subsection, the Contractor shall verify that the first-tier Subcontractor has filed the certified statement. Within 14 days after the first-tier Subcontractor files the required certified statement the Contractor shall pay the first-tier Subcontractor any amount retained under this subsection.

C.2.4 In accordance with statutory requirements and administrative rules promulgated by the Commissioner of the Bureau of Labor and Industries, the fee required by ORS 279C.825(1) will be paid by Owner to the Commissioner.

C.3 PROMPT PAYMENT AND CONTRACT CONDITIONS

C.3.1 As a condition to Owner's performance hereunder, the Contractor shall:

C.3.1.1 Make payment promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the Work provided for in this Contract.

C.3.1.2 Pay all contributions or amounts due the State Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the Contract.

C.3.1.3 not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished. Contractor will not assign any claims that Contractor has

against Owner, or assign any sums due by Owner, to Subcontractors, suppliers, or manufacturers, and will not make any agreement or act in any way to give Subcontractors a claim or standing to make a claim against the Owner.

C.3.1.4 Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

C.3.2 As a condition to Owner's performance hereunder, if Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor of a Subcontractor by any person in connection with the project as such claim becomes due, the proper officer(s) representing the Owner may pay the claim and charge the amount of the payment against funds due or to become due Contractor under this Contract. Payment of claims in this manner shall not relieve the Contractor or the Contractor's surety from obligation with respect to any unpaid claims.

C.3.3 Contractor shall include in each subcontract for property or services entered into by the Contractor and a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract, a payment clause that obligates the Contractor to pay the first-tier Subcontractor for satisfactory performance under its subcontract within ten (10) Days out of such amounts as are paid to the Contractor by the public contracting agency under such contract.

C.3.4 All employers, including Contractor, that employ subject workers who work under this contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its Subcontractors complies with these requirements.

C.4 PAYMENT FOR MEDICAL CARE

As a condition to Owner's performance hereunder, Contractor shall promptly, as due, make payment to any person, partnership, association or corporation furnishing medical, surgical, and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such Contractor, all sums of which the Contractor agrees to pay for such services and all moneys and sums which the Contractor has collected or deducted from the wages of personnel pursuant to any law, contract or agreement for the purpose of providing or paying for such services.

C.5 HOURS OF LABOR

As a condition to Owner's performance hereunder, no person shall be employed to perform Work under this Contract for more than ten (10) hours in any one day or forty (40) hours in any one week, except in cases of necessity, emergency or where public policy absolutely requires it. In such instances, Contractor shall pay the employee at least time and a half pay:

(a) For all overtime in excess of eight (8) hours a day or forty (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 ten (10) hours a day or forty (40) hours in any one week when the work week is four consecutive Days, Monday through Friday; and

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

This section C.5 will not apply to Contractor's Work under this Contract to the extent Contractor is currently a party to a collective bargaining agreement with any labor organization.

This Section C.5 shall not excuse Contractor from completion of the Work within the time required under this Contract.

exceeded. Cost and price data relating to adjustments to or deletions from the Work shall be supplied by Contractor to Owner upon request, but Owner shall be under no obligation to make such requests.

**SECTION D
CHANGES IN THE WORK**

D.1 CHANGES IN WORK

D.1.1 The terms of this Contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever, without prior written agreement and then only after any necessary approvals have been obtained. A Supplement or Amendment is required, which shall not be effective until its execution by the parties to this Contract and all approvals required by public contracting laws have been obtained.

D.1.2 It is mutually agreed that changes in Plans, quantities, or details of construction are inherent in the nature of construction and may be necessary or desirable during the course of construction. Within the general scope of this Contract, the Owner may at any time, without notice to the sureties and without impairing the Contract, require changes consistent with this Section D.1. All changes to the Work shall be documented and Amendments shall be executed under the conditions of the Contract Documents. Such changes may include, but are not limited to:

- (a) Modification of specifications and design.
- (b) Increases or decreases in quantities.
- (c) Increases or decreases to the amount of Work.
- (d) Addition or elimination of any Work item.
- (e) Change in the duration of the project.
- (f) Acceleration or delay in performance of Work.
- (g) Deductive changes,
- (h) Changed conditions.

Deductive changes are those that reduce the scope of the Work, and shall be made by mutual agreement whenever feasible. In cases of suspension or partial termination under Section J, Owner reserves the right to unilaterally impose a deductive change and to self-perform such Work, for which the provisions of B.13 (Owner's Right to Do Work) shall then apply. Adjustments in compensation shall be made under the provisions of D.1.3, in which costs for deductive changes shall be based upon a Direct Costs adjustment together with the related percentage markup specified for profit, Overhead and other indirect costs, unless otherwise agreed to by Owner.

D.1.3 The Owner and Contractor agree that adjustments to or deletions from the Work shall be administered and compensated according to the following:

- (a) Unit pricing may be utilized at the Owner's option when unit prices or solicitation alternates were provided that established the cost for adjustments to Work, and a binding obligation exists under the Contract on the parties covering the terms and conditions of the adjustment to Work.
- (b) If the Owner elects not to utilize unit pricing, or in the event that unit pricing is not available or appropriate, fixed pricing may be used for adjustments to or deletions from the Work. In fixed pricing, the basis of payments or total price shall be agreed upon in writing between the parties to the Contract, and shall be established before the Work is done whenever feasible. Notwithstanding the foregoing, the mark-ups set forth in D.1.3(c) shall be utilized in establishing fixed pricing, and such mark-ups shall not be

(c) In the event that unit pricing and fixed pricing are not utilized, then adjustments to or deletions from the Work shall be performed on a cost reimbursement basis for Direct Costs. Such Work shall be compensated on the basis of the actual, reasonable and allowable cost of labor, equipment, and material furnished on the Work performed. In addition, the following markups shall be added to the Contractor's or Subcontractor's Direct Costs as full compensation for profit, Overhead and other indirect costs for Work directly performed with the Contractor's or Subcontractor's own forces:

On Labor.....	15%
On Equipment.....	10%
On Materials.....	10%

(d) When adjustments to or deletions from the Work under D.1.3(c) are invoiced by an authorized Subcontractor at any level, each ascending tier Subcontractor or Contractor will be allowed a supplemental mark-up on each piece of subcontract Work covered by a an Amendment as follows:

\$0.00 - \$5,000.00	10%, and then
Over \$5,000.00	5%

Notwithstanding the foregoing, the maximum aggregate markup to be billed shall not exceed 10% regardless of the number of subcontract tiers

Payments made to the Contractor shall be complete compensation for Overhead, profit, and all costs that were incurred by the Contractor or by other forces furnished by the Contractor, including Subcontractors, for adjustments to or deletions from the Work pursuant to a Supplement Amendment. Owner may establish a maximum cost for additional Work under this Section D.1.3, which shall not be exceeded for reimbursement without additional written authorization from Owner in the form of a Supplement Amendment. Contractor shall not be required to complete such additional Work without additional authorization.

Any necessary adjustment of Contract Time that may be required as a result of adjustments to or deletions from the Work must be agreed upon by the parties before the start of the revised Work unless Owner authorizes Contractor to start the revised Work before agreement on Contract Time adjustment. Contractor shall submit any request for additional compensation (and additional Contract Time if Contractor was authorized to start Work before an adjustment of Contract Time was approved) as soon as possible but no later than thirty (30) Days after receipt of Owner's request for additional Work. Contractor agrees that this thirty (30) Day notice period is adequate time for it to request and document the amount of additional compensation or adjustment of Contract Time. If Contractor's request for additional compensation or adjustment of Contract Time is not made within the thirty (30) Day time limit, Contractor agrees its requests pertaining to that additional Work shall be barred. The thirty (30) Day time limit for making requests shall not be extended for any reason, including without limitation Contractor's claimed inability to determine the amount of additional compensation or adjustment of Contract Time, unless an extension is granted in writing by Owner. If the Owner denies Contractor's timely request for additional compensation or adjustment of Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process. No other reimbursement, compensation, or payment

will be made, except as provided in Section D.1.5 for impact claims.

D.1.4 If any adjustment to Work under Section D.1.3 causes an increase or decrease in the Contractor's cost of, or the Contract Time required for the performance of any other part of the Work under this Contract, Contractor shall submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt of Owner's request for adjustments to or deletions from the Work by Contractor.

The thirty (30) Day time limit applies to claims of Subcontractors, suppliers, or manufacturers who may be affected by Owner's request for adjustments to or deletions from the Work and who request additional compensation or an extension of Contract Time to perform; Contractor has responsibility for contacting its Subcontractors, suppliers, or manufacturers within the thirty (30) Day time limit, and including their requests with Contractor's requests. If the request involves Work to be completed by Subcontractors, or materials to be furnished by suppliers or manufacturers, such requests shall be submitted to the Contractor in writing with full analysis and justification for the adjustments to compensation and Contract Time requested. The Contractor shall analyze and evaluate the merits of the requests submitted by Subcontractors, suppliers, and manufacturers to Contractor prior to including those requests and Contractor's analysis and evaluation of those requests with Contractor's requests for adjustments to compensation or Contract Time that Contractor submits to the Owner. Failure of Subcontractors, suppliers, manufacturers or others to submit their requests to Contractor for inclusion with Contractor's requests submitted to Owner within the time period and by the means described in this section shall constitute a waiver of these Subcontractor claims. The Owner will not consider direct requests or claims from Subcontractors, suppliers, manufacturers or others not a party to this Contract. The consideration of such requests and claims under this section does not give any Person, not a party to the Contract the right to bring a claim against Owner, whether in this claims process, in litigation, or in any dispute resolution process.

If the Owner denies the Contractor's request for adjustment to compensation or Contract Time, and the request is timely as set forth herein, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

D.1.5 Contractor agrees that no request or Claim for additional costs or an adjustment of Contract Time shall be allowed if made after receipt of Final Payment application under this Contract. Final Payment application must be made by Contractor within the time required under Section E.6.4.

D.1.6 It is understood that changes in the Work are inherent in construction of this type. The number of changes, the scope of those changes, and the effect they have on the progress of the original Work cannot be defined at this time. The Contractor is notified that numerous changes may be required and that there will be no compensation made, unless and only to the extent otherwise provided in the Contract Documents, to the Contractor directly related to the number of changes. Each change will be evaluated for extension of Contract Time and increase or decrease in compensation based on its own merit.

D.2 DELAYS

D.2.1 Delays in construction include "Avoidable Delays", which are defined in Section D.2.1.1, and "Unavoidable Delays", which are defined in Section D.2.1.2. The effect of Avoidable Delays is described in Section D.2.2 and the effect of Unavoidable Delays is described in Section D.2.3.

D.2.1.1 Avoidable Delays include any delays other than Unavoidable Delays, and include delays that otherwise would be considered Unavoidable Delays but that:

- (a) Could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors.
- (b) Affect only a portion of the Work and do not necessarily prevent or delay the prosecution of other parts of the Work or the completion of the whole Work within the Contract Time.
- (c) Do not impact activities on the accepted CPM Construction Schedule.
- (d) Are associated with the reasonable interference of other contractors employed by the Owner that do not necessarily prevent the completion of the whole Work within the Contract Time.

D.2.1.2 Unavoidable Delays include delays other than Avoidable Delays that are:

- (a) To the extent caused by any actions of the Owner, or any other employee or agent of the Owner, or by separate contractor employed by the Owner.
- (b) To the extent caused by any site conditions that differ materially from what was represented in the Contract Documents or from conditions that would normally be expected to exist and be inherent to the construction activities defined in the Contract Documents. The Contractor agrees to notify the Owner immediately of differing site conditions before the area has been disturbed. The Owner will investigate the area and make a determination as to whether the conditions differ materially from either the conditions stated in the Contract Documents or those that could reasonably be expected in execution of this particular Contract. If Contractor and Owner agree that a differing site condition exists, any adjustment to compensation or Contract Time will be determined based on the process set forth in Section D.1.5 for adjustments to or deletions from Work. If the Owner disagrees that a differing site condition exists and denies Contractor's request for additional compensation or Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process.
- (c) To the extent caused by Force Majeure acts, events or occurrences that could not have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors.
- (d) To the extent caused by adverse weather conditions. Any adverse weather conditions must be substantiated by documentary evidence that weather conditions were abnormal for the specific time period claimed, could not have been anticipated by the Contractor, and adversely impacted the Project in a manner that could not be avoided by rescheduling the Work or by implementing measures to protect against the weather so that the Work could proceed. A rain, windstorm, high water, or other natural phenomenon for the specific locality of the Work, which might reasonably have been anticipated from the previous 10-year historical records of the general locality of the Work, shall not be construed as abnormal. The parties agree that rainfall greater than the following levels cannot be reasonably anticipated:

- (i) Daily rainfall equal to, or greater than, 0.50 inch during a month when the monthly rainfall exceeds the normal monthly average by twenty-five percent (25 %) or more.
- (ii) daily rainfall equal to, or greater than, 0.75 inch at any time.

The Office of the Environmental Data Service of the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce nearest the Project site shall be considered the official agency of record for weather information.

D.2.2 Contractor agrees it is not be entitled to additional compensation or additional Contract Time for Avoidable Delays.

D.2.3 In the event of Unavoidable Delays, based on principles of equitable adjustment, Contractor may be entitled to the following:

- (a) Contractor may be entitled to additional compensation or additional Contract Time, or both, for Unavoidable Delays described in Section D.2.1.2 (a) and (b).
- (b) Contractor may be entitled to additional Contract Time for Unavoidable Delays described in Section D.2.1.2(c) and (d).

In the event of any requests for additional compensation or additional Contract Time, or both, as applicable, arising under this Section D.2.3 for Unavoidable Delays, other than requests for additional compensation or additional Contract Time for differing site conditions for which a review process is established under Section D.2.1.2 (b), Contractor must submit a written notification of the delay to the Owner within two (2) Days of the occurrence of the cause of the delay. This written notification shall state the cause of the potential delay, the project components impacted by the delay, and the anticipated additional Contract Time extension or the additional compensation, or both, as applicable, resulting from the delay. Within seven (7) Days after the cause of the delay has been mitigated, or in no case more than thirty (30) Days after the initial written notification, the Contractor agrees to submit to the Owner, a complete and detailed request for additional compensation or additional Contract Time, or both, as applicable, resulting from the delay. If the Owner denies Contractor's request for additional compensation or adjustment of Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process, provided Contractor has complied with the requirement in this Section D.2.3. Contractor agrees any Claim it may have is barred if Contractor does not comply with the requirements herein.

If Contractor does not timely submit the notices required under this Section D.2, then unless otherwise prohibited by law, Contractor's Claim shall be barred.

D.3 CLAIMS REVIEW PROCESS

D.3.1 All Contractor Claims shall be referred to the Owner for review. Contractor's Claims, including Claims for adjustments to compensation or Contract Time, shall be submitted in writing by Contractor to the Owner within five (5) Days after a denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, provided that such initial request has been submitted in accordance with the requirements and within the time limits established in these Retainer General Conditions. Within thirty (30) Days after the initial Claim, Contractor shall submit to the Owner a complete and detailed description of the Claim (the "Detailed Notice") that includes all information required by Section D.3.2. Contractor agrees that, unless the Claim is made

in accordance with these time requirements, Contractor voluntarily waived all rights to prosecute its Claim.

D.3.2 The Detailed Notice of the Claim shall be submitted in writing by Contractor and shall include a detailed, factual statement of the basis of the Claim, pertinent dates, Contract provisions which support or allow the Claim, reference to or copies of any documents which support the Claim, the dollar value of the Claim, and the Contract Time adjustment requested for the Claim. If the Claim involves Work to be completed by Subcontractors, the Contractor will analyze and evaluate the merits of the Subcontractor claim prior to forwarding it and that analysis and evaluation to the Owner. The Owner will not consider direct claims from Subcontractors, suppliers, manufacturers, or others not a party to this Contract. Contractor agrees that it will make no agreement, covenant, or assignment, nor will it commit any other act that will permit or assist any Subcontractor, supplier, manufacturer, or other to directly or indirectly make a claim against Owner.

D.3.3 The Owner will review all Claims and take one or more of the following preliminary actions within ten (10) Days of receipt of the Detailed Notice of a Claim: (1) request additional supporting information from the Contractor; (2) inform the Contractor and Owner in writing of the time required for adequate review and response; (3) reject the Claim in whole or in part and identify the reasons for rejection; (4) based on principles of equitable adjustment, recommend approval of all or part of the Claim; or (5) propose an alternate resolution.

D.3.4 The Owner's decision shall be final and binding on the Contractor unless appealed by written notice to the Owner within fifteen (15) Days of receipt of the decision. The Contractor must present written documentation supporting the Claim within fifteen (15) Days of the notice of appeal. After receiving the appeal documentation, the Owner shall review the materials and render a decision within thirty (30) Days after receiving the appeal documents.

D.3.5 The decision of the Owner shall be final and binding unless the Contractor delivers to the Owner its request for mediation, which shall be a non-binding process, within fifteen (15) Days of the date of the Owner's decision. The mediation process will be considered to have commenced as of the date the Contractor delivers the request. Both parties acknowledge and agree that participation in mediation is a prerequisite to commencement of litigation of any disputes relating to the Contract. Both parties further agree to exercise their best efforts in good faith to resolve all disputes within sixty (60) Days of the commencement of the mediation through the mediation process set forth herein.

In the event that a lawsuit must be filed within this sixty (60) Day period in order to preserve a cause of action, the parties agree that, notwithstanding the filing, they shall proceed diligently with the mediation to its conclusion prior to actively prosecuting the lawsuit, and shall seek from the Court in which the lawsuit is pending such stays or extensions, including the filing of an answer, as may be necessary to facilitate the mediation process. Further, in the event settlements are reached on any issues through mediation, the plaintiff shall promptly cause to be entered by the Court a stipulated general judgment of dismissal with prejudice, or other appropriate order limiting the scope of litigation as provided in the settlement.

D.3.6 Should the parties arrive at an impasse regarding any Claims or disputed Claims, it is agreed that the parties shall participate in mediation as specified in Section D.3.5. The mediation process will be considered to have been commenced as of the date one party delivers to the other its request in writing to mediate. The mediator shall be an individual mutually acceptable to both parties, but in the absence of agreement each party shall select a

temporary mediator and the temporary mediators shall jointly select the permanent mediator. Each party shall pay its own costs for the time and effort involved in mediation. The cost of the mediator shall be split equally between the two parties. Both parties agree to exercise their best effort in good faith to resolve all disputes in mediation. Participation in mediation is a mandatory requirement of both the Owner and the Contractor. The schedule, time and place for mediation will be mutually acceptable, or, failing mutual agreement, shall be as established by the mediator. The parties agree to comply with Owner's administrative rules governing the confidentiality of mediation, if any, and shall execute all necessary documents to give effect to such confidentiality rules. In any event, the parties shall not subpoena the mediator or otherwise require the mediator to produce records, notes or work product, or to testify in any future proceedings as to information disclosed or representations made in the course of mediation, except to the extent disclosure is required by law.

D.3.7 Unless otherwise directed by Owner, Contractor shall proceed with the Work while any Claim, or mediation or litigation arising from a Claim, is pending. Regardless of the review period or the final decision of the Owner, the Contractor shall continue to diligently pursue the Work as identified in the Contract Documents. In no case is the Contractor justified or allowed to cease or Delay Work, in whole or in part, without a written stop work order from the Owner.

SECTION E PAYMENTS

E.1 SCHEDULE OF VALUES

The Contractor shall submit, at least ten (10) Days prior to submission of its first application for progress payment, a schedule of values ("Schedule of Values") for the contracted Work. This schedule shall provide a breakdown of values for the contracted Work and will be the basis for progress payments. The breakdown shall demonstrate reasonable, identifiable, and measurable components of the Work. Unless objected to by the Owner, this schedule shall be used as the basis for reviewing Contractor's applications for payment. If objected to by Owner, Contractor shall revise the schedule of values and resubmit the same for approval of Owner.

E.2 APPLICATIONS FOR PAYMENT

E.2.1 Owner shall make progress payments on the Contract monthly as Work progresses, in accordance with the requirements of this Section E.2. Applications for payment shall be based upon estimates of Work completed and the Schedule of Values. As a condition precedent to Owner's obligation to pay, all applications for payment shall be approved by the Owner. A progress payment shall not be considered acceptance or approval of any Work or waiver of any defects therein. Owner shall pay to Contractor interest for overdue invoices at the rate of two-thirds of one percent per month on the progress payment, not including retainage, due the Contractor. Overdue invoices will be those that have not been paid within forty five (45) days from the latest of:

- (a) The date of the receipt of the accurate invoice;
- (b) The date Owner receives the correct application for payment if no invoice is received;
- (c) The date all goods and services have been received; or
- (d) The date a Claim is made certain by agreement of the parties or by operation of law.

Notwithstanding the foregoing, in instances when an application for payment is filled out incorrectly, or when there is any defect

or impropriety in any submitted application or when there is a good faith dispute, Owner shall so notify the Contractor within fifteen (15) Days stating the reason or reasons the application for payment is defective or improper or the reasons for the dispute. A defective or improper application for payment, if corrected by the Contractor within seven (7) Days of being notified by the Owner, shall not cause a payment to be made later than specified in this section unless interest is also paid. Payment of interest will be postponed when payment on the principal is delayed because of disagreement between the Owner and the Contractor.

Owner reserves the right, instead of requiring the Contractor to correct or resubmit a defective or improper application for payment, to reject the defective or improper portion of the application for payment and pay the remainder of the application for such amounts which are correct and proper.

Owner, upon written notice to the Contractor, may elect to make payments to the Contractor only by means of Electronic Funds Transfers (EFT) through Automated Clearing House (ACH) payments. If Owner makes this election, the Contractor shall arrange for receipt of the EFT/ACH payments.

E.2.2 Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing payments for materials and labor including payments to Subcontractors. Contractor shall include in its application for payment a schedule of the percentages of the various parts of the Work completed, based on the Schedule of Values which shall aggregate to the payment application total, and shall include, on the face of each copy thereof, a certificate in substantially the following form:

"I, the undersigned, hereby certify that the above bill is true and correct, and the payment therefore, has not been received.

Signed: _____
Dated: _____"

E.2.3 Generally, applications for payment will be accepted only for materials that have been installed. Under special conditions, applications for payment for stored materials will be accepted at Owner's sole discretion. Such a payment, if made, will be subject to the following conditions:

- (a) The request for stored material shall be submitted at least thirty (30) Days in advance of the application for payment on which it appears. Applications for payment shall be entertained for major equipment, components or expenditures only.
- (b) The Contractor shall submit applications for payment showing the quantity and cost of the material stored.
- (c) The material shall be stored in a bonded warehouse and Owner shall be granted the right to access the material for the purpose of removal or inspection at any time during the Contract Period.
- (d) The Contractor shall name the Owner as co-insured on the insurance policy covering the full value of the property while in the care and custody of the Contractor until it is installed. A certificate noting this coverage shall be issued to the Owner.
- (e) Payments shall be made for materials and equipment only. The submitted amount in the application for payment shall be reduced by the cost of transportation from the storage site to the project site and for the cost of an inspector to verify delivery and condition of the goods at the storage site. The cost of storage and inspection shall be borne solely by the Contractor.

(f) Within sixty (60) Days of the application for payment, the Contractor shall submit evidence of payment covering the material and/or equipment stored and of payment for the storage site.

(g) Payment for stored materials and/or equipment shall in no way indicate acceptance of the materials and/or equipment or waive any rights under this Contract for the rejection of the Work or materials and/or equipment not in conformance with the Contract Documents.

(h) All required documentation shall be submitted with the respective application for payment.

E.2.4 The Owner reserves the right to withhold all or part of a payment, or may nullify in whole or part any payment previously made, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss because of:

- (a) Work that is defective and not remedied, or that has been demonstrated or identified as failing to conform with Applicable Laws or the Contract Documents,
- (b) Third party claims filed or evidence reasonably indicating that such claims will likely be filed unless security acceptable to the Owner is provided by the Contractor;
- (c) Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment (in which case Owner may issue checks made payable jointly to Contractor and such unpaid persons under this provision, or directly to Subcontractors and suppliers at any level under Section C.3.2.);
- (d) Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;
- (e) Damage to the Work, Owner or another contractor;
- (f) Reasonable evidence that the Work will not be completed within the Contract Time required by the Contract, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- (g) Failure to carry out the Work in accordance with the Contract Documents; or
- (h) Assessment of liquidated damages, when withholding is made for offset purposes.

E.2.5 Subject to the provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- (a) Take that portion of the Contract Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Price allocated to that portion of the Work in the Schedule of Values, less retainage as provided in Section E.5. Pending final determination of cost to the Owner of changes in the Work, no amounts for changes in the Work can be included in applications for payment until the Contract Price has been adjusted by a Supplement Amendment;
- (b) Add that portion of the Contract Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner pursuant to Section E.2.3, suitably stored off the site at a location agreed upon in writing), less retainage as provided in Section E.5;

(c) Subtract the aggregate of previous payments made by the Owner; and

(d) Subtract any amounts for which the Owner has withheld or nullified payment as provided in the Contract Documents.

E.2.6 Contractor's applications for payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier.

E.2.7 The Contractor warrants to Owner that title to all Work covered by an application for payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an application for payment all Work for which payments are received from the Owner shall be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided financing, labor, materials and equipment relating to the Work.

E.2.8 If Contractor disputes any determination by Owner with regard to any application for payment, Contractor nevertheless shall continue to expeditiously perform the Work. No payment made hereunder shall be or be construed to be final acceptance or approval of that portion of the Work to which such partial payment relates or shall relieve Contractor of any of its obligations hereunder.

E.2.9 Contractor shall submit its initial MWESB Report within ten (10) Days of Contractor's execution of the Contract, or if there will be a Guaranteed Maximum Price (GMP) Amendment, then within ten (10) Days of Contractor's execution of the GMP Amendment. Contractor shall submit annual MWESB Reports on June 30 of each year the Contract is active. Contracts (or GMP Amendments) first executed by Contractor within ninety (90) Days before June 30 of the year of execution by Contractor may at the discretion of Owner be exempt from submitting the annual MWESB Report otherwise due on that June 30. The final MWESB Report shall be filed with the application for final payment. Timely receipt of MWESB Reports by Owner shall be a condition precedent to Owner's obligation to pay any progress payments or final payment otherwise due.

E.3 PAYROLL CERTIFICATION REQUIREMENT

Owner's receipt of payroll certification pursuant to Section C.2 of this Contract shall be a condition precedent to Owner's obligation to pay any progress payments or final payment otherwise due.

E.4 DUAL PAYMENT SOURCES

Contractor shall not be compensated for Work performed under this Contract from any state agency other than the agency that is a party to this Contract.

E.5 RETAINAGE

E.5.1 Retainage shall be withheld and released in accordance with the requirements set forth in OSU standards and policies.

E.5.1.1 Owner may reserve as retainage from any progress payment an amount not to exceed five percent of the payment. As Work progresses, Owner may reduce the amount of retainage on or may eliminate retainage on any remaining monthly Contract payments after 50 percent of the Work under the Contract is completed if, in the Owner's discretion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed only at Owner's sole discretion and only upon written application by the Contractor, which application shall include written approval of Contractor's surety; except that when the Work is 97-1/2 percent completed the Owner may, at its discretion and without application by the Contractor, reduce the

retained amount to 100 percent of the value of the Work remaining to be done. Upon receipt of written application by the Contractor, Owner shall respond in writing within a reasonable time.

E.5.1.2 Contractor may request in writing:

- (a) To be paid amounts which would otherwise have been retained from progress payments where Contractor has deposited acceptable bonds and securities of equal value with Owner or in a custodial account or other mutually-agreed account satisfactory to Owner, with an approved bank or trust company to be held in lieu of the cash retainage for the benefit of Owner;
- (b) For construction projects over \$1,000,000, that retainage be deposited in an interest bearing account, established through the State Treasurer for state agencies, in a bank, savings bank, trust company or savings association for the benefit of Owner, with earnings from such account accruing to the Contractor; or
- (c) That the Owner allow Contractor to deposit a surety bond for the benefit of Owner, in a form acceptable to Owner, in lieu of all or a portion of funds retained, or to be retained. Such bond and any proceeds therefrom shall be made subject to all claims in the manner and priority as set forth for retainage.

When the Owner has accepted the Contractor's election of option (a) or (b), Owner may recover from Contractor any additional costs incurred through such election by reducing Contractor's final payment. Where the Owner has agreed to Contractor's request for option (c), Contractor shall accept like bonds from Subcontractors and suppliers on the project from which Contractor has required retainages.

E. 5.1.3 The retainage held by Owner shall be included in and paid to the Contractor as part of the Final Payment of the Contract Price. The Owner shall pay to Contractor interest at the rate of two-thirds of one percent per month on the final payment due Contractor, interest to commence forty five (45) Days after the date which Owner receives Contractor's final approved application for payment and Work under the Contract has been completed and accepted and to run until the date when final payment is tendered to Contractor. The Contractor shall notify Owner in writing when the Contractor considers the Work complete and deliver to Owner its final application for payment and Owner shall, within fifteen (15) Days after receiving the written notice and the application for payment, either accept the Work or notify the Contractor of Work yet to be performed on the Contract. If Owner does not within the time allowed notify the Contractor of Work yet to be performed to fulfill contractual obligations, the interest provided by this subsection shall commence to run forty five (45) Days after the end of the 15-Day period.

E.5.1.4 Owner will reduce the amount of the retainage if the Contractor notifies the controller of the Owner that the Contractor has deposited in an escrow account with a bank or trust company, in a manner authorized by the Owner, bonds and securities of equal value of a kind approved by the Owner and such bonds and securities have in fact been deposited.

E.5.1.5 Contractor agrees that if Contractor elects to reserve a retainage from any progress payment due to any Subcontractor or supplier, such retainage shall not exceed five percent of the payment, and such retainage withheld from Subcontractors and suppliers shall be subject to the same terms and conditions stated in Subsection E.5 as apply to Owner's retainage from any progress payment due to Contractor.

E.6 FINAL PAYMENT

E.6.1 Upon completion of all the Work under this Contract, the Contractor shall notify the Owner, in writing, that Contractor has completed Contractor's obligations under the Contract and shall prepare its application requesting final payment. Upon receipt of such notice and application for payment, the Owner will inspect the Work, and, if acceptable, submit to the Owner a recommendation as to acceptance of the completed Work and the final estimate of the amount due the Contractor. If the Work is not acceptable, Owner will notify Contractor within fifteen (15) Days of Contractor's request for Final Payment. Upon approval of this final application for payment by the Owner and compliance by the Contractor with provisions in Section K, and Contractor's satisfaction of other provisions of the Contract Documents as may be applicable, the Owner shall pay to the Contractor all monies due under the provisions of these Contract Documents.

E.6.2 Neither Final Payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) a certificate evidencing that insurance required by the Contract Documents to remain in force after Final Payment is currently in effect and will not be canceled or allowed to expire until at least thirty (30) Days' prior written notice has been given to the Owner, (2) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (3) consent of surety, if any, to Final Payment and (4), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

E.6.3 Acceptance of Final Payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final application for payment.

E.6.4 Contractor agrees to submit its final payment application within ninety (90) Days after Substantial Completion, unless written extension is granted by Owner. Contractor shall not delay Final Payment application for any reason, including without limitation nonpayment of Subcontractors, suppliers, manufacturers or others not a party to this Contract, or lack of resolution of a dispute with Owner or any other person of matters arising out of or relating to the Contract. If Contractor fails to submit its Final Payment application within ninety (90) Days after Substantial Completion, and Contractor has not obtained written extension by Owner, all requests or Claims for additional costs or an extension of Contract Time shall be waived.

SECTION F JOB SITE CONDITIONS

F.1 USE OF PREMISES

Contractor shall confine equipment, storage of materials and operation of Work to the limits indicated by Contract Documents, Applicable Laws, permits or directions of the Owner. Contractor shall follow the Owner's instructions regarding use of premises, if any.

F.2 PROTECTION OF WORKERS, PROPERTY AND THE PUBLIC

F.2.1 Contractor shall maintain continuous and adequate protection of all of the Work from damage and shall protect the Owner, workers and property from injury or loss arising in connection with this Contract. Contractor shall remedy acceptably to the Owner any damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by authorized representatives or personnel of the Owner. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents.

F.2.2 Contractor shall take all necessary precautions for the safety of all personnel on the job site or otherwise engaged in the undertaking of the Work and shall comply with the Contract Documents, best practices and all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for protection of workers and the public against any hazards created by construction. Contractor shall designate a responsible employee or associate on the Work site, whose duty shall be the prevention of accidents. The name and position of the person designated shall be reported to the Owner. The Owner has no responsibility for Work site safety. Work site safety shall be the responsibility of the Contractor.

F.2.3 Contractor shall not enter upon private property without first obtaining permission from the property owner or its duly authorized representative. Contractor shall be responsible for the preservation of all public and private property along and adjacent to the Work contemplated under the Contract and shall use every precaution necessary to prevent damage thereto. In the event the Contractor damages any property, the Contractor shall at once notify the property owner and make, or arrange to make, full restitution. Contractor shall, immediately and in writing, report to the Owner, all pertinent facts relating to such property damage and the ultimate disposition of the claim for damage.

F.2.4 Contractor shall be responsible for protection of adjacent work areas including impacts brought about by activities, equipment, labor, utilities, vehicles and materials on the site.

Contractor shall verify that all mechanical or electrical equipment in the construction areas that may be affected by the Work is in working order and shall notify the Owner, in writing, of any equipment not in working order prior to the start of the Work. Start of Work will be considered as acknowledgement that all equipment is in good working order. Contractor shall be required to restore equipment to its original, or better, condition upon completion of the project.

F.2.5 Contractor shall at all times direct its activities in such a manner as to minimize adverse effects on the environment. Handling of all materials shall be conducted so no release will occur that may pollute or become hazardous.

F.2.6 In an emergency affecting the safety of life or limb or of the Work or of adjoining property, the Contractor, without special instruction or authorization from the Owner, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by the Owner. Any compensation claimed by the Contractor on account of emergency work shall be determined in accordance with section D.

F.3 CUTTING AND PATCHING

F.3.1 Contractor shall be responsible for coordinating all cutting, fitting, or patching of the Work to make its several parts come together properly and fit to receive or be received by work of

other contractors or Subcontractors shown upon, or reasonably implied by, the Contract Documents.

F.3.2 Contractor shall be responsible for restoring all cut, fitted, or patched surfaces to an original condition; provided, however, that if a different condition is specified in the Contract Documents, then Contractor shall be responsible for restoring such surfaces to the condition specified in the Contract Documents.

F.4 CLEANING UP

From time to time as may be prudent or ordered by the Owner and, in any event, immediately after completion of the Work, the Contractor shall, at its own expense, clean up and remove all refuse and unused materials of any kind resulting from the Work. If Contractor fails to do so within twenty-four hours after notification by the Owner the work may be done by others and the cost charged to the Contractor and deducted from payment due the Contractor.

F.5 ENVIRONMENTAL CONTAMINATION

F.5.1 Contractor shall be held responsible for and shall indemnify, defend (with counsel of Owner's choice), and hold harmless Owner from and against any costs, expenses, damages, claims, and causes of action, (including attorney fees), or any of them, resulting from all spills, releases, discharges, leaks and disposal of environmental pollution, including storage, transportation, and handling during the performance of the Work or Contractor's obligations under the Contract which occur as a result of, or are contributed by, the negligence or actions of Contractor or its personnel, agents, or Subcontractors or any failure to perform in accordance with the Contract Documents (except to the extent otherwise void under ORS 30.140). Nothing in this section F.5.1 shall limit Contractor's responsibility for obtaining insurance coverages required under Section G.3 of this Contract, and Contractor shall take no action that would void or impair such coverages.

F.5.1.1 Contractor agrees to promptly dispose of such spills, releases, discharge or leaks to the satisfaction of Owner and regulatory agencies having jurisdiction in a manner that complies with Applicable Laws. Cleanup shall be at no cost to the Owner and shall be performed by properly qualified and, if applicable, licensed personnel.

F.5.1.2 Contractor shall obtain the Owner's written consent prior to bringing onto the Work site any (i) environmental pollutants or (ii) hazardous substances or materials, as the same or reasonably similar terms are used in any Applicable Laws. Notwithstanding such written consent from the Owner, the Contractor, at all times, shall:

- (a) Properly handle, use and dispose of all environmental pollutants and hazardous substances or materials brought onto the Work site, in accordance with all Applicable Laws;
- (b) Be responsible for any and all spills, releases, discharges, or leaks of (or from) environmental pollutants or hazardous substances or materials which Contractor has brought onto the Work site; and
- (c) Promptly clean up and remediate, without cost to the Owner, such spills, releases, discharges, or leaks to the Owner's satisfaction and in compliance with all Applicable Laws.

F.5.2 Contractor shall report all reportable quantity releases, as such releases are defined in Applicable Laws, including but not limited to 40 CFR Part 302, Table 302.4 and in OAR 340-142-0050, to applicable federal, state, and local regulatory and

emergency response agencies. Upon discovery, regardless of quantity, Contractor must telephonically report all releases to the Owner. A written follow-up report shall be submitted to Owner within 48 hours of the telephonic report. Such written report shall contain, as a minimum:

- (a) Description of items released (identity, quantity, manifest numbers, and any and all other documentation required by law.)
- (b) Whether amount of items released is EPA/DEQ reportable, and, if so, when reported.
- (c) Exact time and location of release, including a description of the area involved.
- (d) Containment procedures initiated.
- (e) Summary of communications about the release between Contractor and members of the press or State, local or federal officials other than Owner.
- (f) Description of cleanup procedures employed or to be employed at the site, including disposal location of spill residue.
- (g) Personal injuries, if any, resulting from, or aggravated by, the release.

F.6 ENVIRONMENTAL CLEAN-UP

F.6.1 Unless disposition of environmental pollution is specifically a part of this Contract, or was caused by the Contractor (reference F.5 Environmental Contamination), Contractor shall immediately notify Owner of any hazardous substance(s) which Contractor discovers or encounters during performance of the Work required by this Contract. "Hazardous substance(s)" means any hazardous, toxic and radioactive materials and those substances defined as "hazardous substances," "hazardous materials," "hazardous wastes," "toxic substances," or other similar designations in any federal, state, or local law, regulation, or ordinance, including without limitation asbestos, polychlorinated biphenyl (PCB), or petroleum, and any substances, materials or wastes regulated by 40 CFR, Part 261 and defined as hazardous in 40 CFR S 261.3. In addition to notifying Owner of any hazardous substance(s) discovered or encountered, Contractor shall immediately cease working in any particular area of the project where a hazardous substance(s) has been discovered or encountered if continued work in such area would present a risk or danger to the health or well-being of Contractor's or any Subcontractor's work force, property or the environment.

F.6.2 Upon being notified by Contractor of the presence of hazardous substance(s) on the project site, Owner shall arrange for the proper disposition of such hazardous substance(s).

F.7 FORCE MAJEURE

A party to this Contract shall not be held responsible for delay or default due to Force Majeure acts, events or occurrences unless they could have been avoided by the exercise of reasonable care, prudence, foresight, and diligence by that party. The Owner may terminate this Contract upon written notice after determining that delay or default caused by Force Majeure acts, events or occurrences will reasonably prevent successful performance of the Contract.

SECTION G INDEMNITY, BONDING, AND INSURANCE

G.1 RESPONSIBILITY FOR DAMAGES / INDEMNITY

G.1.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under this Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, sub-subcontractors of any tier, suppliers, employees, guests, visitors, invitees and agents.

G.1.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner, Architect/Engineer, Architect/Engineer's consultants, and their respective officers, directors, agents, employees, partners, members, stockholders and affiliated companies (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses (including reasonable attorney fees), demands and actions of any nature whatsoever which arise out of, result from or are related to, (a) any damage, injury, loss, expense, inconvenience or delay described in this Section G.1., (b) any accident or occurrence which happens or is alleged to have happened in or about the project site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects, (c) any failure of the Contractor or its Subcontractors, sub-subcontractors of any tier, suppliers, employees or consultants to observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract, (d) the negligent acts or omissions of the Contractor, a Subcontractor, sub-subcontractor of any tier suppliers, a consultant or anyone directly or indirectly employed by them or any one of them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder (except to the extent otherwise void under ORS 30.140), and (e) any lien filed upon the project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section G.1.2.

G.1.3 In claims against any person or entity indemnified under Section G.1.2 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section G.1.2 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

G.2 PERFORMANCE AND PAYMENT SECURITY; PUBLIC WORKS BOND

G.2.1 When the Contract Price is \$100,000 or more (or \$50,000 or more in the case of Contracts for highways, bridges and other transportation projects), the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents.

G.2.2 Bond forms furnished by the Owner and notarized by awarded Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.

G.2.3 Before execution of the Contract the Contractor shall file with the Construction Contractors Board, and maintain in full force

and effect, the separate public works bond required by Oregon Laws 2015, Chapter 279C, and OAR 839-025-0015, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

G.3 INSURANCE

G.3.1 General Requirements. The required insurance amounts set forth below do not in any way limit the amount or scope of liability of Contractor under this Contract. The amounts listed indicate only the minimum amounts of insurance coverage Owner is willing to accept to help insure full performance of all terms and conditions of this Contract.

G.3.1.1 Primary Coverage and Non-Contributory Coverage. Insurance carried by Contractor under this Contract shall be primary and non-contributory coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

G.3.1.2 Company Ratings. All policies of insurance must be written by companies having an A.M. Best rating of no less than "A-VII", or equivalent. Owner may, upon thirty (30) days written notice to Contractor, require Contractor to change any carrier whose rating drops below an "A-VII" rating. Eligible insurers include admitted insurers that have been issued a certificate of authority from the Oregon Department of Consumer and Business Services authorizing them to conduct an insurance business and issue policies of insurance in the state of Oregon, and certain non-admitted surplus lines insurers that satisfy the requirements of applicable Oregon law and which are subject to approval the Owner.

G.3.1.3 Additional Insured. Each liability policy, except Workers' Compensation and Professional Liability, shall be endorsed to include Owner, its officers, trustees, employees and agents as additional insured but only with respect to the Contractor's activities to be performed under this Contract

If Contractor cannot obtain an insurer to name the Owner as additional insured, Contractor shall obtain at Contractor's expense, and keep in effect during the term of this Contract, Owners and Contractors Protective Liability Insurance, naming the Owner as additional insured with minimum limits of \$2,000,000 per occurrence and \$2,000,000 aggregate. This policy must be kept in effect for 36 months following Final Completion. As evidence of coverage, Contractor shall furnish the actual policy to Owner prior to execution of the Contract.

G.3.1.4 Notice of Cancellation or Change. If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to this Contract, unless all required insurance remain in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner.

Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the Work site until a new certificate(s) of insurance is provided to Owner evidencing the replacement coverage. The Contractor agrees Owner reserves

the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

G.3.1.5 Deductibles and Self-insured Retentions. Any deductible, self-insured retention and/or self-insurance in excess of \$50,000 may be subject to approval by the Owner in writing.

G.3.2 Workers' Compensation. All employees, including Contractor, that employs subject workers who work under this Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Worker's Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with minimum limits of \$1,000,000 each accident; \$1,000,000 disease-each employee; and \$1,000,000 disease-policy limit. Contractors who perform the Work without the assistance or labor of any employee need not obtain such coverage if the Contractor certifies so in writing. Contractor shall ensure that each of its Subcontractors complies with these requirements. The Contractor shall require proof of such Workers' Compensation coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

G.3.3 Commercial General Liability. Contractor shall obtain, and keep in effect at Contractor's expense for the term of the Contract, Commercial General Liability Insurance covering bodily injury and property damage in the amount of \$2,000,000 per occurrence and \$4,000,000 aggregate. This insurance shall include personal injury liability, products and completed operations, and contractual liability coverage for the indemnities provided under this Contract (to the extent contractual liability coverage for the indemnity is available in the marketplace).

G.3.4 Automobile Liability. Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Automobile Liability Insurance with "symbol 1" coverage (owned, hired and non-owned vehicles). The coverage may be written in combination with the Commercial General Liability Insurance. Contractor shall provide proof of insurance showing minimum limits of \$2,000,000 combined single limit. Contractor and its Subcontractors shall be responsible for ensuring that all non-owned vehicles maintain adequate Automobile Liability insurance while on site.

G.3.5 Umbrella Liability. Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Umbrella liability Insurance over and above the Commercial General Liability, Automobile Liability and Employers' Liability insurance coverage with minimum limits of \$5,000,000 per occurrence and \$5,000,000 aggregate.

G.3.6 Owner may adjust the insurance amounts required in Section G.3.4, G.3.4, and G.3.5 through the issuance of Supplemental General Conditions and a Contract.

G.3.7 Professional Liability. (if required by issuance of Supplemental General Conditions) Contractor shall obtain, at Contractor's expense, Professional Liability/Errors & Omissions insurance covering damages caused by any negligent error, omission, or professional misconduct of the Contractor. The policy may be either a practice based policy or a policy pertaining to the specific Project. Professional Liability insurance shall have minimum limits of \$3,000,000 each claim and \$3,000,000 aggregate. Contractor shall require that each of its Major Consultants and subcontractors (including structural, civil, mechanical, plumbing, electrical engineering, survey, geotechnical and materials testing) secures and maintains Professional Liability/Errors & Omissions with limits not less than \$2,000,000 each claim and

\$2,000,000 aggregate. All other Consultants and subcontractors not listed above shall have limits not less than \$1,000,000 each claim and \$1,000,000 aggregate.

- G.3.7.1 Tail Coverage. If the Professional Liability is arranged on a "claims made" basis, tail coverage will be required at the completion of this Contract for a duration of 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certificates of insurance showing tail coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of tail coverage, provided its retroactive date is on or before the effective date of this Contract. Owner's receipt of the certificate of insurance and/or endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).
- G.3.8 Pollution Liability (if required by Owner through issuance of Supplemental General Conditions) Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Pollution liability Insurance in minimum amounts of \$3,000,000 per occurrence and \$3,000,000 aggregate, naming Owner as additional insured, as noted in the Additional Insured section.
- G.3.9 Builders' Risk Insurance – Completed Value Basis. Unless otherwise provided, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, Builders' Risk Insurance in the amount of the initial Contract Sum, plus value of subsequent modifications, change orders, and cost of material supplied or installed by others, comprising total value of the entire Project at the site on a replacement cost basis without optional deductibles. The earthquake and flood insurance sublimits will be equal to the maximum probable loss.
- G.3.9.1 Policy must provide coverage from the time any covered property becomes the responsibility of the Contractor, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.
- G.3.9.2 The Builders' Risk Insurance shall include the Owner, the Contractor, subcontractors and sub-tier contractors in the Project as named insureds on the policy, and shall include a waiver of subrogation provision in favor of all parties.
- G.3.9.3 The Builders' Risk Coverage shall be written on a Special Covered Cause of Loss form and shall include theft, vandalism, malicious mischief, collapse, false-work, temporary buildings, transit, debris removal including demolition, increased cost of construction, architect's fees and expenses, flood (including water damage), earthquake, and if applicable, all below and above ground structures, piping, foundations including underground water and sewer mains, piling including the ground on which the structure rests and excavation, backfilling, filling, and grading.
- G.3.9.4 The Builders' Risk shall include a Beneficial Occupancy Clause. The policy shall specifically permit occupancy of the building during construction. Contractor shall take reasonable steps to obtain consent of the insurance company and delete any provisions with regard to restrictions within any Occupancy Clauses within the Builder's Risk Policy.
- G.3.9.5 Equipment Breakdown Coverage (a.k.a. Boiler & Machinery) shall be included as required by the Contract Documents or by law, which shall specifically covers insured equipment during

installation and testing (including cold and hot testing).

- G.3.9.6 The Builders' Risk shall include loss of use due to delays in project completion caused by covered peril losses to the Project, including loss of income and rents and soft costs.
- G.3.9.7 The deductible shall not exceed \$50,000 for physical damage and shall be the responsibility of the Contractor. The deductible shall be paid by the Contractor if the Contractor is negligent. The earthquake and flood deductible shall not exceed 2 percent of each loss or \$50,000, whichever is greater.
- G.3.9.8 OSU shall be provided with a certificate of insurance, as well as a copy of the policy.
- G.3.9.19 The Contractor shall be responsible for the payment of premium, giving or receiving notice of cancellation; and requesting amendments to this policy and accepting amendments to this policy made by the company.
- G.3.9.10 OSU reserves the right to purchase the Builder's Risk insurance policy.
- G.3.10 Builder's Risk Installation Floater. For Work other than new construction, Contractor shall obtain and keep in effect during the term of this Contract, a Builder's Risk Installation Floater for coverage of the Contractor's labor, materials and equipment to be used for completion of the work performed under this Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contract. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear. Owner may waive this requirement at their sole and absolute discretion.
- G.3.11 Certificate(s) of Insurance. As evidence of the insurance coverage required by this Contract, the Contractor shall furnish certificate(s) of insurance to the Owner prior to the execution of the Contract. The certificates(s) will specify all of the parties who are additional insured or loss payees for this Contract, and the applicable endorsements will be attached. Additional insured endorsements must include completed operations without restriction to contractual requirements.
- G.3.12 Subcontractors. Subject to and following the written approval of the Owner as outlined in B.11.3 as related to Subcontracts and Assignment, the Contractor shall require Subcontractors to have insurance as outlined in section G.3.1 through G.3.4; however, the policy limits may be reduced, but no case shall the policy limits be less than \$1,000,000.
- G.3.13 Retainer Contract Program: For the Retainer Contract Program the term "Contract" as used in this Section G in the phrases "keep in effect during the term of this Contract" and "prior to execution of the Contract" shall mean each Retainer Contract Supplement issued under the Retainer Contract.

SECTION H SCHEDULE OF WORK

H.1 CONTRACT PERIOD

- H.1.1 Time is of the essence. The Contractor shall at all times carry on the Work diligently, without delay and punctually fulfill all requirements herein. If required by the Contract Documents, Contractor shall commence Work on the site within fifteen (15) Days of Notice to Proceed, unless directed otherwise.
- H.1.2 Unless specifically extended by Supplement Amendment, all Work shall be complete by the date contained in the Contract Documents. The Owner shall have the right to accelerate the completion date of the Work, which may require the use of overtime. Such accelerated Work schedule shall be an

acceleration in performance of Work under Section D.1.2 (f) and shall be subject to the provisions of Section D.1.

- H.1.3 The Owner shall not waive any rights under the Contract by permitting the Contractor to continue or complete in whole or in part the Work after the date described in Section H.1.2 above.

H.2 SCHEDULE

- H.2.1 Contractor shall provide, by or before the pre-construction conference, a detailed Construction Schedule for review and acceptance by the Owner. The submitted Construction Schedule must illustrate Work by significant project components, significant labor trades, long lead items, broken down by building and/or floor where applicable. Each Construction Schedule item shall account for no greater than 5% of the monetary value of the project or 5% of the available time. Construction Schedules with activities of less than one day or valued at less than 1% of the Contract shall be considered too detailed and shall not be accepted. Construction Schedules lacking adequate detail, or unreasonably detailed, shall be rejected. Included within the Construction Schedule are the following: Notice to Proceed, Substantial Completion, and Final Completion. Contractor shall provide an updated, full Project Construction Schedule with each payment request. In addition, twice monthly, the Contractor shall provide an updated three-week forward-looking schedule. Acceptance of the Construction Schedule by the Owner does not constitute agreement by the Owner as to the Contractor's sequencing, means, methods, or durations. Any positive difference between the Contractor's scheduled completion and the contract completion date is float owned by the Project. Use of the float shall be negotiated. In no case shall the Contractor make a claim for delays if the Work is completed within the Contract time but after Contractor's scheduled completion.

H.3 PARTIAL OCCUPANCY OR USE

- H.3.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage, provided such occupancy or use is consented to by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have reasonably accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, insurance or self-insurance, maintenance, heat, utilities, and damage to the Work, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents with respect to such portion of the Work. Approval by the Contractor to partial occupancy or use shall not be unreasonably withheld. Immediately prior to such partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work. Partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

SECTION I CORRECTION OF WORK

I.1 CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents. Work failing to conform to these requirements shall be deemed defective. Contractor shall promptly remove from the premises and replace all defective

materials and equipment as determined by the Owner, whether incorporated in the Work or not. Removal and replacement shall be without loss or expense to the Owner, and Contractor shall bear the cost of repairing all Work destroyed or damaged by such removal or replacement. Contractor shall be allowed a period of no longer than thirty (30) Days after Substantial Completion for completion of defective (Punch List) work. At the end of the thirty-day period, or earlier if requested by the Contractor, Owner shall arrange for inspection of the Work by the Architect/Engineer. Should the work not be complete, and all corrections made, the costs for all subsequent re-inspections shall be borne by the Contractor. If Contractor fails to complete the Punch List work within the thirty (30) Day period, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand without affecting Contractor's obligations.

I.2 WARRANTY WORK

- I.2.1 Neither the final certificate of payment nor any provision of the Contract Documents shall relieve the Contractor from responsibility for defective Work and, unless a longer period is specified, Contractor shall correct all defects that appear in the Work within a period of one year from the date of issuance of the written notice of Substantial Completion by the Owner except for latent defects which will be remedied by the Contractor at any time they become apparent. The Owner shall give Contractor notice of defects with reasonable promptness. The Contractor shall perform the warranty Work by correcting defects within twenty-four (24) hours of notification by Owner, unless otherwise specified in the Contract Documents. Should the Contractor fail to respond within the specified response time, the Owner may, at its option, complete the necessary repairs using another contractor or its own forces. If Owner completes the repairs using Owner's own forces, Contractor shall pay Owner at the rate of one and one-half (1½) times the standard hourly rate of Owner's forces, plus related overhead and any direct non-salary costs. If Owner completes the repairs using another contractor, Contractor shall pay Owner the amount of Owner's direct costs billed by the other contractor for the work, plus the direct salary costs and related overhead and direct non-salary expenses of Owner's forces who are required to monitor that contractor's work. Work performed by Owner using Owner's own forces or those of another contractor shall not affect the Contractor's contractual duties under these provisions, including warranty provisions. In the event of warranty work consisting of emergency repairs, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand, without affecting Contractor's obligations.
- I.2.2 Nothing in this Section I.2 provision shall negate guarantees or warranties for periods longer than one year including without limitation such guarantees or warranties required by other sections of the Contract Documents for specific installations, materials, processes, equipment or fixtures.
- I.2.3 In addition to Contractor's warranty, manufacturer's warranties shall pass to the Owner and shall not take effect until such portion of the Work covered by the applicable warranty has been accepted in writing by the Owner.
- I.2.4 The one-year period for correction of Work shall be extended with respect to portions of Work performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work, and shall be extended by corrective Work performed by the Contractor pursuant to this Section, as to the Work corrected. The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

- I.2.5 Nothing contained in this Section I.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the period for correction of Work as described in this Section I.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.
- I.2.6 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Price will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

**SECTION J
SUSPENSION AND/OR TERMINATION OF THE WORK**

J.1 OWNER'S RIGHT TO SUSPEND THE WORK

- J.1.1 The Owner has the authority to suspend portions or all of the Work due to the following causes:
- (a) Failure of the Contractor to correct unsafe conditions;
 - (b) Failure of the Contractor to carry out any provision of the Contract;
 - (c) Failure of the Contractor to carry out orders;
 - (d) Conditions, in the opinion of the Owner, which are unsuitable for performing the Work;
 - (e) Time required to investigate differing site conditions;
 - (f) Any reason considered to be in the public interest.
- J.1.2 The Owner shall notify Contractor and the Contractor's Surety in writing of the effective date and time of the suspension, and Owner shall notify Contractor and Contractor's surety in writing to resume Work.

J.2 CONTRACTOR'S RESPONSIBILITIES

- J.2.1 During the period of the suspension, Contractor is responsible to continue maintenance at the project just as if the Work were in progress. This includes, but is not limited to, protection of completed Work, maintenance of access, protection of stored materials, temporary facilities, and clean-up.
- J.2.2 When the Work is recommenced after the suspension, the Contractor shall replace or renew any Work damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete the project in every respect as though its prosecution had been continuous and without suspension.

J.3 COMPENSATION FOR SUSPENSION

- J.3.1 Depending on the reason for suspension of the Work, the Contractor or the Owner may be due compensation by the other party. If the suspension was required due to acts or omissions of Contractor, the Owner may assess the Contractor actual costs of the suspension in terms of administration, remedial work by the Owner's forces or another contractor to correct the problem associated with the suspension, rent of temporary facilities, and other actual costs related to the suspension. If the suspension was caused by acts or omissions of the Owner, the Contractor

may be due compensation which shall be defined using Section D, Changes in Work. If the suspension was required through no fault of the Contractor or the Owner, neither party shall owe the other for the impact.

J.4 OWNER'S RIGHT TO TERMINATE CONTRACT

- J.4.1 The Owner may, without prejudice to any other right or remedy, and after giving Contractor seven (7) Days' written notice and an opportunity to cure, terminate the Contract in whole or in part under the following conditions:
- (a) If Contractor should, voluntarily or involuntarily, seek protection under the United States Bankruptcy Code and Contractor as debtor-in-possession or the Trustee for the estate fails to assume the Contract within a reasonable time;
 - (b) If Contractor should make a general assignment for the benefit of Contractor's creditors;
 - (c) If a receiver should be appointed on account of Contractor's insolvency;
 - (d) If Contractor should repeatedly refuse or fail to supply an adequate number of skilled workers or proper materials to carry on the Work as required by the Contract Documents, or otherwise fail to perform the Work in a timely manner;
 - (e) If Contractor should repeatedly fail to make prompt payment to Subcontractors or for material or labor, or should disregard laws, ordinances or the instructions of the Owner; or
 - (f) If Contractor is otherwise in breach of any part of the Contract.
 - (g) If Contractor is in violation of Applicable Laws, either in the conduct of its business or in its performance of the Work.

- J.4.2 At any time that any of the above occurs, Owner may exercise all rights and remedies available to Owner at law or in equity, and, in addition, Owner may take possession of the premises and of all materials and appliances and finish the Work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive further payment until the Work is completed. If the Owner's cost of finishing the Work exceeds the unpaid balance of the Contract Price, Contractor shall pay the difference to the Owner.

J.5 TERMINATION FOR CONVENIENCE

- J.5.1 Owner may terminate the Contract in whole or in part whenever Owner determines that termination of the Contract is in the best interest of Owner or the public.
- J.5.2 The Owner shall provide the Contractor with seven (7) Days prior written notice of a termination for Owner's or for public convenience. After such notice, the Contractor shall provide the Owner with immediate and peaceful possession of the premises and materials located on and off the premises for which the Contractor received progress payment under Section E. Compensation for Work terminated by the Owner under this provision will be according to Section E. In no circumstance shall Contractor be entitled to lost profits for Work not performed due to termination.

J.6 ACTION UPON TERMINATION

- J.6.1 Upon receiving a notice of termination, and except as directed otherwise by the Owner, Contractor shall immediately cease

placing further subcontracts or orders for materials, services, or facilities. In addition, Contractor shall terminate all subcontracts or orders to the extent they relate to the Work terminated and, with the prior written approval of the Owner, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts and orders.

J.6.2 As directed by the Owner, Contractor shall, upon termination, transfer title and deliver to the Owner all Record Documents, information, and other property that, if the Contract had been completed, would have been required to be furnished to the Owner.

J.6.3 Upon Owner's notice of termination pursuant to either Section J.4 or J.5, if Owner shall so elect, Contractor shall assign the Owner such subcontracts and orders as Owner shall specify. In the event Owner elects to take assignment of any such subcontract or order, Contractor shall take such action and shall execute such documents as Owner shall reasonably require for the effectiveness of such assignment and Contractor shall ensure that no contractual arrangement between it and its subcontractors or suppliers of any tier or sub-tier shall prevent such assignment.

SECTION K CONTRACT CLOSE OUT

K.1 RECORD DOCUMENTS

As a condition of final payment (refer also to section E.6), Contractor shall comply with the following: Contractor shall provide Record Documents for the entire project to Owner. Record Documents shall depict the project as constructed and shall reflect each and every change, modification, and deletion made during the construction. Record Documents are part of the Work and shall be provided prior to the Owner's issuance of final payment. Record Documents include all modifications to the Contract Documents unless otherwise directed, and accurate MWESB Reports.

K.2 OPERATION AND MAINTENANCE MANUALS

As part of the Work, Contractor shall submit two completed operation and maintenance manuals ("O & M Manuals") for review by the Owner prior to submission of any pay request for more than 75% of the Work. Owner's receipt of the O & M Manuals shall be a condition precedent to any payment thereafter due. The O & M Manuals shall contain a complete set of all Submittals, all product data as required by the specifications, training information, telephone list and contact information for all consultants, manufacturers, installer and suppliers, manufacturer's printed data, record and shop drawings, schematic diagrams of systems, appropriate equipment indices, warranties and bonds. The Owner shall review and return one O & M Manual for any modifications or adjustments required. Prior to submission of its final pay request, Contractor shall deliver two (2) complete and approved sets of O & M Manuals in paper form and one (1) complete and approved set in electronic form to the Owner and Owner's receipt of the O & M Manuals shall be a condition precedent to Owner's obligation to make final payment.

K.3 COMPLETION NOTICES

K.3.1 Contractor shall provide Owner written notice of both Substantial and Final Completion. The certificate of Substantial Completion shall state the date of Substantial Completion, the responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and the time within which the Contractor shall finish all items on the Punch List accompanying the Certificate. Both completion notices must be signed by the Contractor and the Owner to be valid. The Owner shall provide the final signature on the notices. The notices shall take effect on the date they are signed by the Owner.

K.3.2 Substantial Completion of a facility with operating systems (e.g., mechanical, electrical, HVAC) shall be that degree of completion that has provided a minimum of thirty (30) continuous Days of successful, trouble-free operation, which period shall begin after all performance and acceptance testing has been successfully demonstrated to the Owner. All equipment contained in the Work, plus all other components necessary to enable the Owner to operate the facility in the manner that was intended, shall be complete on the Substantial Completion date. The Contractor may request that a Punch List be prepared by the Owner with submission of the request for the Substantial Completion notice.

K.4 TRAINING

As part of the Work, and prior to submission of the final application for payment, the Contractor shall schedule with the Owner training sessions for all equipment and systems as required by the Contract Documents. Contractor shall schedule training sessions at least two weeks in advance of the date of training to allow Owner to provide its personnel with adequate notice. The O & M Manual shall be used as a basis for training. In addition to any off-site training required by the Contract Documents, training shall include a formal session conducted at the Work site after the equipment and/or system is completely installed and operational in its normal operating environment.

K.5 EXTRA MATERIALS

As part of the Work, Contractor shall provide spare parts, extra maintenance materials, and other materials or products in the quantities specified in the Contract Documents prior to final payment. Delivery point for extra materials shall be designated by the Owner.

K.6 ENVIRONMENTAL CLEAN-UP

As part of the Final Completion notice, or as a separate written notice submitted with or before the notice of Final Completion, the Contractor shall notify the Owner that all environmental and pollution clean-up, remediation and closure have been completed in accordance with all Applicable Laws and pursuant to the authority of all agencies having jurisdiction, and Contractor shall provide Owner with any and all documentation related to the same, including but not limited to directives, orders, letters, certificates and permits related to or arising from such environmental pollution. The notice shall reaffirm the indemnification given under Section F.5.1 above. Contractor's completion of its obligations under this Section K.6 and Owner's receipt of documents evidencing such completion shall be a condition precedent to Owner's obligation to make final payment.

K.7 CERTIFICATE OF OCCUPANCY

Owner's receipt of an unconditioned certificate of occupancy from the appropriate state and/or local building officials shall be a condition precedent to Owner's obligation to make final payment, except to the extent failure to obtain an unconditional certificate of occupancy is due to the sole fault or neglect of Owner.

K.8 OTHER CONTRACTOR RESPONSIBILITIES

The Contractor shall be responsible for returning to the Owner all property of Owner issued to Contractor during construction such as keys, security passes, site admittance badges, and all other pertinent items. Upon notice from Owner, Contractor shall be responsible for notifying the appropriate utility companies to transfer utility charges from the Contractor to the Owner. The utility transfer date shall not be before Substantial Completion and may not be until Final Completion, if the Owner does not take beneficial use of the facility and the Contractor's forces continue with the Work.

K.9 SURVIVAL

All warranty and indemnification provisions of this Contract, and all of Contractor's other obligations under this Contract that are not fully performed by the time of Final Completion or termination, shall survive Final Completion or any termination of the Contract.

As indicated in the General Conditions of your contract(s) Section E.2.9, OSU requires that we gather MWESB (Minority, Women's Emerging Small Business) Contractor/Subcontractor information. This is an Oregon State University requirement and the information will be gathered annually and at time of final payment.

- **You must do this step first or the report will not let you add any information:** In Row 1 Column B there is a drop down menu. You must select yearend (if the job has not been completed) or final (if the job is completed and you have submitted for retention). Once you choose yearend or final in the drop down menu there will be areas highlighted in light green and red. Those are the areas that you are required to fill out. If you did not use or planning to use any MWESB then the left side of the report (Light Green area) still needs to be filled out and the red area needs to remain blank.
- If your agency is an MWESB or if you are using/used an MWESB subcontractor then you need to fill out the information in the report that is highlighted in light green and red (see instructions in the next bullet). If you are not an MWESB or used a Subcontractor that is an MWESB then you need to fill out the left side of the form (Light Green areas) and leave the red area blank.
- In row 2 Column B there is another drop down menu, click the drop down menu and choose Fiscal Year 2015.
- In Row 4 Column B there is another drop down menu, click there and choose OSU.

In compliance with Oregon Prevailing Wage Law, the following is incorporated into this Invitation to Bid:

The Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates as outlined in Sections C.1 and C.2 of the General Conditions. This Purchase Order is subject to the following BOLI wage rate requirements, which are incorporated herein by reference:

- January 1, 2019 PWR Apprenticeship Rates
- January 1, 2019 Prevailing Wage Rates for Public Works Contracts in Oregon
- July 1, 2018 Definitions of Covered Occupations for Public Works Contracts in Oregon

These BOLI wage rates are available on line at:

http://www.boli.state.or.us/BOLI/WHD/PWR/pwr_state.shtml

SECTION 01 11 00

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY OF WORK

- A. The Work contract consists of removing, replacing, and correcting sidewalks, curb ramps, driveways, and parking space access on Oregon State University campus, Corvallis, Oregon, in order to comply with the Americans with Disabilities Act. The Work includes, but is not limited to, Mobilization and Traffic, Pedestrian, and Fencing Control, tree protection, demolition, earthwork, asphalt paving, and cast-in-place concrete, as described in the Contract Documents on the Oregon State University Campus, Corvallis, Oregon.
- B. Work shall be start no later than **June 3, 2019**, after signing of the Contract on behalf of Oregon State University. The Contract may not be signed prior to approval of the Contractor's certificate of Insurance by Procurement and Contract Services, Oregon State University. All Work shall be completed on or before **August 16, 2019**.
- C. The Contractor shall plan and coordinate construction activities that may affect the paths of travel, and parking lot driveway access during the Commencement weekend, from 5:00 P.M. Friday, June 14th through 8:00 A.M., Sunday June 16th, 2019. All tree protection fencing and construction fencing shall be removed and cleaned up for this event. No Work shall occur during that period.
- D. All Work adjacent to residence halls shall begin no earlier than 8:00 A.M. The earliest start time for this project is 7:00 A.M.

1.02 CONTRACTORS USE OF PREMISES

- A. Contractor shall limit use of the Premises for work and storage to allow for:
 - 1. Owner occupancy, day and night.
 - 2. Public use, day and night.
 - 3. Security.
 - 4. Safe entry and exit for vehicles and pedestrians.
 - 5. Fire egress.
- B. Coordinate all operations with the Owner's Authorized Representative during the construction period. A 96 hour notification is required prior to scheduled utility shutdowns or street closures, but more lead time is often required to schedule around other critical activities.
- C. Limit Contractor's employee parking to locations designated at the Pre-construction Conference.

1.03 OWNER OCCUPANCY

- A. The Owner will occupy the Premises during the entire period of construction for the conduct of normal operations. Cooperate with Owner's Authorized

Representative in construction operations to minimize conflict and to facilitate the Owner's usage especially in the following areas:

1. Restricted access and parking.
2. Use of stairs.
3. Storage space availability.

- B. Conduct operations in such a way to ensure the least inconvenience to the general public, including:
1. Limitations and easements.
 2. Emergency vehicle access.
 3. Building access to the public, day and night.

1.04 ASBESTOS AND OTHER HAZARDOUS MATERIAL

- A. The Owner has made a reasonable attempt to locate and identify asbestos or other hazardous material that may be encountered during the course of the Work.
- B. If the Contractor observes or suspects the existence of asbestos, polychlorinated biphenyl (PCB) or other hazardous materials in the structure or components of the building, the Contractor shall immediately stop work and notify the Owner's Authorized Representative.
- C. The Owner will arrange for the removal of asbestos, polychlorinated biphenyl (PCB) or other hazardous materials as required by Facilities Services personnel or by separate contract.
- D. Schedule ten (10) days of slack or "down" time for the removal of hazardous materials without penalty to Owner for the delay of the Contract.

1.05 LEAD BASED PAINT

- A. The Owner may have tested existing paint in the project area and if levels are found the following conditions apply.
- B. Contractor shall remove paint as specified for surface preparation and capture removed material for disposal.
- C. Contractor shall follow OSHA guidelines involving exposure to workers.
- D. Owner will provide containers for Contractor's use at project site.
- E. Contractor shall comply with the requirements of DEQ and EPA and shall submit a lead abatement plan.
- F. Contractor shall separate lead contaminated material from effluent and water.
- G. Owner will dispose of lead paint and effluent resulting from stripping operation.
- H. Soil contaminated by stripping operations shall be replaced with topsoil.

END OF SECTION

UNIT PRICES
Section 01 22 00

PART 1 GENERAL

1.01 DESCRIPTION

- A. Provide unit prices for the Work described herein.

1.02 QUALITY ASSURANCE

- A. For each unit price item which is performed, coordinate the work of the various trades involved, and modify surrounding work as required to complete the project, as intended.
- B. In the figure for each unit price, include incidental costs which, as attributable to adjustments in the work of other trades, may be required to achieve the contemplated final conditions.
- C. If there is a question regarding the extent, scope, nature, or intent of the unit price work, contact the Owner for clarification. Failure on the part of the Contractor to clarify any unclear items shall not relieve the Contractor of the responsibility for performing the Work in accordance with the intent and requirements of the Project Manual or Drawings.
- D. The description of unit price items listed hereinafter is qualitative. The quantities listed are estimated quantities and are included for the purpose of award of the Contract. Actual quantities of labor and materials required to execute the unit price items of Work will be determined by project conditions and with concurrence of the Owner's Authorized Representative.

PART 2 PRODUCTS

2.01 GENERAL

- A. The notes on the Plan Sheets apply to the Work under each unit price item.

PART 3 EXECUTION

3.01 LIST OF UNIT PRICE ITEMS OF WORK

- A. Remove existing sidewalk/Replace with 4-inch concrete sidewalk per Construction Item #1:

Unit price per Square Foot (SF) to remove existing sidewalk and improvements, and replace per Construction Item #1. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- B. Remove existing improvement/Replace with 6-inch concrete sidewalk per Construction Item **#2**:

Unit price per Square Foot (SF) to remove existing sidewalk and improvements, and replace per Construction Item #2. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- C. Remove existing curb or improvement/Replace with curb per Construction Item **#3**:

Unit price per Linear Foot (LF) to remove existing curb and/or improvement, and replace per Construction Item #3. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- D. Remove existing improvement/Replace per Construction Item **#4**:

Unit price per each to remove existing tooled concrete detectable warning pad, and replace per Construction Item #4. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- E. Remove existing curb ramp and transition curbs/Replace per Construction Item **#5**:

Unit price per each to remove existing curb ramp and associated curbs, and replace per Construction Item #5. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- F. Remove existing asphalt and baserock/Replace per Construction Item **#6**:

Unit prices for Construction Item #6 will be paid through Construction Items #2 and #11. The unit contract price for these bid items shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

- G. Remove existing curb, ramp, and sidewalk/Replace per Construction Item **#7**:

Unit price per each to remove existing curb, ramp, and sidewalk, and replace per Construction Item #7. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

H. Remove existing curb, ramp, and sidewalk/Replace per Construction Item #8:

Unit price per each to remove existing curb, ramp, and sidewalk, and replace per Construction Item #8. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

I. Remove existing improvement/Replace per Construction Item #9:

Unit price per Square Foot (SF) to remove existing improvement, and replace per Construction Item #9. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

J. Remove existing curb ramp and improvements/Replace per Construction Item #10:

Unit price per each to remove existing curb ramp and associated curbs, and replace per Construction Item #10. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents

K. Install new concrete detectable warning truncated domes per Construction Item #11:

Unit price per Square Foot (SF) to install new detectable warning pavers per Construction Item #11. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

L. Remove existing asphalt and improvements over tunnel/replace per Construction Item #12:

Unit price per Square Foot (SF) to remove existing asphalt and rat slab over tunnel, and replace per Construction Item #12. The unit contract price for this

bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

M. Remove existing improvements/Replace per Construction Item **#13**:

Unit price per each to grind/inlay asphalt and place surface applied detectable warning pads per Construction Item #13. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

N. Remove existing curb ramp panel/Replace per Construction Item **#14**:

Unit prices for Construction Item #14 will be paid through Construction Items #2 and #11. The unit contract price for these bid items shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

O. Remove existing curb ramp and improvements/Replace per Construction Item **#15**:

Unit price per each to remove existing curb, curb ramp, and sidewalk, and replace per Construction Item #15. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

P. Salvage existing meter box/Adjust to new finish grade per Construction Item **#16**:

Unit price per each to salvage existing meter and/or valve box, and adjust to new finish grade per Construction Item #16. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

Q. Remove existing asphalt and rock/Replace per Construction Items **#17**:

Unit price per Square Foot (SF) to remove existing asphalt and rock, and replace with per Construction Items #17. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

R. Remove existing asphalt and rock/Replace per Construction Items #18:

Unit price per Square Foot (SF) to remove existing asphalt and rock, and replace with per Construction Items #18. The unit contract price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

S. Irrigation lateral line replacement:

Unit price per each five foot or less increment to remove existing irrigation lateral lines and appurtenances, and reroute per Earthwork specification 31 05 00. The project improvements may make rerouting of some irrigation lines necessary. The unit price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price shall meet the requirements of the Contract Documents.

T. Rainbird 1800 spray head replacement:

Unit price per each to install new Rainbird 1800 spray heads and appurtenances, per Earthwork specification 31 05 00. The unit price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price shall meet the requirements of the Contract Documents.

U. Hunter I-20 rotor head replacement:

Unit price per each to install new Hunter I-20 spray heads and appurtenances, per Earthwork specification 31 05 00. The unit price for this bid item shall be considered full payment for all related work, including work zone control, labor, materials, and equipment. The construction for this unit price shall meet the requirements of the Contract Documents.

V. Mobilization; Traffic, Pedestrian, & Fencing Control; Clean-up:

Unit price per Lump Sum (LS) for all mobilization. The unit contract price for this bid item shall be considered full payment for all project related work, including work zone control, tree protection, erosion control (if required), labor, materials, and equipment. The construction for this unit price item shall meet the requirements of the Contract Documents.

END OF SECTION

SECTION 01 24 76

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work of this Section includes forms and procedures for progress payments.
- B. Related work specified elsewhere.
 - 1. For the primary discussion of payments, refer to OSU General Conditions, Section E, as supplemented.
 - 2. In compliance with OSU General Conditions, Section K, no payments beyond 75% will be made by the Owner before two complete copies of the draft Operation and Maintenance Manuals have been received for review by the Owner.

1.02 APPLICATION FORMS

- A. For applications for payment, use sample contract payment request on company letterhead, or AIA Document G702, supported by AIA Document G703, Continuation Sheet, or similar document.
- B. Prepare the Schedule of Values in such a manner that each major item of Work and each subcontracted item of Work is shown as a line item broken down in terms of material and labor costs on AIA Document G703, Application Certification of Payment, Continuation Sheet or similar format. The sample continuation sheet shall be the minimum Schedule of Values breakdown.
- C. The Schedule of Values shall be submitted for review by the Owner prior to the first application for payment; and may be used when, and only when, accepted in writing by the Owner.
- D. Payment request is to include the Contractor's Federal Tax Identification number and return address.

1.03 PAYMENTS

- A. The Owner will make progress payments on account of the Contract once monthly for the scheduled duration of the project (i.e. three (3) payments on a three-month project), based on the value of work accomplished or materials on the job site, as stated in the Schedule of Values on the Application and Certificate Payment.
- B. Notwithstanding the foregoing, as this project is scheduled to take two (2) months to complete, Owner will only make two (2) payments, plus a final retainage payment, as applicable.
- C. Complete and forward Application to the Owner on or about the 15th day of each month for work performed the previous month and include certified payroll statements as specified in the OSU General Conditions.

- D. Submit one (1) copy of forms requesting payment to the Owner.
- E. Payments will be made on protected materials on hand at the job site properly stored, protected, and insured.
- F. Estimated quantities shall be subject to the Owner's review and judgment.

1.04 EARLY PURCHASE AND PAYMENT OF MATERIALS AND EQUIPMENT

- A. Order materials and equipment requiring a long lead or waiting time early so as not to delay progress of the Work.
- B. The Contractor will be reimbursed for early order materials or equipment upon receipt and verification of quality and quantity against submittals and shipping documents by the Owner's Authorized Representative.
- C. Receipt shall be to the job site or stored at Owner's other premises in an orderly and safe manner, secured from normal weather damage.
- D. Security remains the responsibility of the Contractor.

END OF SECTION

CONTRACT PAYMENT REQUEST

DATE: _____

TO: Administrative Services Accounting
Oregon State University
3015 SW Western Blvd
Corvallis, OR 97333

Payment Request No. _____ Contract No. _____ Period from _____ to _____

Project: _____

Original Contract Amount..... \$ _____

Change Orders (Net Amount) \$ _____

Contract Total to Date \$ _____

=====

Total Completed and Stored to Date \$ _____

Less Retainage (5%), if applicable \$ _____

Total Earned, Less Retainage (if applicable)..... \$ _____

Less Previous Payments \$ _____

Net Amount Due this Request \$ _____

The undersigned Contractor certifies that, to the best of his/her knowledge, information, and belief, the Work covered by this request has been completed in accordance with the Contract Documents, that all amounts have been paid for Work for which previous applications for Payment were issued and payments received from the Owner, and that the amount shown herein is now due.

Contractor: _____

By: _____ Date: _____

Federal Tax ID Number: _____

Address: _____

CONTINUATION SHEET

NOTES:

Amounts are stated to the nearest penny.
 Use Column I on Contracts where variable retainage for line items may apply,
 or if retainage is required.

Change Orders are usually listed as the last items of the basic schedule.

Project Name: _____

Application No.: _____

Date: _____

Period To: _____

WRN No.: _____

A	B	C	D	E	F	G		H	I
Item No.	Description of work	Scheduled Value	Work Completed		Materials Presently Stored (Not in D or E)	TOTAL Completed & Stored (D+E+F)	% Completed (G/C)	Balance to Finish (C-G)	Retainage
			From Previous Applications	This Period					
TOTALS									

SECTION 01 25 00

PRODUCT SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General requirements for the Work in relation to substitutions and product options.
- B. Submit to the Owner's property insurance carrier shop drawings, samples, and product data (such as manufacturer's standard schematic drawings and other literature) when required by individual Specifications sections.
- C. Related Work Specified Elsewhere
 - 1. Instructions to Bidders.
 - 2. OSU General Conditions.

1.02 REQUESTS FOR SUBSTITUTIONS

- A. Requests for substitution of products in place of those specified shall be in accordance with Instructions to Bidders, and as specified herein.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Investigate proposed products and determine that they are equal or superior in all respects to products specified.
- B. Provide same guarantee for accepted substitutions as for products specified.
- C. Coordinate installation of accepted substitutions into the Work, making such changes as may be required for the Work to be complete in all respects.

1.04 SUBSTITUTIONS DURING BIDDING

- A. Submit two (2) copies of the following information with each request to the Owner:
 - 1. CSI substitution request form.
 - 2. Comparison of proposed substitution with product, material or system specified.
 - 3. Complete data, substantiating compliance of proposed substitution with the Contract Documents.
 - 4. Test numbers and supporting reports, indicating compliance with referenced standards.
 - 5. Evidence that warranty requirements are acceptable.
 - 6. Details indicating specific deviations proposed for the substitution.
 - 7. Reference and applicable Specification sections.
 - 8. Applicable product samples.
- B. All substitution requests shall be received in the Owner's office no less than ten (10) calendar days before bid opening. Requests received after this date will not be considered.

1.05 SUBSTITUTIONS DURING CONSTRUCTION

- A. Substitutions will normally not be considered after date of Contract except when required due to unforeseen circumstances.
- B. Within a period of thirty (30) days after date of Contract, the Owner may, at its option, consider formal written requests for substitution of products in place of those specified, when submitted in accordance with the requirements stipulated herein.
- C. One or more of the following conditions must be documented in any such request:
 - 1. Required for compliance with final interpretation of code or insurance requirements.
 - 2. Required due to unavailability of a specified product.
 - 3. Required because of the inability of the specified product to perform properly or to fit in the designated space.
 - 4. Substitution would be substantially in the best interest of the Owner in terms of cost, time, or other considerations.

1.06 SUBSTITUTIONS NOT PERMITTED

- A. If implied on submittals without first requesting approval thereof.
- B. If acceptance will require substantial revision of the Contract Documents.

END OF SECTION

SUBSTITUTION REQUEST FORM

TO: _____

PROJECT: _____

SPECIFIED ITEM:

Section	Page	Paragraph	Description
---------	------	-----------	-------------

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes description of changes to Contract Documents which proposed substitution will require for its proper installation.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the Proposed Substitution are equivalent or superior to the Specified Item.

Submitted by:

Signature _____

Firm _____

Address _____

Date _____

Telephone _____

Attachments:

For use by Design Consultant:

Accepted Accepted as noted

Not Accepted Received too late

By _____

Date _____

Remarks _____

SECTION 01 31 19

PROJECT MEETINGS

PART 1 GENERAL

1.01 PRE-CONSTRUCTION MEETING

- A. Architect/Engineer/Designer, Contractor and Owner will meet prior to start of the Work (within seven (7) days after notice to proceed) to discuss at least the following topics and any others of mutual interest.
1. Schedule of Values
 2. Permit Status/tree protection/erosion control
 3. List of sub-contractors
 4. Job inspections.
 5. Early purchase of, and/or lead time requirements for material and equipment/repurchase of equipment
 6. Monthly payment date/SOP for pay requests
 7. Portion of site to be occupied by construction.
 8. Parking/Staging areas
 9. Non-smoking campus requirements
 10. Maintenance of access and safety.
 11. Processing of field decisions and change orders
 12. Labor provisions/labor rates for subs
 13. Material submittals/deferred submittals
 14. Owner access during construction.
 15. Review of Contract Documents/review ADA requirements/cross-slopes
 16. Coordination procedures and separate contracts.
 17. Progress schedules.
 18. Critical Work sequencing.
 19. Safety and emergency procedures/24 hour contact numbers
 20. Security procedures.
 21. Hazardous materials.
 22. Progress meetings.
 23. Contract close-out.
- B. Location of Meeting: Project site

1.02 PROGRESS MEETINGS

- A. The Contractor will schedule and administer progress meetings and will:
1. Prepare agendas.
 2. Schedule progress meetings, frequency, time and day to be determined during pre-construction meeting.
 3. Make physical arrangements for and preside at meetings.
 4. Record minutes and include decisions.
 5. Distribute copies of minutes to participants within four (4) days after meetings.

- B. Location of Meetings: Project site.
- C. Attendance:
 - 1. The Owner or Owner's Authorized Representative.
 - 2. Contractor.
 - 3. Subcontractors affected by agenda.
 - 4. Project Architect/Engineer/as necessary.
 - 5. Owner will attend meeting to ascertain Work is expedited consistent with progress schedule and with Contract Documents.
- D. Minimum Agenda:
 - 1. Review and approve minutes from previous meeting.
 - 2. Review Work progress since previous meeting.
 - 3. Discuss field observations, and problems.
 - 4. Review delivery schedules, construction schedule, and identify problems which impede planned progress.
 - 5. Review proposed changes.
 - 6. Material submittals.
 - 7. Note all new subcontractors performing Work at the job site.

END OF SECTION

SECTION 01 33 23

SHOP DRAWINGS, PRODUCT DATA, SAMPLES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submit to the Owner shop drawings, samples, and product data (such as manufacturer's standard schematic drawings and other literature) when required by individual Specifications sections.
- B. Related Work Specified Elsewhere
 - 1. Instructions to Bidders.
 - 2. OSU General Conditions.

1.02 SUBMITTAL SCHEDULING

- A. For items requiring review by the Owner only, submittals shall be sent to the Owner at least 15 calendar days before the date each is required for fabrication or installation.
- B. Submittals to be reviewed by Owner's consultants shall be sent to the Owner at least 20 calendar days before the date each is required for fabrication or installation.
- C. Submittals to be reviewed by Owner's property insurance carrier shall be sent to Owner as directed in individual specification sections.
- D. Submittals involving Substitution requests or other modifications requiring review by the Owner and/or the Owner's consultants shall be sent to the Owner at least 20 calendar days before the date each is required for fabrication or installation.

1.03 SUBMITTAL CONTENT AND FORMAT

- A. General Requirements:
 - 1. Shop Drawings: Submit in electronic format and, if requested by Owner's Authorized Representative, submit one reproducible transparency and 1 print of each drawing.
 - 2. Product Data: Submit electronically, and if requested by Owner's Authorized Representative, up to 6 hard copies.
 - 3. Samples: Submit the number and type stated in each Specification Section. Submit a minimum of three sets of color samples where color selection is required.
 - 4. Submittals shall include:
 - a. Date and revision dates return date requested.
 - b. Project title and number.
 - c. The names of the Contractor, subcontractor, supplier, and manufacturer.
 - d. Identification of product or material, with Specification Section number.

- e. Relation to adjacent critical features of work or materials.
 - f. Field dimensions, clearly identified as such.
 - g. Applicable standards, such as ASTM number or Federal Specification.
 - h. Identification of deviations from Contract Documents, and for products accompanied by Substitution request as required by Section 01 25 00.
 - i. Contractor's stamp legibly signed, essentially as follows:
 - 1) The undersigned, acting on behalf of the Contractor, certifies that this submittal has been reviewed and is approved; products have been verified as being as specified, field measurements and field construction criteria have been or will be coordinated, and the submittal is in compliance with Contract Documents.
5. Re-submission Requirements:
- a. Revise initial drawings as required and resubmit as specified for initial submittal.
 - b. Indicate on drawings any changes which have been made other than those requested by the Owner or the owner's consultants.
6. The Owner may return without review any submittal not meeting the requirements listed above.
- B. Shop Drawings:
- 1. Present data in a clear and thorough manner.
 - 2. Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Documents.
 - 3. Structural items shall be identified by location in the completed structure. Identify details by reference to contract sheet and detail numbers.
 - 4. Minimum sheet Size: 8 ½ x 11".
- C. Product Data:
- 1. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
 - a. Clearly mark each copy to identify pertinent product or models.
 - b. Show dimensions, weights, and clearances required.
 - c. Show performance data consisting of capabilities, ROM, KW, pressure drops, design characteristics and consumption; conforming as closely as possible to the test methods referenced in the Plans and Specifications.
 - d. Show wiring or piping diagrams and controls.
 - 2. Manufacturer's standard schematic drawings and diagrams:
 - a. Modify to delete information which is not applicable.
 - b. Supplement standard information to provide information specifically applicable to the Work.
- D. Samples:
- 1. Insure that samples are of sufficient size to indicate the general visual effect or color.
 - 2. Where samples must show a range of color, texture, finish, graining, or

- other property, submit sets of pairs illustrating the full scope of this range.
3. One (1) sample or one (1) set of approved samples will be retained by the Owner; final work will be measured against approved samples.

1.04 QUALITY ASSURANCE

- A. Process submittals in ample time for review, as applicable, so as to not delay the Work. All submittals shall be received by the Owner within ten (10) days after pre-construction.

1.05 DEFINITIONS

- A. The Owner will mark reviewed materials as follows:
 1. "No Exception Taken," which means fabrication, manufacture and/or installation may proceed.
 2. "Make Revisions Noted," which means fabrication, manufacture and/or installation may proceed with revisions as noted.
 3. "Revise and Resubmit," which means that fabrication, manufacture and/or installation may not proceed.
 4. "Rejected," which means do not proceed; make arrangements for the review of the proposed Work with the Owner as soon as possible.

1.06 PROCESSING

- A. Review submittals, make necessary corrections, and become familiar with the content of the submittals.
- B. Mark each item with Contractor's stamp.
- C. Accompany submittals with a transmittal letter bearing the project name, Contractor's name, number of items, and other pertinent data.
- D. Keep one copy of each reviewed submittal on the job site at all times.
- E. Be responsible for obtaining and distributing prints of shop drawings to the various suppliers, and the Owner once review process has been completed. Make prints of reviewed shop drawings only from transparencies which carry the appropriate stamp and endorsement.

END OF SECTION

SECTION 01 42 13

ABBREVIATIONS AND SYMBOLS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Words which may be found elsewhere in the Project Manual and Drawings are abbreviated in accordance with the standards set forth in the following table:

A/C	air conditioning	CFOI	contractor furnished owner installed
AB	anchor bolt	CG	corner guard
AC	asphaltic concrete	CH	ceiling height
ACT	acoustical tile	CI	cast iron
AD	area drain	CJ	control joint
ADD	addendum	CKBD	chalkboard
ADD'L	additional	CL	centerline
ADH	adhesive	CLG	ceiling
AFF	above finish floor	CLR	clear(ance)
AGG	aggregate	CM	construction manager
AL	aluminum	CMT	ceramic mosaic (tile)
ALLOW	allowable	CMU	concrete masonry unit
ALT	alternate	COL	column
ANOD	anodized	COM	communications
AP	access panel	CONC	concrete
APPRX	approximate	CONN	connect(ion)
ARCH	architect(ural)	CONST	construction
ASPH	asphalt	CONT	continuous or continue
AUTO	automatic	CONTR	contract(or)
AVE	avenue	CPT	carpet
		CRS	course(s)
BD	board	CS	countersink
BIT	bituminous	CSMT	casement
BLDG	building	CT	ceramic tile
BLKG	blocking	CTR	center
BM	bench mark, beam(s)	CVG	clear vertical grain
BOT	bottom	CW	cold water
BRZ	bronze	CWT	ceramic wall tile
BS	both side	CY	cubic yard
CB	catch basin	D	depth
CEM	cement	DEMO	demolish, demolition
CF	cubic foot	DEP	depressed

DF	drinking fountain	FD	floor drain, fire damper
DIA	diameter	FE	fire extinguisher
DIAG	diagonal	FEC	fire extinguisher cabinet
DIM	dimension	FF	factory finish
DISP	dispenser	FGL	fiberglass
DIV	division	FHMS	flathead machine screw
DL	dead load	FHWS	flathead wood screw
DMT	demountable	FIN	finish(ed)
DN	down	FLCO	floor cleanout
DP	dampproofing	FLR	floor(ing)
DR	door	FLUR	fluorescent
DS	downspout	FND	foundation
DT	drain tile	FOC	face of concrete
DTL	detail	FOIC	furnished by owner/installed by contractor
DW	dumbwaiter	FOIO	furnished by owner/installed by owner
DWG	drawing(s)	FOM	face of masonry
DWR	drawer	FP	fireproofing, flash point
EA	each	FPHB	freeze-proof hose bib
EB	expansion bolt	FR	fire resistive, fire rated
EF	each face	FRM	frame(d), (ing)
EJ	expansion joint	FS	full size
EL	elevation	FSS	finished structural slab
ELEC	electric(al)	FT	foot
EMBED	embedment	FTG	footing
EMER	emergency	FTS	finished topping slab
ENCL	enclose(ure)	GA	gage, gauge
EP	electrical panel board	GALV	galvanized
EQ	equal	GB	grab bar or gypsum board
EQUIP	equipment	GC	general contractor
EST	estimate	GI	galvanized iron
EVT	equiviscous temperature	GL	glass, glazing
EW	each way	GLS	glass resin wall surfacing
EWC	electric water cooler	GP	gypsum
EX.EXIT	existing	HB	hose bib
EXH	exhaust	HBD	hardboard
EXP	exposed	HC	hollow core
EXT	exterior	HD	heavy duty
FA	fire alarm	HDR	header
FAF	fluid applied flooring	HDW	hardware
FARF	fluid applied resilient floor	HM	hollow metal
FAS	fasten, fastener	HOR	horizontal
FBD	fiberboard		
FBT	finished blowing temperature		

HP	high point	MO#	model number
HR	hour	MOD	modular
HT	height	MPH	miles per hour
HTG	heating	MS	machine screw
HVAC	heating, ventilating, air conditioning	MTL	metal
HWD	hardwood	MULL	mullion
HWH	hot water heater	MWP	membrane waterproofing
ID	inside diameter, identification	NAT	natural, natural finish
IN	inch	NIC	not in contract
INCIN	incinerator	NO	number
INCL	include(d), ion)	NOM	nominal
INT	interior	NTS	not to scale
INV	invert	OA	overall
JB	junction box	OBS	obscure
JC	janitor's closet	OC	on center(s)
JT	joint	OD	outside diameter
KD	kiln dried	OF	overflow
KCP	Keene's cement plaster	OFCI	owner furnished contractor installed
KO	knockout	OFOI	owner furnished owner installed
KP	kick plate	OHMS	ovalhead machine screw
LAB	laboratory	OHWS	ovalhead wood screw
LAM	laminated	OPG	opening
LAV	lavatory	OPP	opposite
LBS	pounds	OZ	ounce(s)
LH	left hand	P	paint(ed)
LL	live load	PB	push button
LONGIT	longitudinal	PCF	pounds per cubic foot
LP	low point	PCP	putting coat plaster
LW	lightweight	PERF	perforate(d)
MAX	maximum	PL	plate, property line
MB	machine bolt	PLAM	plastic laminate
M. MECH	mechanic(al)	PLAS	plaster
MFR	manufacture(r)	PNL	panel
MH	manhole	PP	push plate
Min	minimum, minute	PR	pair
MISC	miscellaneous	PREP	prepare
MO	masonry opening	PSF	pounds per square foot
		PSI	pounds per square inch
		PT	point, pressure treated
		PTN	partition

PVC	polyvinyl chloride	SV	sheet vinyl
PWD	plywood		
QT	quarry tile	T	tread
R	rise	TBM	top bench mark
RA	return air	T&G	tongue and groove
RAD	radius	TB	towel bar
RCP	reflected ceiling plan	TC	top of curb
RD	roof drain	TEL	telephone
REF	reference	TEMP	tempered
REFR	refrigerator	THK	thickness
REINF	reinforce(ing)	TKBD	tackboard
REQ	required	TO	top of
RET'G	retaining	TP	top of paving
REV	revision(s), revised	TRANS	transverse
RH	right had	TS	top of slab
RM	room	TV	television
RO	rough opening	TW	top of wall
RSF	resilient sheet flooring	TYP	typical
		UNO	unless noted otherwise
SC	solid core	VAT	vinyl asbestos tile
SCHED	schedule	VB	vapor barrier
SEC	section	VCT	Vinyl Composition Tile
SF	square feet (foot)	VERT	vertical
SHT	sheet	VG	vertical grain
SHTHG	sheathing	VIF	verify in field
SIM	similar	VWC	vinyl wall covering
SL	sleeve		
SOG	slab on grade	W	width, wide, water
SPEC	specification(s)	W/	with
SQ	square	W/O	without
SS	storm sewer	WC	water closet
S4S	finished 4 sides	WD	wood, wood finish
SD	storm drain	WP	waterproof(ing)
ST	steel, street	WNS	wainscot
ST ST	stainless steel	WR	water resistant
STD	standard	WS	waterstop
STR	structural	WW	window wall
SUPP	supplement	WWC	wood wall covering
SUPT	support	WWF	woven wire fabric
SUSP	suspended		

B. Words which may be found elsewhere in the Project Manual and Drawings are abbreviated in accordance with the standards set forth in the following table:

&	and
λ	angle
@	at
\varnothing	diameter, round
"	inches
:	is, shall b
'	feet
ζ	perpendicular
/	per
%	percent
#	pound, number
X	by (as in 2 by 4)

END OF SECTION

SECTION 01 42 16

DEFINITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Words which may be found elsewhere in the Contract Documents are defined in accordance with the standards set forth in the following table:

Approve:

Where used in conjunction with Architect's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be limited to the Architect's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by Architect be interpreted as a release of Contract requirements.

As Detailed, As Shown:

Where "as detailed", "as shown" or words of similar importance are used, it shall be understood that reference to the Drawings accompanying the Specifications is made unless otherwise stated.

As Directed, As Required, As Authorized, As Reviewed, As Accepted:

Where "as directed", "as required", "as authorized", "as reviewed", "as accepted" or words of similar importance are used, it shall be understood that the direction, requirement, permission, authorization, review, or acceptance of the Architect is intended, unless otherwise stated.

As Indicated:

Where "as indicated" is used it shall be understood that reference to Drawings and/or Specifications is made unless otherwise stated.

Directed, Requested, etc.:

Terms such as "directed," "requested," "authorized," "selected," will be understood as "directed by Architect," "requested by Architect," and similar phrases shall not be interpreted to extend Architect's responsibility into Contractor's responsibility for construction supervision.

Furnish:

Except as otherwise defined in greater detail the term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

Indicated:

The term "indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications

and to similar means of recording requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for purpose of helping reader locate cross-reference and no limitation of location is intended except as specifically noted.

Install:

Except as otherwise defined in greater detail, the term "install" is used to describe operations at project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

Installer:

The term "installer" is defined as the entity (person or firm) engaged by Contractor, or its subcontractor or sub-subcontractor for performance of a particular unit of Work at project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (Installers) be expert in operations they are engaged to perform.

Provide:

Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.

END OF SECTION

SECTION 01 42 19**REFERENCE STANDARDS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Quality Assurance.
- B. Location of References.
- C. Schedule of References.

1.02 QUALITY ASSURANCE

- A. For products or quality of work specified by association, trade, or federal standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents.
- C. General Applicability of Standards: Except where Contract Documents include more stringent requirements, applicable standards of the construction industry have the same force and effect as if bound or copied directly into Contract Documents.
- D. Such standards are made a part of the Contract Documents by reference.
- E. Individual sections indicate which codes and standards the Contractor must keep at the project site, available for reference.
- F. Referenced industry standards take precedence over standards which are not referenced but recognized in industry as applicable.
- G. Non-referenced standards are not directly applicable to the Work, except as a general requirement of whether the Work complies with standards recognized in the construction industry.

1.03 LOCATION OF REFERENCES

- A. Valley Library, Oregon State University.

1.04 SCHEDULE OF REFERENCED ASSOCIATIONS

AIA American Institute of Architects

STANDARDS

01 42 19 - 2

	WWW.AIA.ORG
AISC	American Institute of Steel Construction WWW.AISC.ORG
AISI	American Iron and Steel Institute WWW.STEEL.ORG
ANSI	American National Standards Institute WWW.ANSI.ORG
APA	American Plywood Association WWW.APAWOOD.ORG
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers WWW.ASHRAE.ORG
ASTM	American Society for Testing and Materials WWW.ASTM.ORG
AWPA	American Wood Protection Association WWW.AWPA.COM
AWS	American Welding Society WWW.AWS.ORG
BIA	Masonry Institute of America WWW.MASONRYINSTITUTE.ORG
BOLI	Oregon Bureau of Labor and Industries WWW.BOLI.STATE.OR.US
CCB	Construction Contractors Board WWW.OREGON.GOV.CCB/
CDA	Copper Development Association WWW.COPPER.ORG
CISPI	Cast Iron Soil Pipe Institute WWW.CISPI.ORG
CSI	Construction Specification Institute WWW.CSINET.ORG
DEQ	Department of Environmental Quality (Oregon) WWW.OREGON.GOV/DEQ/

STANDARDS

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DHI	Door and Hardware Institute WWW.DHI.ORG
DOT	Department of Transportation WWW.DOT.GOV
EPA	U.S. Environmental Protection Agency WWW.EPA.GOV
FM	Factory Mutual System WWW.FMGLOBAL.COM
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) WWW.GSA.GOV/PORTAL/CONTENT/103856
IBC	International Building Code WWW.ICCSAFE.ORG
ICBO	International Conference of Building Officials PUBLICECODES.CITATION.COM/ICOD/IBG/INDEX.HTM
IRS	Internal Revenue Service WWW.IRS.GOV
ISA	Instrumentation Systems and Automation Society WWW.ISA.ORG
NAAMM	National Association of Architectural Metal Manufacturers WWW.NAAMM.ORG
NBFU	National Board of Fire Underwriters WWW.NFPA.ORG
NEC	National Electric Code WWW.NECPLUS.ORG
NEMA	National Electrical Manufacturers' Association WWW.NEMA.ORG
NESC	National Electrical Safety Code WWW.IEEE.ORG
NFPA	National Fire Protection Association WWW.NFPA.ORG

STANDARDS

NRCA	National Roofing Contractors' Association WWW.NRCA.NET
OAR	Oregon Administrative Rules ARCWEB.SOS.STATE.OR.US/404.HTML
OESP	State of Oregon Electrical Specialty Code http://www.bcd.oregon.gov/programs/online_codes.html
ORS	Oregon Revised Statutes LANDRU.LEG.STATE.OR.US/ORS/
OSHA	Occupational Safety and Health Administration WWW.OSHA.GOV
OSSC	Oregon Structural Specialty Code http://www.bcd.oregon.gov/programs/online_codes.html
PS	Product Standard STANDARDS.GOV/STANDARDS.CFM
SDI	Steel Door Institute WWW.STEELDOOR.ORG
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association WWW.SMACNA.ORG
SPRI	Single Ply Roofing Institute WWW.SPRI.ORG
SSPC	Steel Structures Painting Council WWW.SSPC.ORG
SWRI	Sealing, Waterproofing and Restoration Institute WWW.SWIRONLINE.ORG
UBC	Uniform Building Code (See ICBO)
UFC	Uniform Fire Code WWW.NFPA.ORG
UL	Underwriters' Laboratories, Inc. WWW.UL.COM
UMC	Uniform Mechanical Code WWW.UBC.COM

REFERENCE

STANDARDS

01 42 19 - 5

UPC	Uniform Plumbing Code WWW.UBC.COM
WHL	Warnock Hersey Laboratories WWW.INTEK.COM/MARKS/WH/
WCLIB	West Coast Lumber Inspection Bureau WWW.WCLIB.ORG
WWPA	Western Wood Products Association WWW.WWPA.ORG

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Codes, regulations and permits.
- B. Procedures for quality control.

1.02 OWNER RESPONSIBILITIES

- A. Owner will employ and pay for services of an independent testing laboratory to perform inspection, sampling and testing as required by local building authority.
- B. Owner's Authorized Representative will provide on-site observation during construction.

1.03 CODES, REGULATIONS AND PERMITS

- A. All Work shall conform with the Oregon Structural Specialty Code (OSSC) based on the International Building Code (IBC), as amended by the State of Oregon Building Codes Division and the edition designated by the governing authority.
- B. Contractor shall comply with all applicable state and local construction codes.
- C. References to codes, Specifications and standards referred to in the Contract Documents shall mean, and are intended to be, the latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents.
- D. The Owner shall be responsible for all permits and City of Corvallis plan review fees; the Contractor shall be responsible for all licenses and associated fees required for the Project.
- E. Contractor shall arrange and attend all required permit inspections and furnish evidence of approved City inspection reports per Section 01 77 00.

1.04 QUALITY OF WORK

- A. It is the true and specific intent of these Specifications that quality of Work on all phases of the construction and embracing all the trade sections shall be of high quality performed by workers skilled in their trade and performing their Work only according to the standard of best practice of the trade.
- B. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with manufacturer's directions unless otherwise specified.
- C. If Work is required in a manner to make it impossible to produce first quality Work, or should discrepancies appear among Contract Documents, request interpretation from Architect before proceeding with Work.

- D. Failure to secure interpretation may cause rejection by Architect or owner of installation.

1.05 LAYOUT

- A. Be responsible for properly laying out the Work and for lines and measurements for the Work.
- B. Verify the figures shown on the drawings before laying out the Work and report errors or inaccuracies to the Architect before commencing Work.
- C. Strict compliance with maximum slopes is required. Accessible parking spaces and adjacent access aisles with slope exceeding 2% in any direction, as determined by OSU, shall be removed and replaced by the contractor at their expense.
- D. Strict compliance with maximum slopes is required. New sidewalks exceeding 1:20 slope or with cross slope exceeding 2%, as determined by OSU, shall be removed and replaced by the contractor at their expense. Ramps exceeding 1:16 slope or with cross slope exceeding 2%, as determined by OSU, shall be removed and replaced by the contractor at their expense.

1.06 SUPERVISION

- A. The Contractor shall maintain effective supervision on the project at all times Work is being performed.
- B. The superintendent shall be the same person throughout the project and shall attend the preconstruction conference.

1.07 INSPECTIONS AND TESTING

- A. Contractor shall notify the Owner at least twenty-four (24) hours in advance of any required progress inspection or final inspection including final punch list inspection.
- B. Cooperate with laboratory personnel, provide access to Work and furnish incidental equipment material and labor required for field testing and sample taking.

1.08 EVALUATION OF TESTS AND INSPECTIONS

- A. Results of laboratory and/or field control tests and inspections shall be the principal basis upon which satisfactory completion of Work shall be judged.
- B. If results of tests and inspections indicate Work is below requirements of Contract Documents, that portion of Work is subject to rejection.

1.09 ADJUSTMENTS

- A. Remove and replace Work so rejected at Contractor's expense including costs of subsequent tests and inspections until Work meets requirements of Contract Documents.

- B. The Owner reserves the right to perform any testing as may be required to determine compliance with the Contract Documents.
- C. Costs for such testing will be the Owner's responsibility unless testing indicates noncompliance. Cost for such testing indicating noncompliance shall be borne by the Contractor.
- D. Noncomplying Work shall be corrected and testing will be repeated until the Work complies with the Contract Documents.
- E. Contractor will pay costs for retesting noncomplying Work.

END OF SECTION

SECTION 01 51 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition".
- C. Electrical Service: Comply with NEMA, NEC and UL standards and regulations for temporary electric service; install service in compliance with National Electric Code (NFPA 70).
- D. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use; obtain required certifications and permits if required.

1.03 PROTECTION

- A. Protect sidewalks, asphalt paving, concrete, trees, shrubs, and lawn areas at all times from damage resulting from construction activities.
- B. Prevent materials from clogging catch basins and yard drains; leave drains clean and in proper working condition.
- C. Protect Existing Irrigation Systems:
 - 1. In the event damage occurs to an underground irrigation system as a direct result of a Contractor's activities, the Contractor shall repair/replace or be assessed a charge at the discretion of the Owner.
 - 2. If repairs are to be made by the Contractor, the repairs will be inspected by the Owner's Authorized Representative prior to backfilling.
 - 3. Any galvanized pipe that requires repair shall be repaired at a threaded coupling, not by use of a compression coupling.
- D. Protect Existing Air Handling Systems:
 - 1. Contractor shall be responsible for protection of the cleanliness of the existing air handling system at all times. This protection shall include:
 - a. During site work or building demolition, prefilters shall be provided and maintained on all building outside air intakes at all times throughout the construction duration.
 - b. During any interior work that may create dust in the interior space and

adjacent corridor/hallways, air filters shall be provided and maintained on all affected air return and exhaust grilles. Where air flow in or out of the space is not required, all air duct openings shall be temporarily blanked off with plywood or sheet metal.

- c. Prior to starting any work, the Contractor shall record and submit to the Owner's Authorized Representative, pressure readings across all existing air handler air filter banks before installation of new prefilters.
 - d. Upon completion of all Work affecting existing air handling systems, the Contractor shall remove all temporary filters, covers and associated parts and restore the system to its original operating condition unless otherwise stated elsewhere in the Contract Documents
- E. Clean, repair, resurface, or restore existing surfaces to their original, or better, condition, or completely replace such surfaces to match existing, where damaged by construction operations.
- F. Security is the responsibility of the Contractor.
- G. Construction Debris:
- 1. Debris shall not be allowed to remain around the buildings during performance of Work, but shall be disposed of as rapidly as it accumulates.
 - 2. On completion of Work, the buildings and grounds shall be left in a condition that is equal to or better than original condition.
 - 3. In case of failure to do so, the Owner may remove rubbish and charge the cost to the Contractor.
- H. The Contractor shall manage a safe job environment for both the safety of all the people around the Work site as well as the safety of the Owner's and general public's property.
- I. The Contractor shall provide and maintain suitable barricades, shelters, lights, and danger signals during the progress of the Work; they shall meet the requirements of the local building code and OSHA.

1.04 DRAINAGE

- A. Verify that all rain drains in the construction areas are in working order and notify the Owner's Authorized Representative in writing of any rain drains that are plugged, prior to the start of the Work.
- B. Start of Work will be considered as acknowledgment that all drains are clear and in good working order.
- C. All drains shall be left in a clean and proper working condition.

1.05 CONSTRUCTION PROJECT SAFETY FORM

- A. Contractor shall submit to the Owner, prior to signing the Contract, the completed "Construction Project Safety Form", which is provided with instructions at the end of this Section.

1.06 TEMPORARY UTILITIES

- A. Temporary Utilities:
 - 1. Prepare a schedule indicating dates for implementation and termination of each temporary utility.
 - 2. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- B. Conditions of Use:
 - 1. Keep temporary services and facilities clean and neat in appearance.
 - 2. Operate in a safe and efficient manner.
 - 3. Take necessary fire prevention measures.
 - 4. Do not overload facilities or permit them to interfere with progress.
 - 5. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.
- C. Electrical Service:
 - 1. Service limited to 20 amp 120V circuits will be paid for by the Owner.
 - 2. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval.
 - 3. Coordinate with the Owner's Authorized Representative.
- D. Water Service:
 - 1. Service in reasonable quantities for the Project will be paid for by the Owner.
 - 2. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval.
 - 3. Coordinate with the Owner's Authorized Representative.

1.07 TEMPORARY SUPPORT FACILITIES

- A. Temporary Sanitary Facilities:
 - 1. Provide and maintain an adequate number of facilities for the use of all persons employed on the Work during construction.
 - 2. Provide enclosed, weatherproof facilities with heat as required.
 - 3. Use of new or existing Owner's facilities will not be permitted.
- B. Temporary Heat and Ventilation:
 - 1. As necessary, provide temporary heat and ventilation required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
- C. Telephone Equipment: Provide telephone communications at project site.
- D. Existing Services:
 - 1. Do not interrupt any existing service.

2. Prior request and approval of the Owner's Representative will enable the Owner to shut down any utility required by the Work.
3. Contractor shall not shut down utilities.

1.08 TEMPORARY BARRIERS AND ENCLOSURES

- A. Provide barriers and fencing to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage.
- B. Provide Commercial grade chain link fence construction.
- C. Provide 6 foot high fence around construction site as directed by Owner's Authorized Representative; equip with vehicular and pedestrian gates with lock.
- D. Exterior Closures: Provide temporary secured, weather-tight closures at exterior openings, to permit acceptable working conditions and protection of the Work.
- E. Interior Closures:
 1. Provide temporary floor to ceiling partitions (not plastic sheeting) and ceilings as required to separate work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas, to reduce construction noise, and to prevent damage to existing materials and equipment.
 2. Paint surfaces exposed to view from Owner occupied areas.

1.09 ODORS

- A. Work that causes excessive odors shall be performed only after coordination with the Owner's Authorized Representative. Filtering of air intakes to units may be required to prevent odors and vapors from entering the buildings.
- B. Contractor shall provide 7 days advance notice to the Owner's Authorized Representative in order for advance notice to be forwarded to building occupants. Work stoppage may occur if advance notification has not been coordinated or odors and vapors from the work are found to generate complaints from building occupants.

1.10 FIRE SAFETY

- A. Ensure that required exit routes remain unobstructed while building is occupied.
- B. Abide by all fire safety requirements for buildings under construction, alteration or demolition as required by Article 87, of the Uniform Fire Code as adopted by the State of Oregon.
- C. An emergency telephone shall be provided on site. Cellular telephone equipment is acceptable.
- D. Fire Suppression Equipment:
 1. Install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers", and NFPA 241 "Standard for Safeguarding Construction, Alterations and

Demolition Operations".

2. Maintain equipment in working condition with current inspection certificate attached to each.
3. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
4. Store combustible materials in containers in fire-safe locations.
5. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways, and other access routes for fighting fires.
- 6.
6. Provide continual supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
7. When possible, relocate hot work to a designated hot work area.
8. If the materials or equipment cannot be relocated to a designated hot work area, use the least hazardous form of hot work that will get the job done and prepare the area properly.
9. Manage mobile hot work using the formal hot work permit system. (mentioned in the next bullet point and also a directive in the OSU Hot Work Safety Program)
10. Make sure both fire protection and hot work equipment work properly.
11. Train all personnel involved in hot work operations and activities so that they have the understanding, knowledge, and skills necessary to safely perform their jobs.

1.11 CONSTRUCTION AIDS

- A. Scaffolding: comply with applicable OSHA requirements.
- B. Material Handling Equipment:
 1. Provide necessary cranes, hoists, towers, or other lifting devices.
 2. Use only experienced operators.
 3. Remove equipment as soon as possible after task is ended.
 4. Coordinate placement of such equipment with Owner's Authorized Representative.
 5. Obtain required permits and meet requirement of governing authorities regarding applicable regulations.
- C. Materials or debris shall not be allowed to free fall from building.
- D. The use of chutes or conveyors must be approved by Owner.

1.12 TEMPORARY CONTROLS

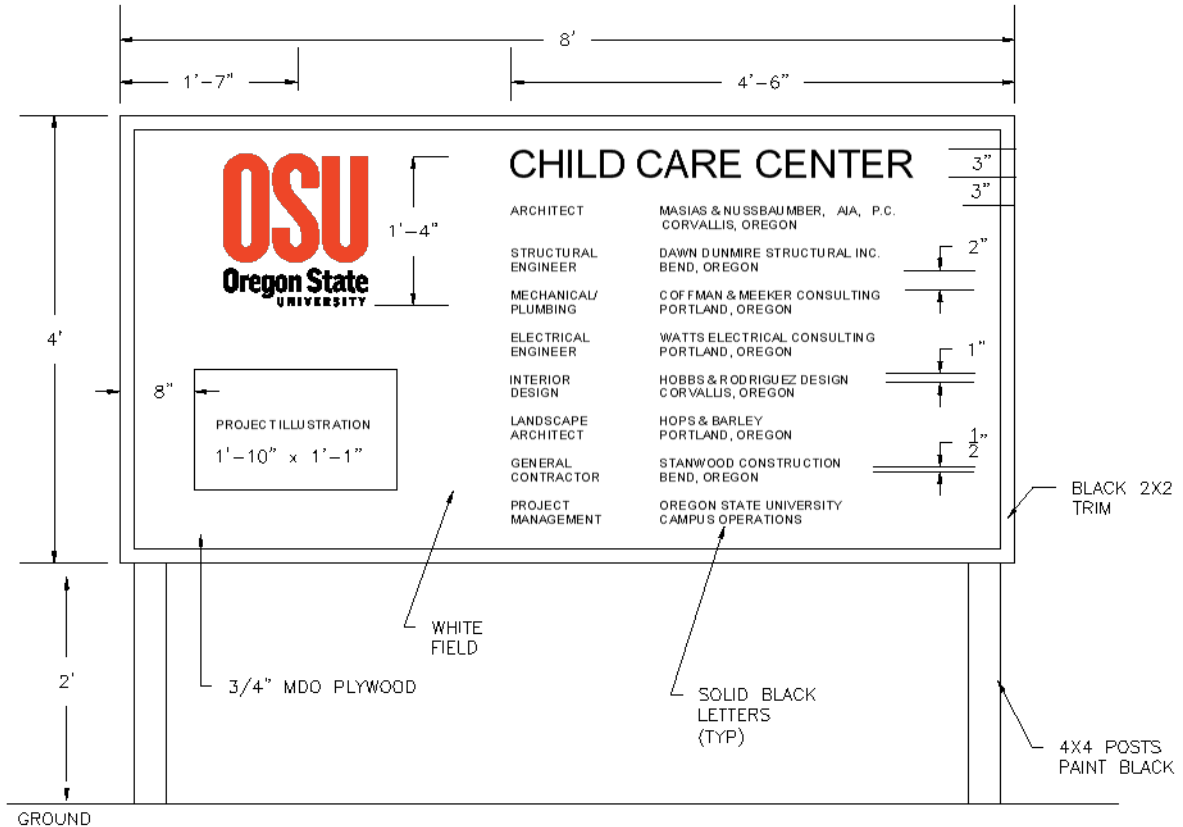
- A. Water Control:
 1. Maintain excavations free of water.
 2. Provide, operate, and maintain necessary pumping equipment.
- B. Protection:
 1. Protect installed Work and provide special protection where specified in individual specification sections.

2. Prohibit traffic or storage upon waterproofed or roofed surfaces.
- C. Security:
1. Provide security and facilities to protect Work and existing facilities and Owner's operations from unauthorized entry, vandalism, or theft.
 2. Coordinate operations with Owner's Authorized Representative.
- D. Temporary Traffic Control /Pedestrian Accessibility
1. A continuous route for all pedestrians, including persons with disabilities and bicyclists, shall be maintained at all times. When existing pedestrian facilities are disrupted, closed, or relocated in a construction zone, temporary pedestrian facilities shall be provided.
 2. Temporary pedestrian facilities should be safe and accessible. There should be no curbs or abrupt changes in grade that could cause tripping or be a barrier to wheelchair use.
 3. Signage shall be provided directing people to the temporary accessible route. The signage shall include the International Symbol of Accessibility.
 4. Contractors shall not block temporary walkways with vehicles, equipment, construction materials, signs, trash, or other objects that might prohibit pedestrian passage.
 5. Construction equipment and equipment operation must be separated from any open walkways. At construction zones, pedestrian fences or other protective barriers shall be provided to prevent access into the construction zone.

1.13 PROJECT SIGNAGE

- A. Contractor is permitted to post only one project identification sign based on the following example:

OSU TYPICAL JOB SIGN



1.14 PREPARATION

- A. Consult with Owner to review jobsite areas required for field offices, material storage and stockpiles, equipment storage, access to different locations, etc.

1.15 PERFORMANCE

- A. Confine equipment, apparatus, and storage of material to work limits. The Owner will not be responsible for protection of materials and equipment from damage, pilfering, etc.
- B. Install temporary facilities in such a manner that the installed work will not be damaged.
- C. Do not use facilities of existing building unless authorized in writing by the Owner.
- D. Effective September 1, 2012, OSU became a non-smoking campus and smoking is prohibited on all Campus property.
- E. Keep facilities well maintained.
- F. Relocate temporary facilities as required during job progress.

- G. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
1. Replace air filters and clean inside of ductwork and housings.
 2. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
 3. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION

Oregon State University Construction and Maintenance Safety Requirements

EH&S, 130 Oak Creek Building, Corvallis, OR 97331-7405, (541) 737-2505,
FAX (541) 737-9090

Complete OSU Construction and Maintenance Safety Form - Send completed documents (including Site Safety Plan and all separate answer pages) to Construction Contract Administration along with the signed contract and bonds.

Project Isolation - All construction and remodeling activities regardless of size and/or scope must be fenced, barricaded, or otherwise protected to restrict entrance and to ensure the safety of those in the general area. See isolation requirements.

Site Safety Plan - A site safety plan will be required and will address:

- General Information
- Emergency Information
- Key Organization Personnel
- Hazard Evaluation/Facility Impact
- Emergency Procedures
- Work Zones
- Security Measures
- Fire Protection

A model plan is attached. This form can be used if another plan has not already been prepared. Contact OSU Environmental Health & Safety for more information 737-2505.

Isolation Requirements

General: All construction, maintenance, and remodeling activities, regardless of size or scope, must be fenced, barricaded, or otherwise isolated to restrict entrance and to ensure the safety of those in the general area.

Outdoor Activities: Outdoor projects require the following perimeter isolation:

- A six foot chain-link fence, with controlled access points, extending in all directions around the excavation or building site such that no area of the construction is accessible to pedestrians or unauthorized personnel or vehicles.
- Isolation area will include vehicle loading and unloading areas.
- At the University's option, other barricading plans may be accepted. These may apply to projects such as road resurfacing, parking lot striping, exterior building water proofing, deliveries, etc. Contact EH&S regarding other barricading plans.

Overnight: Any excavation across or adjacent to sidewalks or pathways which must be left open overnight, must be identified with working, blinking construction lights in addition to solid barricades

Indoor Activities: Indoor construction or maintenance projects which will create dust, potentially hazardous fumes or vapors, or offensive odors are subject to the following isolation:

- Areas where existing doors can provide isolation will be labeled "Construction Area-- Authorized Personnel Only".

- All other areas will be isolated by a solid barrier. The minimum barrier allowed is 4 mil poly sheeting sealed to prevent migration of dust.
- Mechanical ventilation may be required.
- A solid wall is required if building envelope is opened to the outside.

Contractor Responsibilities

- The contractor will provide all barricading, isolation, and fencing material. OSU will not provide any materials.
- The contractor will also provide all appropriate warning and detour signs when sidewalks, exits, or roads are closed.
- Contractor will provide all other construction area signs.

OSU Construction and Maintenance Safety Form

Send completed safety documents to Construction Contract Administration with contract and bonds.

Date: _____ Project: _____
 Start Date: _____ Completion date: _____
 Contractor: _____ Contact: _____
 Work # _____ 24 hr #: _____
 OSU Project Mgr: _____ Work / 24hr #'s: _____
 Dept Contact: _____ OSU EH&S Contact: _____
 Preconstruction meeting? **Y N** Date/Time/Location: _____

For the following items, prepare answers on a separate sheet for all items marked "Yes". Precede each answer with the appropriate item number. All boxes need to be checked

Y	N	For This Project	If YES, then:
		1 Will any confined spaces be accessed?	Describe location of entry Specify location of permit Notify EH&S prior to entry See SAF 209
		2 Will hot work be performed (welding, cutting, brazing, etc.)?	Provide min. 5# 2A10BC extinguisher within 10 ft If indoors - provide and describe ventilation See SAF 214
		3 Any products brought to campus?	Provide MSDS on site prior to first use; Make available to OSU on request
		4 Will lead paint be impacted?	Describe plan to limit contamination
		5 Will asbestos-containing-material be impacted?	Coordinate with OSU asbestos manager
		6 Will <u>any</u> materials (construction debris, soil, water, etc) be removed from campus?	Describe in detail identity and disposition of material (how, where)
		7 Any open trenches or holes?	Describe isolation procedures (see Page 1)
		8 Will a crane be used?	Describe crane safety plan (include plan to prevent loads above occupied areas)
		9 Is this project building a new facility, a major remodel?	Provide Site Safety plan Describe isolation procedures (see Page 1)
		10 Is this a minor remodeling project?	Provide, or fill out model Site Safety Plan form (see Page 3) Describe isolation procedures (see Page 1)
		11 Will air contamination be produced (e.g. dust, CO, solvent vapors, VOCs, odors)?	Describe project ventilation and isolation Indicate position of building air intake(s)
		12 Will there be noise > 85 dB?	Describe noise minimization plan
		13 Will this project use a scaffold or an external chute?	Describe isolation, dust control, installation
		14 Will this project involve a working surface >6' above a lower level	Describe fall protection
		15 Will any "blind" saw-cuts or penetrations be made in existing foundations, floors, ceilings and/or walls?	Describe plan for detecting and protecting power lines or other building utility lines.

EH&S Review: _____ Date: _____

Model Site Safety Plan

1. General Information

Contractor name _____
 Address _____
 City, State, Zip _____
 Site Safety Officer _____ Project Dates _____
 Project Name _____

2. Emergency Information

Emergency Response	911	OSU EH&S and OSU Facilities Services must be notified in the event of an emergency
Hazardous Materials Spill		
MSDS on-site location		
OSU EH&S	(541) 737-2505	
Facilities Services	(541) 737-2969	

3. Contractor Key Personnel

	Name	Phone	Emergency Contact
Company Owner			
Project Manager			
Job Supervisor			
Site Safety Officer			
Other Responsible Individual			
24 Hour Notification			

List of employees on site _____

4. Hazard Evaluation/ Facility Impact	
Physical	Yes / No
Heavy Equipment	
Noise	
Heat	
Elevation	
Radiation Materials	
Excavations	
Underground Utilities	
Confined Spaces	
Fire Prevention	
Electrical	

5. Emergencies
Services
Evacuation Route
First Aid Location
Hazardous Materials Spill Procedure

6. Work Zones

Material Storage _____
 Parking locations _____
 Individuals with OSU keys _____
 Access issues _____

7. Security measures

8. Fire protection

SECTION 01 56 39

TREE AND PLANTING PROTECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section includes temporary fencing, barricades, and guards to protect trees, plants and groundcovers not indicated to be removed, as necessary and required to prevent damage above and below grade.

1.02 DEFINITIONS

- A. Dripline: Outer perimeter of branches of any tree or plant.
- B. Groundcover: Includes but not limited to plants and grass.

1.03 PERFORMANCE REQUIREMENTS

- A. The Contractor shall exercise utmost care to protect existing trees and plants designated to remain and shall comply with all protection requirements provided by Owner and City of Corvallis as conveyed through the Owner's Authorized Representative.
- B. The Contractor shall install tree protection fencing as detailed and shall prevent damage to shrubs, groundcover, trees, root systems, soil, bark, foliage, branches and limbs due to construction activities, including but not limited to:
 - 1. Soil contamination, erosion, and compaction.
 - 2. Excessive wetting, and ponding due to storm water, and construction run-off.
 - 3. Alteration of grade, stockpiling of soil, debris, and materials.
 - 4. Damage to soil, roots, bark, trunk, limbs, branches, and foliage.
 - 5. Prevent unauthorized cutting, breaking, skinning and bruising of roots, branches, and bark.

1.04 SUBMITTALS

- A. Procedural proposal for tree and plant protection, describe methods of protection, and stabilization, provide drawings and supporting documentation as directed.
- B. Contractor's Condition Inspection; include written report and color photographs.

1.05 PROJECT CONDITIONS

- A. Install protection during initial mobilization at the Work site, and maintain until substantial completion.
- B. If, in the opinion of the Owner's arborist, additional protection is required, the Contractor shall install additional fencing as directed and without cost to the Owner.
- C. The location and requirements for additional fencing shall be determined by the

Owner's arborist prior to, and at any time during the course of the Work.

- D. Fencing:
 - 1. Fencing shall be installed at the tree and plant protection areas as detailed on Plans, or as directed by the Owner's Authorized Representative.
 - 2. Tree and plant protection fences shall remain in place until all Work is completed and shall not be removed or relocated without the approval of the Owner's Authorized Representative.
- E. Driving and Parking:
 - 1. Not permitted off paved surfaces without the approval of the Owner's Authorized Representative.
 - 2. When approved, the Contractor shall place plywood of sufficient thickness and width to support vehicles and prevent rutting on the area to be driven on.
 - 3. Care shall also be taken with respect to existing lawn sprinkler systems.
- F. Storage of materials and Debris: Not permitted off paved surfaces.

PART 2 PRODUCTS

2.01 MANUFACTURED COMPONENTS

- A. Chain Link Fencing: 11 gage galvanized chain link, six feet. tall, and 1.5 inch inside diameter galvanized steel line posts and 2.5 inch inside diameter corner posts, provide lockable gates as necessary.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Inspect trees, plants, and groundcovers, document existing conditions prior to installation of protection.

3.02 EXECUTION

- A. Pruning and Cutting of Roots, Branches and Foliage:
 - 1. Review conditions with Architect or Owner prior to need for work, and proceed as directed.
 - 2. All pruning to be done by Owner's landscape maintenance personnel or ISA Certified arborist under the direction of Owner's Landscape Management Department.
 - 3. Perform pruning and cutting with sharp instruments intended for the purpose; do not break or chop.
- B. Root Cuttings:
 - 1. Carefully and cleanly cut roots and branches of trees indicated to be left standing where such roots and branches obstruct new construction.

2. Protect exposed roots with wet burlap until they can be covered with soil.
- C. Excavation and Trenching Within Drip Lines:
 1. Permitted where indicated, and at other specifically approved locations.
 2. Tunnel under or around roots by hand digging or boring.
 3. Do not cut main lateral roots and tap roots over one inch diameter; cut smaller roots which interfere with installation of new Work.
 4. Do not allow exposed roots to dry out before permanent backfill is placed; provide temporary earth cover, or pack with peat moss and wrap with burlap.
 5. Water and maintain roots in moist condition and temporarily support and protect from damage until permanently relocated and covered with backfill.
- D. Existing Grading: Maintain within drip line of trees and plants unless otherwise indicated on the drawing and approved by the Owner's Authorized Representative.
- E. Tree Protection:
 1. Provide temporary fence complying with Section 01 51 00 for protection of trees to remain.
 2. Extend fencing ten feet beyond dripline, except where greater distance is required for protection of Elm trees.
 3. Prevent entry into protected areas except as authorized in writing by the Owner's Authorized Representative.

3.03 REPAIR AND REPLACEMENT OF TREES AND PLANTS

- A. Repair trees or shrubs damaged by construction operations as directed by the Owner.
- B. Make repairs promptly after damage occurs to prevent progressive deterioration of damaged trees.
- C. Damaged Trees, Shrubs and Groundcover:
 1. Replace where Owner's Authorized Representative determines restoration to normal growth pattern is not possible; plant and maintain as directed.
 2. Replacement trees up to 13 inches caliper and shrubs up to 4 feet tall: Same size as damaged tree or shrub, species selected by the Owner's Authorized Representative.
 3. Trees over 13 inch caliper and shrubs greater than 4 feet tall: Compensate Owner as determined by an acceptable consulting arborist registered with the American Society of Consulting Arborists.
 4. Replacement groundcovers: Same size and quality as damaged species selected by Owner's Authorized Representative.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Summary:
 - 1. Product options.
 - 2. Owner-furnished products.
 - 3. Product delivery, storage and handling.

1.02 PRODUCTS

- A. Products:
 - 1. New material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
 - 2. Products may also include existing materials or components specifically identified for reuse.
- B. Use interchangeable components of the same manufacture for similar components.
- C. Unless otherwise specified, all material and equipment shall be new; free from defects impairing strength, durability, and appearance; of current manufacture.
- D. Items specified shall be considered minimum as to quality, function, capacity, and suitability for application intended.
- E. Items incorporated into the Work shall conform to applicable specifications and standards designated, and shall be of size, make, type, and quality specified.
- F. Design, fabricate, and assemble in accordance with current best engineering, industry, and shop practices.
- G. Manufacture like parts of duplicate units to standard size and gauge to make them interchangeable.
- H. Two or more items of the same kind shall be identical and made by the same manufacturer.

1.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.
- C. Products Specified by Naming One [or More] Manufacturer[s]: Products of manufacturer[s] named and meeting specifications, no options or substitutions

allowed.

D. Substitution Procedure: Under Section 01 25 00.

1.04 REUSE OF EXISTING PRODUCTS

- A. Except as specifically indicated or specified, materials and equipment removed from existing construction shall not be used in the completed Work.
- B. For material and equipment specifically indicated or specified to be reused in the Work:
 - 1. Use care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
 - 2. Arrange for transportation, storage, and handling of products which require off-site storage, restoration, or renovation.
 - 3. Remove and reinstall mechanical units, vents, guys, antennae, and electrical and grounding wires or conduits.

1.05 OWNER FURNISHED PRODUCTS

- A. Designate delivery dates of Owner-furnished items in the construction schedule.
- B. Receive, unload, store and handle Owner-furnished items at the site; protect from damage.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Transport, handle, store and protect products in accordance with manufacturer's instructions.
- B. Arrange deliveries in accordance with construction schedules; coordinate to avoid conflict with Work and site conditions.
- C. Deliver and store products in undamaged condition in manufacturer's original containers or packaging with identifying labels intact and legible.
- D. Inspect shipments to assure compliance with Contract Documents and reviewed submittals, and that products are undamaged.
- E. Prevent soiling or damage to products or packaging.
- F. Interior Storage: Maintain required temperature and humidity ranges. Verify that Owner furnished storage meets product manufacturer's requirements.
- G. Exterior Storage:
 - 1. Store materials above ground to prevent soiling and/or moisture infiltration.
 - 2. Cover materials with waterproof breathable sheet coverings; provide adequate ventilation.
 - 3. All storage locations to be approved in advance by the Owner.
- H. Arrange storage to provide access for inspection.
- I. Coordinate with Owner's Authorized Representative all on-site storage activities.
- J. Provide for security of stored products.

END OF SECTION

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements and limitations for cutting and patching of Work.

1.02 RELATED SECTIONS

- A. Section 01 25 00, Product Substitution Procedures.
- B. Section 01 33 23, Shop Drawings, Product Data, Samples

1.03 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of the Work.
 - 2. Efficiency, maintenance, or safety of any operational element.
 - 3. Visual qualities of sight exposed elements.
 - 4. Work of Owner or separate contractor.
- B. Include in request:
 - 1. Identification of project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting or alteration.
 - 4. Description of proposed work, and products to be used.
 - 5. Alternatives to cutting and patching.
 - 6. Effect on work of Owner or separate contractor.
 - 7. Written permission of affected separate contractor.
 - 8. Date and time work will be executed.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Primary Products: Those required for original installation.
- B. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of Section 01 25 00.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.

- B. After uncovering existing work, inspect conditions affecting performance of Work.
- C. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Provide temporary supports to ensure structural integrity of the Work.
- B. Provide devices and methods to protect other portions of the Work from damage.
- C. Provide protection from elements for areas which may be exposed by uncovering work.

3.03 CUTTING AND PATCHING

- A. Execute cutting, fitting and patching to complete work.
- B. Fit products together, to integrate with other work.
- C. Remove and replace defective or non-conforming work.
- D. Provide openings in the work for penetration of mechanical and electrical work.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.
- B. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior approval from Owner's Authorized Representative.
- C. Restore work with new products in accordance with requirements of Contract Documents.
- D. At penetrations of fire rated walls, partitions, ceiling or floor construction, completely seal voids with approved fire rated material, to full thickness of the penetrated element.
- E. Refinishing:
 - 1. Refinish surfaces to match adjacent finish.
 - 2. For continuous surfaces, refinish to nearest intersection or natural break.
 - 3. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01 74 00

CLEANING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Related requirements specified elsewhere, cleaning for specific products or work: Specification section for that work.
- B. Maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by operations.
- C. At completion of Work remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave project clean and ready for occupancy.

1.02 QUALITY ASSURANCE

- A. Standards: Maintain project in accord with applicable safety and insurance standards.
- B. Hazard Control:
 - 1. Store volatile wastes in covered metal containers.
 - 2. Provide adequate ventilation during use of volatile or noxious substances.

1.03 MATERIALS

- A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

1.04 DURING CONSTRUCTION:

- A. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- B. At reasonable intervals during progress of Work clean site and public properties, and dispose of waste materials, debris and rubbish.
- C. Provide on-site containers for collection of waste materials, debris and rubbish.
- D. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- E. Vacuum clean interior building areas when ready to receive finish painting, and continue vacuum cleaning on an as-needed basis until project is ready for Substantial Completion or occupancy.
- F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.05 FINAL CLEANING

- A. Employ experienced workers, or professional cleaners, for final cleaning.
- B. In preparation for Substantial Completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.
- C. Remove grease, dust, dirt, stains, labels, and other foreign materials from exposed interior and exterior finished surfaces.
- D. Remove putty, paint, labels, lubricants, etc., from windows, mirrors, and sash, and then polish, taking care not to scratch glass.
- E. Vacuum carpeting (shampoo where required), removing debris and excess nap.
- F. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
- G. Replace air filters where units were operated during construction.
- H. Maintain cleaning until project, or portion thereof, is occupied by Owner.

END OF SECTION

SECTION 01 77 00

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 DESCRIPTION

- A. The requirements specified in this section relate to all Contractors individually performing under these Contract Documents:
 - 1. Project Record Documents.
 - 2. Final review and payment.
- B. Related work specified elsewhere:
 - 1. OSU General Conditions.
 - 2. Shop Drawings, Product Data and Samples, Section 01 33 23.

1.02 PROJECT RECORD DOCUMENTS

- A. The Project Record Documents shall be organized to include the following information:
 - 1. Table of Contents
 - 2. Project Team List
 - 3. Specifications (Including Addenda and Change Orders)
 - 4. Drawings
 - 5. Inspection Reports, as applicable
 - 6. Signed Warranty(ies)
 - 7. Maintenance Instructions
- B. Draft Project Record Documents shall be submitted for review upon 75% completion of the Work.
- C. Project Record Documents shall be submitted electronically to the Owner. Hard copies will not be accepted.
- D. The project team list shall include the name, address, and phone number of the Owner, Contractor, Inspector, Subcontractors, and the materials manufacturers.
- E. Legibly mark each Specification section to indicate actual as-built condition indicating changes in the Work made by addenda or change order or actual materials used and actual manufacturer(s) used.
- F. Maintain current and accurate as-built mark-ups during construction and make available to Owner's Authorized Representative upon request.
- G. Legibly mark the drawings to indicate actual as-built conditions indicating changes in the Work made by addenda or change order or actual conditions which differ from the drawings.
- H. Redraw or provide new drawings as required for a complete as-built set of drawings. The Contractor shall maintain current and accurate as-built mark-ups during construction and make available to Owner's Authorized Representative.

- I. Include inspection reports if applicable.
- J. Include, in a single section, all copies of the Project's labor and material warranties clearly marked to identify the Owner's responsibilities under the terms of each warranty and the section of Work that each warranty covers. One set must be clearly marked as containing original documents.
- K. In the case of an elevator installation, the Contractor's and manufacturer's warranty shall provide for the Owner's right to respond to emergency/car failure situations for the purpose of extricating individuals trapped in the elevator.
- L. Include maintenance instructions complete with technical information and name, address, and phone number of the Contractor(s) and manufacturer(s) of each material and product.

1.03 FINAL REVIEW AND PAYMENT

- A. Prior to completion, the Contractor shall inspect the Work and make a Punch-list noting all items that are incomplete and/or incorrect.
- B. The Contractor shall notify all Subcontractors in writing of incomplete and/or incorrect items. Notify far enough in advance of the completion date that the Work can be completed on schedule. Said Work shall be immediately corrected.
- C. Should conditions prevail which prohibit some elements of the Work from being accomplished, but the work-in-place will perform the primary function (i.e., painting cannot be completed due to high moisture content of masonry walls.) the Contractor shall record the reason with this Punch-list item requesting temporary delay in completion from the Owner in writing.
- D. Notify the Owner in writing that all items are completed and ready for final review or else that the Work product is fully usable, but some listed deficiencies remain to be completed. Submit all record documents at this time.
- E. The Owner will review all documents. When the documents include a Contractor's request for delay in completion, the Owner will review all Work which is certified as complete to the best knowledge of the Contractor. The Owner will also review the listed incomplete Work and assign a value to such uncompleted work.
- F. The Contractor shall make the required corrections to the Work expeditiously. A letter will be addressed to the Contractor informing the Contractor of the project status.
- G. When Contract closeout procedures are completed and all Punch-list deficiencies have been corrected, provide Owner with final corrected Project Record Documents based on Owner's preliminary review. Correct Project Record Documents shall be in electronic format.
- H. Final Completion by the Owner will be documented and the Contractor will receive written notice of acceptance of the Work and notification that final

payment may be billed and released.

- I. All warranties shall commence and become effective beginning on the date of Substantial Completion.

END OF SECTION

SECTION 02 22 00
MOBILIZATION; TRAFFIC, PEDESTRIAN, AND FENCING CONTROL; CLEANUP

PART 1 – GENERAL

1.01 CONTRACT CONDITIONS

- A. Work of this Section is bound by the General Conditions and Supplemental General Conditions and Division 1, bound herewith, in addition to this Specification and accompanying Drawings.

1.02 DESCRIPTION

- A. This section covers all work necessary to conduct construction operations while providing the least possible obstruction and inconvenience to the Owner and the public, and to protect pedestrian and vehicular traffic.

1.03 RELATED WORK SPECIFIED ELSEWHERE

- A. Summary of Work, Section 01 11 00
- B. Unit Prices, Section 01 22 00
- C. Tree and Plant Protection, Section 01 56 39
- D. Earthwork, Section 31 05 00.
- E. Asphalt Paving, Section 32 12 16.
- F. Cast-in-Place Concrete, Curbs, and Gutters, Section 03 30 53

PART 2 – PRODUCTS

2.01 MATERIAL AND EQUIPMENT

- A. Furnish all supplies, equipment, tools, and incidentals shown on the contract drawings, and as required and adjusted to accomplish the work safely. All equipment and tools shall be in good operating condition and shall be kept in proper adjustment throughout the duration of the project. All materials and supplies shall be of good quality and suitable for the purpose intended. Provide and use all safety equipment including but not limited to signs, hard hats, safety vests, and clothing required by OR-OSHA, State and Federal regulations.
- B. Furnish and maintain 6-foot wire mesh fencing and 4-foot snow fencing shown on contract documents for protecting traffic, pedestrians, trees, and plants.
- C. Erosion Control for catch basins, if required by the City.

PART 3 – EXECUTION

3.01 GENERAL

- A. Flaggers, barricades, signs, and traffic control devices shall conform to the most recent edition of the Manual on Uniform Traffic Control Devices, (MUTCD), published by the U.S. Department of Transportation. Copies may be purchased from the

Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

- B. Temporary Traffic Control and Signing shall comply with the MUTCD, ODOT's *Short Term Traffic Control Handbook*, and the City of Corvallis' *Engineering Policy on Traffic Control for Construction Zones*, all latest editions.
- C. The Contractor shall provide and maintain such signs, barricades and warning lights as are necessary to warn and protect the public at all times on highways, roads and streets affected by Work operations. In addition, the Contractor shall also provide all necessary flaggers and guards necessary to warn and protect the public.
- D. The Contractor shall provide flaggers and guards for trucks delivering materials that need to back up to reach and/or leave the Work area.
- E. The Contractor shall patrol the traffic control area and reset all disturbed signs and traffic-control devices immediately, and will remove or cover all non-applicable signs during period not needed.
- F. In the event that the Contractor fails to provide and maintain proper barricades, signs and/or other traffic control devices within one hour after notification by the Owner, the Owner may install the barricades, signs, and/or other traffic control devices and bill the Contractor at the cost of the Owner's actual force account costs plus allowable markup, which shall include all labor, equipment and materials involved. When necessary, the Owner may deduct the amount owed from any payments due or coming due to the Contractor. The Contractor shall coordinate with the Owner's Authorized Representative and City Inspector, and notify the fire and police departments, Corvallis Transit Services, Corvallis Disposal, and the U.S. Postal Service at least 24 hours prior to any traffic restrictions, closures and/or detours in accordance with City of Corvallis Standard Construction Specifications, Section I.2. Access for fire and emergency equipment for the protection of buildings, lives, and property shall be maintained at all times. The Contractor shall be liable for any damages, which may result from failure to provide such reasonable access.
- G. The traffic control plan shall also include advance signs warning bicyclists of construction, detour routes and/or closures. No traffic control devices shall be permitted to be placed in the bike lane at any time except at the street closure area.
- H. Type II barricades shall be used on each approach of a removed sidewalk panel, ramp and excavated asphalt in the street. If there is no illumination existing in the work area, flashers shall be used on the barricades. **"Sidewalk Closed" signs shall be placed at each end of the block while construction is in process and until all panels in that section have been replaced.**
- I. It is the Contractor's responsibility to post and maintain "NO PARKING" signs marked with the date and time the sign was posted in addition to the date(s)/time(s) that no parking is in effect. "NO PARKING" signs shall be posted in accordance with the approved schedule forty-eight (48) hours prior to starting work in an area. The Contractor shall notify the Owner's Authorized Representative at least twenty-four (24) hours in advance of posting "NO PARKING" areas.

3.02 TRAFFIC CONTROL WITHIN THE PROJECT

- A. When necessary, public traffic shall be permitted to pass through the Work area with as little inconvenience and delay as possible.
- B. The Contractor shall provide access to Owner's properties at all times, except during certain stages of construction when, in the judgment of the Owner, it is impractical to carry on the construction and maintain traffic simultaneously.

- C. The Contractor shall coordinate with the Owner's Authorized Representative and City Inspector, and give occupants of property fronting a street at least 24 hours notice before more than half the street is closed to vehicular traffic, or when access to their property will be seriously impaired.
- D. When, in the judgment of the Owner, vehicular parking is a hazard to through traffic or the Work, the Contractor shall furnish, place, and maintain no parking signs on any street which is directly involved in the construction Work. The Contractor shall be liable for any damages during the duration of the contract, which may result from the Contractor's failure to provide proper traffic control.

3.03 CONSTRUCTION AND MAINTENANCE OF DETOURS

- A. Detours may be allowed for the protection of the Work or the safe passage of public traffic through the Work area. No complete road closure or detours will be permitted unless specifically approved by the City and Owner. The Contractor shall submit any closure or detour plans to the Owner's Authorized Representative for approval prior to the closure of any street or roadway.

3.04 ONE WAY TRAFFIC CONTROL

- A. When detours are not available or practical, the Contractor shall confine operations to a width, which provides for safe passage of traffic. If in the judgment of the Owner's Authorized Representative or City Inspector, one way traffic is necessary, the Contractor shall provide flag persons as necessary to control the traffic. At the end of each day the Contractor shall leave the Work in such condition that it can be traveled without damage to the Work, and without danger to the public.

3.05 TREE AND PLANT PROTECTION FENCING

- A. The Contractor shall place tree protection fencing as required by City Permit, City inspector, OSU arborist, and Owner's Authorized Representative. Fencing types are designated on the Plans.

3.06 WORK ZONE FENCING

- A. The Contractor shall use 6-foot wire mesh fencing to surround the Work zone with signage for traffic and pedestrian control.

3.07 EROSION CONTROL

- A. The Contractor shall place erosion control measures in catch basins, if required by the City or Owner's Authorized Representative.

PART 4 – MEASUREMENT AND PAYMENT

4.01 UNIT PRICE: MOBILIZATION

- A. The payment for this bid item shall be made at the contract unit price, and shall be on a lump sum basis. This unit price shall include all mobilization; traffic, pedestrian, and fencing control; clearing; grubbing; erosion control; and final clean-up per City of

Corvallis Standard Specifications Sections I.1, I.3, and I.4. This unit price shall also include all labor, equipment, and materials associated with notifications, signing, flagging, detouring, directing pedestrians, bicycles, and vehicular traffic through and around the construction areas, all 6-foot chain link fencing surrounding all work areas, and all 4-foot snow fencing and 6-foot chain link fencing for the protection of trees and plants, for the duration of the project. The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

END OF SECTION 02 22 00

SECTION 03 30 53

CAST-IN-PLACE CONCRETE, CURBS, AND GUTTERS

Part 1 - General

1.01 SECTION INCLUDES

- A. Cast in place concrete slabs, paving, footings, sidewalks, curbs, and gutters.

1.02 RELATED SECTIONS

- A. Summary of Work, Section 01 11 00
- B. Unit Prices, Section 01 22 00
- C. Tree and Plant Protection, Section 01 56 39
- D. Mobilization; Traffic, Ped., & Fencing Control; Cleanup, Section 02 22 00
- E. Earthwork, Section 31 05 00
- F. Asphalt Concrete Paving, Section 32 12 16

1.03 REFERENCES

- A. Refer to City of Corvallis Standard Specifications II.6.

1.04 SUBMITTALS

- A. Product Data: Provide data on admixtures.
- B. Mix Design: Submit mix design listing materials, products, and quantities for each concrete strength specified.

1.05 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of embedded utilities and components which are concealed from view.

1.06 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Acquire cement and aggregate from same source for all work.
- C. Conform to ACI 305R when concreting during hot weather.
- D. Conform to ACI 306R when concreting during cold weather.
- E. Conform to ACI 318 when constructing with reinforcing steel.

1.07 COORDINATION

- A. Coordinate work.

Part 2 - Products

2.01 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type I Normal, Portland type.
- B. Fine and Coarse Aggregates: ASTM C33, washed clean, free of deleterious substances; maximum size of 3/4 inch (18 mm) at exposed aggregate flatwork and 1-1/2 inch (38 mm) elsewhere, and not larger than 1/5 of narrowest space between forms, 1/3 of slab depth, nor 3/4 (18 mm) of minimum clear space between reinforcing bars.
- C. Water: Clean and not detrimental to concrete.

2.02 ADMIXTURES

- A. Air Entrainment: ASTM C260.
- B. Chemical: ASTM C494 Type A Water Reducing admixture; containing no set accelerating, set retarding compounds, chloride or nitrates.

2.03 ACCESSORIES

- A. Bonding Agent: Neat cement paste, mixed to thick, brushable consistency.
- B. Non Shrink Grout:
 - 1. Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
 - 2. Capable of developing minimum compressive strength of 2,400 psi in 4 hours and 7,000 psi (48 MPa) in 28 days.
 - 3. Brands:
 - a. Horn Non-corrosive Non-shrink Grout manufactured by A.C. Horn Inc.
 - b. Masterflow 928 Grout manufactured by Master Builders Technologies
 - c. Non-Ferrous, Non-Shrink Grout manufactured by Burke
 - d. 588 Non-Shrink Non-Ferrous Grout manufactured by W.R. Meadows, Inc.
 - e. SonogROUT 14K manufactured by Sonneborn-Rexnord
- C. Snap Tie Plugs: Preformed, non-shrink grout plugs to fill holes left by form ties; size to flush with wall surface; matching adhesive.

- D. Tie-Through Bolt Plugs: Vinyl plug, size for installation at center of wall.
- E. Hardener/Sealer: ASTM C309, Type 1 clear; non-yellowing; acrylic copolymer; TIAH manufactured by W.R. Meadows, or approved.
- F. Curing/Sealing Compound: ASTM C309, Type 1 clear; non-yellowing; acrylic polymer; CS-309 manufactured by W.R. Meadows, or approved.
- G. Expansion Joint Filler
 - 1. Manufacturer & Brand: Sonneborn Sonoflex F, or approved
 - 2. Thickness: 3/8 inch
 - 3. Depth: As required to position Filler top 3/4 inch below Slab top.
- H. Expansion Joint Sealing Compound
 - 1. Manufacturer & Brand: Sonneborn Sonolastic Paving Joint Sealant, PRC Rubbercalc 220, or approved.
 - 2. Color: Gray

2.04 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ASTM C94.
- B. Types of Concrete:
 - 1. Type A Concrete: Provide concrete to the following characteristics for footings, sidewalks, curbs, and gutters:

<u>UNIT</u>	<u>MEASUREMENT</u>
Compressive Strength (28 day)	4000 psi
Minimum Cement Content	6 sacks per cubic yard
Maximum water/cement ratio	0.45
Air	5% ± 1%
Maximum Slump	4 inch
Commercial Mix	

- 2. Type B Concrete: Provide concrete to the following characteristics for paving:

<u>UNIT</u>	<u>MEASUREMENT</u>
Compressive Strength (7 day)	3000 psi
Compressive Strength (28 day)	4000 psi
Minimum Cement Content	7 sacks per cubic yard
Maximum water/cement ratio	0.40
Air	5% ± 1%
Maximum Slump	4 inch
Commercial Mix	

- C. Use accelerating admixtures in cold weather only when approved by Engineer or Owner's authorized representative. Use of admixtures will not relax cold weather placement requirements.
- D. Use set retarding admixtures during hot weather only when approved by Engineer.
- E. Fly Ash may be used to replace up to 20% of the cement content (by weight) in non-architecturally exposed concrete.

2.05 REINFORCING STEEL

- A. Use ASTM Grade 60.
- B. Use reinforcing steel size as called out on Drawings.

Part 3 - Execution

3.01 EXAMINATION

- A. Ensure reinforced steel is placed as called out on the Drawings in accordance with ACI 318.
- B. Verify requirements for concrete cover over reinforcement.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.

3.02 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Place successive concrete within 2 hours.

3.03 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301.
- B. Notify Engineer and Owner's authorized representative minimum 48 hours prior to commencement of operations.
- C. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints, and other items are not disturbed during concrete placement.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Place concrete continuously between predetermined expansion, control, and construction joints.

- F. Screed slabs level, maintaining surface flatness of maximum 1/4 inch in 10 ft.
- G. Do not convey concrete through aluminum pipe.

3.04 CONCRETE FINISHING

- A. Provide formed concrete surfaces to be left exposed with sack rubbed finish as scheduled in this Section.

3.05 CONCRETE WALK FINISHING

- A. Draw fine hairline broom across concrete perpendicular to walkway direction.

3.06 WALKWAY EDGING

- A. Before final finishing is completed and before final concrete set has occurred, finish concrete edges with edging tool shaped with ¼ inch radius.
- B. Take particular care to maintain surface on both sides of joint in same plane.
- C. Do not use kneeling planks on concrete surface.

3.07 WALKWAY JOINTS

A. General

1. Make perpendicular to line of walkway.
2. Layout joints in accordance with approved drawings
3. Form to true straight lines with slabs flush at joints.

B. Construction Joints

1. Provide when placing fresh concrete against hardened concrete or other structures.
2. Space joints no greater than 25 ft apart.
3. Provide expansion joint fillers in joints and up to level of walkway surface with expansion joint sealing compound.

C. Weakened-plane Shrinkage-control Joints:

1. Locate as shown on the drawings, equally spaced between spans where not dimensioned or aligned with other elements.
2. Joint Depth: 1/3 of Slab thickness
3. Joint Width: 1/8 inch

3.08 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Apply curing/sealing compound to freshly finished concrete slabs, in accordance with manufacturer's recommendations.

3.09 FIELD QUALITY CONTROL

- A. Field inspection and testing shall be performed in accordance with ACI 301.
- B. Provide free access to Work and cooperate with the appointed firm.
- C. Submit proposed mix design of each type of concrete to inspection and testing firm for review prior to commencement of Work.
- D. Tests of cement and aggregates may be performed to ensure conformance with specified requirements.
- E. Four concrete test cylinders will be taken for every 100 or less cu yds of each type of concrete placed per day. Cylinders will be prepared in accordance with ASTM C31.
- F. One additional test cylinder will be taken during cold weather concreting, cured on job site under same conditions as concrete it represents.
- G. Concrete test cylinders will be laboratory tested in accordance with ASTM C39.
- H. One slump test will be taken for each set of test cylinders taken in accordance with ASTM C143.

3.10 PATCHING

- A. Allow Engineer or Owner's authorized representative to inspect concrete surfaces immediately upon removal of forms.
- B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.
- C. Patch imperfections in accordance with ACI 301.
- D. Patch form tie holes to be watertight and to match appearance of formed surfaces.

3.11 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.

- B. The Engineer or Owner's authorized representative will determine repair or replacement of defective concrete.
- C. Do not patch, fill, touch up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.

Part 4 - Measurement and Payment

4.01 UNIT PRICE: 4-INCH THICK CONCRETE SIDEWALK

- A. The purpose of this unit price item is to remove existing sidewalk and/or improvements and replace with new sidewalk compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a square foot (SF) basis. The unit price includes all labor, materials, and equipment associated with the construction of the sidewalk, including street cuts, excavation, haul off, backfill, baserock, and landscape repair (soil replacement, grass seeding as needed). The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.02 UNIT PRICE: 6-INCH THICK CONCRETE SIDEWALK

- A. The purpose of this unit price item is to remove existing sidewalk and/or improvements and replace with new sidewalk compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a square foot (SF) basis. The unit price includes all labor, materials, and equipment associated with the construction of the sidewalk, including street cuts, excavation, haul off, backfill, baserock, and landscape repair (soil replacement, grass seeding as needed). The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.03 UNIT PRICE: 16-INCH STRAIGHT CONCRETE CURB

- A. The purpose of this unit price item is to remove existing curb and/or improvements and replace with new 16" straight concrete curb compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a linear foot (LF) basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, placement of crushed aggregate baserock, and landscape repair. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.04 UNIT PRICE: REPLACE CONCRETE AND DETECTABLE WARNING TILE

- A. The purpose of this unit price item is to remove approximately 3' X 48' of existing tooled detectable warning concrete, while protecting existing ballards, and replace with new concrete and "Access Tile" detectable warning panels to match the existing panels across the street, and to be compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, placement of crushed aggregate baserock, concrete, and new detectable warning tile. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.5 UNIT PRICE: CONSTRUCT 3 NEW CURB RAMPS

- A. The purpose of this unit price item is to remove existing transition curbs, curb ramps, and improvements to construct 3 curb ramps compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, placement of crushed aggregate baserock, and landscape repair. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.6 UNIT PRICE: CONSTRUCT NEW CURB RAMP SIMILAR TO ADJACENT RAMP

- A. The purpose of this unit price item is to remove the existing ramp and improvements to construct an ADA compliant ramp similar to the ramp 90 feet to the east, including the placement of approximately 26 LF of 16" curb and 10 LF of concrete detectable warning panels (20 SF). The associated asphalt replacement will be paid by its respective unit price.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, and placement of crushed aggregate baserock. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.7 UNIT PRICE: CONSTRUCT 4 NEW CURB RAMPS

- A. The purpose of this unit price item is to remove the existing ramp and improvements to construct an ADA compliant ramp that aligns with the ramp

across the roadway. This unit price item includes the 6" thick ramp, concrete detectable warnings, and the new curb for the ramp. Replacement of the concrete roadway at the new ramp and existing ramp, and the curb and sidewalk replacement at the existing ramp will be paid using different unit prices.

- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, and placement of crushed aggregate baserock. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.8 UNIT PRICE: 8-INCH REINFORCED CONCRETE

- A. The purpose of this unit price item is to remove existing improvement and replace with new reinforced concrete compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a square foot (SF) basis. The unit price includes all labor, materials, and equipment associated with the construction of the pavement, including street cuts, excavation, haul off, backfill, baserock, and landscape repair. The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.9 UNIT PRICE: CONSTRUCT 2 NEW CURB RAMPS

- A. The purpose of this unit price item is to remove existing transition curbs, curb ramps, and improvements to construct 2 curb ramps compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, placement of crushed aggregate baserock, and landscape repair. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.10 UNIT PRICE: INSTALL NEW CONCRETE DETECTABLE WARNING PAVERS

- A. The purpose of this unit price item is install new concrete detectable warning truncated dome panels, compliant with ADA requirements. The associated concrete will be paid using a different unit price.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a square foot (SF) basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.11 UNIT PRICE: 11"+/- REINFORCED CONCRETE OVER TUNNEL TOP WITH DETECTABLE WARNING PANELS

- C. The purpose of this unit price item is to remove existing asphalt and/or improvements over tunnel, under a road, and replace with 11-inch thick reinforced concrete over new tunnel waterproofing, compliant with ADA requirements. This unit price includes placing tunnel waterproofing and detectable warning panels per the plans. The adjacent curb and asphalt replacement will be paid using different unit prices.
- D. The payment for this bid item shall be made at the contract unit price, and shall be paid on a square foot (SF) basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including tunnel waterproofing, detectable warning panels, street cuts, excavation, haul off, placement of crushed aggregate baserock, and landscape repair. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.12 UNIT PRICE: CONSTRUCT NEW CURB RAMP

- A. The purpose of this unit price item is to remove the existing ramp and improvements to construct an ADA compliant ramp. This unit price item includes the 6" thick ramp, associated ramp flares, concrete detectable warnings, and the approximately 24 LF of new 16" curb for the ramp.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the placement of this item, including street cuts, excavation, haul off, and placement of crushed aggregate baserock. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

4.13 UNIT PRICE: ADJUST METER BOX & VALVE CONTROL BOX

- A. The purpose of this unit price item is to adjust existing meter and valve control boxes to the new finish grade in the sidewalk, compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price includes all labor, materials, and equipment associated with the adjustments. The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

END OF SECTION 03 30 53

SECTION 31 05 00 EARTHWORK

PART 1 – GENERAL

1.01 CONTRACT CONDITIONS

- A. Work of this Section is bound by the General Conditions and Supplemental General Conditions and Division 1, bound herewith, in addition to this Specification and accompanying Drawings.

1.02 DESCRIPTION

- A. SCOPE: This section specifies earthwork which consists of sawcutting and removal of pavement, excavation, backfilling, compacting, grading, disposal of excess material, and irrigation repairs and/or modifications.
- B. DEFINITIONS: Refer to the City of Corvallis Standard Construction Specifications, Technical Requirements, Section II.1.B DEFINITIONS.
- C. PROTECTION: Site preparation shall not damage structures, landscaping or vegetation adjacent to the site. The Contractor shall repair, or replace any damaged property.

1.03 RELATED WORK SPECIFIED ELSEWHERE

- A. Summary of Work, Section, 01 11 00
- B. Unit Prices, Section 01 22 00
- C. Tree and Plant Protection, Section 01 56 39
- D. Mobilization; Traffic, Pedestrian, and Fencing Control; Cleanup, Section 02 22 00
- E. Cast-In-Place Concrete, Curbs, and Gutters, Section 03 30 53
- F. Asphalt Concrete Paving, Section 32 12 16

1.04 SUBMITTALS

- A. The Contractor shall submit to the Owner's Authorized Representative for approval, a gradation analysis for baserock and drain rock, certifying compliance with these specifications.
- B. The following licensed landscape contractor is pre-approved: Rexius (Eugene). Or other Landscape Contractor if approved by the Owner's Authorized Representative prior to the bid utilizing the Substitution Request procedure described in Section 01 25 00. Substitution requests are due one week prior to the bid opening date.

1.05 QUALITY ASSURANCE

- A. REFERENCES:
 - 1. All work shall be conducted in accordance with the City of Corvallis Standard Construction Specifications, Technical Requirements, hereinafter referred to as "the Standards".

2. United States Department of Agriculture (USDA): Soil textural classification chart.
- B. COMPACTION TESTS:
1. Testing shall be in accordance with Section II.1.E of the Standards except that compaction testing shall be at the expense of the Owner, and the testing shall comply with ASTM D1557, unless otherwise specified. If the tests indicate that recompaction is necessary, recompaction testing required to meet the specified compaction shall be at the expense of the Contractor.
 2. The Contractor is responsible for implementing and coordinating all compaction testing with the Owner Authorized Representative and the Special Testing Agency. The Contractor shall not backfill over any areas (including trenches, pipe bedding, subgrade, etc.) unless compaction testing results comply with specifications, or the Owner Authorized Representative has provided approval to proceed.

PART 2 – MATERIALS

2.01 CRUSHED AGGREGATE

- A. Backfill for areas to be paved, from subgrade to finish grade, shall be $\frac{3}{4}$ "-0" crushed aggregate baserock meeting the requirements of Section II.3.C of the Standards.
- B. Backfill for trench bedding and pipe zones in landscaped areas shall also be $\frac{3}{4}$ "-0" crushed aggregate as described above. Backfill in landscaped areas above the pipe zone to within 2 feet of finished grade shall be native material if the Owner's Authorized Representative determines it meets the requirements of Section III.1.C.05.1 of the Standards, however, the Contractor shall be prepared to provide $\frac{3}{4}$ "-0 crushed aggregate at no additional cost. The top 2 feet of backfill in landscaped areas shall be approved imported topsoil.
- C. Backfill for trench bedding, pipe zones, and subsequent backfill under paved areas shall be $\frac{3}{4}$ "-0" or 1"-0" crushed aggregate as described above.
- D. Backfill for overexcavated areas shall be approved quarry rock, 3"-0", per Section II.2.C.02 of the Standards.

2.02 GEOTEXTILE FABRIC

- A. Subgrade Geotextile material (see Table 02320-4 of the ODOT Special Provisions and installation shall conform to ODOT's "Oregon Standard Specifications for Construction", Section 02320 and 00350, respectively.
- B. Drainage Geotextile material and installation shall conform to ODOT's "Oregon Standard Specifications for Construction", Section 02320 and 00350, respectively. The drainage geotextile material shall be Type 2.
- C. Pavement Overlay Geotextile material and installation shall conform to ODOT's "Oregon Standard Specifications for Construction", Section 02320 and 00350, respectively.

2.03 IMPORTED TOPSOIL

- A. All imported topsoil material shall conform to USDA textural classification of "LOAM", and shall be free of rock, clay, subsoil, clods, lumps plants, roots, sticks, weeds, seeds, and other deleterious material.

- B. The Contractor shall gain approval for the supplier of the proposed imported topsoil, from the Owner's Authorized Representative prior to site delivery.

2.04 NATIVE BACKFILL

- A. Native on-site fine grained soils, free of roots larger than 1-inch in diameter, rocks, debris, clods, clay, and vegetation. Material shall be conditioned to near optimum moisture content prior to placement.

2.05 LAWN SEED

- A. All lawn seed shall be Champion Perennial Rye Grass, unless otherwise approved by Owner.
- B. Certified Oregon Blue Tag Free of Weed Seed with Dealer's Statement of Analysis Guarantee.
- C. Current of latest season's crop labeled in conformance with State and US Department of Agriculture laws and regulations.
 - 1. Purity: 98% by weight.
 - 2. Germination: 90%.

2.06 IRRIGATION LINES

- A. Irrigation repairs and modifications shall be made utilizing Schedule 40 PVC pipe and fittings matching existing pipe sizes.
- B. If galvanized pipe is encountered, thread pipe and provide a threaded galvanized to PVC adapter. If pipe is not threadable, find nearest joint and replace with PVC.

2.07 SPRINKLER HEADS

- A. Replace sprinkler heads with the same manufacturer and model as the original.
 - 1. Rainbird 1800 spray head and associated appurtenances (i.e., fittings, funny pipe, appropriate nozzle, etc.).
 - 2. Hunter I-20 rotor head and associated appurtenances (i.e., fittings, funny pipe, appropriate nozzle, etc.).

PART 3 – EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, pavements, plants, planting areas, and other facilities from damage caused by settlement, lateral movement, undermining, erosion, and other hazards caused by earthwork operations.
- B. Protect subgrades against freezing temperatures. Provide insulation to protect as necessary.
- C. Provide measures to prevent erosion or displacement of soils either by water or air to adjacent properties.
- D. Provide adequate measures to protect workmen and job site passers-by. Contractor shall provide 6-foot chain-link fence as called out on Contract Documents, and when safety conditions warrant, as determined by the Owner Authorized Representative.

- E. Protect irrigation in the vicinity of the Work. In the event modifications need to occur, Contractor's pre-approved Landscape Sub-Contractor shall coordinate, and gain approval of means and methods prior to performing the Work.

3.02 CONTROL OF WATER

- A. The Contractor shall keep excavations reasonably free from water during construction in accordance with Section III.1.D.05 of the Standards, in addition to the following requirements.
- B. The static water level shall be drawn down a minimum of 1 foot below the bottom of excavations to maintain the undisturbed state of natural soils and allow the placement of any fill to the specified density. Disposal of water shall not damage property or create a public nuisance. The Contractor shall have on hand pumping equipment and machinery in good working condition for emergencies and shall have workmen available for its operation. Dewatering systems shall operate continuously until backfill has been completed to 1 foot above the normal static groundwater level.
- C. Groundwater shall be controlled to prevent softening of the bottom of excavations, or formation of "quick" conditions. Dewatering systems shall not remove natural soils. The Contractor shall control surface runoff to prevent entry or collection of water in excavations.
- D. Release of groundwater to its static level shall be controlled to prevent disturbance of the natural foundation soils or compacted fill and to prevent flotation or movement of structures or pipelines.
- E. Provide and maintain ample means and devices with which to promptly remove and dispose of all water entering the excavation. Keep all excavations free of water during the entire progress of the work.
- F. Provide for surface drainage during the period of construction in a manner to avoid creating a nuisance to adjacent areas.
- G. Site subgrade soils are sensitive to wet weather conditions and construction disturbance. Exposed subgrade shall be protected. Any disturbance resulting from inadequate care and protection shall be corrected at the Contractor's expense.

3.03 SHORING

- A. Shoring shall be in accordance with Section III.1.D.04 of the Standards. Shoring will be required when necessary to prevent caving and to protect adjacent structures, property, workers, and the public. All shoring of trenches shall conform to the safety requirements of the Federal, State, and local laws, ordinances, and codes concerning such. The most stringent of these shall apply. It shall be the sole responsibility of the Contractor to see that these safety requirements are met.

3.04 DUST CONTROL

- A. Sprinkle and wet down work areas, equipment, roadways and earthwork with water sufficient to prevent raising objectionable dust and causing any nuisance or hazard on the site or to adjacent properties.

3.05 HAULING

- A. When hauling is done over highways or city streets, the loads shall be trimmed and the vehicle shelf areas shall be cleaned after each loading.

3.06 GENERAL EXCAVATION

- A. The Contractor shall conduct excavation per Section II.1.D of the Standards.
- B. Comply with local codes, ordinances and requirements of authorities having jurisdiction including maintaining stable excavations.
- C. Excavate for walks, pavements, curbs, and site structures to indicated cross sections, elevations and grades.
- D. Unauthorized excavations to be at the Contractor's expense, including remedial work directed by the Owners Authorized Representative.
- E. Give notice to other trades and crafts requiring use of the excavations to install their work and cooperate with their installations.
- F. Perform all excavation of every description, regardless of the character, nature, or condition of material encountered, as specified, shown, or required to accomplish the construction.
- G. Excavate for curbs, walks, or other structural improvements to the required minimum grades or deeper elevations shown on the Drawings or established by the Owners Authorized Representative.
- H. Clean the excavation to neat lines.

3.07 FILL

- A. Remove vegetation, topsoil, debris, saturated or unsuitable soil materials, obstruction, and deleterious materials prior to placing fills.
- B. Prior to placing fill on any subgrade, the subgrades are to be prepared, compacted, tested, and approved by the Owner Authorized Representative.

3.08 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each fill or fill layer before compaction to within 2 percent of optimum moisture content.
- B. Do not fill on surfaces that are muddy, frozen, or contain frost or ice.
- C. Remove, replace, scarify, or air dry acceptable soil material that is too wet to compact for compaction to specified density.

3.09 OVEREXCAVATION AND SUBGRADE STABILIZATION

- A. Where the undisturbed condition of natural soils is inadequate for support of the planned construction, the Contractor shall immediately contact the Owner Authorized Representative for direction and approval of a plan to overexcavate to adequate supporting soils.

3.10 GEOTEXTILE

- A. After subgrade preparation and specified compaction has been achieved. Place fabric such that it extends a minimum of 24-inches beyond the outside edges of excavation and baserock. Fabric is to be folded back over top of baserock after specified compaction has been achieved.
- B. After excavation and specified subgrade compaction of drainage crossings has been achieved, install drainage geotextile fabric as specified on the Drawings.
- C. After asphalt grinding, install asphalt overlay geotextile as specified in 2.02.C

3.11 COMPACTION

- A. All crushed aggregate, including fills under pavements, curbs, sidewalks, parking areas, and site structures shall be compacted to a minimum 95% relative compaction as determined by ASTM D1557.
- B. All fills requiring compaction shall not exceed 8-inches uncompacted thickness, and shall be within 2% of optimum moisture content.
- C. The Contractor is responsible for implementing and coordinating all compaction testing with the Owner Authorized Representative and the Special Testing Agency. The frequency of compaction testing for each type of work (i.e., roadbed, pipe trenches, site structure, etc.) shall be based on City of Corvallis, Public Improvement by Private Contractor (PIPC) requirements.
- D. Topsoil shall be minimally compacted, such that consolidation and settling will not occur during the warranty period, while seeding and plant growth can be readily established. The Contractor shall receive approval of a topsoil compaction from the Owner Authorized Representative, prior to implementation.
- E. Fills placed near existing trees shall be only lightly compacted, as directed by the Owner Authorized Representative.
- F. Native backfill must be approved for use by the Owner Authorized Representative. If approval is provided, compaction shall meet a minimum 90% relative dry density as determined by ASTM D1557.
- G. The subgrade shall be compacted to 95% relative density, as determined by AASHTO T99 (ASTM D698), or "firm and unyielding", as approved by Owner Authorized Representative. If the Owner's Authorized Representative determines subgrade materials are not suitable for testing, then compaction will be determined by proof rolling, per the Standards, Section II.1.E.01.

3.12 EARTHWORK FOR PIPELINES AND CONDUITS

- A. GENERAL: Earthwork for pipelines and conduits is specified in the Standard Details, and in the following paragraphs.
- B. PIPELINE EXCAVATION: The bottom of the trench shall be carried to the specified lines and grades with proper allowance for pipe thickness and for bedding as specified in Section III.1.D.03 of the Standards and in City of Corvallis' Standard Details 110 and 201.
- C. PIPELINE AND CONDUIT BACKFILL:
 - 1. BEDDING:
 - a. The Contractor shall not proceed with backfill placement in excavated areas until the subgrade has been inspected and approved by the Owner Authorized Representative. All pipe 12 inches in diameter or less shall

- have a 4 inch minimum thickness of bedding material below the barrel of the pipe as specified in Section III.1.D.06.1 of the Standards. Bedding material shall be placed in the bottom of the trench, leveled and compacted. Bell holes shall be excavated at each pipe joint to permit proper inspection and uniform bearing of pipe on bedding material.
- b. After the pipe has been laid to alignment and grade, unless otherwise specified, additional bedding material shall be placed in layers the full width of the trench and compacted up to the specified level. Bedding shall be placed simultaneously on both sides of the pipe, keeping the level of backfill the same on each side. The material shall be carefully placed and compacted around the pipe to ensure that the pipe barrel is completely supported and that no voids or uncompacted areas are left beneath the pipe. Contractor shall use extra care in placing material beneath the pipe to prevent lateral movement during backfilling.
 - c. The backfill material may differ, depending type of pipe or conduit. See Drawings and Specifications for proper backfill material.
2. INITIAL BACKFILL: After pipe has been properly bedded, Contractor shall place and compact initial backfill around the pipe and to the upper limits of the pipe zone as specified in Section III.1.D.06.2.
 3. SUBSEQUENT BACKFILL: Backfill placement and compaction above the pipe zone shall be in accordance with Section III.1.D.07 and III.1.D.08 of the Standards and as specified above with the following exceptions. Backfill shall be placed and compacted in lifts of no more than two (2) feet of depth when compacted by a hoe-pack or one (1) foot of depth when compacted by other means. Prior to the beginning of backfill work, the Contractor shall coordinate with the Owner Authorized Representative to establish an acceptable method and compactive effort to meet these specifications. The Contractor shall not begin backfill work until approval is received from the Owner.

3.13 WET WEATHER WORK

- A. If fill is placed under wet conditions, where control of soil and/or fill's moisture content is not possible, all fill shall be granular.
- B. Protect soil against moisture with plastic sheets.
- C. Slope ground surface in construction area and seal with smooth drum roller to promote rapid water runoff and to prevent water ponding.
- D. Perform work in small areas, and carry through completion to minimize exposure to wet weather.
- E. Where traffic is anticipated over exposed subgrade, protect subgrade with compacted layer of gravel or crushed rock, and if necessary, limit traffic as required to prevent soil disturbance.

3.14 GRADING

- A. GENERAL:
 1. Uniformly grade areas to a smooth surface, free of irregular surface changes, and to lines and elevations indicated.
 2. Provide smooth transitions between proposed and existing adjacent grades or elevation.

3. Finish subgrades to indicated elevations within the following tolerances:
 - a. Lawn or unpaved areas: 0.10-feet.
 - b. Paving areas: 0.05-feet.
4. Round surfaces where abrupt slopes occur, unless otherwise directed by the Owner Authorized Representative.
5. Allow for topsoil and soil preparation.

3.15 SURPLUS MATERIAL

- A. Unless otherwise specified, surplus excavated material, waste material, trash, and debris shall be disposed of off the Owner's site in accordance with applicable laws, ordinances, and environmental requirements.
- B. If the quantity of surplus material is specified, the quantity specified is approximate. The Contractor shall ensure that there is sufficient material available for the completion of the embankments before disposing of any material inside or outside the site. Shortage of material, caused by premature disposal of any material by the Contractor, shall be replaced by the Contractor.

3.16 QUALITY CONTROL

- A. Protect all newly graded areas from traffic, freezing, and erosion.
- B. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces have become eroded, rutted, or settled due to subsequent construction operations or weather conditions.
- C. Clean, repair, or replace when directed, any existing improvements, trees or other items damaged by the Work in this section at no additional cost to the Owner.

3.17 LANDSCAPE REPAIR

- A. Remove soil/sod adjacent to new structure(s) (i.e., sidewalk, curb, ramp, etc.) to achieve a maximum 4:1 slope.
- B. Place approved topsoil adjacent to new structure (i.e., driveway, sidewalk, curb, ramp, etc.) at a maximum 4:1 slope. Compact per specifications, or as directed by Owner's Authorized Representative.
- C. Place approved lawn seed per manufacturer's specifications.
- D. Backfill for Work areas where irrigation lines are not present shall be approved imported topsoil, but does not require a Landscape Contractor. Compact ("walk-in") topsoil to minimize future settling.

3.18 IRRIGATION REPAIR/MODIFICATIONS

- A. Protect irrigation lines and appurtenances during construction. If irrigation lateral lines, associated fittings, and/or spray heads are identified by the utility locate, and do not require relocation to perform the Work, then the cost of repair shall be performed by the Landscape Contractor at the expense of the Contractor.
- B. Notify Owner immediately if damage to irrigation occurs and/or irrigation lateral line modifications are required during the Work. Contractor to coordinate repair and/or modifications to the irrigation with Contractor's Landscape Sub-contractor and OSU's Landscape Department for direction and approval. Contractor shall temporarily

- protect pipe ends to keep irrigation lines clean (i.e., mechanical cap, plug, tape, etc.) until Landscape Contractor can perform the repair and/or modifications.
- C. Backfill for irrigation lines (new and existing) shall be approved imported topsoil and shall be performed by an approved licensed Landscape Contractor after inspection approval and measurement verification by the Owner's Authorized Representative. Compact ("walk-in") topsoil to minimize future settling.
 - D. If irrigation lateral lines and/or fittings are damaged or require relocation modifications during construction, the approved Landscape Contractor shall perform the Work as recommended by the manufacturer and Standard Landscaping Practices. Prior to backfill, the Work requires inspection, approval, and payment measurement verification by the Owner's Authorized Representative. This work will be paid by Unit Price lengths in increments of five (5) feet or less.
 - E. If sprinkler heads are damaged or lost during excavation, the approved Landscape sub-Contractor shall replace the original using the same sprinkler head and all appropriate appurtenances, including all fittings, nozzles, and funny pipe. All Work shall be performed as recommended by the manufacturer and Standard Landscaping Practices. Prior to backfill, the Work requires inspection, approval, and payment verification by the Owner's Authorized Representative.

PART 4 – MEASUREMENT AND PAYMENT

4.01 UNIT PRICE: IRRIGATION LINE REPLACEMENT

- A. The purpose of this unit price item is to remove existing lateral irrigation lines that need to be modified, relocated, or that have been damaged, and replace with new irrigation lines and associated appurtenances.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid based in increments of 5 feet or less, on an each increment basis. The unit price includes all labor, materials, and equipment associated with the construction of the irrigation, including associated appurtenances (i.e., fittings, etc.), excavation, haul off, backfill, and landscape repair (soil replacement, grass seeding as needed). The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.02 UNIT PRICE: RAINBIRD 1800 SPRAY HEAD REPLACEMENT

- A. The purpose of this unit price item is to replace the original damaged Rainbird 1800 sprinkler heads with new Rainbird 1800 sprinkler heads and associated appurtenances.
- B. The payment for this bid item shall be made at the contract unit price, and shall be for each replacement. The unit price includes all labor, materials, and equipment associated with the construction of the sprinkler head, including associated appurtenances (i.e., fittings, funny pipe, appropriate nozzles, etc.), excavation, haul off, backfill, and landscape repair (soil replacement, grass seeding as needed). The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.03 UNIT PRICE: HUNTER I-20 ROTOR HEAD REPLACEMENT

- A. The purpose of this unit price item is to replace the original damaged Hunter I-20 rotor heads with new Hunter I-20 rotor heads and associated appurtenances.
- B. The payment for this bid item shall be made at the contract unit price, and shall be for each replacement. The unit price includes all labor, materials, and equipment associated with the construction of the sprinkler head, including associated appurtenances (i.e., fittings, funny pipe, appropriate nozzles, etc.), excavation, haul off, backfill, and landscape repair (soil replacement, grass seeding as needed). The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

END OF SECTION 31 05 00

ASPHALT CONCRETE PAVING SECTION 32 12 16

PART 1 – GENERAL

1.01 CONTRACT CONDITIONS

- A. Work of this Section is bound by the General Conditions and Supplemental General Conditions and Division 1, bound herewith, in addition to this Specification and accompanying Drawings.

1.02 DESCRIPTION

- A. This section specifies asphalt concrete paving for streets, multi-use paths, roadways, driveways, and parking areas. Excavation and backfill shall be in accordance with Section 31 05 00 EARTHWORK.

1.03 RELATED WORK SPECIFIED ELSEWHERE

- A. Summary of Work, Section 01 11 00
- B. Unit Prices, Section 01 22 00
- C. Tree and Plant Protection, Section 01 56 39
- D. Mobilization, Traffic, Ped., & Fencing Control, Cleanup, Section 02 22 00
- E. Earthwork, Section 31 05 00
- F. Cast-in-Place Concrete, Curbs, and Gutters, Section 03 30 53

1.04 SUBMITTALS

- A. The Owner will provide the services of a Special Testing Agency (STA) to perform tests, inspections, and reports for aggregate baserock and asphalt concrete pavement. The Contractor shall submit samples and/or current material test data and documentation acceptable to the STA, and as required to perform their testing and evaluations per Section II.4.E of the Standards. The submittals shall be provided in sufficient time for the STA to have their evaluations and testing complete prior to the start of any related aggregate base, or asphalt concrete construction.
- B. The Contractor shall submit to the STA and Owner's Authorized Representative, adequate QA/QC, batch truck tickets, etc., documenting that asphalt concrete delivered and placed meets the specifications.

1.05 QUALITY ASSURANCE

- A. REFERENCES:
 - 1. All work shall be conducted in accordance with the City of Corvallis Standard Construction Specifications, Technical Requirements, hereinafter referred to as "the Standards".

2. Oregon Department of Transportation (ODOT): "Oregon Standard Specifications for Construction", current edition.
- B. COMPACTION TESTS:
1. Testing shall be in accordance with Section II.4.E of the Standards.
 2. The Contractor is responsible for implementing and coordinating all compaction testing with the Owner Authorized Representative and the Special Testing Agency in accordance with Section II.4.E of the Standards, and these specifications. Notify both parties two days in advance.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Aggregate baserock for areas to be paved, from subgrade to finish grade, shall be ¾"-0" crushed aggregate meeting the requirements of Section II.3.C of the Standards.
- B. Asphalt Tack Coat shall be CSS-1 or CSS-1h, applied at 0.05-0.20 gallons per square yard, per ODOT "Oregon Standard Specifications for Construction", unless otherwise approved by the Owner's Engineer.
- C. Asphalt Cement shall be PG64-22 per ODOT "Oregon Standard Specifications for Construction", unless otherwise approved by the Owner's Engineer.
- D. The hot mix asphalt concrete (HMAC) shall be: HMAC Level 3, dense graded using 1/2"-inch aggregate and PG64-22 liquid asphalt in accordance with Section 00745 of ODOT "Oregon Standard Specifications for Construction".
- E. All HMAC delivered and placed on the project shall comply with ODOT "Oregon Standard Specifications for Construction", and the City of Corvallis' Standards.

PART 3 – EXECUTION

3.01 GENERAL

- A. Construction shall conform to the details, dimensions, and grades specified in the Drawings, and specifications. Excavation and backfill shall comply with Section 31 05 00.
- B. Construction and Workmanship, including: HMAC delivery and temperatures, weather limitations, application of tack coat, HMAC compaction equipment, control of line and grade, longitudinal and transverse joints, HMAC placement, compaction, testing, and allowable tolerances, shall comply with Section II.4 of the Standards.

3.02 AGGREGATE BASE PLACEMENT

- A. SUBGRADE: Areas to be paved shall have subgrade preparation in accordance with Section 31 05 00.
- B. AGGREGATE BASE: Placing of aggregate base shall comply with Section 31 05 00. Relative compaction shall be a minimum of 95%, as determined by ASTM D1557.

3.03 ASPHALT CONCRETE PAVEMENT

- A. A tack coat shall be applied to all vertical surfaces of existing pavement; to curbs, gutters, and construction joints against which asphalt will be placed; to pavements to be

surfaced; and where specified, at the rate of 0.05 to 0.20 gallons per square yard.

Application shall comply with ODOT "Oregon Standard Specifications for Construction", and the City of Corvallis' Standards. Immediately prior to placing asphalt concrete, additional tack coat shall be applied to areas where the tack coat has been damaged.

- B. HMAC will generally be placed in two lifts. The maximum allowable lift shall be 3-inches, but will require prior approval of the Owner Authorized Representative. The minimum allowable lift shall be twice the maximum aggregate size in the mix. All lifts, no matter the depth, must achieve specified compaction.
- C. Each lift shall be compacted to a minimum 92% of the maximum density, as determined by the Rice Density Method (ASTM D2041).

PART 4 – MEASUREMENT AND PAYMENT

4.01 UNIT PRICE: ASPHALT CONCRETE PAVING (5" asphalt over 15" baserock)

- A. The purpose of this unit price item is for the removal of existing asphalt, baserock, and improvements and replace with new asphalt concrete paving in 2- 2 ½" lifts (5 inches total) over 15-inches of baserock as shown on the drawings, and also for the addition of areas that may be warranted during the course of the project.
- B. The payment for this bid item shall be made at the contract unit price, and shall be on a square foot (SF) basis, in place, and shall be considered full payment for all labor, materials, sawcutting, excavation, and equipment associated with the removal and replacement of the asphalt concrete paving. The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.02 UNIT PRICE: ASPHALT CONCRETE PAVING (6" asphalt over 15" baserock)

- C. The purpose of this unit price item is for the removal of existing asphalt, baserock, and improvements and replace with new asphalt concrete paving in 2- 3" lifts (6 inches total) over 15-inches of baserock as shown on the drawings, and also for the addition of areas that may be warranted during the course of the project.
- D. The payment for this bid item shall be made at the contract unit price, and shall be on a square foot (SF) basis, in place, and shall be considered full payment for all labor, materials, sawcutting, excavation, and equipment associated with the removal and replacement of the asphalt concrete paving. The construction for this unit price item shall meet requirements of this Section, and the Contract Documents.

4.03 UNIT PRICE: GRIND/INLAY ASPHALT; INSTALL DETECTABLE WARNINGS

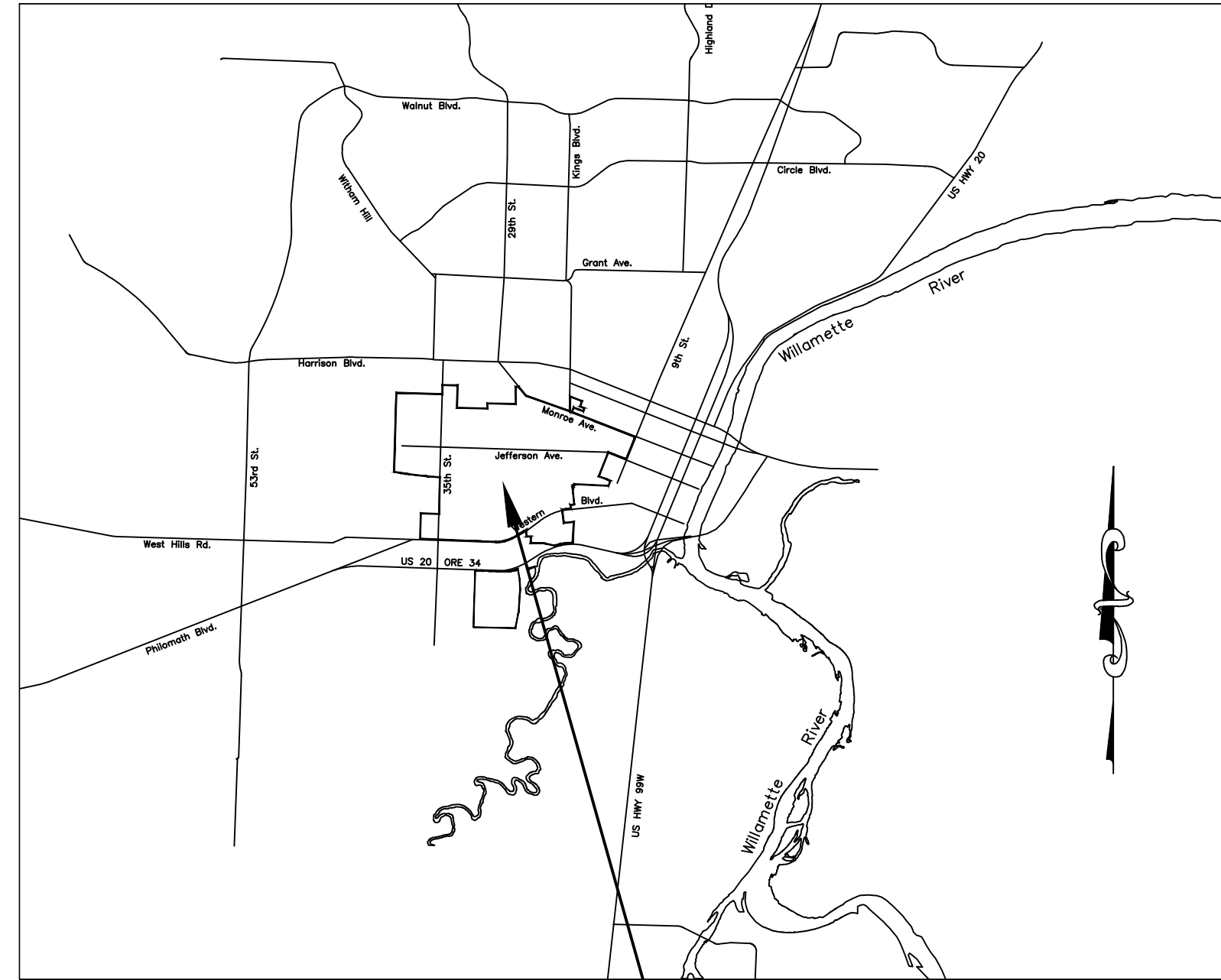
- A. The purpose of this unit price item is to grind and inlay asphalt adjacent to the tunnel and install new surface applied detectable warning panels, compliant with ADA requirements.
- B. The payment for this bid item shall be made at the contract unit price, and shall be paid on a per item basis. The unit price for this item shall be considered full payment for all labor, materials, and equipment associated with the grind and inlay of asphalt and installation of the warning panels, including street cuts, grinding, and haul off. The construction for this unit price item shall meet the requirements of this Section, and the Contract Documents.

END OF SECTION 32 12 16

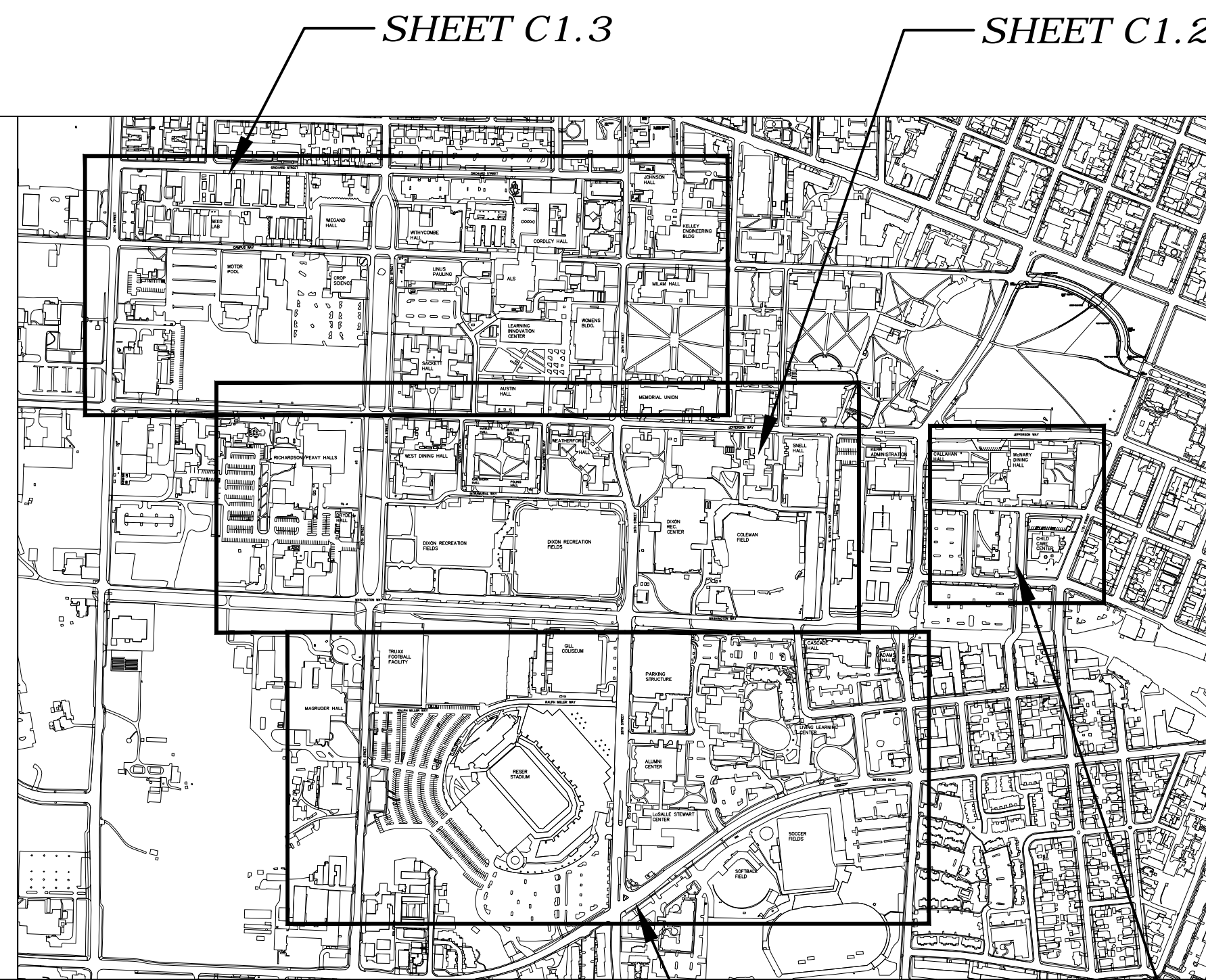
Oregon State University

2019 PATH OF TRAVEL IMPROVEMENTS

VICINITY MAP



OSU CAMPUS



SHEET C1.1

SHEET C1.2

DRAWING INDEX:

SHEET C1.0	COVER SHEET
SHEET C1.1	SOUTH CAMPUS ADA BARRIERS
SHEET C1.2	CENTRAL CAMPUS ADA BARRIERS
SHEET C1.3	NW CAMPUS ADA BARRIERS
SHEET CD1.1	DETAILS

ABBREVIATIONS

BOP	= BEGINNING OF PROJECT LIMITS
EOP	= END OF PROJECT LIMITS
F.G.	= FINISH GRADE ELEVATION
T.FOC	= TOP FACE OF CURB
B.FOC	= BOTTOM FACE OF CURB
TC	= TOP FACE OF CURB
BC	= BOTTOM FACE OF CURB
BD	= BOTTOM OF DITCH
EOC	= EDGE OF CONCRETE
DWG	= DRAWING
EXT'G	= EXISTING
CR	= CURB RADIUS
N/A	= NOT APPLICABLE
STD.	= STANDARD
SHT	= SHEET
L.F.	= LINEAR FEET
(E)	= EXISTING
(N)	= NEW
ROW	= RIGHT-OF-WAY
HMAC	= HOT MIX ASPHALT CONCRETE
STA	= STATION
PC	= POINT OF CURVATURE
PT	= POINT OF TANGENCY
R	= RADIUS OF CURVE
I	= CURVE ANGLE (DEGREES)
L	= LENGTH OF CURVE
A	= POINT ON CURVE
CONC.	= CONCRETE
BLDG.	= BUILDING
D.I.	= DUCTILE IRON PIPE
S	= SLOPE
MUTCD	= MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
B.O.W.	= BACK OF SIDEWALK
OAR	= OWNER'S AUTHORIZED REPRESENTATIVE
S/W	= SIDEWALK
OPL	= ODOT'S QUALIFIED PRODUCTS LIST
T.DOMES	= TRUNCATED DOMES

GENERAL NOTES

- CONTRACTOR'S EQUIPMENT SHALL BE SIZED SO THAT NO WORK CONTACTS TREES, LIMBS, DRIFLINES, ETC., AND AT NO TIME PLACE OR STORE EQUIPMENT OR MATERIALS IN LANDSCAPE AREAS OR UNDER DRIFLINES.
- CONTRACTOR TO DRIVE EQUIPMENT IN CONSTRUCTION ZONE ONLY AS NECESSARY TO PERFORM WORK, AND TO SIZE IT TO AVOID DAMAGE TO HARDSCAPE.
- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES AND IMPROVEMENTS DURING CONSTRUCTION AND SHALL FULLY RESTORE ANY IMPROVEMENT DAMAGED OR OTHERWISE MODIFIED DURING CONSTRUCTION.
- ALL CONSTRUCTION FOR THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF: (1), THE CITY OF CORVALLIS STANDARD CONSTRUCTION SPECIFICATIONS (2), OREGON DEPT OF TRANSPORTATION (ODOT), "OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION" (3), AND AS PROVIDED ON THESE PLANS AND SPECIFICATIONS (4). ANY CONFLICTS SHALL BE RESOLVED WITH THE MOST CONSERVATIVE SOLUTION TAKING PRECEDENCE. THE CONTRACTOR SHALL PROVIDE MEANS AND METHODS FOR TRAFFIC AND PEDESTRIAN CONTROL AT ALL TIMES.
- LOCATIONS AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING UTILITY LOCATIONS. FIELD LOCATES, AND POTHOLES SHALL BE PERFORMED SUFFICIENTLY EARLY IN THE PROJECT SUCH THAT DESIGN ADJUSTMENTS, IF NECESSARY, CAN BE COMPLETED WITHOUT IMPACTING THE PROJECT SCHEDULE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN FIELD LOCATES AND THESE PLANS.
- ATTENTION**
OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY LOCATE CENTER AS SET FORTH IN OREGON ADMINISTRATIVE RULES 952-001-0010 THROUGH 952-001-0090. COPIES OF APPLICABLE RULES ARE ATTAINABLE BY CALLING THE CENTER AT (503) 232-1987. CALL 1-800-332-2344 FOR UTILITY LOCATE SERVICE.
- ALL EXCAVATIONS SHALL COMPLY WITH ORS 757.541 TO 757.571 AND OSU SAFETY REQUIREMENTS.
- ALL SIDEWALKS, CONCRETE PANELS, AND ADA PARKING SHALL BE CONSTRUCTED TO HAVE A MAXIMUM 1.5% CROSS SLOPE. NO RUNNING SLOPES IN SIDEWALKS SHALL EXCEED 4.5%. NEW CURB RAMPS SHALL BE CONSTRUCTED AT 14:1 (7%) SLOPE. CONTRACTOR SHALL REMOVE AND REPLACE NEW CONCRETE PANELS THAT EXCEED 2% CROSS SLOPE, 5% RUNNING SLOPE FOR SIDEWALKS, AND 8.3% SLOPE FOR CURB RAMPS IN ANY PART OF THE PANEL, AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL USE A CALIBRATED 2-FOOT "STABILA" DIGITAL LEVEL FOR CHECKING ADA SLOPE COMPLIANCES.
- CONTRACTOR TO CHECK CROSS SLOPES OF ALL EXT'G CURB RAMPS OR BLENDED TRANSITIONS IDENTIFIED FOR REPLACEMENT. IF ANY ARE GREATER THAN 2%, NOTIFY OAR PRIOR TO BEGINNING DEMOLITION.
- CONTRACTOR SHALL RECEIVE APPROVAL FROM OAR FOR INTENDED CONSTRUCTION PROCEDURE AT ALL LOCATIONS FOR THIS PROJECT PRIOR TO SAWCUTS OR DEMOLITION.
- LENGTHS OF SIDEWALK SECTIONS IDENTIFIED ON PLANS MAY BE APPROXIMATE, AND NEED TO BE ADJUSTED. CONTRACTOR SHALL CHECK CROSS SLOPES OF SIDEWALKS IN THE VICINITY IDENTIFIED ON PLANS FOR REPLACEMENT AND MARK ACCORDINGLY FOR APPROVAL BY OAR PRIOR TO DEMOLITION.
- ALL WORK, INCLUDING TREE PROTECTION, SAWCUTTING, EXCAVATION, HAUL-OFF, EXCAVATION AROUND TREES, EROSION CONTROL IN CATCH BASINS (IF REQUIRED BY CITY), IRRIGATION REPAIR, AND IRRIGATION MODIFICATIONS IS INCIDENTAL TO EACH UNIT PRICE. CONTRACTOR SHALL HAVE AN OWNER APPROVED LANDSCAPE SUB-CONTRACTOR RETAINED IN THE EVENT THAT IRRIGATION REPAIRS AND/OR MODIFICATIONS NEED TO OCCUR DURING THE WORK.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING RELIEF CUTS WHEN SAWCUTTING IN ORDER TO PROTECT EXT'G IMPROVEMENTS. IF DAMAGE OCCURS DURING CONSTRUCTION TO SAWCUT LINES, THEN CONTRACTOR SHALL RE-SAWCUT AT HIS EXPENSE.
- CONTRACTOR SHALL FACILITATE AND PROTECT PEDESTRIANS, STUDENTS, AND VEHICULAR TRAFFIC FOR THE ENTIRETY OF THE PROJECT. TEMPORARY 6-FOOT WIRE MESH FENCING WILL BE REQUIRED TO SURROUND CONSTRUCTION BOUNDARIES WITH SIGNAGE FOR TRAFFIC AND PEDESTRIAN CONTROL. TRAFFIC CONTROL SIGNAGE MAY BE REQUIRED WHEN DRIVEWAYS ARE CLOSED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SIGNAGE AND MOVING FENCING AS REQUIRED DURING CONSTRUCTION. CONSTRUCTION LOCATIONS BACKFILLED W/BASEROCK AND AWAITING CONCRETE OR ASPHALT WILL BE ALLOWED TYPE II BARRICADES WITH YELLOW CAUTION TAPE. ALL AREAS BACKFILLED AND WAITING FOR CONCRETE SHALL BE POURED AND COMPLETED BY THE END OF EACH WEEK. AREAS WHERE ASPHALT PLACEMENT, ADJACENT TO CONCRETE REPLACEMENT, SHALL REQUIRE TEMPORARY ASPHALT RAMPS OVER PAVING PAPER AFTER CONCRETE HAS CURED ADEQUATELY FOR TRAFFIC. DRIVEWAY REPLACEMENTS MAY REQUIRE STAGGERING CONSTRUCTION AND/OR COORDINATION TO ALLOW VEHICULAR ACCESS (I.E., PARKING LOTS) DURING THE PROJECT.
- THIS PROJECT CALLS OUT 2' WIDE "CAST-IN-TACT" YELLOW CONCRETE DETECTABLE WARNING PANELS, YELLOW "ACCESS TILE" WARNING PANELS, AND YELLOW SURFACE APPLIED "ARMOR TILE TACTILE SYSTEM" WARNING PANELS FOR INSTALLATION AND REPLACEMENT PER PLANS; INSTALLATION SHALL BE PERFORMED PER EACH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. ALL CUTS ON THE CONCRETE WARNING PANELS SHALL BE PERFORMED USING THE WET METHOD ON A RAIL SAW, UNLESS OTHERWISE APPROVED BY OAR. ALL CUTS ON RADII SHALL BE PERFORMED ON EQUAL ANGLES.
- THERE ARE LOCATIONS ON THIS PROJECT THAT MAY REQUIRE ADJUSTMENTS TO EXT'G LANDSCAPING, SUCH AS PRUNING. CONTRACTOR IS REQUIRED TO PROVIDE A MINIMUM ONE WEEK NOTIFICATION TO OAR FOR OSU LANDSCAPE DEPARTMENT WORK AND COORDINATION PRIOR TO STARTING WORK AT THAT LOCATION. IN THE EVENT IRRIGATION REPAIR AND/OR MODIFICATIONS (I.E., RELOCATION) ARE REQUIRED, CONTRACTOR SHALL HAVE OWNER APPROVED LANDSCAPE CONTRACTOR PERFORM THE WORK, UNDER THE DIRECTION OF THE OSU LANDSCAPE DEPARTMENT. SEE GENERAL NOTE #13, AND SPECIFICATION SECTION, 31 05 00.
- CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT ON CAMPUS.

TREE PRESERVATION GENERAL NOTES

- CONTRACTOR SHALL PLACE TREE PROTECTION FENCING AS REQUIRED BY CITY PERMIT AND INSPECTOR, OSU ARBORIST, AND OWNER'S AUTHORIZED REPRESENTATIVE. FENCING TYPE IS DESIGNATED ON THE PLANS.
- CONTRACTOR SHALL WORK UNDER THE GUIDANCE OF THE DESIGNATED CAMPUS ARBORIST WHEN WORKING AROUND TREES AND ROOTS. CONTRACTOR SHALL BE PREPARED TO MAKE MODIFICATIONS AS REQUIRED BY ARBORIST TO AVOID ROOT DAMAGE, (I.E., HAND DIGGING, DECREASE DEPTH OF ROCK OR CONCRETE, MINOR MODIFICATIONS TO SIDEWALK LAYOUT, ETC.).

TREE PRESERVATION CONSTRUCTION NOTES

- PROVIDE FENCING AS DESIGNATED ON THE PLANS AROUND TREE DRIFLINES AND SHRUBS, AND AS REQUIRED BY CITY PERMIT. FENCING LOCATIONS SHOWN ARE APPROXIMATE, AND WILL NEED ADJUSTMENTS BASED ON FIELD CONDITIONS AND INPUT FROM THE CITY INSPECTOR AND OSU ARBORIST. THE CITY WILL ALLOW INSTALLATION OF THE FENCING IN PHASES, BASED ON THE AREAS SHOWN ON SHEETS C1.1, C1.2, AND C1.3 (3 PHASES). THE CONTRACTOR MUST GAIN CITY APPROVAL FOR EACH PHASE PRIOR TO THE BUILDING PERMIT BEING ISSUED. CONTRACTOR SHALL PROVIDE SIGNAGE FOR FENCING, AS REQUIRED IN THE PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE FENCING AND SIGNAGE, AND REMOVAL WHEN EACH LOCATION HAS BEEN COMPLETED AND APPROVED BY OAR.
- PRESERVE AND PROTECT EXT'G IMPROVEMENTS AND/OR VEGETATION.
- COORDINATE EXCAVATION FOR CONCRETE AROUND TREES WITH OWNER'S AUTHORIZED REPRESENTATIVE AND OSU ARBORIST.

2019 PATH OF TRAVEL
IMPROVEMENTS

OREGON STATE UNIVERSITY
OSU PROJ. NO.: 2181-19



Drawn By: MSB

Checked: NN

Project #: 2181-19

Date: February 14, 2019

Rev. #: _____ Date: _____

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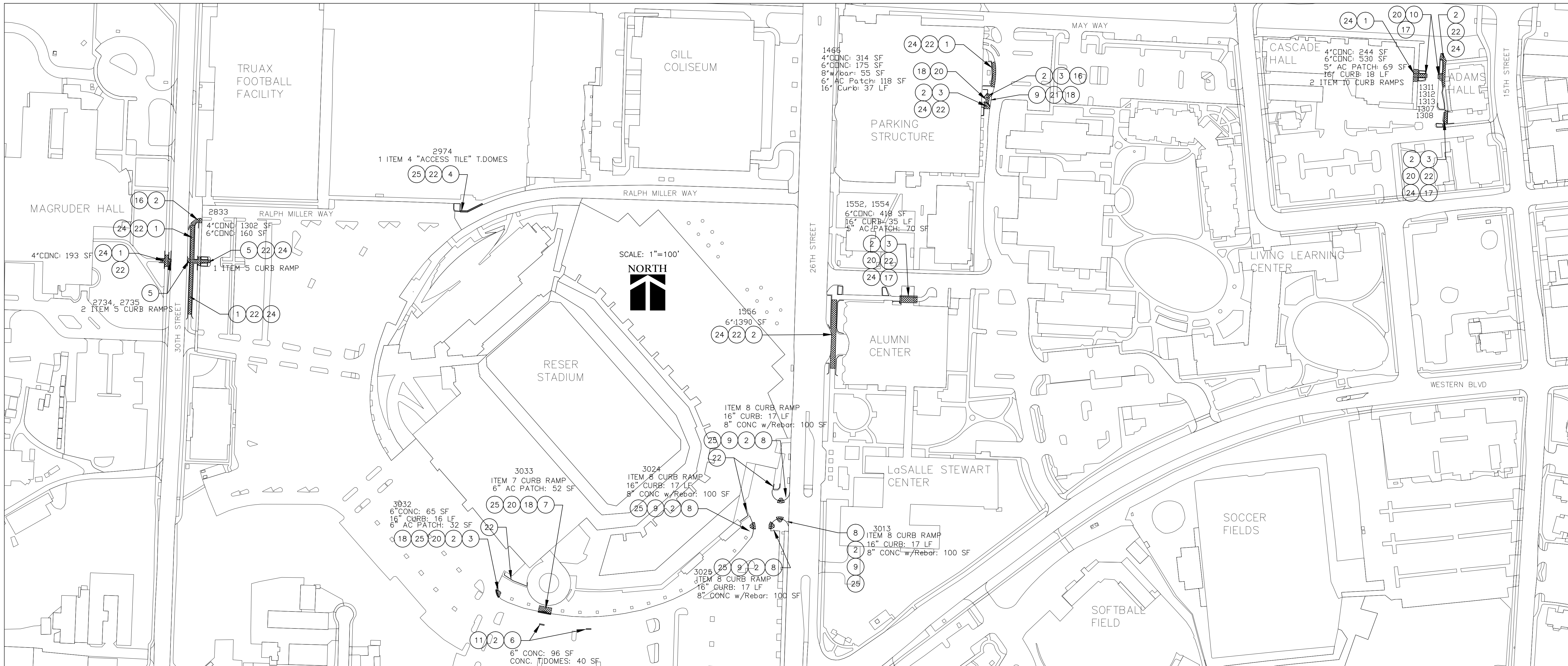
Bid Set: March 24, 2019

SHEET TITLE

COVER SHEET

SHEET #

C1.0



SOUTH CAMPUS ADA BARRIERS

CONSTRUCTION ITEMS

- 1 REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 4-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 2 REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 6-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 3 REMOVE EXISTING CURB AND CONSTRUCT NEW 16-INCH STRAIGHT CURB CITY STD. DETAIL 103, SHEET CD1.1. NOTE: NEW CURBS IN FIRE LANES TO BE PAINTED RED BY OSU.
- 4 REMOVE 3' X 48' SECTION OF CONCRETE TOOLED DETECTABLE WARNINGS. PROTECT EXISTING BALLARDS. REPLACE W/6" CONCRETE OVER 4" BASEROCK AND INSTALL "ACCESS TILE" BRAND T.DOMES PER MANUFACTURER'S SPECIFICATIONS. NEW T.DOMES TO MATCH EXISTING T.DOMES ACROSS THE STREET.
- 5 REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. PLACE NEW CONC. T.DOMES THE WIDTH OF THE NEW RAMP (INCIDENTAL TO UNIT PRICE).
- 6 SAWCUT 4'X12' EXT'G ASPHALT PER DETAIL 110, SHT CD1.1. REPLACE W/6" CONC OVER 4" BASEROCK. IMBED 10-FOOT WIDE CONCRETE T.DOMES. PAYMENT TO BE BASED ON QUANTITIES FOR CONSTRUCTION ITEMS 2 AND 11.
- 7 REMOVE EXISTING CURB, RAMP, AND S/W TO CONSTRUCT 6" THICK BY 10' WIDE CURB RAMP, CURBS, AND TRANSITIONS SIMILAR TO EXISTING CURB RAMP APPROX. 90° TO THE EAST. NEW CONCRETE T.DOMES INCIDENTAL TO UNIT PRICE.
- 8 REMOVE EXISTING NONCOMPLIANT CURB RAMP, CURB, CONCRETE SIDEWALK, AND CONCRETE STREET PAVEMENT. REPLACE PER DETAIL 14, SHT CD1.1. LOCATE AND ALIGN NEW CURB RAMPS WITH NEW RAMPS ACROSS STREET. COORDINATE W/OAR FOR APPROVED APPROACH PRIOR TO SAWCUTS/DEMOLITION.
- 9 REMOVE EXT'G IMPROVEMENT AND REPLACE W/NEW 8" CONCRETE W/#4 REBAR, 16 INCHES O.C., EACH WAY, OVER 4" BASEROCK.
- 10 REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. NO T.DOMES.
- 11 INSTALL CONC T.DOMES. SEE PLAN FOR DIMENSIONS.
- 12 REMOVE EXISTING ASPHALT AND CONC RAT SLABS OVER TOP OF TUNNEL. RECONSTRUCT PER DETAIL 13, SHT CD1.1.
- 13 GRIND 3-INCHES OF EXT'G ASPHALT AT EDGE OF TUNNEL, 2 FEET WIDE X 10 FEET LONG. REPAVE 1-3 INCH LIFT OF HMAC. MATCH TUNNEL ELEVATION SO THERE IS NO VERTICAL VARIANCE. INSTALL 8 LF SURFACE APPLIED "ARMOR TILE TACTILE SYSTEM", OR APPROVED EQUAL. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE, AND INSTALL PER SPECIFICATION. COORDINATE W/OAR FOR PRE-APPROVED APPROACH PRIOR TO ASPHALT GRINDING.
- 14 REMOVE EXISTING CURB RAMP PANEL AND T.DOMES. REPLACE PER DETAIL 15, SHT C1.3. PAYMENT TO BE BASED ON QUANTITIES FOR CONSTRUCTION ITEMS 2 AND 11.
- 15 REMOVE EXT'G CURB RAMP, APPROX. 24 LF CURB, AND 5.5' X 24' OF CONCRETE SIDEWALK. CONSTRUCT TOP OF NEW 16" CURB TO MATCH STREET ELEVATION. CONSTRUCT A 10" WIDE CURB RAMP WITH MAXIMUM 14:1 SLOPED FLARES ON BOTH SIDES OF RAMP. 10" WIDE T.DOMES AND NEW CURB INCIDENTAL TO UNIT PRICES PER ITEMS 3 AND 11. COORDINATE W/OAR FOR PRE-APPROVAL OF APPROACH PRIOR TO SAWCUTS/DEMOLITION.
- 16 ADJUST METER/VALVE BOX TO NEW F.G.
- 17 CONSTRUCT 2-2 1/2 INCH LIFTS HMAC OVER 15-INCHES BASEROCK.
- 18 CONSTRUCT 2-3 INCH LIFTS HMAC OVER 15-INCHES BASEROCK.
- 20 SAWCUT 2' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.
- 21 SAWCUT 4' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.
- 22 INSTALL 4-FOOT ORANGE SNOW FENCING AROUND TREES AND SHRUBS.
- 23 INSTALL 6-FOOT WIRE MESH FENCING AROUND TREES AND SHRUBS.
- 24 EXT'G IRRIGATION IS ADJACENT TO IMPROVEMENT.
- 25 NO IRRIGATION ADJACENT TO IMPROVEMENT.
- 26 SAWCUT 6' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.

SHT C1.1 ESTIMATED ITEM QUANTITIES

- 1. 2,053 SF
- 2. 2,834 SF
- 3. 174 LF
- 4. 96 SF
- 5. 3 EACH
- 6. N/A
- 7. 1 EACH
- 8. 4 EACH
- 9. 455 SF
- 10. 2 EACH
- 11. 40 SF
- 12. 0
- 13. 0
- 14. N/A
- 15. 0
- 16. 2 EACH
- 17. 139 SF
- 18. 202 SF



Campus Planning and Development
Oregon State University
3315 SW Western Blvd.
Corvallis, Oregon 97333
541-954-0294

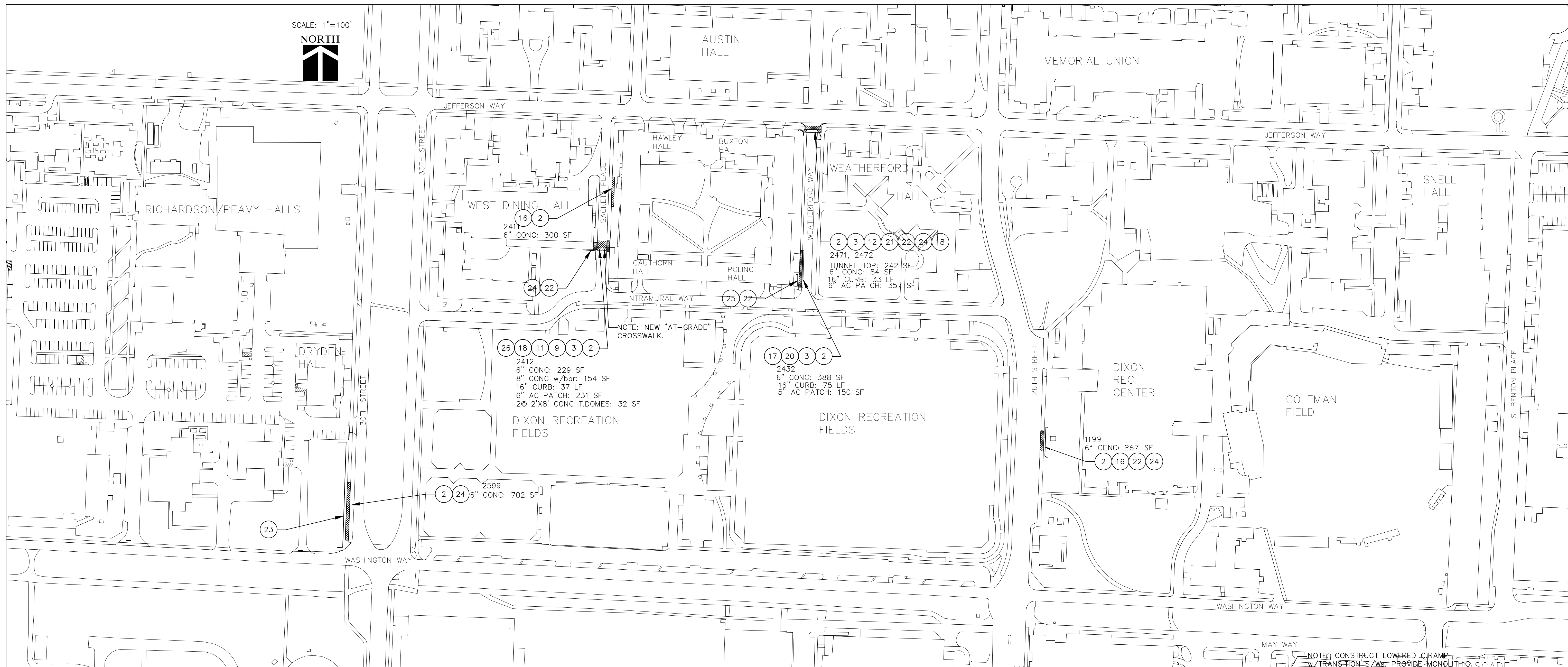
Infrastructure Solutions Engineering, LLC
Civil & Environmental Engineering
www.isoregon.com
P.O. Box 9
Corvallis, OR 97339
Cell: 541.510.3322
Email: nke.blair@isoregon.com

2019 PATH OF TRAVEL IMPROVEMENTS
OREGON STATE UNIVERSITY
OSU PROJ. NO.: 2181-19



Drawn By: MSB
Checked: NN
Project #: 2181-19
Date: February 14, 2019
Rev. #: _____ Date: _____
_____ dd/mm/yy
Bid Set: March 24, 2019

SHEET TITLE
S. CAMPUS ADA BARRIERS
SHEET #
C1.1



SCALE: 1"=100'
NORTH

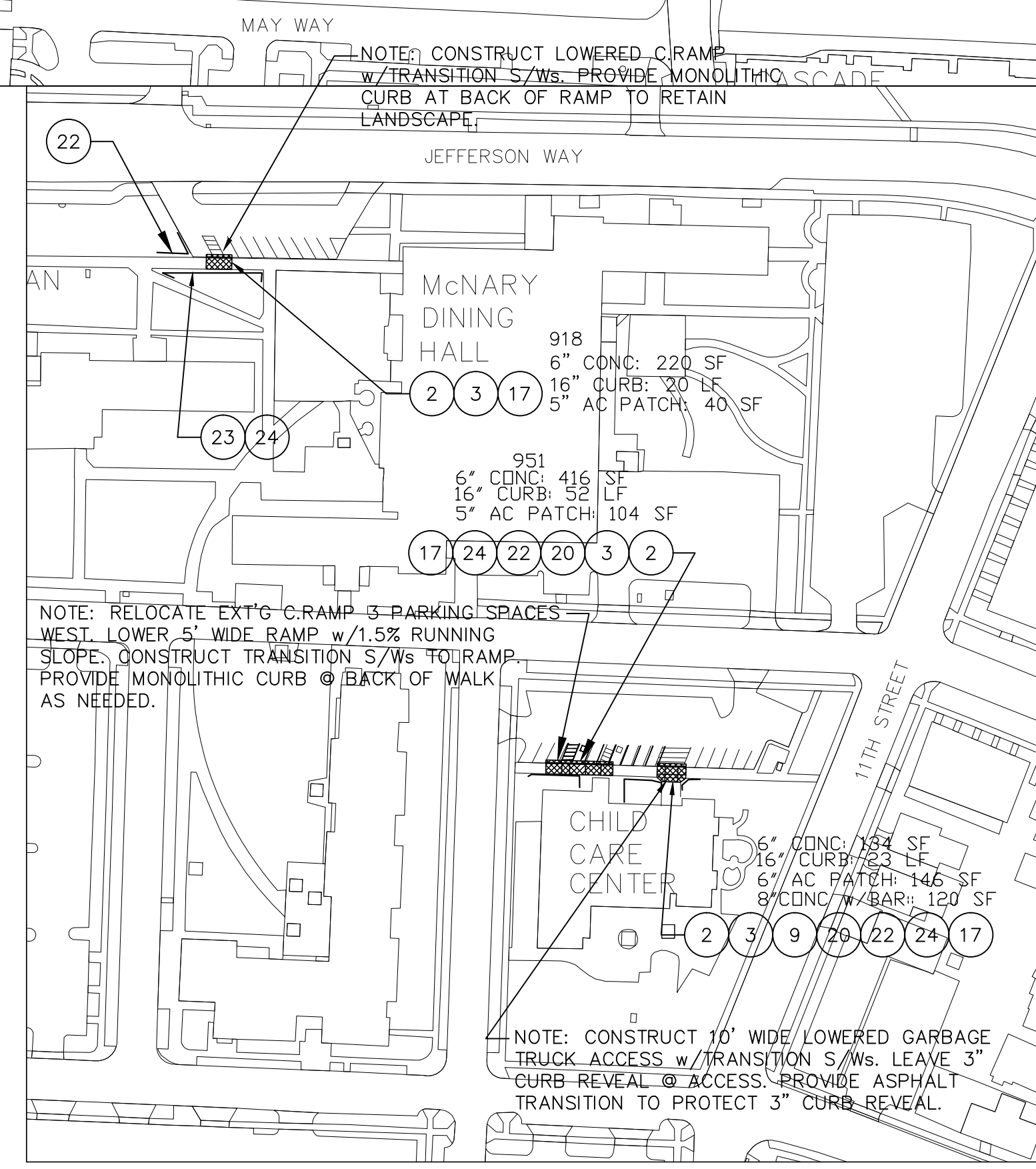
CENTRAL CAMPUS ADA BARRIERS

CONSTRUCTION ITEMS

- 1 REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 4-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 2 REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 6-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 3 REMOVE EXISTING CURB AND CONSTRUCT NEW 16-INCH STRAIGHT CURB CITY STD. DETAIL 103, SHEET CD1.1. NOTE: NEW CURBS IN FIRE LANES TO BE PAINTED RED BY OSU.
- 4 REMOVE 3' X 48' SECTION OF CONCRETE TOOLED DETECTABLE WARNINGS. PROTECT EXISTING BALLARDS. REPLACE W/6" CONCRETE OVER 4" BASEROCK AND INSTALL "ACCESS TILE" BRAND T.DOMES PER MANUFACTURER'S SPECIFICATIONS. NEW T.DOMES TO MATCH EXISTING T.DOMES ACROSS THE STREET.
- 5 REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. PLACE NEW CONC. T.DOMES THE WIDTH OF THE NEW RAMP (INCIDENTAL TO UNIT PRICE).
- 6 SAWCUT 4'X12' EXT'G ASPHALT PER DETAIL 110, SHT CD1.1. REPLACE W/6" CONC OVER 4" BASEROCK. IMBED 10-FOOT WIDE CONCRETE T.DOMES. PAYMENT TO BE BASED ON QUANTITIES FOR CONSTRUCTION ITEMS 2 AND 11.
- 7 REMOVE EXISTING CURB, RAMP, AND S/W TO CONSTRUCT 6" THICK BY 10' WIDE CURB RAMP, CURBS, AND TRANSITIONS SIMILAR TO EXISTING CURB RAMP APPROX. 90° TO THE EAST. NEW CONCRETE T.DOMES INCIDENTAL TO UNIT PRICE.
- 8 REMOVE EXISTING NONCOMPLIANT CURB RAMP, CURB, CONCRETE SIDEWALK, AND CONCRETE STREET PAVEMENT. REPLACE PER DETAIL 14, SHT CD1.1. LOCATE AND ALIGN NEW CURB RAMPS WITH NEW RAMPS ACROSS STREET. COORDINATE W/OAR FOR APPROVED APPROACH PRIOR TO SAWCUTS/DEMOLITION.
- 9 REMOVE EXT'G IMPROVEMENT AND REPLACE W/NEW 8" CONCRETE W/#4 REBAR, 16 INCHES O.C., EACH WAY, OVER 4" BASEROCK.
- 10 REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. NO T.DOMES.
- 11 INSTALL CONC T.DOMES. SEE PLAN FOR DIMENSIONS.
- 12 REMOVE EXISTING ASPHALT AND CONC RAT SLABS OVER TOP OF TUNNEL. RECONSTRUCT PER DETAIL 13, SHT CD1.1.
- 13 GRIND 3-INCHES OF EXT'G ASPHALT AT EDGE OF TUNNEL, 2 FEET WIDE X 10 FEET LONG. REPAVE 1-3 INCH LIFT OF HMAC. MATCH TUNNEL ELEVATION SO THERE IS NO VERTICAL VARIANCE. INSTALL 8 LF SURFACE APPLIED "ARMOR TILE TACTILE SYSTEM", OR APPROVED EQUAL. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE, AND INSTALL PER SPECIFICATION. COORDINATE W/OAR FOR PRE-APPROVED APPROACH PRIOR TO ASPHALT GRINDING.
- 14 REMOVE EXISTING CURB RAMP PANEL AND T.DOMES. REPLACE PER DETAIL 15, SHT C1.3. PAYMENT TO BE BASED ON QUANTITIES FOR CONSTRUCTION ITEMS 2 AND 11.
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- 24 EXT'G IRRIGATION IS ADJACENT TO IMPROVEMENT.
- 25 NO IRRIGATION ADJACENT TO IMPROVEMENT.
- 26 SAWCUT 6' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.

SHT C1.2 ESTIMATED ITEM QUANTITIES

1.	0
2.	2,740 SF
3.	240 LF
4.	0
5.	0
6.	N/A
7.	0
8.	0
9.	274 SF
10.	0
11.	32 SF
12.	242 SF
13.	0
14.	N/A
15.	0
16.	2 EACH
17.	294 SF
18.	734 SF



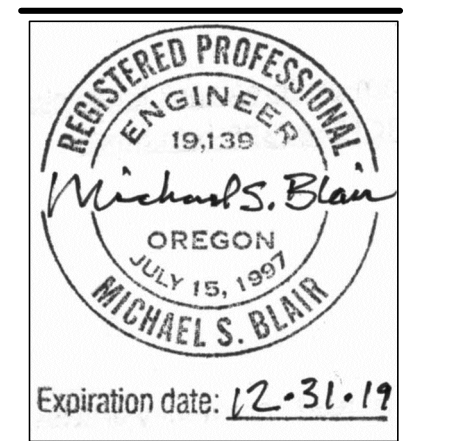
McnARY & CHILD CARE CENTER RAMPS



Campus Planning and Development
Oregon State University
3315 SW Western Blvd.
Corvallis, Oregon 97333
541-954-0294

Infrastructure Solutions Engineering, LLC
Civil & Environmental Engineering
www.isoregon.com
P.O. Box 9
Corvallis, OR 97339
Cell: 541.510.3322
Email: nke.blair@isoregon.com

2019 PATH OF TRAVEL IMPROVEMENTS
OREGON STATE UNIVERSITY
OSU PROJ. NO.: 2181-19

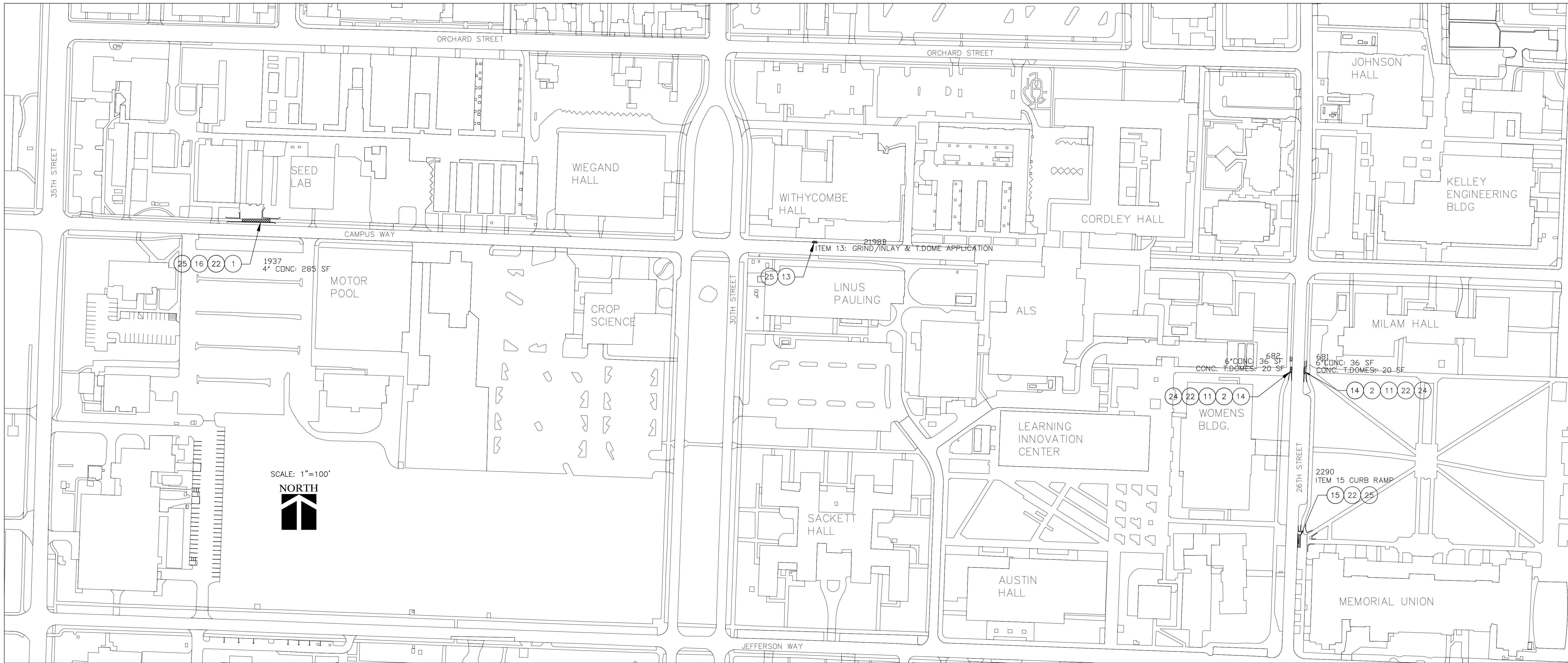


Drawn By: MSB
Checked: NN
Project #: 2181-19
Date: February 14, 2019

Rev. #: #
Date: dd/mm/yy
Bid Set: March 24, 2019

CENTRAL CAMPUS ADA BARRIERS

SHEET # **C1.2**



NW CAMPUS ADA BARRIERS

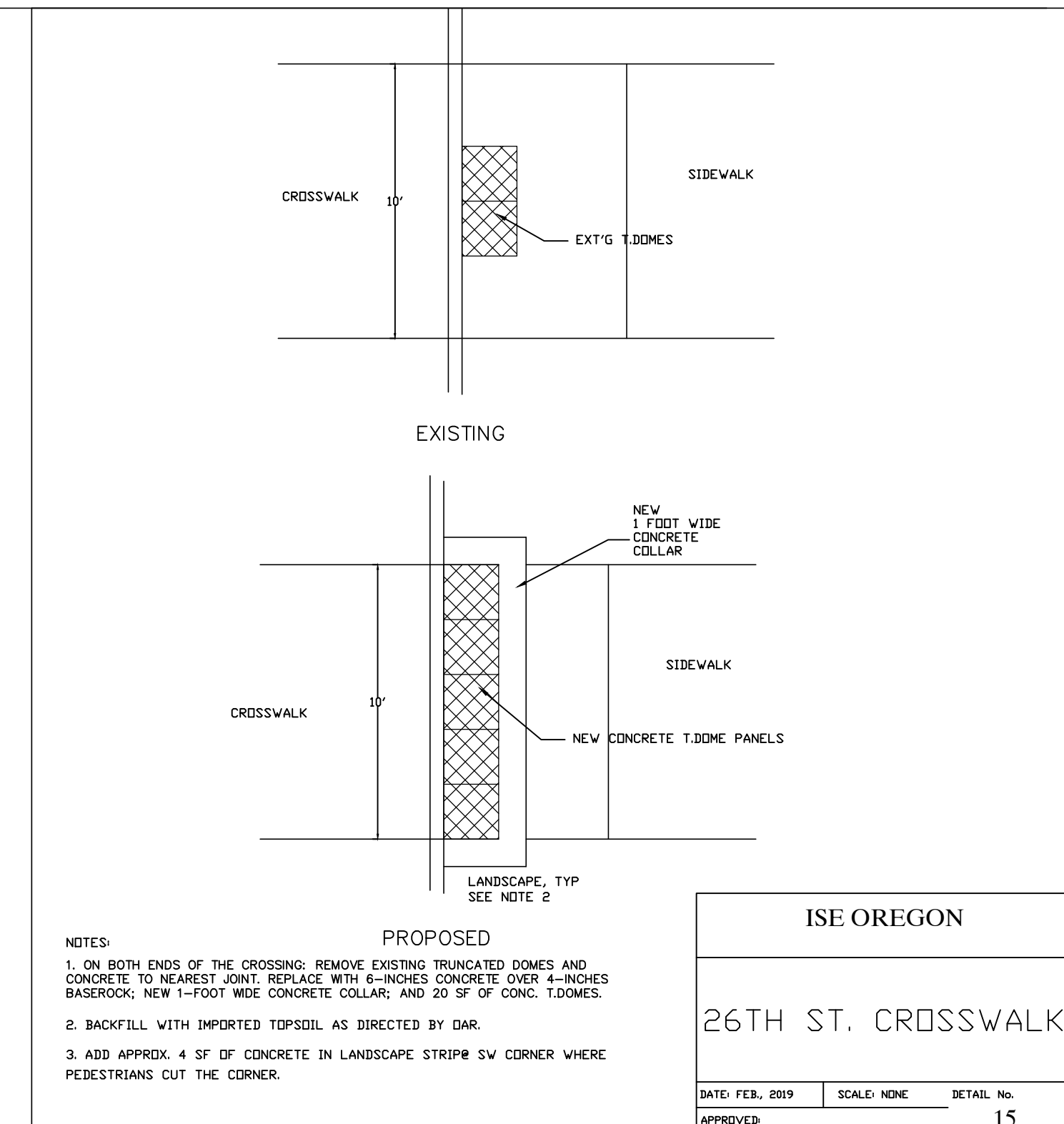
SHT C1.3

ESTIMATED ITEM QUANTITIES

CONSTRUCTION ITEMS

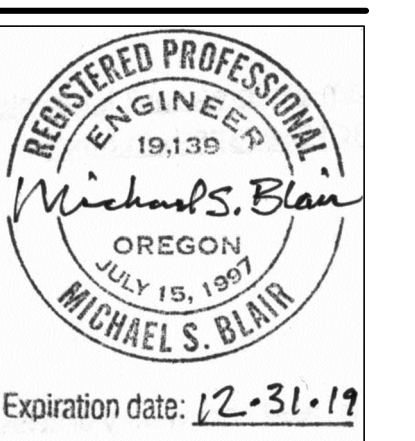
- 1. REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 4-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 2. REMOVE EXISTING SIDEWALK/IMPROVEMENT. REPLACE WITH NEW 6-INCHES P.C.C. OVER 4-INCHES OF COMPACTED 3/4" MINUS CRUSHED AGGREGATE. SEE DETAIL 10, SHEET CD1.1.
- 3. REMOVE EXISTING CURB AND CONSTRUCT NEW 16-INCH STRAIGHT CURB CITY STD, DETAIL 103, SHEET CD1.1. NOTE: NEW CURBS IN FIRE LANES TO BE PAINTED RED BY OSU.
- 4. REMOVE 3' X 48" SECTION OF CONCRETE TOOLED DETECTABLE WARNINGS. PROTECT EXISTING BALLARDS. REPLACE W/6" CONCRETE OVER 4" BASEROCK AND INSTALL "ACCESS TILE" BRAND T.DOMES PER MANUFACTURER'S SPECIFICATIONS. NEW T.DOMES TO MATCH EXISTING T.DOMES ACROSS THE STREET.
- 5. REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. PLACE NEW CONC. T.DOMES THE WIDTH OF THE NEW RAMP (INCIDENTAL TO UNIT PRICE).
- 6. SAWCUT 4'X12' EXT'G ASPHALT PER DETAIL 110, SHT CD1.1. REPLACE W/6" CONC OVER 4" BASEROCK. IMBED 10-FOOT WIDE CONCRETE T.DOMES. PAYMENT TO BE BASED ON QUANTITIES FOR CONSTRUCTION ITEMS 2 AND 11.
- 7. REMOVE EXISTING CURB, RAMP, AND S/W TO CONSTRUCT 6" THICK BY 10' WIDE CURB RAMP, CURBS, AND TRANSITIONS SIMILAR TO EXISTING CURB RAMP APPROX. 90° TO THE EAST. NEW CONCRETE T.DOMES INCIDENTAL TO UNIT PRICE.
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- 9. REMOVE EXT'G IMPROVEMENT AND REPLACE W/NEW 8" CONCRETE W/#4 REBAR, 16 INCHES O.C., EACH WAY, OVER 4" BASEROCK.
- 10. REMOVE CURB RAMP AND TRANSITION CURBS AND REPLACE W/6" CONC. RAMP AND MONOLITHIC TRANSITION CURBS AT MAX 14:1 SLOPE. NO T.DOMES.
- 11. INSTALL CONC T.DOMES. SEE PLAN FOR DIMENSIONS.
- 12. REMOVE EXISTING ASPHALT AND CONC RAT SLABS OVER TOP OF TUNNEL. RECONSTRUCT PER DETAIL 13, SHT CD1.1.
- 13. GRIND 3-INCHES OF EXT'G ASPHALT AT EDGE OF TUNNEL, 2 FEET WIDE X 10 FEET LONG. REPAVE 1-3 INCH LIFT OF HMAC. MATCH TUNNEL ELEVATION SO THERE IS NO VERTICAL VARIANCE. INSTALL 8 LF SURFACE APPLIED "ARMOR TILE TACTILE SYSTEM" T.DOMES, OR APPROVED EQUAL. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE, AND INSTALL PER SPECIFICATION. COORDINATE W/OAR FOR PRE-APPROVED APPROACH PRIOR TO ASPHALT GRINDING.
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- 21. SAWCUT 4' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.
- 22. INSTALL 4-FOOT ORANGE SNOW FENCING AROUND TREES AND SHRUBS.
- 23. INSTALL 6-FOOT WIRE MESH FENCING AROUND TREES AND SHRUBS.
- 24. EXT'G IRRIGATION IS ADJACENT TO IMPROVEMENT.
- 25. NO IRRIGATION ADJACENT TO IMPROVEMENT.
- 26. SAWCUT 6' FROM CURB FACE FOR ASPHALT TRANSITION PER DETAIL 110, SHT CD1.1.

1.	285
2.	72 SF
3.	0
4.	0
5.	0
6.	N/A
7.	0
8.	0
9.	0
10.	0
11.	40 SF
12.	0
13.	1 EACH
14.	N/A
15.	1 EACH
16.	1 EACH
17.	0
18.	0



NOTES:
1. ON BOTH ENDS OF THE CROSSING, REMOVE EXISTING TRUNCATED DOMES AND CONCRETE TO NEAREST JOINT. REPLACE WITH 6-INCHES CONCRETE OVER 4-INCHES BASEROCK; NEW 1-FOOT WIDE CONCRETE COLLAR; AND 20 SF OF CONC. T.DOMES.
2. BACKFILL WITH IMPORTED TOPSOIL AS DIRECTED BY DAR.
3. ADD APPROX. 4 SF OF CONCRETE IN LANDSCAPE STRIPE SW CORNER WHERE PEDESTRIANS CUT THE CORNER.

ISE OREGON
26TH ST. CROSSWALK
DATE: FEB. 2019 SCALE: NONE DETAIL NO. 15
APPROVED

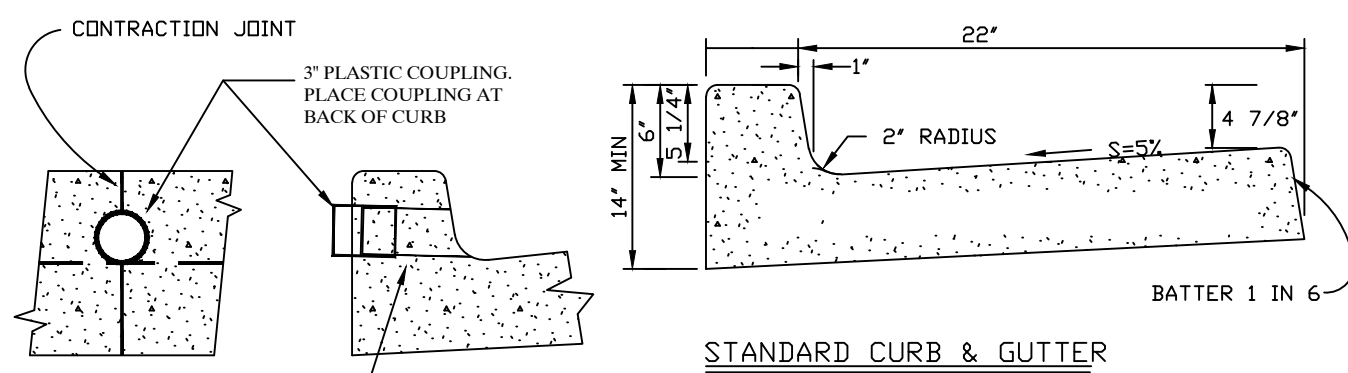


Drawn By: MSB
Checked: NN
Project #: 2181-19
Date: February 14, 2019

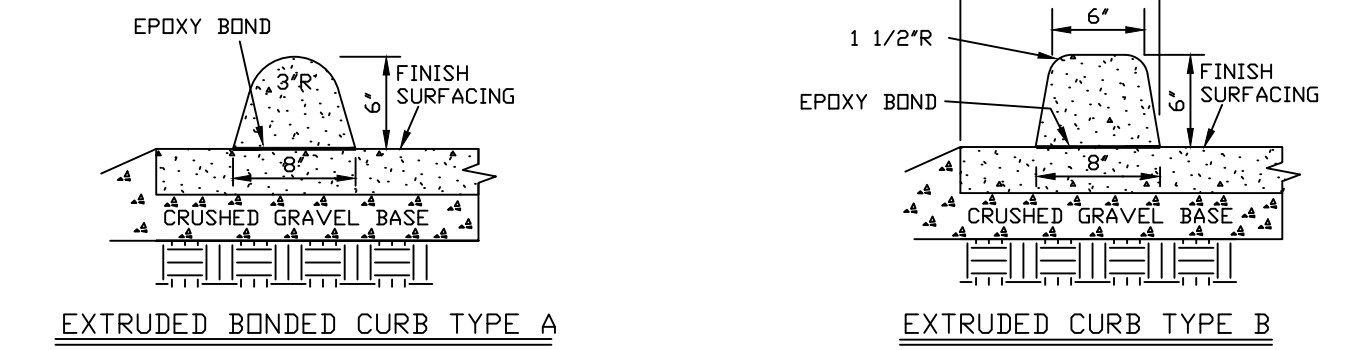
Rev. #: #
Date: dd/mm/yy
Bid Set: March 24, 2019

SHEET TITLE
NW CAMPUS
ADA
BARRIERS

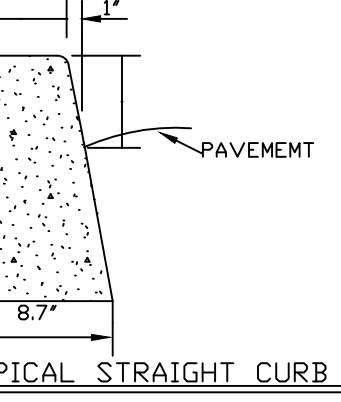
SHEET #
C1.3



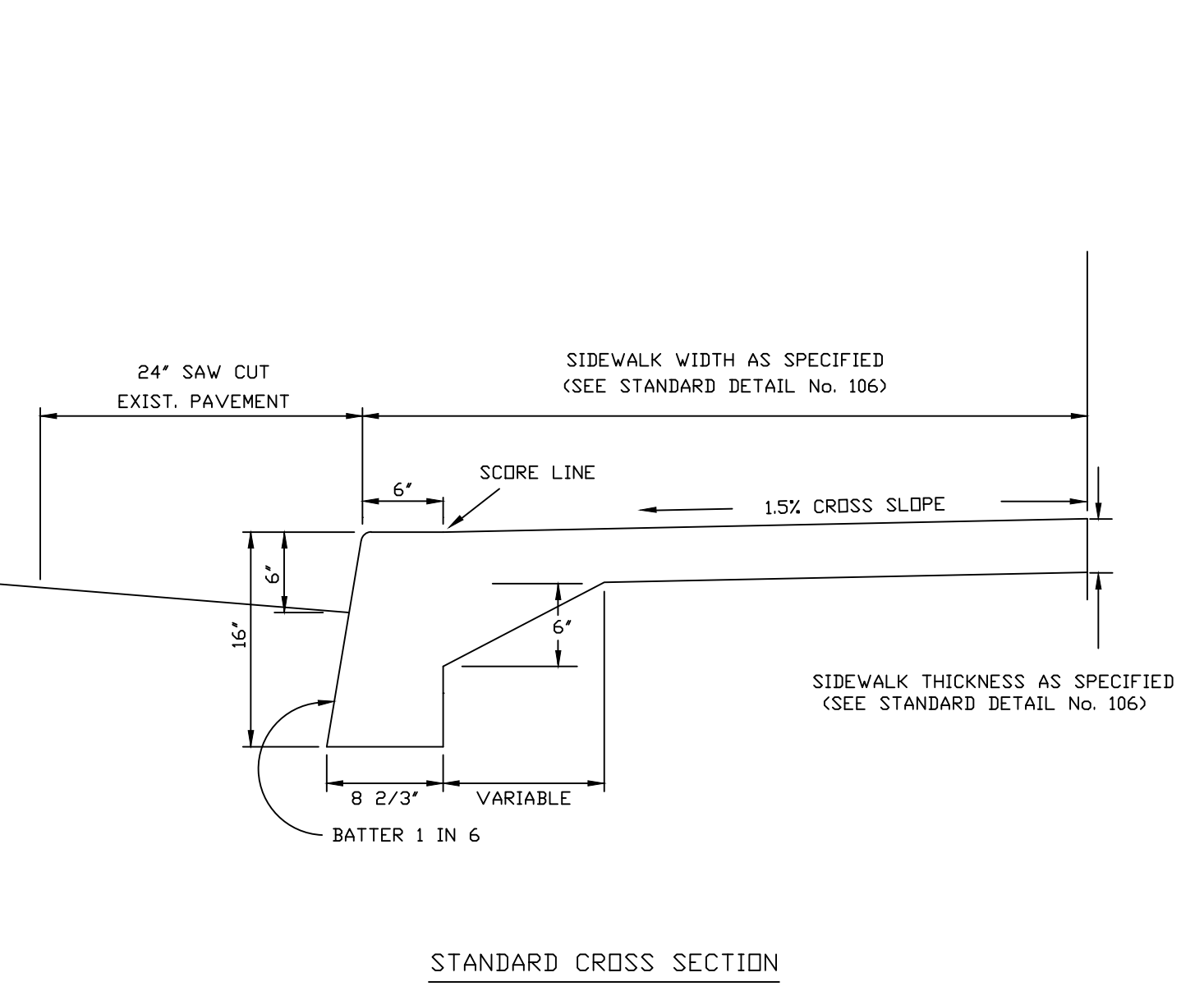
WEEP HOLE THROUGH CURB



- NOTES:
1. ALL RADII SHALL BE 3/4" EXCEPT AS OTHERWISE NOTED.
 2. EXPANSION JOINTS SHALL BE PLACED AT ALL CONSTRUCTION JOINTS AS DIRECTED.
 3. CONTRACTION JOINTS SHALL BE PLACED AT APPROX. 15' INTERVALS AND SHALL EXTEND A MIN. OF 50% THROUGH THE CURB OR CURB AND GUTTER.
 4. THE ULTIMATE COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE AS SPECIFIED.
 5. WEEP HOLES SHALL BE PLACED AT CONTRACTION JOINTS.
 6. WEEP HOLES INSTALLED IN EXIST. CURB SHALL BE CURED ONLY, ON MIN. 12" CENTERS.
 7. REFER TO STANDARD WHEELCHAIR RAMP DETAILS FOR INTERSECTION CURB RADII DETAILS.
 8. THE USE OF EXTRUDED BONDED CURBS SHALL ONLY BE BY SPECIFIC APPROVAL OF THE ENGINEER.
 9. EXTEND WEEPHOLES TO BACK OF WALK WHEN SIDEWALKS ARE CONSTRUCTED AND INSTALL COUPLINGS AT BACK OF WALK.
 10. FOR CONCRETE STREETS, MATCH STREET AND CURB JOINTS.



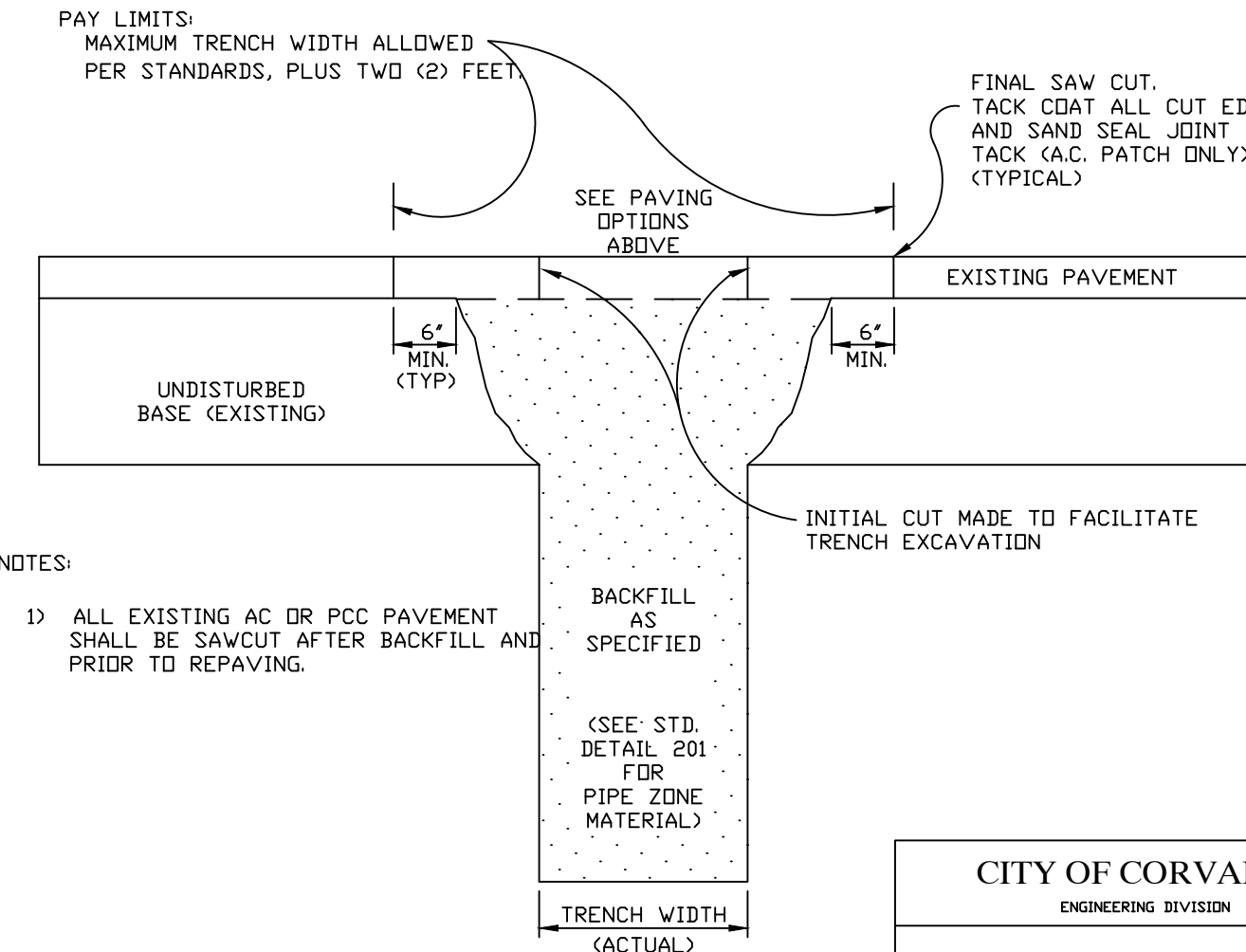
CITY OF CORVALLIS ENGINEERING DIVISION		
CURB CONSTRUCTION STANDARD DETAIL		
DATE: JANUARY, 2003	SCALE: NONE	STANDARD DETAIL NO. 103
APPROVED:		



- NOTES:
1. SEE STANDARD DETAILS No. 103 & No. 106 FOR STANDARD NOTES.
 2. THE CONTRACTOR SHALL ENSURE THAT SIDEWALK IN DRIVEWAY APPROACHES MEETS ADA STANDARDS.

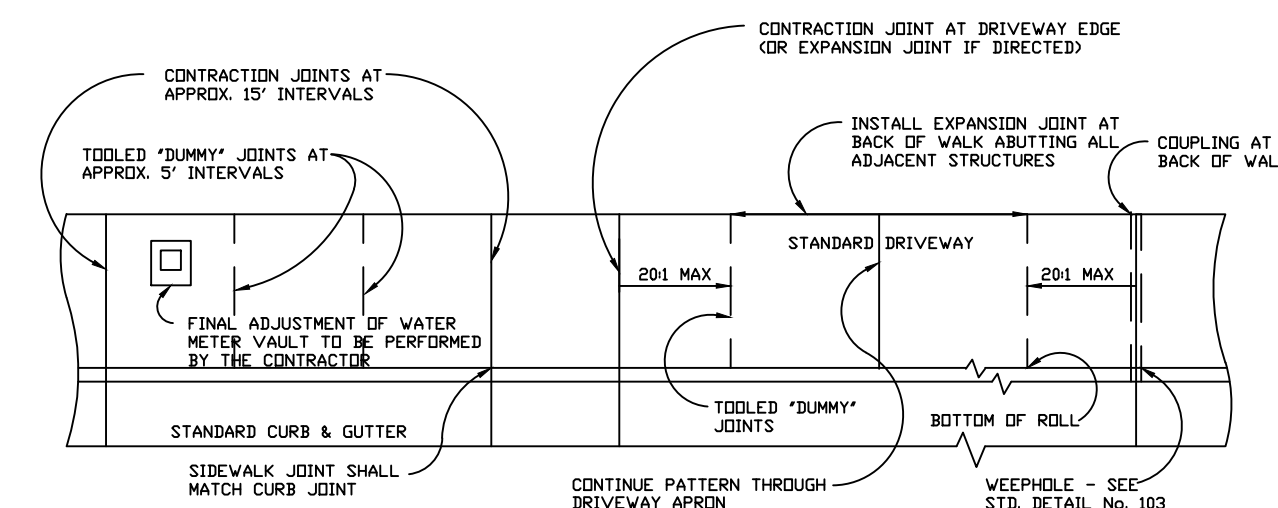
CITY OF CORVALLIS ENGINEERING DIVISION		
MONOLITHIC CURB FOR SIDEWALK AND RAMPS		
DATE: JANUARY, 2003	SCALE: NONE	STANDARD DETAIL NO. 103B
APPROVED:		

- * ASPHALTIC CONCRETE PAVEMENT TO BE REPLACED SHALL MATCH CALLOUTS ON PLANS AND SPECIFICATIONS.
* P.C.C. PAVEMENT TO BE REPLACED SHALL MATCH CALLOUTS ON PLANS AND SPECIFICATIONS.

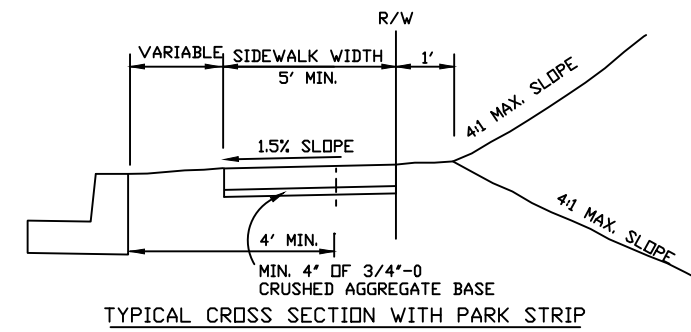


- NOTES:
- 1) ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT AFTER BACKFILL AND PRIOR TO REPAVING.

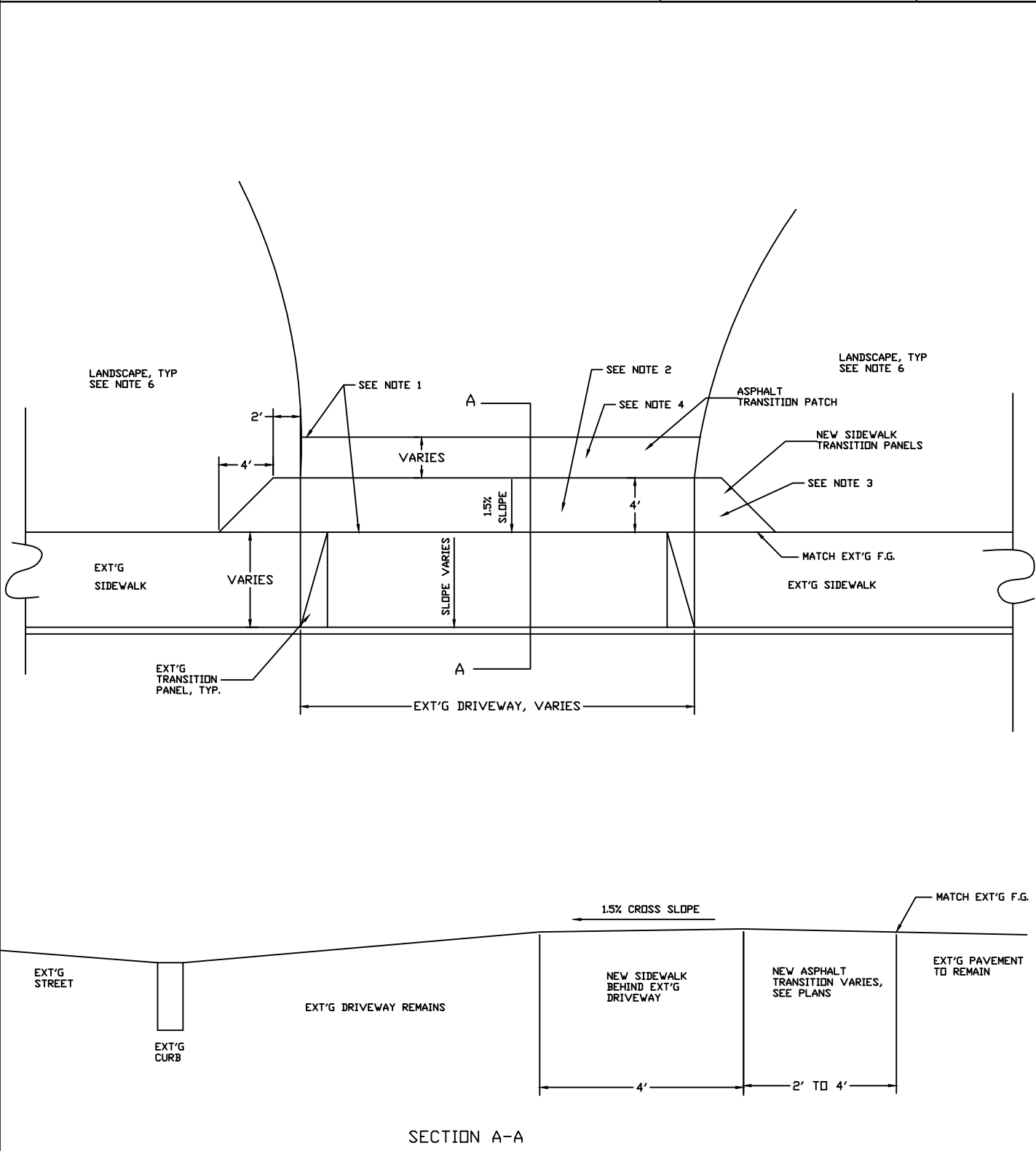
CITY OF CORVALLIS ENGINEERING DIVISION		
STREET CUT DETAIL		
DATE: JANUARY, 2003	SCALE: NONE	STANDARD DETAIL NO. 110
APPROVED:		



- NOTES:
1. SIDEWALKS SHALL BE LOCATED TO PROVIDE A 6-FOOT LANDSCAPE STRIP ON LOCAL AND LOCAL COLLECTOR STREETS, AND A 10-FOOT LANDSCAPE STRIP ON COLLECTOR AND ARTERIAL STREETS. WHERE IMMEDIATE ROW EXISTS, A REDUCTION IN LANDSCAPE STRIP WIDTH MAY BE ALLOWED WITH PRIOR APPROVAL OF THE ENGINEER.
 2. STANDARD SIDEWALK CROSS SLOPE SHALL BE 1.5% WHEN THE LOT IS BELOW THE TOP OF THE CURB AND SLOPES AWAY FROM THE CURB. A MINIMUM 1.5% SLOPE MAY BE REQUIRED, AS DIRECTED.
 3. CONCRETE DEPTH FOR STANDARD SIDEWALKS SHALL BE NOMINAL PER PLANS. DRIVEWAY SECTIONS SHALL BE NOMINAL 8" MIN. CHECK PLANS FOR REBAR REQUIREMENTS. ALL CONCRETE SHALL BE PLACED OVER 4" MIN. CRUSHED AGGREGATE BASE.
 4. CONTRACTION JOINTS SHALL BE INSTALLED AT APPROX. INTERVALS OF 15 FEET BY SCORE JOINTS A MIN. LINE THIRD SHALL BE INSTALLED AT APPROX. INTERVALS OF 5 FEET.
 5. "DUMMY" SCORE JOINTS MAY BE USED AS STANDARD WEAKENED PLANE CONTRACTION JOINTS IF APPROVED BY D.A.R.
 6. THE AREA BEHIND THE SIDEWALK IS TO BE BACK-FILLED WITH IMPORTED TOPSOIL AND GRASS SEED, AS DIRECTED BY D.A.R. THE BACKFILL SHALL APPLY TO BOTH SIDES OF THE SIDEWALK ON A PROPERTY LINE SIDEWALK.

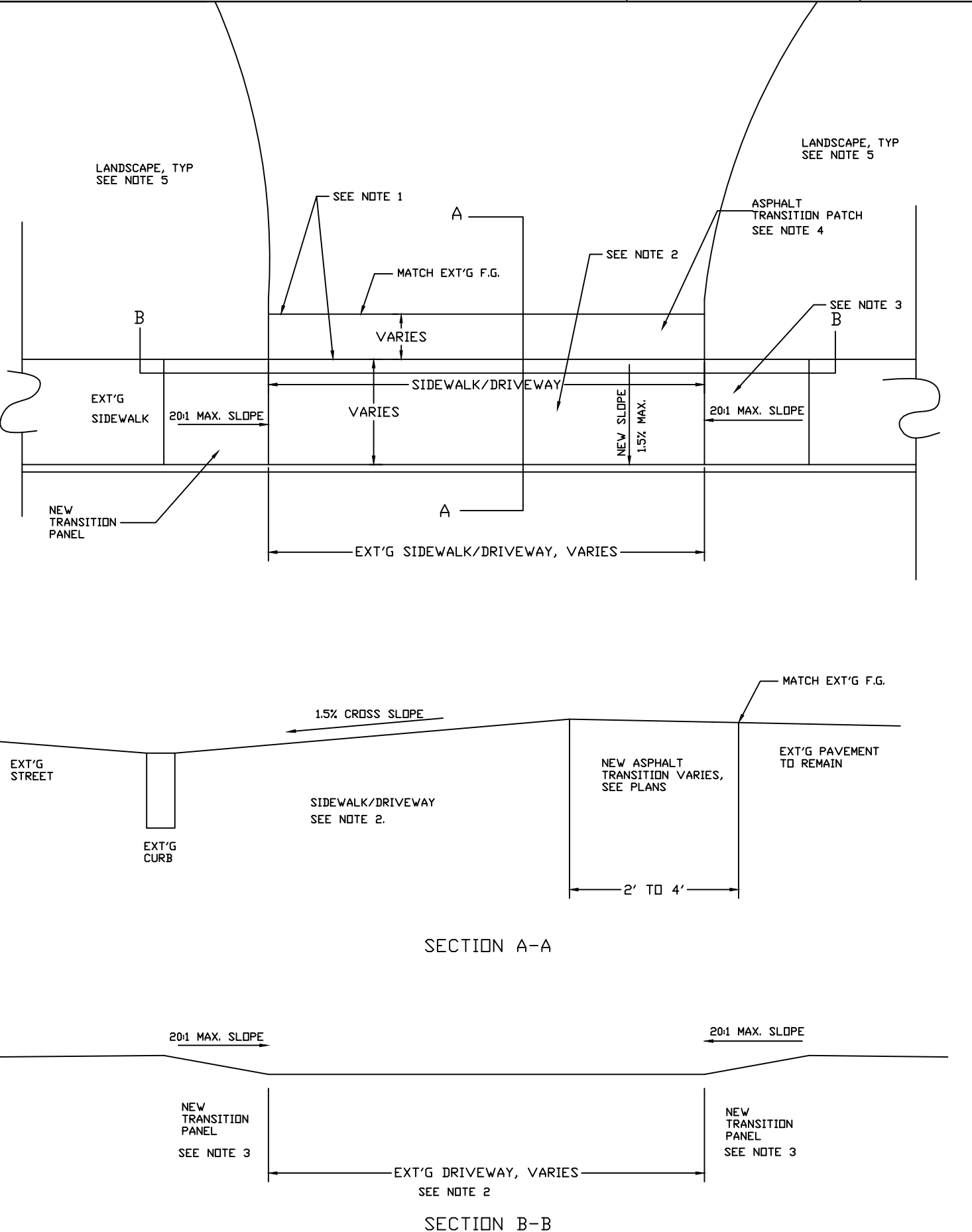


ISE OREGON		
SIDEWALK DETAIL		
DATE: MARCH, 2007	SCALE: NONE	DETAIL NO. 10
APPROVED:		



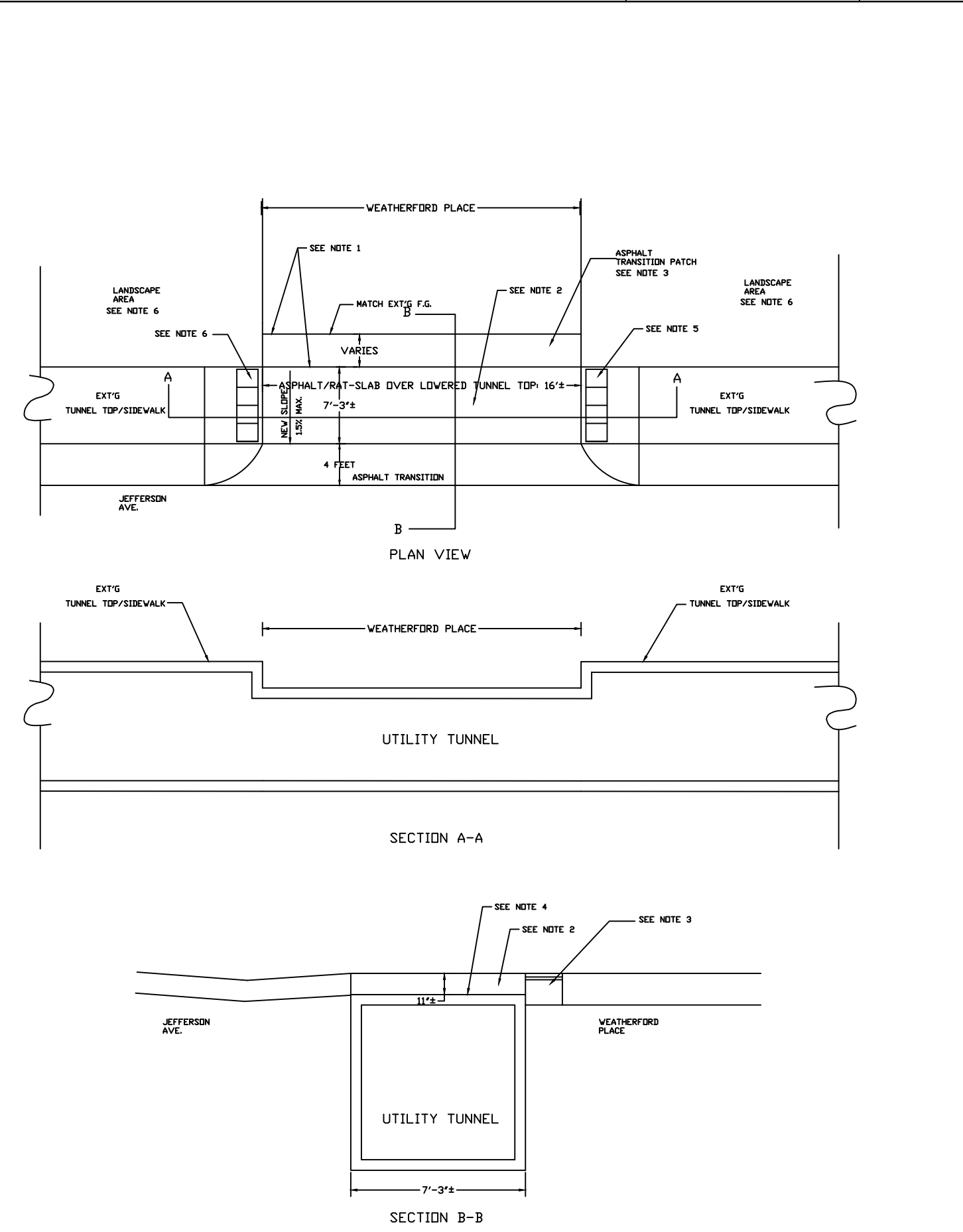
- NOTES:
1. SAWCUT FOR NEW IMPROVEMENTS PER DETAIL 103. SHI SHALL REMOVE EXIST. CURB TO BACK OF ASPHALT TRANSITION PATCH WHEN CONFLICTS EXIST. PROVIDE NEW 16" TRANSITION STRAIGHT CURB WITH MINIMUM LENGTH OF 16" FROM 6" REVEAL TO ZERO REVEAL AT BACK OF NEW SIDEWALK.
 2. CONSTRUCT NEW DRIVEWAY SIDEWALK 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK. CONSTRUCT NEW CROSS SLOPE AT 1.5%.
 3. CONSTRUCT NEW SIDEWALK TRANSITION PANELS 4-INCHES PCC OVER 4-INCHES COMPACTED BASEDOK.
 4. SAWCUT WIDTH FOR ASPHALT TRANSITION PATCH BEHIND SIDEWALK PER PLANS. REPLACE TRANSITION WITH 2 - 2 1/2" LIFTS OF ASPHALT (5-INCHES TOTAL) OVER 15-INCHES OF COMPACTED BASEDOK.
 5. WHEN TREES ARE PRESENT IN THE SIDEWALK TRANSITION PANEL AREA, COORDINATE EXCAVATION WITH OSU'S ARBORIST AROUND ROOTS, AND PLANT TO MATCH 200 WHEN DIRECTED.
 6. BACKFILL WITH IMPORTED TOPSOIL AS DIRECTED BY D.A.R.

ISE OREGON		
SIDEWALK BEHIND DRIVEWAY		
DATE: MARCH, 2007	SCALE: NONE	DETAIL NO. 11
APPROVED:		



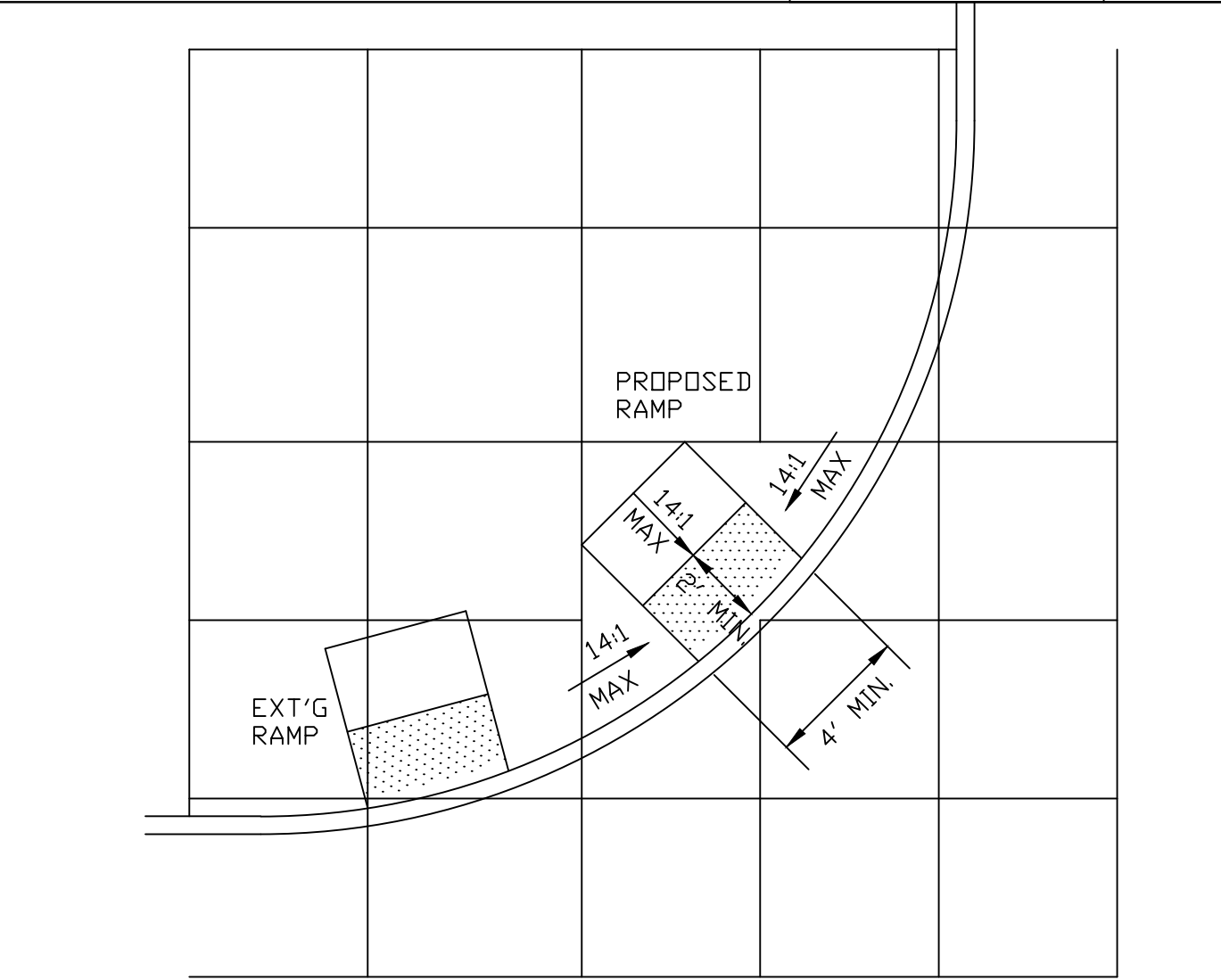
- NOTES:
1. SAWCUT FOR NEW IMPROVEMENTS PER DETAIL 103. SHI SHALL REMOVE EXIST. CURB TO BACK OF ASPHALT TRANSITION PATCH WHEN CONFLICTS EXIST. PROVIDE NEW 16" TRANSITION STRAIGHT CURB WITH MINIMUM LENGTH OF 16" FROM 6" REVEAL TO ZERO REVEAL AT BACK OF NEW SIDEWALK.
 2. REMOVE EXIST. NON-COMPLIANT SIDEWALK/DRIVEWAY. IF SIDEWALK/DRIVEWAY, REPLACE WITH 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK. IF SIDEWALK/DRIVEWAY, REPLACE WITH 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK. IF SIDEWALK/DRIVEWAY, REPLACE WITH 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK.
 3. REMOVE EXIST. SIDEWALK AND CURB OUTSIDE DRIVEWAY TO NEAREST JOINT TO ESTABLISH A MAXIMUM 201 SLOPE. DISTANCE IS DEPENDENT ON CURB REVEAL. CONSTRUCT NEW TRANSITION 6-INCHES PCC OVER 4-INCHES COMPACTED BASEDOK.
 4. SAWCUT WIDTH FOR ASPHALT TRANSITION PATCH PER PLANS. REPLACE TRANSITION WITH 2 - 2 1/2" LIFTS OF ASPHALT (5 INCHES TOTAL) OVER 15-INCHES OF COMPACTED BASEDOK.
 5. BACKFILL WITH IMPORTED TOPSOIL AS DIRECTED BY D.A.R.

ISE OREGON		
SIDEWALK/DRIVEWAY REPLACEMENT		
DATE: MARCH, 2007	SCALE: NONE	DETAIL NO. 12
APPROVED:		



- NOTES:
1. SAWCUT FOR NEW IMPROVEMENTS PER DETAIL 103. SHI SHALL REMOVE EXIST. CURB TO BACK OF ASPHALT TRANSITION PATCH WHEN CONFLICTS EXIST. PROVIDE NEW 16" TRANSITION STRAIGHT CURB WITH MINIMUM LENGTH OF 16" FROM 6" REVEAL TO ZERO REVEAL AT BACK OF NEW SIDEWALK.
 2. REMOVE EXIST. NON-COMPLIANT SIDEWALK/DRIVEWAY. IF SIDEWALK/DRIVEWAY, REPLACE WITH 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK. IF SIDEWALK/DRIVEWAY, REPLACE WITH 8-INCHES PCC W/ #4 REBAR PLACED 16-INCHES O.C. & EACH WAY OVER 4-INCHES OF COMPACTED BASEDOK.
 3. REMOVE EXIST. SIDEWALK AND CURB OUTSIDE DRIVEWAY TO NEAREST JOINT TO ESTABLISH A MAXIMUM 201 SLOPE. DISTANCE IS DEPENDENT ON CURB REVEAL. CONSTRUCT NEW TRANSITION 6-INCHES PCC OVER 4-INCHES COMPACTED BASEDOK.
 4. SAWCUT WIDTH FOR ASPHALT TRANSITION PATCH PER PLANS. REPLACE TRANSITION WITH 2 - 2 1/2" LIFTS OF ASPHALT (5 INCHES TOTAL) OVER 15-INCHES OF COMPACTED BASEDOK.
 5. BACKFILL WITH IMPORTED TOPSOIL AS DIRECTED BY D.A.R.

ISE OREGON		
CROSSWALK OVER TUNNEL		
DATE: MARCH, 2007	SCALE: NONE	DETAIL NO. 13
APPROVED:		



- NOTES:
1. MAXIMUM RUNNING RAMP SLOPE SHALL BE 14:1 (7.1%). MAXIMUM FLARE SLOPE SHALL BE 14:1 (7.1%). CONSTRUCT CURB RAMPS AND CONC. DETECTABLE WARNINGS ACROSS DRIVEWAYS OR INTERSECTIONS TO DIRECTIONALLY ALIGN.
 2. STANDARDS ARE FOR GUIDANCE. CONTRACTOR SHALL COORDINATE APPROACH AND RECEIVE D.A.R. APPROVAL PRIOR TO CONSTRUCTION.
 3. PLACE TRUNCATED DOME DETECTABLE WARNING IN THE LOWER 2' ADJACENT TO TRAFFIC THROAT OF RAMP ONLY. ARRANGE DOMES USING IN-LINE PATTERN ONLY AS SHOWN IN DETAIL RIGHT. COLOR OF TEXTURE TO BE SAFETY YELLOW.
 4. SAWCUT AND REMOVE THE EXISTING CURB RETURN TO THE OUTER EDGE OF THE RAMP UNLESS A JOINT EXISTS WITHIN 5 FEET OF THE RAMP IN WHICH CASE REMOVE TO THE JOINT.
 5. SAWCUT AND REMOVE EXISTING SIDEWALK TO NEAREST FULL PANEL EDGE AS REQUIRED.
 6. A LANDING IS REQUIRED AT THE TOP OF THE RAMP LESS THAN 2% SLOPE IN ANY DIRECTION.
 7. SIDE FLARES SHALL BE A 14:1 MAXIMUM SLOPE.
 8. THE DISTANCE BETWEEN SIDE FLARES OF TWO ADJACENT CURB RAMPS SHALL BE A MINIMUM OF 12-INCHES AS MEASURED AT THE FACE OF CURB. A MINIMUM 3-INCH CURB EXPOSURE SHALL BE MAINTAINED BETWEEN ADJACENT FLARES. PAYMENT FOR NEW 16" CURB WILL BE SEPARATE FROM CURB RAMP.
 9. PAYMENT TO REPLACE EXIST. RAMP TO BE PAID USING RESPECTIVE UNIT PRICES FOR ITEMS 2, 3, AND 9, RESPECTIVELY.
 10. SAWCUT, REMOVE, AND REPLACE CONCRETE STREET PAVEMENT AT THE NEAREST JOINT TO THE NEW CURB. REPLACE WITH 8-INCHES CONCRETE W/ #4 REBAR 16 INCHES ON CENTER, EACH WAY. DOWEL #4 REBAR 4 INCHES INTO LOWER HALF OF EXISTING CONCRETE PAVEMENT TO MATCH NEW REBAR LAYOUT. PAYMENT FOR STREET PAVEMENT WILL BE SEPARATE FROM CURB RAMP.

ISE OREGON		
4 CURB RAMPS RESER STADIUM		
DATE: FEBRUARY, 2008	SCALE: NONE	DETAIL NO. 14
APPROVED:		



Campus Planning
and Development
Oregon State University
3315 SW Western Blvd.
Corvallis, Oregon 97331
541-954-0294

Infrastructure
Solutions
Engineering, LLC
Civil & Environmental Engineering
www.iseoregon.com
P.O. Box 9
Corvallis, OR 97339
Cell: 541.510.3322
Email: mke.blair@iseoregon.com

2019 PATH OF TRAVEL
IMPROVEMENTS
OREGON STATE UNIVERSITY
OSU PROJ. NO.: 2181-19



Drawn By: MSB
Checked: NN
Project #: 2181-19
Date: February 14, 2019

Rev. #: _____ Date: _____
dd/mm/yy
Bid Set: March 24, 2019

SHEET TITLE
DETAILS

SHEET #
CD1.1