

**UNIVERSITY OF OREGON**

Clinical Services Building  
2012 Clinical Services Elevator

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## OREGON UNIVERSITY SYSTEM

### NOTICE OF RETAINER CONTRACT OPPORTUNITY

The Oregon University System (OUS) is accepting sealed bids for a public improvement project at the Capital Construction Offices until **2:00 PM, Pacific Time, April 20, 2012** for the Clinical Services Elevator Replacement project located on the campus of University of Oregon, in Eugene, Oregon. The project includes replacing the elevator controller and elevator motor, refurbishment of elevator car, upgrade elevator components located in the elevator shaft, electrical upgrades to receptacles and lighting in elevator pit and penthouse, install new panelboard in elevator machine room, provide mechanical cooling of elevator machine room, provide elevator recall panel and associated smoke detectors.

A **mandatory** pre-bid conference will be conducted at 1:00pm, April 9, 2012. Bidders shall meet with OUS' Representative at the Clinical Services building, basement level Room 30 for that purpose. Attendance will be documented through a sign-in sheet prepared by the OUS representative. Prime bidders who arrive more than 5 minutes after start of time of the meeting (as stated in the solicitation and by the OUS representative's watch) 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.

Bids will be received on a lump-sum basis for all of the work. Bid documents may be obtained electronically on the OUS Procurement Gateway website (<https://secure.ous.edu/bid/opportunities>).

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 and accompanied by Bid Security. OUS encourages bids from Minority, Women, and Emerging Small Businesses.

OREGON STATE BOARD OF HIGHER EDUCATION

By: Jamie Moffitt, VP for Finance and Administration/CFO



**OREGON UNIVERSITY SYSTEM**  
**RETAINER CONTRACTS EXCEEDING \$100,000**  
**INSTRUCTIONS TO BIDDERS**

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## INSTRUCTIONS TO BIDDERS

Oregon Administrative Rules Chapter 580, Divisions 61 and 63 govern this OUS procurement process.

### **Article 1. Scope of Work**

The work contemplated under this contract with the Oregon State Board of Higher Education, hereinafter referred to as the Owner, includes all labor, materials, transportation, equipment and services necessary for, and reasonably incidental to, the completion of all construction work in connection with the project described in the Project Manual which includes, but is not necessarily limited to, the Advertisement for Bids, Instructions to Bidders, Supplemental Instructions to Bidders, Bid Form, Public Improvement Agreement Form, Performance Bond, Payment Bond, OUS General Conditions, Supplemental General Conditions, Plans and Specifications.

### **Article 2. Examination of Site and Conditions**

Before making a bid, the bidder shall examine the site of the work and ascertain all the physical conditions in relation thereto. The bidder shall also make a careful examination of the Project Manual including the plans, specifications, and other contract documents, and shall be fully informed as to the quality and quantity of materials and the sources of supply of the materials. Failure to take these precautions will not release the successful bidder from entering into the contract nor excuse the bidder from performing the work in strict accordance with the terms of the contract.

The Owner will not be responsible for any loss or for any unanticipated costs which may be suffered by the successful bidder as a result of such bidder's failure to be fully informed in advance with regard to all conditions pertaining to the work and the character of the work required. No statement made by an officer, agent, or employee of the Owner in relation to the physical conditions pertaining to the site of the work will be binding on the Owner, unless covered by the Project Manual or an Addendum.

### **Article 3. Interpretation of Project Manual and Approval of Materials Equal to Those Provided in the Specifications**

If any bidder contemplating submitting a bid for the

proposed contract is in doubt as to the true meaning of any part of the plans, specifications or forms of contract documents, or detects discrepancies or omissions, such bidder may submit to the Architect (read "Engineer" throughout as appropriate) a written request for an interpretation thereof at least 10 calendar days prior to the date set for the bid closing.

When a prospective bidder seeks approval of a particular manufacturer's material, process or item of equal value, utility or merit other than that designated by the Architect in the Project Manual, the bidder may submit to the Architect a written request for approval of such substitute at least 10 calendar days prior to the date set for the bid closing. The prospective bidder submitting the request will be responsible for its prompt delivery.

Requests of approval for a substitution from that specified shall be accompanied by samples, records of performance, certified copies of tests by impartial and recognized laboratories, and such other information as the Architect may request.

To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the Project Manual either by description of process or by designating a manufacturer by name and referring to a brand or product designation or by specifying a kind of material. Whenever a process is designated or a manufacturer's name, brand or item designation is given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation or description, whether in fact they do so or not.

Any interpretation of the Project Manual or approval of manufacturer's material will be made only by an Addendum duly issued. A copy of each Addendum will be mailed or delivered to each bidder receiving a Project Manual and becomes a part thereof. The Owner will not be responsible for any other explanation or interpretation of the Project Manual nor for any other approval of a particular manufacturer's process or item.

When the Architect approves a substitution by Addendum, it is with the understanding that the Contractor guarantees the substituted article or material to be equal or better than the one specified.

**Article 4. Execution of the Bid Form**

Each bid shall be made in accordance with the sample Bid Form accompanying these instructions; In the case of a sole individual, the bid form need only be executed as principal by the sole individual. In the case of a partnership, the bid form must be executed by at least one of the partners. In the case of a corporation, the bid form must be executed by stating the official name of the corporation under which is placed the signature of an officer authorized to sign on behalf of the corporation followed by such person's official capacity, such as president, etc. This signature shall be attested by the secretary or assistant secretary of the corporation. The corporation seal should then be affixed to the bid form.; numbers pertaining to base bids shall be stated both in writing and in figures; the bidder's address shall be typed or printed.

The Bid Form relates to bids on a specific Project Manual. Only the amounts and information asked for on the Bid Form furnished will be considered as the bid. Each bidder shall bid upon the work exactly as specified and provided in the Bid Form. The bidder shall include in the bid a sum to cover the cost of all items contemplated by the Contract. The bidder shall bid upon all alternates that may be indicated on the Bid Form. When bidding on an alternate for which there is no charge, the bidder shall write the words "No Charge" in the space provided on the Bid Form. If one or more alternates is shown on the Bid Form, the bidder shall indicate whether each is "add" or "deduct."

The Bid Form included in the Project Manual is a sample. One additional copy of the Bid Form may be furnished with the Project Manual. One additional copy of the Bid Bond form may also be provided with the Project Manual. Only one copy needs to be submitted with the bid.

**Article 5. Prohibition of Alterations to Bid**

Bids which are incomplete, or contain ambiguities or conditions not provided for in the Bid Form, may be rejected.

**Article 6. Submission of Bid**

Each bid shall be sealed in an envelope, properly addressed to the appropriate project Owner within the Oregon University System, showing on the outside of the envelope

the name of the bidder and the name of the project. Bids will be received at the time and place stated in the Advertisement for Bids.

**Article 7. Bid Closing and Opening of Bids**

All bids must be received by the Owner at the place and time set for the bid closing. Any bids received after the scheduled closing time for receipt of bids will be rejected and returned to the bidder unopened.

~~At the time of opening and reading of bids, each bid received will be publicly opened and read aloud, irrespective of any irregularities or informalities in such bids.~~

Bids will not be opened and read publically at the time of submission. Bids will be reviewed internally by the Owner and results will be issued to the bidding Contractors.

**Article 8. Acceptance or Rejection of Bids by Owner**

Unless all bids are rejected, the Owner will award a contract based on the lowest responsive bid from a responsible bidder. If that bidder does not execute the contract, it will be awarded to the next lowest responsible bidder or bidders in succession.

The Owner reserves the right to reject all bids and to waive minor informalities. The procedures for contract awards shall be in compliance with the provisions of Oregon Administrative Rules adopted by the Owner.

The Owner reserves the right to hold the bid and bid security of the three lowest bidders for a period of 30 calendar days from and after the time of bid opening pending award of the contract.

In determining the lowest bidder, the Owner reserves the right to take into consideration any or all authorized base bids as well as alternates or combinations indicated in the Bid Form.

If such bid has not been accepted within 30 calendar days after the opening of the bids, each of the three lowest bidders may withdraw the bid submitted.

## **Article 9. Withdrawal of Bid**

At any time prior to the time and place set for the bid closing, a bidder may withdraw the bid. This will not preclude the submission of another bid by such bidder prior to the time set for the bid closing.

After the time set for the bid closing, no bidder will be permitted to withdraw its bid within the time frames specified in Article 8 for award and execution, except as provided for in that Article.

## **Article 10. Execution of Contract, Agreement, Performance Bond and Payment Bond**

The Owner will provide the successful bidder with contract forms within 10 calendar days after the award of the Contract. The bidder is required to execute the contract forms as provided, including a performance bond and a payment bond from a surety company licensed to do surety business in the State of Oregon, within 20 calendar days after the award of the contract. The contract forms shall be delivered to the Owner in the number called for and to the location as noted in the Notice of Award.

## **Article 11. Recyclable Products**

Contractors will use recyclable products to the maximum extent economically feasible in the performance of the Contract.



**OREGON UNIVERSITY SYSTEM**  
**STANDARD PUBLIC IMPROVEMENT CONTRACT**  
**SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

**Project Name: 2012 Clinical Services Elevator**

**The following modify the Oregon University System “Instructions to Bidders” for this procurement. Where a portion of the Instructions to Bidders has been modified by these Supplemental Instructions to Bidders, the unaltered portions shall remain in effect.**

**RESERVED**



**OREGON UNIVERSITY SYSTEM**

**RETAINER CONTRACT**

**BID FORM**

OUS CAMPUS: University of Oregon

PROJECT: 2012 Clinical Services Elevator

BID CLOSING: Monday, April 20<sup>th</sup>, 2011 at 2:00 PM

FROM: \_\_\_\_\_  
*Name of Contractor*

TO: Oregon State Board of Higher Education  
University of Oregon – Capital Construction Office  
1295 Franklin Blvd.  
1-541-346-8292

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 organized under the laws of the State of \_\_\_\_\_;

hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

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

- NOPI – Contract Opportunity
- OUS Retainer Supplement Form
- OUS General Conditions
- Prevailing Wage Rates
- Plans and Specifications
- Instructions to Bidders
- Performance Bond and Payment Bond
- Supplemental General Conditions
- Payroll and Certified Statement Form
- Drawings and Details

• ADDENDA numbered \_\_\_ through \_\_\_, inclusive (*fill in blanks*)

2. The work shall be completed within the time stipulated and specified in Division 1, Section 01 10 00, of the Specifications.

3. The Undersigned agrees, if awarded the Contract, to execute and deliver to the Oregon State Board of Higher Education, within twenty (20) calendar days after receiving the Contract forms, 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.

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 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 make 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. 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

or 2) \_\_\_\_\_

Partner

or 3) \_\_\_\_\_

Authorized Officer of Corporation

(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 \*\*\*\*\***



**OUS RETAINER CONTRACT SUPPLEMENT  
PURSUANT TO OUS RETAINER CONTRACT FOR CONSTRUCTION  
RELATED SERVICES**

Supplement No.:  
Project Name:

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

the "Contractor":

Federal Tax ID No.:

and the "Owner":

The State of Oregon acting by and through the State  
Board of Higher Education on behalf of:  
University of Oregon  
Capital Construction  
1295 Franklin Blvd  
Eugene, OR 97403

(collectively the "Parties") pursuant to that certain Retainer Contract between the Parties dated July 1, 2010 (the "Retainer Contract"). For good and valuable consideration, the Parties agree as follows:

**1. DESCRIPTION OF THE PROJECT.** The project to which this Supplement pertains is described as follows: \_\_\_\_\_ (the "Project").

**2. WORK TO BE PERFORMED.** The Contractor will perform the following Work on the Project: \_\_\_\_\_ (the "Work"). The Contractor will perform the Work according to the terms and conditions of this Supplement and the Retainer Contract, including its attachments, which are incorporated into this Supplement by reference.

**3. SCHEDULE.** The Contractor will perform the Work according to the following schedule:  
use next

**4. COMPENSATION.** The Owner will compensate the Contractor for Work in the firm, fixed-price amount of \$ \_\_\_\_\_ in accordance with the requirements of the OUS 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 OAR 580-063-0030.

**5. TERM.** This Supplement is effective on the date it has been signed by every Party hereto and all required approvals have been obtained (the "Effective Date"). No Work will be performed or payment made prior to the Effective Date. The Contractor will perform its

obligations according to this Supplement, unless terminated or suspended. Termination or suspension does not extinguish or prejudice Owner's right to enforce this Supplement with respect to any breach of Contractor's performance that has not been cured.

**6. PERFORMANCE AND PAYMENT BONDS.** The performance and payment bond requirements for this Project are as follows:

Prior to execution of a Retainer Contract Supplement Notice to Proceed, Contractor must provide to the contracts officer of the Owner institution at which the Work will take place, a performance bond in a sum equal to the fixed price stated in paragraph 4(a) above, or the maximum not-to-exceed price stated in paragraph 4(b) above, as applicable, and a separate payment bond in the same amount.

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. MINIMUM WAGE RATES.** If the amount of the maximum compensation for all Owner-contracted Work is more than \$50,000, 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 OUS 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, January 1, 2012 (as amended April 1, 2012), which can be downloaded at the following web address:

[[http://www.egov.oregon.gov/BOLI/WHD/PWR/pwr\\_book.shtml](http://www.egov.oregon.gov/BOLI/WHD/PWR/pwr_book.shtml)]

The Work will take place in Lane County, Oregon.

**8. TAX COMPLIANCE CERTIFICATION.** Contractor hereby affirms, under penalty of perjury, as provided in ORS 305.385(6), that to the best of Contractor's knowledge Contractor is not in violation of any of the tax laws described in ORS 305.380(4). For purposes of this certification, "tax laws" means a state tax imposed by ORS 401.792 to 401.816 and ORS chapters 118, 314, 316, 317, 318, 320, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Department of Revenue under ORS 305.620.

**9. INSURANCE REQUIREMENTS.** Contractor shall comply with and obtain the insurance coverage amounts stated in the OUS General Conditions. If a different insurance type or level of coverage is required, it is identified in Supplemental General Conditions.

**10. KEY PERSONS.**

The Contractor's personnel identified below shall be considered Key Persons and shall not be replaced during the Project without the written permission of Owner, which shall not be



unreasonably withheld. If the Contractor intends to substitute personnel, a request must be given to Owner at least 30 days prior to the intended time of substitution. When replacements have been approved by Owner, the Contractor shall provide a transition period of at least 10 working days during which the original and replacement personnel shall be working on the Project concurrently. Once a replacement for any of these staff members is authorized, further replacement shall not occur without the written permission of Owner. The Contractor's Project Staff shall consist of the following personnel:

**11. OTHER TERMS.** Except as specifically modified by this Supplement, all terms of the Retainer Contract remain unchanged and apply to the Work.

**12. 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

The State of Oregon acting by and through  
the State Board of Higher Education on  
behalf of University of Oregon, Owner

Print Name: \_\_\_\_\_  
\_\_\_\_\_

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**OREGON UNIVERSITY SYSTEM**  
**SUPPLEMENTAL GENERAL CONDITIONS**

**To The**

**GENERAL CONDITIONS**  
**FOR PUBLIC IMPROVEMENT CONTRACTS**

**Project Name: 2012 Clinical Services Elevator**

**The following modify the Oregon University System “General Conditions for Public Improvement Contracts”, February 1, 2011, (OUS General Conditions) for this Contract. Where a portion of the OUS General Conditions is modified by these Supplemental General Conditions, the unaltered portions shall remain in effect.**

RESERVED



# OREGON UNIVERSITY SYSTEM

## GENERAL CONDITIONS FOR PUBLIC IMPROVEMENT CONTRACTS

February 1, 2011

INSTRUCTIONS: The attached **Oregon University System General Conditions for Public Improvement Contracts ("OUS General Conditions")** apply to all designated public improvement contracts. Changes to the OUS General Conditions (including any additions, deletions or substitutions) should only be made by attaching Supplemental General Conditions. The text of these OUS General Conditions should not otherwise be altered. These OUS General Conditions have been reviewed as to form by the Oregon Department of Justice. The legal sufficiency and approval requirements of ORS 291.047 remain applicable to individual OUS procurements, unless an exemption has been granted pursuant to that statute and Department of Justice administrative rules at OAR Chapter 137, Division 45.

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**OREGON UNIVERSITY SYSTEM  
GENERAL CONDITIONS FOR PUBLIC IMPROVEMENT CONTRACTS  
("OUS General Conditions")**

**SECTION A  
GENERAL PROVISIONS**

**A.1 DEFINITION OF TERMS**

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

**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 of the Owner's Authorized Representative 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's Authorized Representative 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, including Owner's written change directives as well as changes reflected in a writing executed by the parties to this Contract and, if applicable, establishing a Contract Price or Contract Time adjustment for the changed Work.

**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 OUS General Conditions.

**CONSTRUCTION CHANGE DIRECTIVE**, means a written order by the Owner's Authorized Representative 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.

**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 Solicitation Document and addenda thereto, Instructions to Offerors, Supplemental Instructions to Offerors, the OUS Public Improvement Agreement Form, OUS General Conditions, Supplemental General Conditions, if any, the accepted Offer, Plans, Specifications, amendments, Change Orders and Construction Change Directives .

**CONTRACT PERIOD**, as set forth in the Contract Documents, means the total period of time beginning with the issuance of the 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 and Change Orders.

**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.

**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, old age 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.

**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 Change Orders 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 and a proposal in connection with a Request for Proposals.

**OFFEROR**, means a bidder in connection with Instructions to Bidders and 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 at the job site (e.g. job trailer) including expenses of personnel staffing the job site

office, and Commercial General Liability Insurance and Automobile Liability Insurance.

**OWNER**, means the State of Oregon acting by and through the Oregon State Board of Higher Education, in its own right or on behalf of one of its institutions as identified in the Solicitation Document, also known as the Oregon University System (OUS).

**OWNER'S AUTHORIZED REPRESENTATIVE**, means those individuals identified in writing by the Owner to act on behalf of the Owner for this project. Owner may elect, by written notice to Contractor, to delegate certain duties of the Owner's Authorized Representative to more than one party, including without limitation, to an Architect/Engineer. However, nothing in these OUS 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 an 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.

**PUNCHLIST**, 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 to Owner, operational and maintenance manuals, shop drawings, Change Orders, Construction Change Directives, MWESB Reports, correspondence, certificate(s) of occupancy, and other documents listed in Subsection B.9.1 of these OUS General Conditions, recording all Services performed.

**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.

**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 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.4.2.

**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's Authorized Representative. The decision of the Owner's Authorized Representative is final.

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

**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.

## 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 amendments, Change Orders and Construction Change Directives, with those of later date having precedence over those of an earlier date;
- (b) The Supplemental General Conditions;
- (c) The OUS Public Improvement Agreement Form;
- (d) The OUS General Conditions;
- (e) Division One (General Requirements) of the Specifications;
- (f) Detailed Schedules of finishes, equipment and other items included in the Specifications;
- (g) Plans and Specifications (other than Division One and the Detailed Schedules to the Specifications);
- (h) Large-scale drawings on Plans;
- (i) Small-scale drawings on Plans;
- (j) Dimension numbers written on Plans which shall prevail and take precedence over dimensions scaled from Plans;
- (k) The Solicitation Document, including Instructions to Offerors and Supplemental Instructions to Offerors, and any addenda thereto;
- (l) The accepted Offer.

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 or Owner's Authorized Representative'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 or Owner's Authorized Representative. Matters concerning and interpretation of requirements of, the Contract Documents will



be decided by the Owner's Authorized Representative, 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's Authorized Representative (or the Architect/Engineer) within any time limits agreed upon or otherwise with reasonable promptness. Interpretations and decisions of the Owner's Authorized Representative (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's Authorized Representative (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's Authorized Representative, including without limitation, any nonconformity with applicable laws, statutes, ordinances, building codes, rules and regulations.
- A.4.4 If the Contractor believes that additional cost or Contract Time is involved because of clarifications or instructions issued by the Owner's Authorized Representative (or Architect/Engineer) in response to the Contractor's notices or requests for information, the Contractor must submit a written request to the Owner's Authorized Representative, 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's Authorized Representative 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's Authorized Representative will provide administration of 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's Authorized Representative will act on behalf of the Owner to the extent provided in the Contract Documents, unless modified in writing in accordance with other provisions of the Contract. In performing these tasks, the Owner's Authorized Representative may rely on the Architect/Engineer or other consultants to perform some or all of these tasks.
- B.1.2 The Owner's Authorized Representative 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's Authorized Representative will not make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner's Authorized Representative 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.
- B.1.3 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall endeavor to communicate with each other through the Owner's Authorized Representative or designee 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's Authorized Representative.

- B.1.4 Based upon the Architect/Engineer's evaluations of the Contractor's Application for Payment, or unless otherwise stipulated by the Owner's Authorized Representative, 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's Authorized Representative to determine if they conform to the Contract Documents. Inspection of the Work by the Owner's Authorized Representative 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's Authorized Representative 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's Authorized Representative 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. 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, the State of Oregon, and its departments, divisions, members and employees.

**B.5 COMPLIANCE WITH GOVERNMENT  
REGULATIONS**

- B.5.1 Contractor shall comply with all federal, state and local laws, codes, regulations and ordinances applicable 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 Chapter 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 law, regulation, 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 701.035 to 701.055 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 952-001-0090. 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's Authorized Representative shall be confirmed in writing to the Contractor.

#### **B.7 INSPECTION**

- B.7.1 Owner's Authorized Representative shall have access to the Work at all times.
- B.7.2 Inspection of the Work will be made by the Owner's Authorized Representative at its discretion. The Owner's Authorized Representative 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's Authorized Representative, 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 laws, ordinances, rules, regulations 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's Authorized Representative timely notice of when and where tests and inspections are to be made so that the Owner's Authorized Representative 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's Authorized Representative.
- B.7.4 As required by the Contract Documents, Work done or material used without inspection or testing by the Owner's Authorized Representative 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 sufficient notice to the Owner's Authorized Representative, 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's Authorized Representative, the uncovering and restoration will be paid for as a Change Order.
- 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 Authorized Representative'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 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's Authorized Representative.

#### **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, Change Orders, 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's Authorized Representative 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 Contract is involved in litigation, Contractor shall retain all such records until all litigation is resolved. The Owner and/or its agents shall continue to be provided full access to the records during litigation.

#### **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 OUS 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 will 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's Authorized Representative 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's Authorized Representative 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 will 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 Marion 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 Change Order. The amount of the Change Order 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's Authorized Representative 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.

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 By 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 Change Order 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 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's Authorized Representative.

#### **B.19 SUBSTITUTIONS**

The Contractor may make Substitutions only with the consent of the Owner, after evaluation by the Owner's Authorized Representative and only in accordance with a Change Order 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**

Owner reasonably believes at the time of entering into this Contract that sufficient funds are available and authorized for expenditure to finance the cost of this Contract within the Owner's appropriation or limitation. Contractor understands and agrees that, to the extent that sufficient funds are not available and authorized for expenditure to finance the cost of this Contract, Owner's payment of amounts under this Contract attributable to Services performed after the last day of the current biennium is contingent on Owner receiving from the Oregon Legislative Assembly appropriations, limitations or other expenditure authority sufficient to allow Owner, in the exercise of its reasonable administrative discretion, to continue to make payments under this Contract.

#### **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. Contractor shall pay workers at not less than the specified minimum hourly rate of wage, and shall include that requirement in all subcontracts.

#### **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's Authorized Representative, 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 if 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.

## **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 approval of the Owner's Authorized Representative, and then only in a manner consistent with the Change Order provisions of this Section D.1 and after any necessary approvals required by public contracting laws have been obtained. Otherwise, a formal contract 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's Authorized Representative may at any time, without notice to the sureties and without impairing the Contract, require changes consistent with this Section D.1. All Change Order Work 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.

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 Change Order 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 additional Work, and a binding obligation exists under the Contract on the parties covering the terms and conditions of the additional 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 Change Order 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. The mark-ups set forth in D.1.3(c) shall be utilized by the parties as a guide in establishing fixed pricing, and will not be exceeded by Owner without adequate justification. Cost and price data relating to Change Orders shall be supplied by Contractor to Owner upon request, but Owner shall be under no obligation to make such requests.
- (c) In the event that unit pricing and fixed pricing are not utilized, then Change Order 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%

When Change Order Work under D.1.3(c) is 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 such Change Order as follows:

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

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 Change Order Work. Owner may establish a maximum cost for Change Order Work under this Section D.1.3(c), which shall not be exceeded for reimbursement without additional written authorization from Owner. Contractor shall not be required to complete such Change Order Work without additional authorization.

D.1.4 Any necessary adjustment of Contract Time that may be required as a result of a Change Order must be agreed upon by the parties before the start of the Change Order Work unless Owner's Authorized Representative authorizes Contractor to start the 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 the Change Order. If Contractor's request for additional compensation or adjustment of Contract Time is not made within the thirty (30) Day time limit, Contractor's requests pertaining to that Change Order are 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's Authorized Representative denies Contractor's 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.1.5 If any Change Order 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, the Contractor must submit a written request to the Owner's Authorized Representative, 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 the Change Order by Contractor.

The thirty (30) Day time limit applies to claims of Subcontractors, suppliers, or manufacturers who may be affected by the Change Order 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 compensation and additional Contract Time requested. The Contractor will 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 additional compensation or Contract Time that Contractor submits to the Owner's Authorized Representative. Failure of Subcontractors, suppliers, manufacturers or others to submit their requests to Contractor for inclusion with Contractor's requests submitted to Owner's Authorized Representative within the time period and by the means described in this section shall constitute a waiver of these Subcontractor claims. The Owner's Authorized Representative and 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 the State of Oregon, whether in this claims process, in litigation, or in any dispute resolution process.

If the Owner's Authorized Representative denies the Contractor's request for additional compensation or an extension of Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

D.1.6 No request or Claim by the Contractor 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.1.7 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 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 neither other parts of the Work nor the completion of the whole Work within the Contract Time.
- (c) Do not impact activities on the accepted critical path 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) Caused by any actions of the Owner, Owner's Authorized Representative, or any other employee or agent of the Owner, or by separate contractor employed by the Owner.
- (b) Caused by any site conditions which 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 shall notify the Owner's Authorized Representative immediately of differing site conditions before the area has been disturbed. The Owner's Authorized Representative will investigate the area and make a determination as to whether or not the conditions differ materially from either the conditions stated in the Contract Documents or those which could reasonably be expected in execution of this particular Contract. If Contractor and the Owner's Authorized Representative agree that a differing site condition exists, any additional compensation or additional Contract Time will be determined based on the process set forth in Section

D.1.5 for Change Order Work. If the Owner's Authorized Representative 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) 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) 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 shall 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 shall submit a written notification of the delay to the Owner's Authorized Representative 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 shall submit to the Owner's Authorized Representative, a complete and detailed request for additional compensation or additional Contract Time, or both, as applicable, resulting from the delay.



If the Owner's Authorized Representative 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.

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's Authorized Representative for review. Contractor's Claims, including Claims for additional compensation or additional Contract Time, shall be submitted in writing by Contractor to the Owner's Authorized Representative 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 OUS General Conditions. Within thirty (30) Days after the initial Claim, Contractor shall submit to the Owner's Authorized Representative a complete and detailed description of the Claim (the "Detailed Notice") that includes all information required by Section D.3.2. Unless the Claim is made in accordance with these time requirements, it shall be waived.
- 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 extension 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's Authorized Representative. The Owner's Authorized Representative and 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's Authorized Representative 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 Authorized Representative'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 parties agree to promptly submit the appropriate motions and orders documenting the settlement to the Court for its signature and filing.
- 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 Owner may at any time and at its discretion issue a Construction Change Directive adding to, modifying or reducing the scope of Work. Contractor and Owner shall negotiate the need for any adjustment to compensation or additional Contract Time related to the change, subject to the procedures for submitting requests or Claims for additional compensation or additional Contract Time established in this Section D. Unless otherwise directed by Owner's Authorized Representative, Contractor shall proceed with the Work while any request or Claim for additional compensation or additional Contract Time resulting from Work under a Change Order or Construction Change Directive is pending. Regardless of the review period or the final decision of the Owner's Authorized Representative, 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 Work without a written stop work order from the Owner or Owner's Authorized Representative.

## **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 will provide a breakdown of values for the contracted Work and will be the basis for progress payments. The breakdown will demonstrate reasonable, identifiable, and measurable components of the Work.

Unless objected to by the Owner's Authorized Representative, this schedule shall be used as the basis for reviewing Contractor's applications for payment. If objected to by Owner's Authorized Representative, Contractor shall revise the schedule of values and resubmit the same for approval of Owner's Authorized Representative.

## **E.2 APPLICATIONS FOR PAYMENT**

E.2.1 Owner shall make progress payments on the Contract monthly as Work progresses. Payments shall be based upon estimates of Work completed and the Schedule of Values. All payments shall be approved by the Owner's Authorized Representative. 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 over due claims at the rate of two-thirds of one percent per month on the progress payment, not including retainage, due the Contractor. Over due claims 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 of the initial billing statement if no invoice is received;
- (c) The date all goods have been received; or
- (d) The date the 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 payment that is 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 will be required to arrange for receipt of the EFT/ACH payments.

E.2.2 Contractor shall submit to the Owner's Authorized Representative 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: \_\_\_\_\_

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's Authorized Representative 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 only. The submitted amount of the application for payment shall be reduced by the cost of transportation and for the cost of an inspector to check the delivery at out of town storage sites. The cost of said 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 stored.
- (g) Payment for stored materials shall in no way indicate acceptance of the materials or waive any rights under this Contract for the rejection of the Work or materials not in conformance with the Contract Documents.
- (h) All required documentation must 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 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.3.2.1);
- (d) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;
- (e) damage to the 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 Change Order;
- (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's Authorized Representative has withheld or nullified payment as provided in the Contract Documents.

E.2.6 Contractor's applications for payment may 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 labor, materials and equipment relating to the Work.

E.2.8 If Contractor disputes any determination by Owner's Authorized Representative with regard to any application for payment, Contractor nevertheless shall continue to prosecute expeditiously 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's Authorized Representative shall be a condition of any progress payments or final payment otherwise due.

### **E.3 PAYROLL CERTIFICATION REQUIREMENT**

Payroll certification is required before payments are made on the Contract. Refer to Section C.2 for this information.

### **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 OAR 580-063-0045.

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 opinion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed 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 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 Owner shall, within fifteen (15) Days after receiving the written notice, 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's Authorized Representative, bonds and securities of equal value of a kind approved by the Owner's Authorized Representative.
- 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.5.2 As provided in subsections C.2.2 and C.2.3, additional retainage in the amount of 25% of amounts earned shall be withheld and released in accordance with ORS 279C.845(7) when the Contractor fails to file certified statements as required by section C.2.1.

## **E.6 FINAL PAYMENT**

- E.6.1 Upon completion of all the Work under this Contract, the Contractor shall notify the Owner's Authorized Representative, in writing, that Contractor has completed Contractor's part of the Contract and shall request final payment. Upon receipt of such notice the Owner's Authorized Representative 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 estimate by the Owner and compliance by the Contractor with provisions in Section K, AFFIDAVIT/RELEASE OF LIENS AND CLAIMS, and other provisions 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's Authorized Representative (1) a notarized affidavit/release of liens and claims in a form satisfactory to Owner that states that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) 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, (3) 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, (4) consent of surety, if any, to final payment and (5), 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, law, ordinances, permits or directions of the Owner's Authorized Representative. Contractor shall follow the Owner's Authorized Representative'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's Authorized Representative, 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 and shall comply with the Contract Documents 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's Authorized Representative. The Owner's Authorized Representative has no responsibility for Work site safety. Work site safety is 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's Authorized Representative, all pertinent facts relating to such property damage and the ultimate disposition of the claim for damage.
- F.2.4 Contractor is responsible for protection of adjacent work areas including impacts brought about by activities, equipment, labor, utilities, and materials on the site.

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 will 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 of the Work or of adjoining property, the Contractor, without special instruction or authorization from the Owner's Authorized Representative, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by the Owner's Authorized Representative. 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 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 will 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 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 proper regulatory agencies in a manner that complies with applicable federal, state, and local laws and regulations. Cleanup shall be at no cost to the Owner and be performed by properly qualified 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 federal, state, or local statutes, rules or ordinances. 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 federal, state, or local statutes, rules, or ordinances;
- (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, without cost to the Owner, such spills, releases, discharges, or leaks to the Owner's satisfaction and in compliance with all applicable federal, state, or local statutes, rules or ordinances.

F.5.2 Contractor shall report all reportable quantity releases to applicable federal, state, and local regulatory and emergency response agencies. Reportable quantities are found in 40 CFR Part 302, Table 302.4 for hazardous substances and in OAR 340-142-0050 for all products addressed therein. 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 no., and all other documentation required by law.)
- (b) Whether amount of items released is EPA/DEQ reportable, and, if so, when it was 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 Contractor has had with members of the press or State officials other than Owner.
- (f) Description of cleanup procedures employed or to be employed at the site, including disposal location of spill residue.
- (g) Personnel 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 in 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.

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, personnel, or 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, Owner's Authorized Representative, 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.1.2, (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 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 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 this 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. The bonds may be required if the Contract Price is less than the above thresholds if 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 2005, Chapter 360, 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 the Subcontractor to start Work.

#### **G.3 INSURANCE**

G.3.1 Primary Coverage: Insurance carried by Contractor under this Contract shall be the primary coverage, and the Owner's insurance is excess and solely for damages or losses for which the Owner is responsible. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

G.3.2 Workers' Compensation: 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. This shall include Employer's Liability Insurance with coverage limits of not less than \$100,000 for each accident. 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 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 Builder's Risk Insurance:

G.3.3.1 Builder's Risk: During the term of this Contract, for new construction the Contractor shall obtain and keep in effect Builder's Risk insurance on an all risk form, including earthquake and flood, for an amount equal to the full amount of the Contract. Any deductible shall not exceed \$50,000 for each loss, except the earthquake and flood deductible shall not exceed 2 percent of each loss or \$50,000, whichever is more. The policy will include as loss payees the Owner, the Contractor and its Subcontractors as their interests may appear.

G.3.3.2 Builder's Risk Installation Floater: For other than new construction the 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. This insurance shall include as loss payees the State of Oregon, the Owner, the Contractor and its Subcontractors as their interests may appear.

G.3.3.3 Such insurance shall be maintained until Owner has occupied the facility.

G.3.3.4 A loss insured under the Builder's Risk insurance shall be adjusted by the Owner and made payable to the Owner for the insureds, as their interests may appear. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner. The Owner shall have power to adjust and settle a loss with insurers.

G.3.4 Liability Insurance:

G.3.4.1 Commercial General Liability: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Commercial General Liability Insurance covering bodily injury and property damage in a form and with coverages that are satisfactory to the State. This insurance shall include personal injury liability, products and completed operations, and contractual liability coverage for the indemnity provided under this Contract (to the extent contractual liability coverage for the indemnity is available in the marketplace), and shall be issued on an occurrence basis. Contractor shall provide proof of insurance of not less than the following amounts:

**Bodily Injury/Death:**

Amounts not less than the amounts listed in the following schedule:

Per occurrence limit for any single claimant :

From commencement of the Contract term to  
 June 30, 2011: \$1,600,000  
 July 1, 2011 to June 30, 2012: \$1,700,000  
 July 1, 2012 to June 30, 2013: \$1,800,000  
 July 1, 2013 to June 30, 2014: \$1,900,000  
 July 1, 2014 to June 30, 2015: \$2,000,000  
 July 1, 2015 and thereafter the adjusted limitation as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 3 (Senate Bill 311).

Per occurrence limit for any number of claimants:

From commencement of the Contract term to  
 June 30, 2011: \$3,200,000  
 July 1, 2011 to June 30, 2012: \$3,400,000  
 July 1, 2012 to June 30, 2013: \$3,600,000  
 July 1, 2013 to June 30, 2014: \$3,800,000  
 July 1, 2014 to June 30, 2015: \$4,000,000  
 July 1, 2015 and thereafter the adjusted limitation as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 3 (Senate Bill 311).

**Property Damage:**

Amounts not less than the amounts listed in the following schedule:

Per occurrence limit for any single claimant:

From commencement of the Contract term to June 30, 2011: \$100,100.  
 Effective as of July 1 of each year the adjusted limitation will be as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 5 (Senate Bill 311).

Per occurrence limit for any number of claimants:

From commencement of the Contract term to June 30, 2011: \$500,600.  
 Effective as of July 1 of each year the adjusted limitation will be as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 5 (Senate Bill 311).

G.3.4.2 Automobile Liability: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Automobile Liability Insurance covering owned, non-owned and/or hired vehicles, as applicable. The coverage may be written in combination with the Commercial General Liability Insurance. Contractor shall provide proof of insurance of not less than the following amounts:

**Bodily Injury/Death:**

Amounts not less than the amounts listed in the following schedule:

Per occurrence limit for any single claimant:

From commencement of the Contract term to  
 June 30, 2011: \$1,600,000.  
 July 1, 2011 to June 30, 2012: \$1,700,000.  
 July 1, 2012 to June 30, 2013: \$1,800,000.  
 July 1, 2013 to June 30, 2014: \$1,900,000.  
 July 1, 2014 to June 30, 2015: \$2,000,000.  
 July 1, 2015 and thereafter the adjusted limitation as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 3 (Senate Bill 311).

Per occurrence limit for any number of claimants:

From commencement of the Contract term to  
 June 30, 2011: \$3,200,000.  
 July 1, 2011 to June 30, 2012: \$3,400,000.  
 July 1, 2012 to June 30, 2013: \$3,600,000.  
 July 1, 2013 to June 30, 2014: \$3,800,000.  
 July 1, 2014 to June 30, 2015: \$4,000,000.  
 July 1, 2015 and thereafter the adjusted limitation as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 3 (Senate Bill 311).

**Property Damage:**

Amounts not less than the amounts listed in the following schedule:

Per occurrence limit for any single claimant:

From commencement of the Contract term to June 30, 2011: \$100,100.  
 Effective as of July 1 of each year the adjusted limitation will be as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 5 (Senate Bill 311).

Per occurrence limit for any number of claimants:

From commencement of the Contract term to June 30, 2011: \$500,600.  
 Effective as of July 1 of each year the adjusted limitation will be as determined by the State Court Administrator pursuant to Oregon Laws 2009, chapter 67, section 5 (Senate Bill 311).

G.3.4.3 "Tail" Coverage: If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this Contract for a duration of 24 months or the maximum time period available in the marketplace if less than 24 months. Contractor will be responsible for furnishing certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 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. This will be a condition of the final acceptance of Work or services and related warranty (if any).

G.3.5 Additional Insured: The liability insurance coverage, except Professional Liability if included, required for performance of

this Contract shall include the State of Oregon, its departments, divisions, officers, and employees, as Additional Insureds but only with respect to the Contractor's activities to be performed under this Contract.

If Contractor cannot obtain an insurer to name the State of Oregon, its departments, divisions, officers and employees as Additional Insureds, 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 State of Oregon, its departments, divisions, officers and employees as Named Insureds with not less than a \$1,500,000.00 limit per occurrence. This policy must be kept in effect for 12 months following Final Completion. As evidence of coverage, Contractor shall furnish the actual policy to Owner prior to execution of the Contract.

- G.3.6 Notice of Cancellation or Change: There shall be no cancellation, material change, potential exhaustion of aggregate limits or intent not to renew insurance coverages without thirty (30) Days' written notice from the Contractor or its insurer(s) to the Owner. 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 State of Oregon, its Owner and their divisions, officers, and employees.
- G.3.7 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 execution of the Contract. The certificate(s) will specify all of the parties who are Additional Insureds or Loss Payees. Insurance coverage required under this Contract shall be obtained from insurance companies or entities acceptable to the Owner that are allowed to provide such insurance under Oregon law. 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 do an insurance business in the state of Oregon, and certain non-admitted surplus lines insurers that satisfy the requirements of applicable Oregon law and are approved by the Owner. The certificates will also specify that there shall be no cancellation, material change, potential exhaustion of aggregate limits or intent not to renew insurance coverages without thirty (30) Days' written notice from the insurer(s) to the Owner. To the extent Certificates of Insurance contain words to the effect that Contractor shall "endeavor to send notice of cancellation" or similar language, Contractor shall require its insurer to send such notice by making sure that the words "endeavor to" or similar words are removed from the Certificate. The Contractor shall be financially responsible for all deductibles, self-insured retentions and/or self-insurance included hereunder. Any deductible, self-insured retention and/or self-insurance in excess of \$50,000 shall be approved by the Owner in writing prior to execution of the Contract and is subject to Owner's approval.
- G.3.8 Retainer Contract Program: For the OUS 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 on this Contract. The Contractor shall at all times carry on the Work diligently, without delay and punctually fulfill all requirements herein. 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 Change Order, 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 Change Order process 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 schedule for review and acceptance by the Owner. The submitted schedule must illustrate Work by significant project components, significant labor trades, and long lead items broken down by building and/or floor where applicable. Each schedule item shall account for no greater than 5 % of the monetary value of the project or 5 % of the available Contract Time. Schedules with activities of less than one Day or valued at less than 1% of the Contract will be considered too detailed and will not be accepted. Schedules lacking adequate detail, or unreasonably detailed, will be rejected. Included within the schedule are the following: Notice to Proceed, Substantial Completion, and Final Completion. Schedules will be updated monthly and submitted with the monthly payment application. Acceptance of the 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 Owner. Owner reserves the right to negotiate the float if it is deemed to be in Owner's best interest to do so. 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's Authorized Representative, 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 reinspections 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. Contractor shall perform such warranty work within a reasonable time after Owner's demand. If Contractor fails to complete the warranty work within such period as Owner determines reasonable, or at any time 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. 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.

I.2.2 This provision does not 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 affected Work has been accepted in writing by the Owner's Authorized Representative.

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 and/or the Owner's Authorized Representative 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's Authorized Representative, 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 shall 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 owes 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 its Authorized Representative; or
- (f) If Contractor is otherwise in material breach of any part of the Contract.

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 the public.

J.5.2 The Owner will provide the Contractor with seven (7) Days prior written notice of a termination 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.

### **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's Authorized Representative. 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's Authorized Representative prior to submission of any pay request for more than 75% of the Work. No payments beyond 75% will be made by the Owner until the O & M Manuals have been received. The O & M Manuals shall contain a complete set of all submittals, all product data as required by the specifications, training information, phone list of 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's Authorized Representative shall review and return one O & M Manual for any modifications or additions required. Prior to submission of its final pay request, Contractor shall deliver three (3) complete and approved sets of O & M Manuals to the Owner's Authorized Representative.

#### **K.3 AFFIDAVIT/RELEASE OF LIENS AND CLAIMS**

As a condition of final payment, the Contractor shall submit to the Owner's Authorized Representative a notarized affidavit/release of liens and claims form in a form satisfactory to Owner, which states that all Subcontractors and suppliers have been paid in full, all disputes with property owners have been resolved, all obligations on the project have been satisfied, all monetary claims and indebtedness have been paid, and that, to the best of the Contractor's knowledge, there are no claims of any kind outstanding against the project. The Contractor shall indemnify, defend (with counsel of Owner's choice) and hold harmless the Owner from all claims for labor and materials finished under this Contract. The Contractor shall furnish complete and valid releases or waivers, satisfactory to the Owner, of all liens arising out of or filed in connection with the Work.

#### **K.4 COMPLETION NOTICES**

K.4.1 Contractor shall provide Owner 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 punchlist 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.

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.

K.4.2 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's Authorized Representative. 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's Authorized Representative with submission of the request for the Substantial Completion notice.

#### **K.5 TRAINING**

As part of the Work, and prior to submission of the request for final payment, the Contractor shall schedule with the Owner's Authorized Representative training sessions for all equipment and systems as required in the individual specifications sections. Contractor shall schedule training sessions at least two weeks in advance of the date of training to allow Owner personnel adequate notice. The O & M Manual shall be used as a basis for training. Training shall be a formal session held after the equipment and/or system is completely installed and operational in its normal operating environment.

#### **K.6 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 specifications prior to final payment. Delivery point for extra materials shall be designated by the Owner's Authorized Representative.

#### **K.7 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 pollution clean-up performed as a part of this Contract has been disposed of in accordance with all applicable rules, regulations, laws, and statutes of all agencies having jurisdiction over such environmental pollution. The notice shall reaffirm the indemnification given under Section F.5.1 above.

#### **K.8 CERTIFICATE OF OCCUPANCY**

The Contractor shall not be granted Final Completion or receive final payment if the Owner has not received an unconditioned certificate of occupancy from the appropriate state and/or local building officials, unless failure to obtain an unconditional certificate of occupancy is due to the fault or neglect of Owner.

#### **K.9 OTHER CONTRACTOR RESPONSIBILITIES**

The Contractor shall be responsible for returning to the Owner all items issued during construction such as keys, security passes, site admittance badges, and all other pertinent items. The 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.10 SURVIVAL**



**OREGON UNIVERSITY SYSTEM**  
**STANDARD PUBLIC IMPROVEMENT CONTRACT**  
**PERFORMANCE BOND**

Bond No. \_\_\_\_\_  
Solicitation \_\_\_\_\_  
Project Name \_\_\_\_\_

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

*\* If using multiple sureties*

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 the State of Oregon, Oregon State Board of Higher Education (OSBHE), 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 a contract with the State of Oregon, the plans, specifications, terms and conditions of which are contained in 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 faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and 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, and shall indemnify and save harmless the State of Oregon, OSBHE, and \_\_\_\_\_ (name of institution and any other Owner agency), and members thereof, its officers, employees and agents, 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 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 the State of Oregon, or the above-referenced agency(ies), be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 351, 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 UNIVERSITY SYSTEM**

**STANDARD PUBLIC IMPROVEMENT CONTRACT**

**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 the State of Oregon, Oregon State Board of Higher Education (OSBHE), 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 a contract with the State of Oregon, the plans, specifications, terms and conditions of which are contained in 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 faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and 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, and shall indemnify and save harmless the State of Oregon, OSBHE and \_\_\_\_\_ (name of institution and any other Owner agency), and members thereof, its officers, employees and agents, 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, and 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; and 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; and 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, and shall permit no lien nor claim to be filed or prosecuted against the State on account of any labor or materials furnished; and 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 the State of Oregon, or the above-referenced agency(ies), be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 351, 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

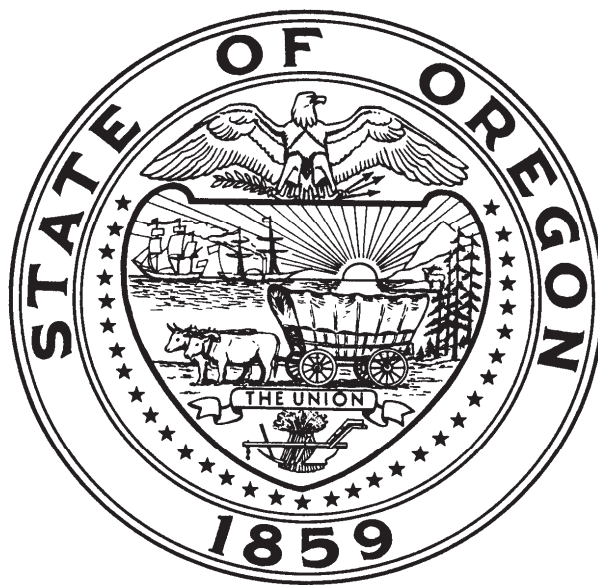
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Phone Fax



# PREVAILING WAGE RATES

for

## Public Works Contracts in Oregon



**OREGON BUREAU OF LABOR AND INDUSTRIES**

**Brad Avakian  
Commissioner  
Bureau of Labor and Industries**

**Effective: January 1, 2012 (as amended April 1, 2012)**

[http://egov.oregon.gov/BOLI/WHD/PWR/PWR\\_Jan2012\\_Index.shtml](http://egov.oregon.gov/BOLI/WHD/PWR/PWR_Jan2012_Index.shtml)



SECTION 01 11 00

SUMMARY OF WORK

Part 1 - General

1.01 CONTRACT DESCRIPTION

- A. Project Locations:
  - 1. Clinical Services Building: 901 East 18<sup>th</sup> Avenue, Eugene, Oregon.
- B. Refurbishment of existing elevator controller, elevator car and associated equipment.
- C. The work covered in the contract documents includes, but is not limited to, all necessary materials and labor to: replacing elevator controller and elevator motor, refurbishment of elevator car, upgrade elevator components located in the elevator shaft, electrical upgrades to receptacles and lighting in elevator pit and penthouse, install new panelboard in elevator machine room, provide mechanical cooling of elevator machine room, provide elevator recall panel and associated smoke detectors.
- D. Contractor's Duties:
  - 1. Provide and pay for labor, materials, tools, equipment, superintendence, temporary facilities and services necessary for proper execution and completion of the work.
  - 2. Comply with building codes, ordinances and regulations of public authorities.
  - 3. Obtain all permits, arrange for required inspections, and provide approved inspection reports to Owner per Section 01 77 00. Owner will pay all plan check, systems development, and permit fees.
- E. Milestones:
  - 1. Project Substantial Completion Date ..... September 17, 2012
  - 2. Final Completion Date..... September 24, 2012
- F. Do not commence Work until after execution of the Agreement, and receipt of Notice to Proceed from Owner.

1.02 CONTRACTORS USE OF PREMISES

- A. Contractor shall limit use of the premises for work and storage to allow for:
  - 1. Public access around the facility.
  - 2. Owner access to the facility.
  - 3. Security.
  - 4. Safe entry and exit for vehicles and pedestrians.
- B. Coordinate operations with the Owner's Representative during the construction period.
- C. Limit Contractor's employee parking to locations designated at the Pre-construction Conference.
- D. Site visits for the purpose of dimensional verification and coordination will be allowed before the on-site Work start date but must be coordinated with the Owner's Representative.
- E. All required shutdowns must be requested by the Contractor to the Owner's Project Manager a minimum of two (2) weeks in advance. Coordinate duration and scheduling of the shutdown with the Owner's Representative.
- F. Contractor shall coordinate access to premises with Owner's Representative for execution of the work. Emergency situations may cause the temporary suspension of the work.
- G. Confine operations at site to areas permitted by Owner's Representative.
- H. Do not unreasonably encumber Site with materials or equipment. Contractor shall move any stored products, under Contractor's control, which interfere with operations of Building.

- I. Do not load structure with weight that will endanger structure.
- J. Assume full responsibility for protection and safekeeping of products and equipment stored on premises.
- K. Obtain and pay for use of additional storage or work areas required for operations.
- L. In general storage and/or parking is not available in this area.
- M. For all disruptive, noise, odor, etc work within occupied buildings (or close neighboring buildings) the Contractor must notify the Owner's Project Manager for distribution of such notice to campus a minimum of 48 hours prior to start of such work.
- N. Owner will provide two hanging type parking permits for use by the Contractor during the project construction period. Any additional space or extension of parking beyond the construction period can be arranged at the Contractor's expense through the University of Oregon, Office of Public Safety, 541-346-5444.

#### 1.03 OWNER OCCUPANCY

- A. Owner, staff, and students will partially occupy the building during construction. Maintain full required egress from building during the construction period.
- B. All existing building systems shall be operational during the construction period.
- C. Coordinate with owner to minimize disruption or interruption of building access, exitways, and utilities.
- D. Coordinate construction schedule and site operations with Owner's Representative to eliminate schedule conflicts and to facilitate Owner, staff and student use of the site. On-site work hours are 7:00 a.m. to 5:00 p.m., unless specifically modified in writing by the Owner's Project Manager.

#### 1.04 EXAMINATION OF SITE

- A. Data in these Specifications and on the Drawings are as accurate as possible, but are not guaranteed. Bidders shall visit the site, familiarize themselves with all existing conditions and be prepared to carry out the work within the existing limitations. The Contractor shall verify locations, levels, distances, conditions of finishes, and features related to the improvements that may affect the work. No allowances will be made in the Contractor's behalf for any extra expense resulting from failure or neglect in determining the conditions under which work is to be performed.

#### 1.05 CHANGES TO THE WORK

- A. Changes to the work may be initiated by Engineer, Owner, or Contractor. Contractor is not to proceed with any changes to the work until request has been made in writing. Changes shall be made in accordance with Section 01 26 00 Change Order Procedures.

#### 1.06 MATERIALS AND PRODUCT OPTIONS

- A. Product listings are for informational purposes establishing a general standard of quality and the University of Oregon is making no warranty of availability or fitness of the products for use. See Section 01 16 00, Material and Equipment, and Section 01 25 00, Substitutions and Product Options.

#### 1.07 SAFETY

- A. Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable laws, building and construction codes shall be observed. In no case shall the Owner or Engineer be responsible for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the work, nor shall the Owner or Engineer be responsible for the Contractor's failure to employ proper safety procedures.

#### 1.08 REUSE OF EXISTING MATERIAL

- 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 special 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. Pay costs for such work.
  - 3. Contractor shall be responsible for removal and reinstallation of the item as well as supporting components.

#### 1.09 MATERIALS AND EQUIPMENT

- A. Unless otherwise specified, material and equipment shall be new; free from defects impairing strength, durability, and appearance; of current manufacture. Items specified shall be considered minimum as to quality, function, capacity, and suitability for application intended.
- B. Items incorporated into the Work shall conform to applicable specifications and standards designated, and shall be of size, make, type, and quality specified, unless otherwise approved.
- C. Product listings are for informational purposes establishing a general standard of quality and the Owner is making no warranty of availability or fitness of the products for use. Refer to Section 01 60 00, MATERIAL AND EQUIPMENT, and Section 01 25 00, SUBSTITUTIONS AND PRODUCT OPTIONS.

#### 1.10 MANUFACTURED AND FABRICATED PRODUCTS

- A. Design, fabricate, and assemble in accordance with current best engineering, industry, and shop practices. Manufacture like parts of duplicate units to standard size and gauge to make them interchangeable.
- B. Two or more items of the same kind shall be identical and made by the same manufacturer.

#### 1.11 USE OF SITE

- A. Work Area Access: Buildings may be partially occupied during work. Access to the work area will be available on a week day basis from approximately 7:00 a.m. to 5:00 p.m. Coordinate all other work hour schedules with Owner so as not to interfere with Owner's use of the building.
- B. Limit use of the premises to construction activities in areas indicated; allow for student occupancy, subject to approval by an Owner's project manager.
- C. Site Access: Maintain drives and building entrances and exits clear at all times to Owner's, employees, and public access and for use by emergency personnel. Do not use these areas for parking or storage. Schedule deliveries to minimize space and time requirements for storage of materials at site.
- D. Parking: Contractor may use existing parking areas as approved by Owner's Project Manager.
- E. Contractor Staging Areas: Limit staging to areas as approved by Owner's Project Manager.
- F. Construction Operations: Limited to areas indicated on Drawings.

#### 1.12 POTENTIALLY HAZARDOUS PRODUCTS

- A. The Owner attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow Owner guidelines controlling the use of potentially hazardous products and to use these products in a safe manner.

- B. MSDS information is required for all potentially hazardous products. The Owner's Project Manager will review these and determine what, if any, mitigation procedures will be required.
- C. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.
- D. Contractor is to ensure that work area by students and teachers is restricted. The Owner will provide signage appropriate for this purpose. The Contractor is to construct and maintain appropriate barriers.

#### 1.13 PREPARATION

- A. Inspect existing conditions, project requirements and the Contract Documents. Verify that materials and equipment being furnished meet requirements specified.

#### 1.14 MATERIAL HANDLING

- A. If, in the opinion of the Contractor, lifting devices are necessary for the proper and efficient movement of materials, comply with these requirements;
  1. Use only experienced personnel.
  2. Remove equipment as soon as possible after task is ended.
  3. Coordinate the placement of such equipment with the Owner's Representative to insure that utility tunnels, utilities and surfaces are not damaged.
  4. Obtain required permits and meet the requirements of governing authorities regarding street and sidewalk closures, safety, noise, and other applicable regulations.

#### 1.15 QUALITY OF WORK

- A. Unless otherwise specified, perform the Work using workers skilled in the particular type of work involved.
- B. Should the Owner, in writing, deem anyone on the Work incompetent or unfit for the assigned duties, dismiss the worker immediately or reassign the worker to a different task requiring a lesser degree of competence.
- C. Work shall be first class in every respect and Work performed shall be according to the best trade practices.
- D. The Contractor shall maintain effective supervision on the project during any time Work is being performed. The Superintendent shall be the same person throughout the project and shall attend the Pre-construction Conference.

#### 1.16 TESTING

- A. The Owner reserves the right to perform any testing as may be required to determine compliance with the Project Manual. 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. Non-complying Work shall be corrected and testing will be repeated until the Work complies with the Project Manual. Contractor will pay costs for retesting non-complying Work.
- B. The Contractor shall cooperate in every respect with the activities of the testing agency.

Part 2 - Products (Not used)

Part 3 - Execution (Not used)

END OF SECTION

SECTION 01 23 00

ALTERNATES

Part 1 - General

1.01 DESCRIPTION

- A. Alternates described in this Section may be exercised at the option of the Owner with execution of the Owner/Contractor Agreement.
- B. The Owner generally exercises Alternates in numerical order. Alternates may be accepted, however, without regard to order or sequence. Such acceptance shall not impair selection of a low, responsible and responsive bidder to whom the Contract may be awarded under an equitable bid procedure.
- C. Alternate: An amount proposed by Bidder and stated on Bid form, to be added to or deducted from the Base Bid amount when the Owner elects to implement the Scope of Work represented by the corresponding alternate as defined by the Contract Documents and including miscellaneous devices, appurtenances and accessories necessary for a complete installation regardless of whether specifically mentioned as part of the alternate.
  - 1. Additive Alternate: Adds to the Base Bid if selected for implementation by the Owner.
  - 2. Deductive Alternate: Deducts from the Base Bid if selected for implementation by the Owner.
  - 3. Alternate Sums Stated on the Bid Form: Valid for 90 days from the bid due date, and the Owner shall have the right to modify the Contract in accordance with the requirements for each and any Alternate at the as-bid sum during that period.

1.02 QUALITY ASSURANCE

- A. Coordinate the Work of the various trades involved for each Alternate Accepted, and modify surrounding Work as required to complete the Project as intended.
- B. Change-in-price figure for each Alternate, shall include incidental costs attributable to adjustments in the Work of other trades which may be required to achieve the contemplated and final conditions.
- C. For questions regarding extent, scope, nature, or intent of alternate(s), contact Owner for clarification. Failure on the part of Contractor to clarify unclear items shall not relieve Contractor of responsibility for performing selected Alternate(s) in accordance with the intent and requirements of the Contract Documents.
- D. Description of Alternates hereinafter is qualitative not quantitative. Contractor shall determine quantities of labor and materials and extent of same required to execute selected Alternates in accordance with the intent and requirements of the Contract Documents.

Part 2 - Products

2.01 GENERAL

- A. The applicable Sections of the Specifications apply to the Work under each Alternate.

Part 3 - Execution

3.01 LIST OF ALTERNATES

- A. There are no alternates for this project.

END OF SECTION





SECTION 01 25 00

SUBSTITUTIONS AND PRODUCT OPTIONS

Part 1 - General

1.01 DESCRIPTION

- A. Section describes requirements for product substitutions during the course of Work.

1.02 CONTRACTOR'S OPTIONS

- A. For products specified only by reference standards, select any product meeting standards by any manufacturer.
- B. For products specified by naming products or manufacturers, select any product and manufacturer named.
- C. For products specified by naming only one product and manufacturer when necessary there is no option.

1.03 SUBSTITUTIONS

- A. During bidding period, Instructions to Bidders govern times for submitting requests for substitutions under requirements specified in this Section.
- B. After Bid award, Engineer and Owner will consider formal requests for Contractor for substitution of products in place of those specified when submitted in accordance with the requirements of this Section. One or more of the following conditions must also be documented:
  - 1. Substitution shall be required for compliance with final interpretation of code requirements or insurance regulations.
  - 2. Substitution shall be due to unavailability of specified products, through no fault of Contractor.
  - 3. Substitution may be requested when subsequent information discloses inability of specified products to perform properly or to fit in designated space.
  - 4. Substitution may be due to manufacturer's or fabricator's refusal to certify or guarantee performance of specified product as required.
  - 5. Owners request.
  - 6. Reduction in Contract time or Contract sum. Substitution may be allowed if any product specified is significantly higher in cost than the proposed substitution and the proposed substitution receives the Engineers approval and the contractor is willing to negotiate a credit to the contract sum.
- C. Submit seven copies of Request for Substitution. Include in request:
  - 1. Complete data substantiating compliance of proposed substitution with Contract Documents.
  - 2. Product identification, including manufacturer's name and address.
  - 3. Manufacturer's literature:
    - a. Product description.
    - b. Performance and test data.
    - c. Reference standards.
  - 4. Samples.
  - 5. Name and address of similar projects on which product was used and date of installation.
  - 6. Itemized comparison of proposed substitution with product or method specified.
  - 7. Data relating to changes in construction schedule.
- D. For requests submitted after Contract Award, provide accurate cost data on proposed substitution in comparison with product or method specified.

- E. In making Request for Substitution, contractor represents:
  - 1. He has personally investigated proposed product or method and determined it equal or superior in all respects to that specified.
  - 2. He will provide same guarantee for substitution as for product specified.
  - 3. He will coordinate installation of accepted substitution into Work, making such changes as required for Work to be complete in all respects.
  - 4. He waives all claims for additional costs related to substitution which consequently become apparent.
  - 5. Cost data is complete and includes all related costs under his Contract, but excludes cost under separate contracts and Engineer redesign.
  
- F. Substitutions will not be considered if:
  - 1. They are indicated or implied on shop drawings or project data submittals without request submitted as specified in this section.
  - 2. Acceptance will require substantial revision of Contract Documents.

1.04 ACCEPTANCE

- A. If the Contractor complies with the requirements of this Section and in the Engineer's opinion, the proposed product is acceptable in lieu of the one or more specified, the Engineer will issue an Architect's Supplemental Instructions (AIA G710) where contract sum or time is not effected, or a Change Order Request where contract sum or time is effected.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 26 00

CHANGE ORDER PROCEDURES

Part 1 - General

1.01 SECTION INCLUDES

- A. Submittals.
- B. Documentation of change in Contract Sum/Price and Contract time.
- C. Change procedures.
- D. Construction Change Directive
- E. Stipulated sum change order.
- F. Time and material change order.
- G. Execution of change orders.
- H. Correlation of Contractor submittals.

1.02 SUBMITTALS

- A. Contractor shall submit in writing, the names of those individuals considered to be "authorized" to execute agreements, Change Orders, Construction Change Directives, certifications, etc. on behalf of the Contractor and be responsible for informing others in Contractor's employ or subcontractors of changes to the Work.

1.03 DOCUMENTATION OF CHANGE IN CONTRACT SUM/PRICE AND CONTRACT TIME

- A. Maintain detailed records of work done on a time and material basis, submitted to Owner's representative daily. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in the Work.
- B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
- C. On request, provide additional data to support computations:
  - 1. Quantities of products, labor, and equipment.
  - 2. Taxes, insurance and bonds.
  - 3. Overhead and profit.
  - 4. Justification for any change in Contract Time.
  - 5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a time and material basis, with additional information:
  - 1. Origin and date of claim.
  - 2. Dates and times work was performed, and by whom.
  - 3. Time records and wage rates paid.
  - 4. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  - 5. Submit an itemized list of labor and materials including not more than 15 percent overhead and profit with each Construction Change Directive.

1.04 CHANGE PROCEDURES

- A. Comply with Oregon University System Standard General Conditions, Changes in Work Ordered by Owner and Basis of Adjustment in Contract Amount.

- B. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract time by issuing supplemental written instructions.
- C. The Engineer may issue a Proposal Request (PR) which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications, a change in Contract time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit fixed price quotation within 5 working days.
- D. The Engineer may issue an Engineer's Supplemental Instruction (ESI) which includes a detailed description of a proposed clarification with supplementary or revised Drawings and Specifications. Contractor will advise and submit fixed price quotation within 5 working days, if clarification has costs involved.
- E. The Contractor may propose a change by submitting a request for change to the Engineer, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 25 00.
- F. All Proposal Requests shall result in a Construction Change Directive (CCD) for review and action by Owner.

#### 1.05 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. Engineer may issue a Construction Change Directive (CCD) signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum/Price or Contract Time.
- C. Contractor shall promptly execute the change in Work.

#### 1.06 STIPULATED SUM CHANGE ORDER

- A. Based on Construction Change Directive (CCD) and Contractor's fixed price quotation, a Change Order will be prepared and processed for those items accepted.

#### 1.07 TIME AND MATERIAL CHANGE ORDER

- A. Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- B. Engineer will recommend to the Owner any change allowable in Contract Sum/Price and Contract time as provided in the Contract Documents.
- C. Maintain detailed records of work done on Time and Material basis, submitted to Owner's representative daily.
- D. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

#### 1.08 EXECUTION OF CHANGE ORDERS

- A. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- B. Change Orders are not authorized unless signed by Owner, Contractor, and Engineer.

- C. Order of Signature: All Change Orders shall be signed in the following order:
  - 1. Contractor.
  - 2. Engineer.
  - 3. Owner.

#### 1.09 CORRELATION OF CONTRACTOR SUBMITTALS

- A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum/Price.
- B. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust time for other items of work affected by the change, and resubmit.
- C. Promptly enter changes in Project Record Documents.

#### 1.10 LOGS

- A. Contractor shall maintain accurate logs for all Proposal Requests, Construction Change Directives, and Change Orders showing amount, status, etc.
- B. Logs to be submitted with each Application for Payment.

### Part 2 - Products (Not Used)

### Part 3 - Execution

#### 3.01 FORMS

- A. Sample forms follow this Section.

END OF SECTION



SECTION 01 29 00

APPLICATIONS FOR PAYMENT

Part 1 - General

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of Applications for Payment.

1.02 FORMAT

- A. AIA Document G702 - Application and Certificate for Payment 1992 Edition, including continuation sheets when required or Owner approved equal.

1.03 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedule, including the following:
    - a. Application for Payment forms with Continuation Sheets
    - b. Submittals Schedule
    - c. Contractor's Construction Schedule
  - 2. Provide a separate Schedule of Values for each Barnhart and Riley Halls, for maintaining an accounting of each building separately.
  - 3. Submit the Schedule of Values to Engineer and Owner at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Application for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each specification section.
  - 1. Identification: Include the following Project identification on the Schedule of Values.
    - a. Project name and location
    - b. Name of Architect
    - c. Architect's project number
    - d. Contractor's name and address
    - e. Date of submittal
  - 2. Submit draft of AIA Document G703, Continuation Sheets or Owner approved equal.
  - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
  - 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  - 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
  - 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of the part of the Work.
  - 7. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
  - 8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

#### 1.04 PREPARATION OF APPLICATIONS

- A. Present required information in typewritten form or on electronic media print, with a separate Application for Payment for each Barnhart and Riley Halls.
- B. Execute certification by signature of authorized officer. Contractor shall designate in writing, the names of those individuals considered to be "authorized" to execute agreements, certifications, etc. on behalf of the Contractor.
- C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work. Do not include change orders which have not been fully executed prior to the date of application for payment.
- E. Prepare Application for Final Payment as specified in Section 01 77 00.

#### 1.05 SUBMITTAL PROCEDURES

- A. Submit 3 copies of each Application for Payment.
- B. Submit an updated construction schedule with each Application for Payment.
- C. Payment Period: Submit at monthly intervals.
- D. Comply with General Conditions, Application for Payments by Contractor.
- E. Provide Certificate of Insurance covering the value of materials stored off-site.
- F. Pay Owner's and Engineer's travel and subsistence costs to inspect items stored off-site for which payment is requested.
- G. Prevailing Wage Rates: Submit 3 copies of wage certifications with Application for Payment in accordance with ORS Chapter 279. Submit in accordance with prescribed schedule. Submit certified copies of wage certifications to State of Oregon, BOLI in accordance with ORS Chapter 279.

#### 1.06 SUBSTANTIATING DATA

- A. When Owner or Engineer requires substantiating information, submit data justifying dollar amounts in question.
- B. Provide 3 copies of data with cover letter for each item submitted. Show application number and date, and line item by number and description.

#### 1.07 PROGRESS SCHEDULE

- A. Submit in accordance with Section 01 32 00.

#### Part 2 - Products (Not Used)

#### Part 3 - Execution (Not Used)

END OF SECTION



SECTION 01 31 00

COORDINATION

Part 1 - General

1.01 GENERAL

- A. Coordinator: Contractor is responsible for overall coordination of Project.
  - 1. 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.
  - 2. Coordination shall not be limited to Contractor's activities under this project, but shall extend to all trades, delivery activities, and work of other projects including work of the Owner in accordance with General Conditions.
  - 3. Contractor shall coordinate all work so that all specified individual work tolerances are achieved. Tolerances shown or specified within assemblies are not cumulative.
  - 4. Schedule and coordinate the performance of all work on site with the Owner's Representative.
- B. Schedule work in accordance with current Project Progress Schedule and other work in this space.
  - 1. Coordinate schedules of all trades.
  - 2. Verify timely deliveries of products for installation by all trades.
  - 3. Verify that labor and equipment are adequate for work and schedule.
  - 4. Verify that material deliveries are adequate to maintain schedule.
- C. Coordinate changes to assure that:
  - 1. Requirements of Contract Documents are fulfilled.
  - 2. Changes in Contract requirements of all affected trades are reflected in executed Change Orders.
- D. Maintain Record Documents.
- E. Ascertain need for cutting and patching.
  - 1. Coordinate with work of other trades.

1.02 DIVISION OF RESPONSIBILITIES

- A. For convenience, these Specifications are arranged in several trade sections, but in no case shall such separation be considered as the limits of the work required of any sub-contractor or trade. The terms and conditions of such limitations are wholly between the Contractor and the subcontractor(s).

1.03 PROJECT DRAWINGS

- A. Mechanical, architectural, structural, and electrical drawings are diagrammatic. Additional components, offsets and bends may be required.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION



SECTION 01 31 50

PROJECT MEETINGS

Part 1 - General

1.01 PRE-CONSTRUCTION MEETING

- A. Engineer, Contractor, and Owner will meet prior to start of construction (within seven days after notice to proceed) to discuss at least the following topics and any others of mutual interest.
1. Signed contracts.
  2. List of subcontractors.
  3. Insurance coverage.
  4. Bonds.
  5. Job Inspections.
  6. Early purchase of, and/or lead time requirements for material and equipment.
  7. Pre-purchased equipment
  8. Monthly payment date.
  9. Portion of site to be occupied by construction.
  10. Parking.
  11. Maintenance of access and safety.
  12. Processing of field decisions and change orders.
  13. Labor provisions.
  14. Material Submittals.
  15. Owner access during construction.
  16. Review of Contract Documents.
  17. Coordination procedures and separate contracts.
  18. Progress Schedule.
  19. Critical work sequencing.
  20. Safety and Emergency Procedures.
  21. Security Procedures
  22. Hazardous Materials.

1.02 PROGRESS MEETINGS

- A. The Contractor will schedule and administer Progress Meetings and will:
1. Prepare Agendas.
  2. Schedule progress meetings each week at time and day to be determined.
  3. Make physical arrangements for and preside at meetings.
  4. Record minutes and include decisions.
  5. Distribute copies of minutes to the following, within 4 days after meetings:
    - a. Meeting participants
    - b. Parties affected by decisions
    - c. Owner
    - d. Engineer
    - e. Architect
- B. Location of Meetings: Project site.
- C. Attendance:
1. The Owner or the Owner's Representative
  2. Contractor
  3. Subcontractors affected by agenda
  4. Project Engineer

5. Minimum Agenda:
6. Review and approve minutes from previous meeting.
7. Review work progress since previous meeting.
8. Discuss field observations, conflicts, and issues.
9. Review delivery schedules, construction schedule, and identify problems which impede planned progress.
10. Review proposed changes.
11. Material Submittals.
12. Note all new subcontractors performing work at the job site.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 32 00  
PROGRESS SCHEDULE

Part 1 - General

1.01 DESCRIPTION

- A. WORK INCLUDED: Submit progress schedule as specified in this and other Sections.
- B. Submit to Owner for Approval: Progress Schedules.
- C. Owners Representative and Contracting Officer will review submittals for conformance with Contract Documents.

1.02 PROGRESS SCHEDULE AND PROGRESS REPORT REQUIREMENTS

- A. Content:
  - 1. Show product delivery and installation dates for all major products.
  - 2. Show dates for Substantial Completion and Final Completion.
  - 3. Show anticipated dates for outages of any building utilities.
- B. Updating:
  - 1. Indicate progress of each activity, show revised completion dates.
  - 2. Provide listing of current and anticipated accelerations and delays.
  - 3. Describe proposed corrective action when required.

1.03 CORRECTIONS

- A. Owner will review for conformance with the contract documents and return the submittals requiring corrective action, with such corrections noted thereon.
- B. Immediately incorporate required corrections in submittals and resubmit for further review, if required.

1.04 REQUIRED SUBMITTAL QUANTITIES TO CONTRACTING OFFICER

	<u>Reproducible Transparencies</u>	<u>Opaque Prints</u>
A. Construction Schedule: 8-1/2 x 11 in. size	0	1

1.05 SCHEDULE FOR SUBMITTALS: (QUANTITIES IN DAYS)

	<u>Contractor First Submittal</u>	<u>Update and Resubmit</u>
A. Progress	5 days after notice to proceed	Full Schedule - Monthly with pay request. 3 week look ahead - every two weeks

Part 2 – Products (Not Used)

Part 3 – Execution (Not Used)

END OF SECTION



SECTION 01 33 00

SUBMITTALS

Part 1 - General

1.01 SECTION INCLUDES

- A. Submittal procedures.
- B. Submittal Schedule.
- C. Shop Drawings.
- D. Product Data.
- E. Samples.
- F. Manufacturer's installation instructions.
- G. Manufacturers' certificates.

1.02 RELATED SECTIONS

- A. Section 01 45 00 - Quality Control: Manufacturers' field services and reports.
- B. Section 01 77 00 - Contract Closeout: Contract warranties, bonds, manufacturers' certificates, and closeout submittals.
- C. General Mechanical Provisions – As shown on drawings
- D. Section 26 10 00 - General Electrical Provisions

1.03 SUBMITTAL SCHEDULE

- A. Contractor to furnish Engineer with a list of submittals required by individual specification sections.
- B. Coordinate schedule with Progress Schedule specified in Section 01 32 00 - Progress Schedule.

1.04 SUBMITTAL PROCEDURES

- A. Submittal Format: Electronic and Hard-Copy. Provide Electronic copies of submittal information to the Engineer. A minimum of one Hard-Copy of the information must be submitted with the (the Hard-Copy will not be returned).
- B. Submittal formats shall conform with the following requirements:
  - 1. Each hard-copy Submittal package shall be formatted as follows:
    - a. Use three-ring loose leaf binders.
    - b. Provide index referencing specification section and page.
    - c. Tab individual sections.
  - 2. Each Electronic Submittal package shall be formatted as follows:
    - a. The full extent of the submitted data shall be presented in a single electronic file on a CD-ROM.
    - b. File Format Type: Adobe PDF, or universally readable equivalent.
    - c. Scanned information: Minimum 400 dpi.
    - d. Provide index referencing specification section and page.
    - e. Bookmark individual sections.
    - f. One file per CD-ROM.
      - 1) Format CD-ROM for use in PC compatible hardware
      - 2) Format CD-ROM so that additional files may be written to it (read-write).

- C. Transmit one copy of each submittal with Contractors standard transmittal to the Engineer.
- D. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- E. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
- F. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- G. Schedule submittals to expedite the Project, and deliver to Engineer at business address. Coordinate submission of related items.
- H. For each submittal, allow 10 days for Engineer's review excluding delivery time to and from the contractor.
- I. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- J. Provide space for Contractor and Engineer review stamps.
- K. For submittals required to be revised and resubmitted, identify all changes made since previous submission.
- L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
- M. Submittals not required in the Project Manual will not be recognized or processed.

#### 1.05 SHOP DRAWINGS

- A. Submit in the form of multiple opaque copies. Number required by Contractor, plus three which will be retained by Engineer, Owner, and consultants. At Contractors option submit one reproducible transparency and one opaque reproduction.
- B. Shop Drawings: Submit for review. After review, produce copies and distribute in accordance with the Submittal Procedures article above and for record documents purposes described in Section 01 77 00 - Contract Closeout.
- C. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

#### 1.06 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus three copies which will be retained by the Engineer.
- B. Mark each copy to identify applicable products, models, options, and other data required by individual Sections. Supplement manufacturers' standard data to provide information unique to this Project.
- C. Indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Submit MSDS information for all products for which they are available.
- E. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01 77 00 - Contract Closeout.



#### 1.07 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, and in custom colors where specified, textures, and patterns for Engineer selection.
- C. Include identification on each sample, with full Project information.
- D. Submit the number of samples specified in individual specification sections; one of which will be retained by Engineer.
- E. Reviewed samples which may be used in the Work are indicated in individual specification sections.

#### 1.08 MANUFACTURER INSTALLATION INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Engineer in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

#### 1.09 MANUFACTURER CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer to Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

#### 1.10 SCHEDULE OF SUBMITTALS

- A. Provide as required by individual sections.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION



SECTION 01 45 00

QUALITY CONTROL

Part 1 - General

1.01 SECTION INCLUDES

- A. Quality assurance - Control of installation.
- B. Tolerances.
- C. Manufacturers' field services and reports.

1.02 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

- A. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Engineer 30 days in advance of required observations. Observer subject to approval of Engineer. Notify Engineer of time and date of manufacturer's on-site field service 10 days in advance of service.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report in duplicate within 30 days of observation to Engineer for information.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

Part 1 - General

1.01 DESCRIPTION

- A. Requirements for temporary services and facilities including utility services for construction and support facilities.

1.02 UTILITIES AVAILABILITY TO CONTRACTOR

- A. For the purpose of construction, the Owner will furnish reasonable quantities of water and electricity to the contractor without charge.
- B. The contractor shall be responsible for both temporary utility connections and disconnects, and shall obtain permission of the Owner's Representative prior to accomplishing either.

1.03 TEMPORARY LIGHTING

- A. Provide temporary lighting throughout the construction period as required. Provide 5 foot candles minimum in occupied spaces during presence of authorized personnel and 10 foot candles minimum in areas of construction activity during scheduled work periods. Provide additional lighting for finish work when required.

1.04 TEMPORARY SUPPORT FACILITIES

- A. Temporary Sanitary Facilities
  - 1. Contractor shall provide sanitary facilities in accordance with the following:
    - a. Provide and maintain an adequate number of facilities for the use of persons employed on the Work during construction.
    - b. Provide enclosed, weatherproof facilities with heat as required.
    - c. Use of new or existing Owner's facilities will not be permitted.
- B. Temporary heat and ventilation
  - 1. Minimum Interior Ventilation: Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into atmosphere at all times. Provide ventilation for materials being cured.
  - 2. Ventilation air must continue to be supplied to those areas outside of the active scheduled work boundary. Protect air intakes for building air systems from dust entry during construction.
- C. Provide lifting devices necessary for the proper and efficient movement of materials; provide operating personnel for equipment as required. Allow use of all hoisting equipment on project during "off-hours" for the cost of the workers involved.

1.05 FIRST AID

- A. Provide required first aid facilities as required by OSHA governing regulations.

1.06 FIRE PROTECTION

- A. Fire Safety: Take precautions to prevent the possibility of fire resulting from construction operations. Particularly avoid hazardous accumulations of rubbish and unsecured flammable materials.
- B. Fire Fighting Equipment: Provide emergency fire extinguishers of adequate type and quantity, properly maintained. Obtain local Fire department approval of emergency fire extinguisher.

- C. Keep the local Fire Department's telephone number prominently displayed.

#### 1.07 CONSTRUCTION AIDS

- A. Provide and maintain temporary stairs, ramps, ladders, walkways, chutes, and material hoists for handling materials and proper execution of Work.
- B. Construct and maintain to requirements of governing agencies. Furnish for safety of public and construction personnel.
- C. Completely remove temporary materials and equipment upon completion of construction.
- D. Repair damage caused by installation of temporary items and restore finishes to specified condition.

#### 1.08 BARRIERS

- A. Provide and maintain barricades around construction operations, as required to protect public, construction personnel, existing facilities and new Work.

#### 1.09 PROTECTION OF WORK AND PROPERTY

- A. 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.
- B. The Owner will not be responsible for protection of materials or equipment from vandalism or theft. Security is the responsibility of the Contractor.
- C. Protect adjacent new and existing construction, against spillage of materials used in carrying out Work.
- D. Keep and store combustible materials at a reasonable distance from buildings.

#### 1.10 POLLUTION CONTROL

- A. The contractor shall at all times, on a continuous basis, during the course of this contract keep buildings and the adjoining paving and premises free from all waste materials and rubbish caused by his employees and/or his subcontractors.
- B. Burning or burying of rubbish and waste materials on Site is prohibited. Provide dump box for collection of waste materials.
- C. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer systems is prohibited.

#### 1.11 DISPOSAL AREAS

- A. Disposal: Disposal of all waste materials and building debris waste items caused by the construction, will be off the site and will be the responsibility of the Contractor.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 60 00

MATERIAL AND EQUIPMENT

Part 1 - General

1.01 DESCRIPTION

- A. Section includes general requirements for handling and storage of construction materials.

1.02 JOB CONDITIONS

- A. Manufacturer's Instructions: Make available, for consultation at job site during installation of the specific item, a copy of manufacturer's installation procedure. For those items provided by Owner, obtain manufacturer instructions from Owner.

1.03 MATERIAL AND EQUIPMENT SELECTION

- A. Comply with standards and specifications including: Size, make, type and quality specified, or as approved in writing by the Engineer.
- B. Manufactured and Fabricated products:
  - 1. Design, fabricate and assemble in accordance with the best engineering and shop practices.
  - 2. Manufacturer like parts of duplicate units to standard sizes and gauges, to be interchangeable.
  - 3. Two or more items of the same kind shall be identical and by the same manufacturer.
  - 4. Provide products suitable for service conditions.
  - 5. Adhere to equipment capacities, sizes and dimensions shown or specified unless variations are specifically approved in writing.
- C. Do not use material or equipment for any purpose other than that for which it is designed or is specified.
- D. Select and install equipment to operate at full capacity without excessive noise or vibration.

1.04 MANUFACTURER'S INSTRUCTIONS

- A. Perform work in accordance with manufacturer's printed installation instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to the Engineer.
- B. Maintain one set of complete instructions at the job site during installation and until completion.
- C. Handle, install, connect clean, condition and adjust products in strict accordance with the manufacturer's printed instructions and in conformity with specified requirements.
  - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.
  - 2. Do not proceed with work without clear instructions.

1.05 TRANSPORTATION AND HANDLING

- A. Coordinate product deliveries to avoid work schedule conflicts and/or delays.
- B. Deliver products undamaged, in manufacturers' original containers, with labels intact and legible.
- C. Immediately on delivery, inspect shipments to assure compliance with Contract Documents and approved submittals, and that products are properly protected and undamaged.
- D. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

## 1.06 STORAGE AND PROTECTION

- A. Store products in accordance with Manufacturer's Instructions, with seals and labels intact and legible, and in a manner to assure they will remain free from damage or deterioration.
  - 1. Store products subject to damage by the elements in weather-tight enclosures.
  - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
  - 3. Protect equipment and systems from moisture, chemical, or mechanical damage before and after installation.
  - 4. Protect shafts and bearing housings from rust.
- B. Exterior Storage:
  - 1. Store fabricated products above the ground, on blocking or skids, prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
  - 2. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Provide easy access for inspections of stored products. Make periodic inspections for stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.
- D. Protection After Installation:
  - 1. Provide substantial coverings to protect installed products from traffic and subsequent construction operations.
  - 2. Plug or cap pipe and conduit openings to prevent the entrance of foreign matter. Remove when no longer needed.

## Part 2 - Products

### 2.01 MATERIALS

- A. All equipment, material, and articles incorporated into the work covered by the contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract, and shall be asbestos free. References in the specifications to equipment, material, articles or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may exercise the option to use any equipment, material, article, or process that, in the judgment of the Engineer, is equal to that named in the specification, unless otherwise specifically provided in this contract.
- B. Furnish items new and free from defects; of size, make, type and quality specified, or equal.
  - 1. When two or more items of same kind are required under work, use items of single manufacturer except where specifically exempted.
- C. Component parts of an assembly need not be the product of a single manufacturer unless otherwise indicated.
- D. Capacities, rating, grades, thicknesses, requirements, and equipment sizes and dimensions shown or specified are minimum unless otherwise indicated.

### 2.02 PRODUCTS AND EQUIPMENT

- A. Meet detailed requirements indicated in various sections and provide products and equipment suitable for installation shown. Products and equipment not meeting all specified requirements will not be accepted, even though specified by name along with other manufacturer.
- B. Tolerances used in specified rating or testing standards will not be allowed in determining capacities of products and equipment.



- C. The Drawings are based upon one of the specified manufacturers listed for each particular product or equipment item.
  - 1. The other specified manufacturers and other acceptable manufacturers of products and equipment may require deviations from the drawings to properly install the particular item in accord with manufacturer's recommendations and to provide the results required.
  - 2. Under this Contract provide all work essential to install this equipment at not change in Contract amount and provide shop drawings for review showing deviations required for installation of specific equipment item.
  
- D. Electrical Products:
  - 1. The Contractor shall submit proof that the items which he proposes to furnish under this specification conform to the standard of Underwriters' Laboratories (UL) and/or Canadian Standards Association (CSA). The label of UL and/or CSA shall be accepted as conforming to this requirement.

Part 3 - Execution

3.01 PREPARATION

- A. Inspect existing conditions, project requirements and Contract Documents.
- B. Verify that materials and equipment furnished meet specified requirements.
- C. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by the Contract Documents.

3.02 INSTALLATION

- A. Install work in neat and workmanlike manner of highest quality for nature of work performed.
- B. Perform the work, handle, install, connect, clean, condition, and adjust products in strict accordance with manufacturer's printed instructions and with Contract Document requirements.
- C. In case of conflict, Contract Documents shall govern. When in doubt, request clarification.

END OF SECTION



SECTION 01 73 00

CUTTING AND PATCHING

Part 1 - General

1.01 DESCRIPTION

- A. Execute cutting, and fitting of Work required to:
  - 1. Uncover Work to provide for installation of ill-timed Work.
  - 2. Remove and repair defective Work.
  - 3. Remove and replace Work not conforming to requirements of Contract Documents.
  - 4. Install specified Work in existing construction.
- B. In addition to Contract requirements, upon written instruction of Owner.
  - 1. Uncover Work to provide for Engineer's observation of covered Work.
  - 2. Remove samples of installed materials for testing.
  - 3. Remove Work to provide for alteration of existing Work.
- C. Do not endanger any Work or any existing construction through cutting or altering Work or any part of it. Do not cut or alter Work of another contractor without written consent of Owner.

1.02 SUBMITTALS

- A. Cutting of building structural elements is prohibited.
- B. Prior to cutting being done, if outside the original scope of Work, submit cost estimate.
- C. Should conditions of Work or schedule indicate change of materials or methods submit written recommendations to Engineer including conditions indicating change, recommendations for alternative materials or methods and submittals as required for substitutions.
- D. Submit written notice to the Engineer designating time Work will be uncovered to provide for observation.

1.03 PAYMENT FOR COSTS

- A. Cost caused by ill-timed or defective Work, or Work not conforming to Contract Documents including costs for additional services of Engineer shall be borne by the party responsible for the deficiency.

Part 2 - Products

2.01 MATERIALS

- A. For replacement of Work removed, comply with pertinent specification sections for type of Work to be done.

Part 3 - Execution

3.01 INSPECTION

- A. Inspect existing conditions of Work including elements subject to movement or damage during cutting and patching.
- B. After uncovering Work, inspect conditions affecting installation of new products.

### 3.02 PREPARATION

- A. Prior to cutting provide shoring, bracing and support as required to maintain integrity of the element and surrounding elements.
- B. Provide protection for elements for other portions of Project.

### 3.03 PERFORMANCE

- A. Execute fitting and adjustment of products to provide finished installation conforming with specified tolerances.
- B. Execute cutting and demolition by methods which will prevent damage to other Work and provide proper surfaces to receive installation of repairs and new Work.
- C. Restore Work which has been cut or removed; install new products to provide completed Work in accord with requirements of Contract Documents.
- D. Refinish entire surface as necessary to provide an even finish.
  - 1. Refinish continuous surfaces to nearest intersections.
  - 2. Refinish assemblies in entirety.

END OF SECTION

SECTION 01 74 00

CLEANING

Part 1 - General

1.01 PROTECTION OF FINISHES

- A. The various materials, work, equipment, and finishes provided by the trades are all to be protected from other operations or work such that all items are in perfect condition at the time project is turned over to the Owners. The final responsibility for this protection rests with the Contractor, even though various Sections of Specifications may contain specific comments or precautions about protection.

1.02 PREMISES

- A. The Contractor shall at all times during the course of this contract keep the building, the Owner's premises and the adjoining premises, including streets and other areas assigned to Contractor, free from accumulations of waste materials and rubbish caused by the Contractor's employees or subcontractors. See also section 01 50 00 for additional requirements.

1.03 FINAL CLEANING

- A. At completion of the work, or prior thereto if so directed, the Contractor shall remove from the buildings and/or the premises all of the Contractor's tools, appliances, surplus materials, debris, temporary structures, temporary construction for which he has been responsible and/or rubbish, and shall be responsible for clean-up of the work under this contract as well as work under other contracts affected by this work. Cleaning, sealing and all other such finish operations noted on the Drawings or required in the Specifications shall be taken to indicate the required condition at the time of acceptance of work under the Contract.
- B. At completion of work, the Contractor shall sweep, dust and clean thoroughly all surfaces. All marks, stains, fingerprints, dust, dirt paint, drippings, and the like shall be removed throughout the building. All equipment and paint work shall be cleaned and touched up if necessary and all temporary labels, tape, and paper coverings shall be removed, all to the approval of the Owner and Engineer. Final acceptance of this facility is dependent upon final cleaning being complete.
- C. If the Contractor, upon request by the Owner, does not attend to such cleaning with reasonable promptness, the Owner may cause such cleaning to be done by others and charge the cost of the same to the Contractor or deduct the cost from payments still due the Contractor under the Contract.
- D. Maintain in cleaned condition until final acceptance.

Part 2 - Products

2.01 MATERIALS

- A. Cleaning agents, implements, and methods used for the cleaning, polishing or sealing of any surface shall be products recommended and approved by the manufacturer of the item or surface to be cleaned. The Contractor shall be fully responsible for any damage to any surface or substrate caused by the improper use of cleaning materials.

Part 3 - Execution (Not Used)

END OF SECTION



SECTION 01 77 00

CONTRACT CLOSEOUT

Part 1 - General

1.01 SUBSTANTIAL COMPLETION

- A. Submit written Notice to the Engineer that work, or designated portion thereof, is substantially complete for each phase of construction.
  - 1. Submit list of major items remaining to be completed or corrected.
  - 2. The Project will not be substantially complete unless all cleaning is complete and in accordance with the Contract Documents. See Section 01 74 00.
- B. Engineer will inspect Work within 3 days.
- C. If Engineer determines Work to be substantially complete:
  - 1. Engineer will prepare a tentative list of items to be completed or corrected.
  - 2. Engineer will submit the tentative list to the contractor for written acceptance and correction of the deficiencies.
  - 3. Engineer will prepare and issue a Certificate of Substantial Completion, AIA G704.
  - 4. Owner may occupy Project, or designated portion of Project, under provisions of Certificate of Substantial Completion.
- D. If Engineer determines that work is not substantially complete, he will immediately notify Contractor in writing. Contractor shall complete work and submit a second written notice of substantial completion to the Engineer. The Engineer will reinspect the work.

1.02 FINAL INSPECTION

- A. Submit written certificate that Contract Documents have been reviewed, project has been inspected, work is completed in accordance with Contract Documents, equipment and systems have been tested in the presence of the Owner Representative and are operational and work is ready for final inspection at the conclusion of each phase. Engineer will inspect work within 3 days.
- B. Should Engineer consider that the work is incomplete or defective, he will notify contractor in writing, listing the incomplete or defective work. Contractor shall remedy the deficiencies and send a second written certification to Contracting Officer that the work is complete. Engineer will reinspect the work.
- C. When the Engineer finds that work is acceptable under the contract Documents, he shall request the Contractor to make closeout submittals.

1.03 REINSPECTION FEES

- A. All costs for any additional inspections following the first inspection shall be the responsibility of the Contractor, and all costs, including those costs incurred by the Owner and the Engineer shall be deducted from the Contractor's final payment.

1.04 CONTRACT COMPLETION

- A. Contractor will insure that the project is complete to include final inspection and acceptance by the Owner prior to the scheduled completion date.

1.05 PROJECT RECORD DOCUMENTS

- A. In accordance with Section 01 77 50.

## 1.06 CLOSEOUT MANUALS

- A. Form of Manuals:
  - 1. Prepared data in the form of instruction manuals for use by the owner. Use 8½"x11" manual format in 3 ring binder. Provide four (4) complete sets.
  - 2. Include drawings, indexed tabs and title for each manual.
- B. Content of Manuals:
  - 1. List products, equipment and systems used in the Project. List project installers, maintenance program and local source of supply for replacement parts.
  - 2. Include product data with specific product clearly identified.
  - 3. Include drawings of control diagrams, flow diagrams and system relationships.
  - 4. Include above data for Owner provided products.
- C. Materials and Finishes Manual:
  - 1. Product information on all finish materials.
  - 2. Paint numbers.
  - 3. Locations of paint finishes.
- D. Equipment and System Manual:
  - 1. Include manufacturer's description, operating characteristics, performance data, and printed operating and maintenance instructions.
  - 2. Include manufacturers' catalog number and replaceable parts list.
  - 3. Include start-up, break-in, operating instructions, control, stopping, shut-down, emergency instructions, and operating sequence.
  - 4. Include copies of approval for City final building permit inspections and Certificate of Occupancy, if applicable.
  - 5. Include as-installed color coded piping diagrams and list of piping identification markers.
  - 6. Include circuit directories of panel boards and as-installed color coded wiring diagrams.
  - 7. Include valve tag directory listing tag number, location, service, size, manufacturer, model number and normal position.
  - 8. Include name plate directory listing equipment designation, name plate data, location of equipment, location of switch and normal position of switch.
- E. Warranties and Bonds Manual:
  - 1. Assemble warranties, bonds and service and maintenance contracts, executed by each manufacturer, supplier and subcontractor.
  - 2. Include table of contents, beginning date and duration of warranty, bond or service contract, and party to contract in case of claim against warranty.
- F. Spare Parts and Maintenance Materials Manual:
  - 1. Tabulate list of spare parts and maintenance materials showing product description, paragraph in Project Manual listing product and quantity delivered to the Owner.

## 1.07 INSTRUCTION OF OPERATING PERSONNEL

- A. Prior to final inspection or acceptance, fully instruct Owner's designated personnel in the operation, adjustment and maintenance of all products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction.
  - 1. Review contents of manual with Owner's personnel in full detail to explain all aspects of operations and maintenance.

## 1.08 MAINTENANCE MATERIAL HANDLING

- A. Label packages and deliver spare parts and maintenance materials to Owner's storage area. Submit quantity specified in each product section.



## 1.09 SCHEDULE OF CLOSEOUT SUBMITTALS

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
  - 1. AIA Document G706 Contractor's Affidavit of Payment of Debts and Claims.
  - 2. AIA Document G706A Contractor's Affidavit of Release of Liens.
  - 3. AIA Document G707 Consent of Surety Company to Final Payment.
  - 4. Operation and Maintenance Manuals.
  - 5. Warranties and Bonds. Submit original documents, including Contractor's General Warranty.
  - 6. Record Documents
  - 7. Keys.
  - 8. Proof of final acceptance and compliance from governing authorities having jurisdiction.
- B. Provide electronic copies of closeout submittals, as applicable, in accordance with Section 01 33 00.
- C. Certificate of Completion:
  - 1. Obtain and Submit Certificate of Completion and schedule date for warranty inspection.

### Part 2 - Products (Not Used)

### Part 3 - Execution (Not Used)

END OF SECTION



SECTION 01 77 50

RECORD DOCUMENTS

Part 1 - General

1.01 DESCRIPTION

- A. Project document maintenance procedures.

1.02 MAINTENANCE OF DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
  - 1. Bid Documents
  - 2. Contract Forms
  - 3. Project manual
  - 4. Contract Drawings
  - 5. Addenda
  - 6. Change Orders and other modifications to the Contract
  - 7. Reviewed Shop Drawings, Product Data, and Samples
  - 8. Office Samples
  - 9. Field Test Records
  - 10. Engineer's Supplemental Instructions
  - 11. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.

1.03 HANDLING AND RECORDING

- A. Store documents and samples in Contractor's field office separate from documents used for construction. Ensure entries are complete and accurate, enabling future reference by Owner. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information.
- B. Keep current record of documents and label each document "Project Record". Information shall be correct, accurate, neat, and finished in appearance. Recorded field data shall show accurate dimensions vertical and horizontal for location of concealed items, utility lines, recording field changes of dimensions, and changes in materials furnished on project record documents. Record changes from Engineer's Supplemental Instruction, change orders and details not on contract drawings. Store record documents separately from documents used for construction.
- C. Information shall be recorded concurrently with construction progress. Record documents shall not be more than 7 days behind construction progress. Deliver to Engineer for review and approval with request for final payment. Meet with the Engineer to review field recorded information. Final payment will not be authorized until acceptance of field recorded data by the Engineer and Owner.
- D. Project record documents will be reviewed twice monthly. Review of updated project record documents will be part of approval by the Owner's representative on a twice monthly basis of the Contractor's application for payment and failure to have project record documents updated will delay payment.
- E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.

- F. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 2. Field changes of dimension and detail.
  - 3. Details not on original Contract drawings.

1.04 SUBMITTAL

- A. Format:
  - 1. Identify and date each Record Drawing, including the designation "Project Record Drawing" on each sheet.
  - 2. Organize Record Drawings in order of construction documents sets, and bind together.
- B. Provide scanned electronic copies of Record Drawings on CD-ROM, with format per Submittal Procedures in Section 01 33 00.
- C. Submit documents to Engineer prior to submittal of final Application for Payment.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 78 00

OPERATION AND MAINTENANCE DATA

Part 1 - General

1.01 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.02 FORMAT

- A. Prepare data in the form of an instructional manual. Refer to Section 20 20 00 for specific format requirements.

1.03 CONTENTS, GENERAL, EACH VOLUME

- A. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Engineer, Sub-consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 60 00.
- F. Warranties: Bind in copy of each. As specified in Section 01 77 00.

1.04 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Provide information for re-ordering custom manufactured Products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual Product specification sections.
- E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.05 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Refer to section 26 10 00 and individual Divisions 14, 20, 23 and 26 specification sections for Manual content related to equipment and systems.

1.06 INSTRUCTION OF OWNER PERSONNEL

- A. Before final completion, instruct Owner's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- C. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.07 SUBMITTALS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before 75% Pay Request. Engineer will review draft and return one copy with comments.
- B. Submit 1 copy of completed volumes 15 days prior to final completion. This copy will be reviewed and returned after final inspection, with Engineer's comments. Revise content of all document sets as required prior to final submission.
- C. Submit three (3) binder sets and two CD-ROM disks of revised final volumes, in final form within 30 days after final inspection. Electronic file format shall be organized with individual sections in accordance with submittal requirements listed in Section 01 33 00.

1.08 SCHEDULE OF SUBMITTALS

- A. Provide as required by individual sections.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION

SECTION 01 79 00

WARRANTIES

Part 1 - General

1.01 SECTION INCLUDES

- A. Preparation and Submittal.
- B. Time and Schedule of Submittals.

1.02 FORM OF SUBMITTALS

- A. Bind in commercial quality 8-1/2 x 11 inch three D side ring binders with durable plastic covers.
- B. Cover: Identify each binder with typed or printed title, "WARRANTIES AND BONDS", with title of Project; name, address and telephone number of Contractor; and name of responsible company principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of Product or Work item.
- D. Separate each extended correction period warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.03 PREPARATION OF SUBMITTALS

- A. Obtain extended correction period warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

1.04 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- C. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

1.05 SCHEDULE OF WARRANTIES

- A. The following warranties are an extension of the one-year warranty called for in the General Conditions. The Owner reserves the right to make temporary or emergency repairs as necessary to maintain Products without voiding specified warranties nor relieving Contractor of responsibility during warranty periods.

Description

Duration

Elevator Work:

As specified in Division 14

Mechanical:

As specified on mechanical drawing

Electrical Work:

As specified in Division 26

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

END OF SECTION



## SECTION 07 84 00

### FIRE STOPPING

#### Part 1 - General

##### 1.01 RELATED SECTIONS

- A. Drawings, Specifications and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Section, apply to this Section.

##### 1.02 SUMMARY

- A. Section includes requirements for through-penetration fire stopping for items including piping, ductwork, wiring and conduit provided under the Contract.
- B. Section also includes requirements for recessing equipment, cabinets, or devices in fire rated walls, ceilings, and floors.
- C. Products shall be of a single manufacturer for each type of fire stopping required, and where several types are integrated into a single assembly. Provide putty, sealants, wraps, boards, and accessories as necessary and required for the work of this project.

##### 1.03 REFERENCES

- A. Underwriters Laboratories:
  - 1. UL Fire Resistance Directory.
  - 2. UL Component Listing Test Criteria.
  - 3. Warnock Hersey.
- B. American Society For Testing And Materials Standards:
  - 1. ASTM E 814 - 88: Standard Test Method For Fire Tests of Through-Penetration Firestops.
- C. International Building Code, 2009, with Oregon Amendments (Oregon Structural Specialty Code, OSSC, 2010) – Chapter 7 Fire Resistance Rated Construction.

##### 1.04 DEFINITIONS

- A. Assembly: Particular arrangement of materials specific to a given type of construction.
- B. Barriers: Time rated fire walls, ceiling/floor assemblies, and structural floors.
- C. Fire Stopping: Assembly of materials applied at penetrations to limit spread of heat, fire, gases and smoke.
- D. Penetration: Opening through or into a barrier such that full thickness of rated materials is not obtained.
- E. System: Specific products and applications, classified and numbered by Underwriters Laboratories (UL), Inc. to close specific barrier penetrations.
- F. F Rating: Time period that fire stop assembly can withstand fire and hose stream test as determined in UBC Standard 7-5.
- G. T Rating: As required for F Rating and to limit temperature rise above the initial temperature to 325 degrees F on protected side as determined in UBC Standard 7-5.

##### 1.05 SHOP DRAWINGS, PRODUCT DATA, OPERATION & MAINTENANCE DATA

- A. Provide manufacturer's installation drawings and instructions for each proposed assembly. Identify intended product and applicable UL System number or UL classified devices.

- B. Provide manufacturer recommendations and drawings relating to non-standard applications where necessary.

#### 1.06 QUALITY ASSURANCE

- A. Installer Qualification: Acceptable to, or certified by, Fire Stopping system manufacturer.
- B. Regulatory Requirement: Contractor shall verify acceptance from Authority Having Jurisdiction for proposed assemblies conforming to, or not conforming to, specific UL Fire Stop System Numbers, or UL classified devices.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in original, unopened packaging with legible manufacturer's identification. Store materials in accordance with manufacturer's instructions. Store in clean, dry, ventilated location, protected from freezing.

#### 1.08 WARRANTY

- A. Submit copies of written warranty for Fire Stopping assemblies. Warranty period shall be one year minimum.

### Part 2 - Products

#### 2.01 GENERAL

- A. Fire Stop products and accessories shall be asbestos-free, intumesce when exposed to temperatures of 250 degrees F, and maintain an effective barrier against flame, smoke and gases. Mortar systems must be Warnock Hersey approved.
- B. Fire Stop Fire Rating: Not less than rating of barrier penetrated in which fire stopping will be installed.

#### 2.02 FIRE STOPPING ASSEMBLIES

- A. Assemblies of materials used to seal spaces around penetrations shall have a UL Fire Stop System Number appropriate for the construction type, penetration type, annular space requirements, and fire rating at each penetration.
- B. Systems and devices must withstand the passage of cold smoke either as an inherent property of the system or by the use of a separate product included as a part of the UL system or device and designed to perform this function. Systems complying with the requirements for through-penetration firestopping in fire-rated construction are acceptable provided the system will provide a smoke seal.
- C. Performance Requirements: Fire Stop assembly shall be able to withstand standard fire and hose stream test (F Rating) and limit temperature rise (T Rating) of penetrans on protected side as required by Authorities Having Jurisdiction. Conform to UBC Standard 7-5.
- D. Manufacturers: 3M, Dow, Chase Technology Corp., Bio Fireshield Inc., ProSet, Johns Manville, Specified Technologies Inc, Metacaulk, GS Hevi-Duti/Nelson, or approved.

#### 2.03 ACCESSORIES

- A. Fill, void, or cavity materials: As classified under category XHHW in the UL Fire Resistance Directory.
- B. Forming materials: As classified under category XHKU in the UL Fire Resistance Directory.

### Part 3 - Execution

#### 3.01 GENERAL

- A. Provide Fire Stopping seal at piping, ductwork, wiring, or conduit penetration, installed under this Contract, through fire rated construction.
- B. Provide fire rated assembly around equipment, cabinets, devices and/or appurtenances recessed in fire rated walls and ceilings.
- C. Verify barrier penetrations are properly sized and in suitable condition for application of materials.
- D. Provide masking and drop cloths to prevent contamination of adjacent surfaces by Fire Stopping materials. Clean spills of liquid components. Remove equipment, materials and debris, leaving area in undamaged, clean condition.
- E. Clean surfaces to be in contact with penetration seal materials of dirt, grease, oil, loose materials, rust, or other substances that may affect proper fitting, adhesion, or the required fire resistance. Cut and trim materials as required to neatly match edges of penetration.
- F. Comply with manufacturer's recommendations for temperature and humidity conditions before, during, and after installation of Fire Stopping.

END OF SECTION



SECTION 09 90 00

PAINTING AND COATING

Part 1 - General

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints and other coatings.
- C. Scope: Reference Section 14 21 10.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 3. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D 16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2008.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Before ordering, provide data on all finishing products and special coatings. Provide MSDS sheets on all materials used on the project.
- C. Samples: Submit two painted draw-down samples, illustrating selected colors and textures for each color and system selected with specified coats cascaded. Submit on stiff paper, 8 x 12 inch in size.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.
- E. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. Extra Paint and Coatings: 1 gallon of each color; store where directed.
    - a. Label each container with color in addition to the manufacturer's label.
  - 2. Draw downs and final list/matrix of all finish paint.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum five years experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

#### 1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

#### 1.07 WARRANTY

- A. Provide manufacturer's standard 10 year warranty of exterior elastomeric paint systems.

### Part 2 - Products

#### 2.01 MANUFACTURERS

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
  1. Benjamin Moore & Co: [www.benjaminmoore.com](http://www.benjaminmoore.com).
  2. Miller Paint Co: [millerpaint.com](http://millerpaint.com)
- C. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.02 PAINTS AND COATINGS - GENERAL

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
  1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  2. Supply each coating material in quantity required to complete entire project's work from a single production run.
  3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Volatile Organic Compound (VOC) Content:
  1. Provide coatings that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
  2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

#### 2.03 PAINT SYSTEMS - INTERIOR

- A. Interior Acrylic Enamel: Factory-formulated acrylic-latex enamel for interior application.
  1. 1 coat

- B. Interior Acrylic Enamel: Factory-formulated semigloss acrylic-latex enamel for interior application.
  - 1. 2 coats
  - 2. Reference Section 14 21 10 for colors

#### 2.04 ACCESSORY MATERIALS

- A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.

### Part 3 - EXECUTION

#### 3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.

#### 3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

#### 3.03 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Provide adequate fresh air and ventilation during application.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Allow manufacturer's specified drying time and ensure correct coating adhesion for each coat before applying next color.
- F. Inspect each coat before applying next coat; touch up surface imperfections with coating material, feathering and sanding of required; touch up areas to achieve flat uniform surface without surface defects visible from 5 feet.
- G. Sand wood and metal surfaces lightly between coats to achieve required finish.

- H. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- I. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.
- J. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

#### 3.04 FIELD QUALITY CONTROL

- A. Do not cover or paint any signs, labels, identification, etc. If covered or painted, the contractor is required to replace items.
- B. Contractor must redo unsatisfactory finishes; refinish area to corners or other natural terminations.

#### 3.05 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

#### 3.06 PROTECTION

- A. Protect finished coatings until completion of project.
- B. Touch-up damaged coatings after Substantial Completion.

END OF SECTION



## GEARED TRACTION PASSENGER ELEVATOR

Part 1 - General

## 1.01 SCOPE

- A. Elevator Contractor shall furnish, provide and install all work required to complete the Elevator Modernization as stated in the Contract Documents for one (1) existing Otis Elevator Company Basement Set passenger elevator. Project also includes all requirements of Firefighters' Service, Seismic and The Americans with Disability Act (ADA). The project location is Clinical Services Building - University of Oregon-Eugene, Oregon.
1. Applicable Documents:
    - a. University of Oregon Requirements and Regulations.
    - b. ICC/ANSI A117.1 – 2009 Accessible and Usable Buildings and Facilities, and the equivalent State of Oregon Codes, whichever are more stringent.
    - c. ASME A17.1/CSA B44 (latest edition) Safety Code for Elevators and Escalators including Elevator Safety Requirements for Seismic Risk Zone 2 or Greater and applicable State of Oregon Amendments
    - d. ASME A17.2 (latest edition)–Guide for the Inspection of Elevators, Escalators and Moving Walks
    - e. ASME A17.3 (latest edition)–Safety Code for Existing Elevators and Escalators and applicable Oregon Amendments
    - f. ASME A17.6 (latest edition) – Standard for Elevator Suspension, Compensation, and Governor Systems
    - g. ASME A17.7/CSA B44.7 (latest edition) – Performance-based Safety Code for Elevators and Escalators
    - h. National Electrical Code-(NEC) NFPA 70, latest adopted edition
    - i. International Building Code-(IBC)
    - j. ASTM A167, Steel, Sheet Stainless.
    - k. ASTM A366, Steel, Sheet, Carbon, Cold Rolled, Commercial Quality.
    - l. AWS D1.1, Structural Welding Code – Steel.
  2. Permits and Codes:
    - a. All equipment and modernization work shall comply with requirements of the Elevator Safety Code, and other applicable codes of the State of Oregon, County and City.
    - b. Give necessary notices, obtain licenses and permits, and pay fees and other costs, including making arrangements for all inspections and tests required by regulating agencies, in accordance with this Elevator Specification.
    - c. File necessary plans, prepare documents, and obtain necessary approval of governmental departments having jurisdiction and required certificates of inspection for work, in accordance with the Elevator Specification.
    - d. Elevator Contractor is not relieved from furnishing and installing work shown or specified which may be beyond requirements of Ordinances, Laws, Regulations and Codes.
    - e. Elevator Contractor shall furnish, provide and install all equipment to comply with all Codes, Regulations and Rules for the completion of this elevator modernization and shall complete all items required by the State of Oregon Elevator Inspector at no additional cost to the University of Oregon.

## 1.02 MODERNIZATION REQUIREMENTS

- A. Operate Elevator:
1. Elevator Contractor shall operate elevator for other Trades/Crafts that must work in the hoistway to perform their work at no additional cost to the University of Oregon. Elevator Contractor shall schedule work with other Crafts/Trades when such work is required for the Elevator Modernization at no additional cost to the University of Oregon.

- B. Cutting and Patching:
1. Any provision required to facilitate the Elevator Modernization of the existing elevator equipment shall be the responsibility of Elevator Contractor. Openings required in the existing structure shall be completed by drilling or cutting. Elevator Contractor shall provide all pipe sleeves, anchor plates, hanger supports, inserts, and bolts required for their work. Elevator Contractor shall provide all labor and material to enlarge the existing hall station cutouts to provide the required space in the front hoistway walls for the new hall push button stations. Seal all hoistway side of the existing hall push button station boxes.
- C. Demolition:
1. Elevator Contractor shall remove existing elevator and ancillary equipment that will not be retained. All equipment shall be removed from the site and disposed of abiding with all Federal, State, County, City and all other regulations, laws and codes that are in effect during the disposal.
- D. Standard Products:
1. Unless otherwise indicated, the equipment to be furnished under these Specifications shall be the standard product of manufacturers regularly engaged in the production of such equipment. Apparatus, equipment and systems furnished must be similar and equal thereto with respect to quality, functional performance, capacity and efficiency. Where the actual equipment furnished requires certain changes in pipe location, controls, electrical equipment and foundations, the Elevator Contractor shall coordinate such changes and submit them for approval.
- E. Submittals:
1. Submit Shop Drawings to Consultant within 14 calendar days from date that Elevator Contractor has been awarded the Contract or has been provided with the Notice to Proceed from the University of Oregon, for Consultants review and approval. Shop Drawings shall contain detailed information to determine that the equipment conforms to the requirements of this Specification and not less than the following information:
    - a. Drawing or diagram showing equipment location.
    - b. Elevator diagrams showing service to each level of building.
    - c. Show location of machinery and controls in machine rooms, layout of the hoistway in plan and elevation and all other layout information and clearance dimensions required by the Elevator Safety Code. The elevator equipment is to be arranged in a neat and workman-like manner so that all elevator equipment is readily accessible for maintenance and repair. Submit layout drawings to the Authority Having Jurisdiction (AHJ). Submittals to the AHJ shall have all information pertinent to the modernization to ascertain the modernization complies with all applicable Codes.
    - d. Provide Shop Drawings and catalog cuts for all Elevator Contractor furnished material and equipment, including but not limited to hoist machine, doors, car enclosure, car and hall fixtures, controls, all motors, and brackets. Hoist motor data shall include temperature rise ratings in a form that can readily be measured in the field after modernization.
    - e. Complete information on motor, electrical services, controls, and all other coordination information.
- F. Wiring Diagrams:
1. Provide complete "As Built and Installed" single-line wiring diagrams showing the electrical connections, functions, and sequence of operation of all apparatus connected with the elevator, in the machine room, hoistway and car. Provide three (3) sets, laminated and bound into a three (3) ring binder, measuring twelve (12") inches by eighteen (18") inches. Furnish one complete draft set for University of Oregon review not later than one (1) week before issue of the permanent State Of Oregon Elevator Operating Permit.
  2. Furnish three (3) approved sets within one (1) week after issue of the permanent State of Oregon Elevator Operating Permit.

- G. Modernization Data:
1. Provide three (3) sets of "As Built and Installed" wireman's original pull sheets showing raceway, junction box, traveling cable wire nomenclature and origination and termination locations. Provide a legible copy of the elevator adjuster's final control settings, such as feet per minute, door open, door close, car door nudging time, door dwell times and all other adjustable features and/or timers.
  2. Furnish three (3) sets within one (1) week after issue of the permanent State of Oregon Elevator Operating Permit.
- H. Operations and Maintenance Manuals:
1. Furnish three (3) complete Operation and Maintenance Manuals covering the stipulated mechanical systems and equipment within one (1) week after issue of the permanent State of Oregon Elevator Operating Permit. The manual shall comply with all requirements indicated in the Project Closeout section of the specifications.
  2. Furnish one (1) complete "first draft" manual for University of Oregon review not later than one (1) week before issue of the permanent State Of Oregon Elevator Operating Permit.
  3. The manual shall be complete in all respects for all equipment furnished and installed, controls, accessories and appurtenances stipulated. Include as a minimum the following:
    - a. Drawing or diagram showing equipment location.
    - b. The original factory Adjustor's Manual used to adjust the specific modernization including "As Built, As Installed and As Adjusted" field notes.
    - c. Step-by-step procedure for elevator start-up, operation and shutdown.
    - d. Maintenance instructions listing routine maintenance procedures, possible breakdowns and repairs, and troubleshooting guides for all elevator equipment.
    - e. Preventative maintenance schedule.
    - f. Lubrication schedule including type, grade, temperature, range and frequency.
    - g. Safety precautions, including diagrams and illustrations as needed for clarity.
    - h. All testing procedures, including Seismic and Firefighters' Service.
    - i. Parts lists, with manufacturers' names and catalog numbers. Lists shall be complete for the materials installed.
    - j. Serial numbers of all equipment furnished and installed.
    - k. Service organizations and sources of replacement parts with company names, addresses, fax and telephone numbers.
    - l. Provide all service and field technical bulletins or manuals normally supplied to the factory/field Adjustor including video tapes or other media.

### 1.03 MATERIAL AND EQUIPMENT

- A. General:
1. Material and equipment shall be new, of the best quality used for the purposes in good commercial practice, the best of their respective kinds, and as specified. Where two or more units of the same class of equipment are required, those units shall be products of a single manufacturer. Furnish equipment complete with all parts necessary for proper operation. Material and equipment shall be cleaned, free of corrosion, and selected to provide quiet operation.
  2. Type capacity, size and rating of all equipment shall be as indicated herein specified.
- B. Delivery and Storage:
1. Material and equipment shall be suitably protected against corrosion, dirt, mechanical damage, weather and chemical damage before and during modernization as recommended by the manufacturer and as approved by the University of Oregon. Replace defective and damaged equipment and materials.

### 1.04 ELECTRICAL

- A. Provide electrical components of the elevator equipment and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire and relays as specified herein and as necessary for complete and operable systems. Furnish interconnecting wiring for components of equipment as an integral part of the equipment.

- B. Electrical equipment and wiring shall conform to National Electrical Code (NEC) current edition.
- C. For equipment with electrical components, provide UL label on each component for which published standards exist.
- D. The frames of all motors, hoist machine, controller, transformer and the metal enclosures for all electrical equipment in or on the car, hoistway and machine room shall be grounded in accordance with NEC-Article 250.
- E. Provide "daisy chain" electrical grounding for all machine room electrical cabinets.
- F. Provide required and adequate electrical wiring gauge sizing and number of electrical conductors to totally eliminate any voltage/amperage drop/variation for all the machine room, hoistway switches/interlocks, car operating fixtures/positions indicators/exhaust fan/car lighting/inspection station/leveling devices, hall stations/position indicators and all other elevator electrical equipment.
- G. Conductors and Connections:
  - 1. Provide new wiring in machine room, hoistway and car. Copper throughout with individual wires coded and connections on identified studs or terminal blocks. Use no splices or similar connections in wiring except at terminal blocks, control cabinets, and junction boxes. Provide 10% spare wires in all wiring runs. Separate and mark all spare wires. All spare wire ends shall be turned back or protected against accidental exposure to any live electrical circuit or electrical ground.
  - 2. Provide material and labor to connect machine room telephone wires to elevator controller. Others to provide telephone wires to elevator machine room.
- H. Conduit, etc.:
  - 1. Provide new painted or galvanized steel conduit and duct. Conduit size, one-half (1/2") minimum. Do not use flexible conduit exceeding thirty six inches (36") in length. Flexible heavy-duty service cord may be used between fixed car wiring and car door switches for door protection devices. Plastic wire ties shall not be allowed for conduit fastening.
- I. Traveling Cables:
  - 1. Provide new. Provide flame and moisture-resistant outer cover. Traveling cables shall terminate in the elevator machine room elevator controller and on the elevator car top junction box with marked terminals. Prevent traveling cables from rubbing or chafing against hoistway or elevator equipment within hoistway. Provide ten percent (10%) spare conductors in each traveling cable. Provide an extra six (6) spare pair of shielded wires in separate traveling cable. Provide four (4) spare pair of coaxial traveling cables from car to controller. Provide an extra two (2) pair of number fourteen (#14) conductors for car lighting. All spare wire ends shall be turned back or protected against accidental exposure to any live electrical circuit or electrical ground. Tag all spare conductors indicating termination points at each end. Provide all wiring for car lighting, fan and emergency communication from elevator controller to car. Provide traveling cables for fireman's phone jack from elevator cab car station to elevator controller. Provide traveling cable for in-car emergency communication device and intercom to main floor and elevator machine room.

#### 1.05 PAINTING

- A. All exposed metal work furnished in these specifications, except as otherwise specified, shall be properly painted after modernization.
- B. Paint hoist machine, controller and other machine room equipment with light gray enamel.
- C. Paint machine room floor with dark gray enamel.

## 1.06 MAINTENANCE

- A. Maintenance Control Program (MCP)
1. Provide an MCP for the elevator. The MCP shall include, but is not limited to the following:
    - a. Examinations, maintenance, and tests of equipment at scheduled intervals in order to ensure that the installation conforms to the requirements of ASME A17.1/CSA B44 Section 8.6. The maintenance procedures and intervals shall be based on:
      - 1) Equipment age, condition, and accumulated wear
      - 2) Design and inherent quality of the equipment
      - 3) Usage
      - 4) Environmental conditions
      - 5) Improved technology
      - 6) The manufacturer's recommendations for any SIL rated devices or circuits
    - b. Cleaning, lubricating, and adjusting applicable components at regular intervals and repairing or replacing all worn or defective components where necessary to maintain the installation in compliance with the requirements of ASME A17.1/CSA B44 Section 8.6.
    - c. The instructions for locating the Maintenance Control Program shall be provided in or on the controller along with instructions on how to report any corrective action that might be necessary to the University.
    - d. The maintenance records required shall be kept at a central location agreeable and accessible to the University of Oregon and the Elevator Contractor's elevator personnel.
    - e. The Maintenance Control Program shall be accessible to the elevator personnel and shall document compliance with ASME A17.1/CSA B44 Section 8.6.
    - f. Procedures for tests, periodic inspections, maintenance, replacements, adjustments, and repairs for all SIL rated E/E/PES electrical protective devices and circuits shall be incorporated into and made part of the Maintenance Control Program.
    - g. Where unique or product-specific procedures or methods are required to inspect or test equipment, such procedures or methods shall be included in the Maintenance Control Program.
- B. Elevator Contractor shall provide a WARRANTY FULL PREVENTIVE MAINTENANCE service for a period of one (1) year after date of the one (1) elevator is accepted by the State of Oregon Elevator Inspector, University of Oregon, Elevator Consultant and all punchlist items have been completed and elevator is available for unconditional use by the University of Oregon.
1. This includes all labor and material to perform routine Preventive Maintenance as well as any adjustments, lubrication, repairs, or parts replacements required to keep the equipment in good and safe operating order.
  2. Elevator Contractor shall provide once a month Warranty Preventive Maintenance visits to the elevator, for the one (1) year period.
  3. Total minimum Preventive Maintenance Hours shall be one (1.0), per month. This does not include any time for Repairs, Callbacks, or Testing.
  4. Elevator Contractor shall verify, in writing, that all Preventive Maintenance hours on-site have been provided to the University of Oregon each and every month.
- C. Elevator Contractor shall furnish written reports of each service call, whether routine or emergency, describing services performed.
- D. Basic service work shall be performed during regular working hours of regular working days.
1. Emergency callback service shall be available on a twenty four (24)-hour, seven (7)-day basis at no additional cost to the University of Oregon.
- E. Elevator Call Back Response Time shall be as follows after call is placed from University of Oregon to Elevator Contractor and received by Elevator Contractor and until the Elevator Contractor's serviceperson is at the reported elevator:
1. Person trapped in elevator-all hours-all days = 30-45 minutes.
  2. Elevator Trouble Call-Monday thru Friday-8:00 am to 5:00 pm = 1 hour.
  3. Elevator Trouble Call-Monday thru Friday-off hours, 5:00 pm to 8:00 am = 2 hours.
  4. Elevator Trouble Call-Saturdays, Sundays and Holidays-all hours = 2 hours.

- F. In performance of this Work, Contractor agrees to carry out all Work in strict compliance with all laws, Codes, rules and regulations set forth with regard to the equipment by municipal, state or federal authorities having jurisdiction in effect on the date of this contract.
- G. Elevator Contractor shall protect all adjacent equipment, surfaces, etc. from damage and shall make good any damage thereto at Elevator Contractor's own expense.
- H. Elevator Contractor shall clean up all Work areas and shall remove from the premises all debris resulting from Elevator Contractor's operations.
- I. Elevator Contractor's service and repair personnel shall wear uniforms identifying them as employees of Elevator Contractor for ease of identification by University of Oregon.
  - 1. Elevator Contractor is to enforce strict discipline and order among their employees while on University of Oregon's premises, and shall be subject to the rules and regulations established by University of Oregon.
  - 2. Personnel deemed unacceptable by University of Oregon, for any reason, will not be allowed to perform Work under this contract with University of Oregon.
- J. Elevator Contractor will be issued keys for the elevator machine room. Duplication of any University of Oregon key is not allowed.
  - 1. Any and all costs occurring due to the loss of keys by Elevator Contractor, including the changing of locks, shall be borne at the sole cost and expense of Elevator Contractor.
- K. All labor furnished by Elevator Contractor shall be trained elevator mechanics, thoroughly skilled in elevator maintenance and directly employed and supervised by Elevator Contractor.
  - 1. They will use all reasonable care to maintain the elevator equipment in a proper and safe operating condition and to extend the life of the equipment.
- L. Maintain the hoistway, pit, machinery, machinery room and any assigned Elevator Contractor Work space in a clean, orderly condition, free of dirt, dust, oil and grease spills, trash and debris, at all times.
- M. Replace burned out indicator lamps in cars and hall call stations during Preventive Maintenance visits.
- N. Elevator Contractor shall conduct the following tests and any other tests required:
  - 1. All tests required by the State of Oregon Elevator Inspection Department.
  - 2. Written reports of these tests shall be submitted to University of Oregon within five (5) days from completion and also as required to the Elevator Inspector. Seven (7) days prior notification shall be given so that a representative of University of Oregon may witness said test or tests.
  - 3. Elevator Contractor shall perform all required Firefighters' Service tests and maintain all required documentation. Written results of such testing shall be submitted to University of Oregon one (1) week after such testing.
- O. Elevator Contractor shall post a Preventive Maintenance Schedule and Work Log in the machine room.
  - 1. The log shall include all entries for routine maintenance and repairs.
  - 2. Entries shall include date Work is completed, brief description of Work completed and the Mechanic's name.
  - 3. University of Oregon may review and copy the log and maintenance schedule at any time.
  - 4. Elevator Contractor's Preventive Maintenance Schedule and Work Log shall be submitted with the Modernization Bid.
- P. Elevator Contractor shall maintain a complete set of wiring diagrams showing "as built" conditions with any changes or modifications to circuits resulting from control modifications, parts replacement or equipment upgrade.
  - 1. University of Oregon retains sole possession of these wiring diagrams.
  - 2. The wiring diagrams shall be kept in a neat and orderly fashion and be located in the machine room.

- Q. Elevator inspection fees shall be paid by University of Oregon. Fees for re-inspection due to failure to eliminate deficiencies, which are the responsibility of Elevator Contractor, shall be paid by Elevator Contractor.
- R. Exclusions:
1. Repairs required because of negligence, accident or misuse of the equipment by anyone other than Elevator Contractor, their employees, subcontractors, agents or other causes beyond Elevator Contractors control except ordinary use.
  2. Repairs and replacement pertaining to the car enclosure including removable panels, door panels, car doors, suspended ceilings, light fixtures, tubes and bulbs for general lighting, handrails, car finish, and flooring coverings, hoistway enclosure, hoistway entrance frames and sills and emergency telephone instruments.
  3. Mainline power disconnect switches and breakers, fuses and feeders to the switches.
  4. Elevator Contractor shall not be required, under this agreement, to install new attachments or devices, after the elevator is accepted by Elevator Inspector, Elevator Consultant and University of Oregon, as may be recommended or directed in the future by insurance companies, federal, state, municipal or governmental authorities unless compensated for such installation. This applies to possible changes in the ASME A17.1 Elevator Code.
- S. All Work to be performed, which is not included in this One Year Warranty Period shall be authorized by University of Oregon by written notification to Elevator Contractor prior to commencement of the Work. The hourly rates, and material mark up from cost, will be as follows:

	<u>Mechanic</u>	<u>Helper</u>
Straight Time	\$170.00	\$147.00
Straight Time + 70%	\$209.00	\$180.00
Straight Time + 100%	\$223.00	\$191.00
MATERIAL MARKUP:	12%	

#### 1.07 WARRANTY

- A. Warrant the completed elevator in accordance with Oregon State law and regulation, but in no case less than complete coverage of parts and labor for one (1) year after issue of the State Of Oregon Elevator Operating Permit.

#### 1.08 QUALITY ASSURANCE

- A. Elevator Contractor shall furnish University of Oregon with all special tools, meters, diagnostic tools/devices, troubleshooting special hand-held tools/devices, printed information, adjusting information and all other special tools/devices to perform maintenance, troubleshooting, repairing and adjusting at conclusion of elevator modernization. If any special tool, meter, diagnostic tools/device requires readjusting or re-programming Elevator Contractor shall pay for all costs including freight for a period of five (5) years from date of elevator final acceptance by University of Oregon and Elevator Consulting Services, Inc. Cost, if any, to University of Oregon for the above stated items shall be included in Base Bid. After the initial five (5) year period all upgrades, readjustments or reprogramming of any or all diagnostic tools or devices will be provided as needed or required on a purchase order basis with the original Elevator Contractor that installed/manufactured the elevator equipment with the University of Oregon.
- B. Elevator Contractor shall provide and install all software improvement up-grades for a period of ten (10) years from date of elevator final acceptance by University of Oregon, State of Oregon Elevator Inspector and Elevator Consulting Services, Inc. The up-grades are defined as improvements for the elevator operation. If any elevator safety software up-grades are designed or discovered by the elevator manufacturer, the up-grades shall be installed immediately. All costs of the software up-grades shall be paid by Elevator Contractor.

- C. Elevator Contractor shall provide the University of Oregon the ability to purchase and receive all elevator replacement parts within twenty four (24) hours from date of parts order by University of Oregon. Replacement and spare parts are defined as any and all items required to maintain, service, repair, adjust and operate the elevator as designed and installed, in a safe and trouble-free manner. Elevator Contractor shall sell any and all spare parts including proprietary parts to the University of Oregon during the entire life cycle of the elevator equipment.
- D. Elevator Contractor shall supply a list, in writing, of all proprietary equipment that will be provided. A list of these items shall be provided together with a guarantee of availability. This guarantee shall specify that all proprietary parts shall be available for the life of the elevator equipment and within a twenty four (24) hour period of order placed. University of Oregon may return the worn or defective part to Elevator Contractor after the replaced part is delivered to the University of Oregon and the elevator has been placed in normal operation. Elevator Contractor shall submit a list of all proprietary equipment that is required in the elevator drive and control system. The list shall include individual item cost and part numbers or coding. Parts ordering information shall be provided.

1.09 ACCEPTABLE ELEVATOR MANUFACTURES

- A. Controls:
  - 1. Motion Control Engineering-(MCE) I Control 12 Pulse DC Closed Loop, Elevator Controls Corp. V900-DC SCR PVF, Swift Futura Quattro Drive or approved equal.
  - 2. Provide as part of the Elevator Controls:
    - a. Surge Suppressor
    - b. Brown Out Circuit
    - c. Regenerative Drive
    - d. Isolation Transformers
- B. Hoist Machine Motor:
  - 1. Imperial Electric-AC Flux Vector that shall be compatible with the new Controls. Motor slip shall be not more than 3%. Or approved equal.
- C. Hoist Rope Gripper:
  - 1. Hollister-Whitney Elevator Corporation.
- D. Car & Counterweight Roller Guides:
  - 1. ELSCO or approved equal.
- E. Operating Fixtures:
  - 1. Innovation Industries Inc. The Bruiser-Vandal Resistant, or approved equal.
- F. Hall Lanterns:
  - 1. Innovation Industries Inc. The Bruiser-Vandal Resistant, or approved equal.
- G. Car Door Protective Device:
  - 1. Janus-Panaforty 3D, or approved equal.
- H. Car Door Operator:
  - 1. G.A.L.-Manufacturing Company-VVVF-High Speed-Model MOVFR-1/2 hp-Closed Loop, or approved equal.
- I. Hoistway Door Tracks, Hangers, Interlocks:
  - 1. G.A.L. Manufacturing Company, or approved equal.
- J. Car Door Tracks, Hangers, Gate Switch:
  - 1. G.A.L. Manufacturing Company, or approved equal.
- K. Cab:
  - 1. Hauenstein and Burmeister, Custom Cabs, Inc., Winter and Bain, or approved equal.



- L. Hoistway Door Escutcheons:
  - 1. Tri-Lok Mfg. & Maintenance Corp. 625 Fifth Avenue-Pelham, New York, 10803, or approved equal.
- M. Car/Hall Position Indicators/Signals:
  - 1. C. E. Electronics, Inc, or approved equal.
- N. Intercom:
  - 1. JFillips LLC, or approved equal.
- O. Alarm Bell:
  - 1. Nylube Products Model ELB-6, or approved equal.
- P. In Car ADA Emergency Communication:
  - 1. JFillips LLC, or approved equal.

Part 2 - Products

2.01 GENERAL

- A. The completed elevator modernization shall conform to the Elevator Safety Code except as specifically otherwise indicated or specified. The elevator modernization, including equipment, material, workmanship, design, and tests shall be in accordance with the standards, rules and Specifications referenced. All material and equipment shall be new. Electrical materials shall meet and bear evidence of meeting the requirements of Underwriters Laboratories. The equipment shall be the product of a manufacturer regularly engaged in the manufacture and modernization of this type of equipment. Working parts shall be accessible for inspection, servicing and repair. Adequate means shall be provided for the lubrication of all wearing parts that require lubrication.
  - 1. DESCRIPTION AND PERFORMANCE: Modernization will be in accordance with the following details and consist of the following:

Type:	One (1) Basement Geared Traction Passenger Elevator
Year Installed:	1969
Manufacturer:	Original: Otis Elevator Company
Control System:	Simplex Selective Collective
Controller/Selector	Original: Otis Elevator Company
Door Equipment:	Original: Otis Elevator Company-Model 7300
Door Size:	3'-8" wide x 7'-0" high
Door Type:	Single Speed/Center Opening
Door Operation:	Automatic
Stops:	4
Landings:	4-All In Line B-1-2-3
Floor to Floor Heights: (Elevator Contractor to verify all floor to floor measurements)	2-3 = 10'-4" 1-2 = 12'-0 3/4" B-1 = 13'-0'
Total Travel:	35'-4 3/4"
Pit Depth:	5'-1"

Speed:	350 feet per minute
Capacity:	2500-pounds
Machine Location:	Basement Type

2.02 GENERAL MATERIALS

- A. Steel:
  1. Sheet Steel: Furniture Steel for Exposed Work: Stretcher-leveled, cold-rolled, commercial-quality carbon steel, complying with ASTM A366, matte finish.
  2. Sheet Steel: For Unexposed Work: Hot-rolled, commercial-quality carbon steel, pickled and oiled, complying with ASTM A569.
  3. Structural Steel Shapes and Plates: ASTM A6, ASTM A36 AND ASTM A108.
- B. Stainless Steel:
  1. Type 302 or 304 complying with ASTM A167, with standard tempers and hardness required for fabrication, strength and durability.
  2. Apply mechanical finish on fabricated Work in the locations shown or specified. Federal Standard and NAAMM nomenclature. Protect with adhesive-paper covering until final inspection.
  3. No. 4: Bright directional polish-satin finish. Graining directions as shown or, if not shown, in longest dimension.
- C. Plastic Laminate:
  1. ASTM E84 Class A and NEMA LD3, Fire-Rated-FR-50, Type 7, 0.050" thick; color and texture as follows: Exposed Surfaces-Color and Texture selected by University of Oregon.. Concealed Surfaces-Manufacturer's standard color and finish.
- D. Fire Retardant-Treated Particleboard Panels:
  1. Minimum 3/4" thick backup for natural finished wood and plastic laminate veneered panels, edged and faced as directed. Provide with suitable anti-warp backing complying with ASTM E84 Class "I" rating with a flame-spread rating of 25 or less.
- E. Fastening Screws:
  1. Stainless Steel Tamper-Proof screws shall be used throughout for all operating fixture cover plates.
- F. Bulbs:
  1. All light bulbs shall be 500,000-hour long-life.
- G. Keys:
  1. All elevator keys shall be installed to match the University of Oregon standards. Provide three (3) keys of each type. Provide each set on a metal plate with markings for each key. Attach keys to each plate.
  2. Provide key box(s) as required by the State of Oregon Elevator Inspector. Provide all required keys in box.
- H. Signs:
  1. Provide sign on outside of machine room and overhead access door stating "Authorized Personnel Only-Storage or Installation of Equipment Not Pertaining to the Elevator is Prohibited". Letters shall be not less than 3/8" high. Sign shall be plastic or metal and securely fastened so as not be readily removed without the use of special tools.
- I. Finishes:
  1. Structural members and other components for which finish is not otherwise specified shall have prime coat finish.

## 2.03 ELEVATOR MACHINERY

- A. Hoist Machine and Deflector Sheave:
  - 1. Retain existing Basement Set geared traction hoist machine.
    - a. Drain, flush and replenish the geared machine gearcase with the manufactures' recommended grade of lubricant.
    - b. Disassemble brake, clean, replace pins and adjust for correct operation. Provide new brake lining. Provide brake with an electrical switch that will be activated when the braked is "picked". Check brake coil-rewind coil if reading is lower than 1 Meg ohm. If retaining existing, clean, bake and varnish existing brake coil.
    - c. Provide new thrust bearings.
    - d. Provide new worm shaft bearings and new sheave seals.
    - e. Provide new AC-Variable Frequency hoist motor. Provide all required adapter plates required. Motor slip shall be 3% or less.
    - f. Replace any worn, damaged, broken or missing components. Place entire geared machine in "as new" condition.
  - 2. Provide Seismic and hoist rope guards on all sheaves.
  - 3. Paint machine with machinery gray enamel.
  - 4. Provide bevel washers for any bolt/nut that is installed in a plane of five (5) degrees.
  - 5. Install hoist rope gripper device.
  - 6. Deflector Sheave
    - a. Provide new.
- B. Overhead Sheaves & Beams:
  - 1. Provide new overhead hoist rope sheaves.
  - 2. Retain existing overhead beams. Do not burn/cut any area of the beams.
  - 3. Provide bevel washers for any bolt/nut that is installed in a plane of five (5) degrees.
  - 4. Provide Seismic and hoist rope guards on all sheaves.
  - 5. Provide emergency stop switch in overhead area adjacent to the access door close side. Mark switch for the Run and Stop positions.
- C. Governor & Governor Pit Sheave:
  - 1. Provide new governor and pit sheave.
- D. Governor Rope:
  - 1. Provide new governor rope. Perform all required testing. Provide all required test tags.
- E. Hoist Ropes:
  - 1. Provide new hoist ropes. The hoist ropes shall be elevator rope as required by ASME A17.1.
  - 2. Provide rope data tag with the following information:
    - a. The diameter in inches or millimeters.
    - b. The manufactures rated breaking strength.
    - c. The grade of material used.
    - d. The month and year the ropes were installed.
    - e. The month and year the ropes were first shortened.
    - f. State if the ropes are non-preformed or preformed.
    - g. Construction classification.
    - h. Name of the person or organization who installed the ropes.
    - i. Name or trademark of the manufacturer of the ropes.
    - j. Lubrication information.

## 2.04 HOISTWAY EQUIPMENT

- A. Door Hangers and Tracks:
  - 1. Provide new door hangers. New hangers shall be bolted to the top of the new hoistway doors.
  - 2. Provide new removable type door tracks.
- B. Interlocks:
  - 1. Provide new U.L. rated and approved interlock for each hoistway door entrance.

2. The interlock shall prevent operation of the elevator unless all doors are in the closed and locked position.
  3. Provide Fire Rated electrical wires from all interlocks to hoistway electrical riser. The conductors shall be flame-retardant and suitable for a temperature on not less than 392 degrees F. Conductors shall be Type SF or equivalent.
  4. Provide electrical ground wire from each interlock to the elevator controller. Electrical ground wire shall be green colored conductor that connects all interlocks and terminates in the elevator controller at an electrical lug that designates electrical ground as defined by the N.E.C.
- C. Emergency Access:
1. Provide new, access to all hoistway doors by mechanical luner key.
  2. Provide door luner key holes with Safety Plug Locks at all floors.
- D. Closures:
1. Provide new, heavy-duty spirators closers at all landings.
  2. Replace any missing, broken or damaged components.
- E. Frames:
1. Retain existing.
  2. Clean all dirt etc. from frames.
  3. Provide new Braille plates.
- F. Door Panels:
1. Provide new No. 16 gauge steel, thick fabricated with vertical internal channel reinforcements.
  2. Bottom of doors shall be provided with two (2) removable phenol gibs, which run in the sill slots with minimum clearance. Provide fire tabs on each gib.
  3. Provide a steel plate gib that will be installed between each of the two (2) standard gibs. The steel plate gib shall span the entire distance between each of the standard gibs.
  4. Provide Stainless Steel fastening screw for all gibs.
  5. Provide luner key access at all floors, including Safety Plug Locks.
  6. Finish to be 5-SM Vandal Resistant Stainless Steel on the lobby side and front edge of each panel.
- G. Sight Guards:
1. Provide new sight guards. Paint same color as new hoistway doors. Provide ¼" diameter pop rivets fastenings to doors every 8" inches vertically.
- H. Sills:
1. Retain existing. Clean to remove foreign material.
- I. Fascia, and Hanger Covers:
1. Retain existing. Replace any missing or broken brackets or complete covers including fastenings screws.
- J. Toe Guard:
1. Retain existing. Replace any missing or broken brackets including fastenings screws.
- K. Dust Cover:
1. Retain existing. Replace any missing or broken brackets or complete covers including fastenings screws.
- L. Struts:
1. Retain existing strut angles. Replace any missing or broken fastening devices. Clean and paint with one coat of light gray enamel. Provide door open bumpers on the vertical struts.
- M. Headers:
1. Retain existing headers. Replace any missing or broken fastening devices.
- N. Floor Numbers:
1. Paint 4" high floor numbers within the hoistway as required by ASME A17.1.

- O. Guide Rails-Car & Counterweight:
1. Existing guide rails shall be retained. Realign guide rails to within one-sixteenth of an inch (1/16") vertical and one thirty-second of an inch (1/32") (DBG) tram.
  2. File all joints-area to file shall be at least 16" above and 16" below each joint. Power disk sander shall not be allowed to file joints. Flat file that is enclosed in a Rail File Holder shall be the method of filing rail joints.
  3. Replace any missing or broken fastening devices.
  4. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
  5. Provide additional counterweight guide rail brackets. Additional brackets shall be provided between each of the existing brackets. Brackets shall the same design as the existing brackets.
  6. Clean and paint guide rails, fishplates and brackets with one coat of black enamel. Do not paint running surface of guide rails.
- P. Limit Switches:
1. Provide new upper and lower final and terminal limit switches with rollers having rubber or other approved composition to provide silent operation when activated.
  2. Normal terminal stopping devices shall be provided and arranged to stop the car automatically from any speed obtained under normal operation within the top and bottom overtravels, independent of the operating devices and final terminal stopping device.
  3. Final terminal stopping devices shall be provided and arranged to stop the car automatically from the speed specified within the top clearance and bottom overtravel independent of the operation of the normal terminal stopping devices.
- Q. Counterweight:
1. Retain existing counterweight. Clean all components. Check all fastenings. Replace any missing or broken bolts, washers and nuts. Check rods for tightness. Install all new cotter pins. Check correct counterweight overbalance. Add or remove weights to achieve required weight for proper elevator operation. Notify Elevator Consultant, in writing, of any weight removed or added and percent overbalance.
  2. Provide new roller guides. Provide Seismic rated position restraint plates. The clearance between each running face of the guide rail and the position restraint shall not exceed 0.187" and the depth of engagement with the rail shall not be less than the dimension of the side running face of the rail.
  3. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
  4. Provide a twelve inches (12") in height and same width as the counterweight frame a solid steel plate, located ½ the vertical between the upper and lower guiding members to provide a running clearance of not more than one-half inch (½") from the steel plate to the face of the counterweight guide rail. The steel plates shall be provided on both counterweight vertical frame members. Secure the steel plate to the counterweight frame by bolting or welding.
  5. Paint counterweight frame, including weights with one coat of machinery gray enamel.
- R. Counterweight Guard:
1. Retain existing guard. Check all fastenings. Replace any worn, damaged or missing brackets or hardware. Clean and paint with one coat of machinery gray enamel.

## 2.05 SEISMIC REQUIREMENTS

- A. Guarding Of Snag Points:
1. Provide guards to prevent the electrical traveling cables from becoming snagged on guide rail brackets.
- B. Guide Rail Fishplates:
1. Provide car & counterweight guide rail fishplates and bolts as required by ASME A17.1- Seismic.
    - a. The section modules and the movement inertia of the fishplate shall not be less than that of the guide rail.
    - b. The diameter of bolts holes shall not exceed the diameter of the bolts by more than 1/8" for fishplates.

- c. The threaded portion of the fishplate bolts shall not occur in the shear plane of the guide rail fishplate assembly.
  - d. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
  - e. Due to restricted horizontally distance between the car guide rails and the existing hoistway wall, full size Seismic rated fishplates must be reduced in depth. Provide fishplates with the maximum depth for the existing conditions.
  - f. Provide full size Seismic rated fishplates for the counterweight guiderails.
- C. Seismic Switch:
- 1. Provide Seismic switch as required by ASME A17.1. Install device per manufacturer's instructions.
  - 2. Seismic switch shall activate upon excitation in a vertical direction of not more than 0.15 times gravity acceleration. The frequency response of the switch shall be 1 Hz to 10 Hz.
- D. Counterweight Displacement Device:
- 1. Provide device as required by ASME A17.1.
- 2.06 ELEVATOR CAR:
- A. Car Frame:
- 1. Retain existing car sling. Clean all components. Check all fastenings. Replace any missing or broken bolts, washers, and nuts. Check alignment. Place frame in correct position relating to side to side and front to back distance and levelness.
  - 2. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
- B. Roller Guides & Position Restraint Plates:
- 1. Provide new roller guides. Provide Seismic rated position restraint plates. The clearance between each running face of the guide rail and the position restraint shall not exceed 0.187" and the depth of engagement with the rail shall not be less than the dimension of the side running face of the rail.
  - 2. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
- C. Platform:
- 1. Retain existing platform. Clean all components. Check all fastenings. Replace any missing or damaged bolts, washers and nuts. Replace isolation pads. Provide fire rated material on underside of platform.
  - 2. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
- D. Car Safety:
- 1. Retain existing. Place in "as new" condition. Verify the electrical switch is adjusted correctly.
  - 2. Provide bevel washers for any bolt/nut that is installed in a plane of 5 degrees or more.
- E. Car Enclosure:
- 1. Retain existing cab shell.
  - 2. Vandal Resistant Stainless Steel shall be Rigid-Tex 5-SM Stainless Steel Metal.
  - 3. Car Front: Provide new fixed front return panel with integral entrance column of 14-gauge minimum with Vandal Resistant Stainless Steel shall extend from finished floor to underside of the dome. Front panel shall be arranged for the mounting of applied fixtures.
  - 4. Car Top: Retain existing. Finish shall be painted white.
  - 5. Car Doors: Provide new. The car entrance shall be provided with doors of minimum 16 gauge facing into the car Vandal Resistant Stainless Steel, extending around the leading door edges, and suitably reinforced. Bottom of doors shall be provided with removable phenol guides, which run in the sill slots with minimum clearance. Provide a steel plate gib that will be installed between each of the two (2) standard gibs. The steel plate gib shall span the entire distance between each of the standard gibs. MAC zone restrictors, designed to prevent car doors from being opened when the car is outside a landing zone shall be included.
  - 6. Door Edge Protective Device: Provide car door with an new Janus Elevator Products "Panaforty-3D infrared type reopening device extending the full height of the car door.

7. Lighting: Remove existing lighting fixture. Provide new, four (4) surface mounted lighting fixtures. Fixtures shall be Kenall Lighting, Millennium, Catalog Number MR 13FL-PP-MB-26Q-1-120v Vandal Resistant with Quad Tube Fluorescent, Clear Starburst lens, Standard black base plate, high power factor ballast with lamps included. Provide one extra set of lamps.
  8. Retain existing car sill.
  9. Interior Car Finishes:
    - a. Wall Panel: Provide new. Furnish and install stainless steel and laminate interior. Provide new, ½" thick plywood wall panels above handrail to 12" below top of cab. Panels, including exposed edges, to be covered with .043 plastic laminate. Selection to be provided by University of Oregon from Nevamar ARP series. Provide 1" wide x 18" gauge Stainless Steel reveals. Plywood shall conform to the requirements of ASME A17.1a-Rule 204.2a (1) (a) flame spread index of 0 to 75 and (b) smoke development of 0 to 450.
    - b. Base: Provide new. Provide 6" high with vent slots in the Stainless Steel base. Provide screening on backside of vent slots.
    - c. Wall Covering, Front Panel and Car Doors: Provide new Rigid-Tex 5-SM Stainless Steel Metal, on all walls above Stainless Steel base, front cab panel and car doors.
    - d. Finish Selection: Provide new side and back walls of Rigid-Tex, pattern 5-SM. Height to be from the Stainless Steel base to 6" above handrail location.
    - e. Flooring: Retain existing.
    - f. Pad And Pad Hooks: Provide Stainless Steel pad hooks on all walls Pad hooks shall be through bolted to cab walls. Pad hook and mounting stud shall be one piece. Provide three-section fire retardant pad with metal grommet holes for the pad hooks fastening. Mark on backside of pad the left, right or back wall side.
  10. Exhaust Fan: Provide new two-speed exhaust fan, mounted on the car top. Provide flat ¼" thick, Stainless Steel round cover plate with adequate number of ¼" holes for air movement. Fasten cover plate to ceiling with six (6) -(1/4") Stainless Steel pop rivets.
  11. Provide new electrical switch on car top exit panel. Provide lock as required by ASME A17.1 Code.
  12. Car Handrails: Provide new, one and one-half (1-1/2")inch diameter round stainless steel handrails shall be provided on the cab two sides and rear wall. Handrail shall be spaced 1-1/2" off walls and at a height of 32" from cab floor to the handrail top. Steel backing plates, at least 4" square x 1/4" thick, shall be provided on the hoistway side of the cab walls to fasten the handrails. No fastening device, set screw-etc., shall be allowed inside the cab. Handrail, standoff section and mountings stud shall all be as one unit. Handrail ends shall be straight.
  13. Car Doors: The car entrance shall be provided with new doors of minimum 16 gauge facing into the car Vandal Resistant Stainless Steel, extending around the leading door edges, and suitably reinforced. Bottom of doors shall be provided with removable phenol guides, which run in the sill slots with minimum clearance. Provide a steel plate gib that will be installed between each of the two (2) standard gibs. The steel plate gib shall span the entire distance between each of the standard gibs. Provide zone restrictors, designed to prevent car doors from being opened when the car is outside a landing zone, shall be included on all car doors.
  14. Car Top Rail: Provide guard railing on top area of car top as required by ASME A17.1 Code.
- F. Elevator Car Station:
1. Provide one (1) vandal resistant elevator control station with faceplate, consisting of a metal box containing the operating fixtures, mounted behind the non-swing car enclosure front panel. Install in-car to lobby intercom as part of the elevator car station. Install in-car emergency light as part of the new station.
  2. Provide car position indicator, four inches (4") high digital type together with directional arrows located in the top area of the car operating station. Provide 1/4" thick clear Lexan lens cover or a type that shall be vandal resistant.
  3. Provide emergency lighting unit. Device shall be built in, and part of the car operating station at the upper section of the station cover. Provide Vandal Resistant Lexan clear lens over device.

4. Suitably identify floor buttons, lighted alarm button, door open button, door close button and keyed emergency stop switch by engraved and painted letters or symbols per Local Handicapped Standards and ADA requirements. Provide flush inset, back fastened handicapped markings. Locate operating controls location as required by ADA requirements. Locate keyed stop switch and alarm button thirty five (35") above car floor. Engrave below door open, door close, stop switch and alarm in one-quarter inch (1/4") letters-"Door Open", "Door Close", "Alarm" and "Run-Stop".
  5. Provide one eighth of an inch (1/8") raised floor pushbuttons which illuminate to indicate LED call registration. Provide floor designation engraved plates to the left of each button.
  6. Provide illuminated alarm button at bottom of station to sound distress signal alarm located on the car top. Provide a signal to the elevator controller at a terminal strip for monitoring purposes of alarm at a remote location.
  7. Provide keyed stop switch in panel faceplate with markings to show "Run" and "Stop" positions.
  8. Provide door open button to stop and reopen closing doors. Make button operable while car is stopped at landing, regardless of special operational features, except Firefighters' Service.
  9. Provide one (1) Firefighters' Service Phase II key switch with engraved instructions, light jewel, buzzer and call cancel button. Provide Firefighter's phone jack plug in car station with electrical conductors to elevator controller.
  10. Provide lockable service panel with recessed flush cover plate. Include the following controls, with purpose and operating positions identified by engraved letters painted black:
    - a. Car light switch and emergency light test switch. Test switch shall disconnect the electrical power to the main car lighting circuit.
    - b. Three position fan switch-Low Speed-High Speed-Off.
    - c. Independent service switch to permit selection of independent or automatic operation.
    - d. Start button for closing doors and starting elevator when operating on independent service. Floor pushbuttons may be used for this function.
    - e. Duplex 120 VAC electrical convenience outlet. Provide GFCI protection.
  11. Provide black paint filled engraving as follows:
    - a. Elevator number on car station.
  12. Faceplate Material and Finish: #4 Stainless Steel.
  13. Provide Code required State of Oregon Elevator License Permit Stainless Steel frame. Provide Stainless Steel Vandal Resistant fastenings.
  14. Telephone Cabinet: Emergency communication device shall be mounted as part of the car operating panel. Provide all required electrical wiring from the in car station to the elevator controller. Phone shall be mounted such that it is easily removable for servicing. Provide all required programming including labor and material for placing device in operation.
- G. Car Top Inspection Station and Work Light:
1. Operating fixture shall be provided containing continuous pressure Up, Down and Safe buttons, emergency stop switch, inspection and run switch, Work light with guard and 110 VAC duplex outlet with GFCI protection.
  2. Toggle switches shall not be provided for the Stop, Run and Inspection switches unless the switches are guarded against accidental activation. Fasten car top station to car crosshead.
  3. Work light shall be encased in a total glass enclosure including a wire guard cover. Rating of light to be at least 60 W.
  4. Provide additional light fixture on a flexible cord. Length of cord to be eight feet (8'). Size of conductors to be minimum of 14 G. Cord to be hard wired into car top fixed work light. Provide fixed metal bracket to store cord when not in use. Locate bracket to avoid stepping on cord when attached to bracket. On-OFF car top light switch shall control both fixtures. Provide guard on light. Rating of light to be at least 60 W.
- H. Intercom:
1. Provide elevator car to main lobby intercom. Intercom shall be part of the first floor landing hall call station.
  2. Provide elevator car to machine room intercom. Provide selection switch to allow communication between machine room and elevator.



- I. Emergency Car Lighting:
  - 1. An emergency power unit shall be provided to illuminate the elevator car and provide current to the alarm bell in the event of power failure. If emergency power circuit is available, car lighting and alarm bell also shall be connected to the Building Emergency Panel. Device shall be built in and part of the car operating station at the upper section of the station cover. Provide Vandal Resistant Lexon clear lens over device.
  - 2. Device shall provide lighting of .02 ftc at a distance of four feet (4') above the car floor and one foot (1') in front of the car operating station. The emergency lighting shall maintain the light intensity for a period of at least four (4) hours.
- J. Alarm Bell:
  - 1. Furnish and install an alarm bell, located on top of the elevator adjacent to the car top inspection station.

## 2.07 POWER AND CONTROL DEVICES:

- A. Controller/Selector:
  - 1. The controller shall utilize a DC solid state drive unit. The solid state power control shall be a closed feedback loop design. It shall be a compact self-contained unit that will provide stepless acceleration and deceleration and provide regulation at all car speeds.
  - 2. The system shall provide the required electrical operation of the elevator control system including the automatic application of the brake, which shall bring the car to rest upon failure of power. In addition, the power control shall be arranged to continuously monitor the actual elevator speed signal from the tachometer and to compare it with the hoist motor armature voltage and the intended speed signal, to verify safe and proper operation of the elevator.
  - 3. Provide isolation transformers plus proper filtering to eliminate both electrical and audible noise.
- B. Solid State Power Supply and Logic Control: Provide solid state power devices with voltage and current capability ample to operate the elevator at the specified conditions.
  - 1. The maximum RMS Total Harmonic Distortion (THD) contribution to the building power distribution network, from the elevator drive and hoist system, shall be restricted for voltage (THDV) and current (ampere) (THDI). The RMS total harmonic distortion is defined as the amount of harmonic distortion as a percentage of the RMS value of waveforms at all frequencies (fundamental and harmonic). The following THD criteria are to be understood as RMS unless otherwise noted.
  - 2. THD will be measured and compared to the building THD. The building THD will be measured with the new elevator systems disconnected from the building power distribution system.
  - 3. The building THDV and THDI; with the elevator disconnected, will be measured at each elevator's feeder disconnecting means.
  - 4. The elevator THDV and THDI; will be measured at each elevator's feeder disconnecting means located in the elevator equipment room. Individual measurements will be taken with each elevator operating at full-rated load at contract speed in the up direction.
  - 5. The maximum allowable THDV and THDI will be the calculated difference between the building THDV and THDI measurements and the elevator THDV and THDI measurements respectively.
  - 6. Maximum allowable THDV from each elevator motor drive is three percent (3%) or the value of the building THDV measured in part b above, whichever is greater.
  - 7. Maximum allowable THDI from each elevator motor drive is fifteen percent (15%). No individual current harmonic shall exceed ten percent (10%) relative to the fundamental (THDI-F). THDI-F defines the amount of harmonic distortion as a percentage of the fundamental frequency current.
- C. Solid State Power Control:
  - 1. Provide a solid state power controller to operate the hoist motor, brake, and other electromechanical devices. The controller shall include interfacing pilot electromechanical devices as required for accepting the necessary elevator hoistway switches and operating switches.

2. These include, as a minimum, terminal slowdown devices, overtravel limit switches, solid state magnetic leveling switches, inspection operating pushbuttons, emergency stop switches and governor over-speed switches.
- D. Microprocessor Elevator Logic Control:
1. The operation shall be accomplished utilizing microprocessor computer logic control. The elevator control program shall be contained in nonvolatile, programmable, read-only memory. The control shall be constructed such that future alterations in elevator operation including changes of operating parameters including but not limited to speed, acceleration, jerk, pre-opening, door speed, door dwell, floor counts for leveling, and car zoning may readily be made as part of normal maintenance and service. If a separate, detachable device is required, it shall be furnished.
  2. Safety circuits shall be monitored and controlled by the programmable logic control with redundant protection.
  3. The microprocessor elevator logic control shall be contained in a NEMA 1 cabinet.
- E. Fault Diagnosis:
1. Capability shall be provided to diagnose faults to the level of individual circuit boards and individual discreet major components for both the Solid State Power Controller and the Elevator Logic Controller. (Capability to diagnose faults within an individual circuit board is not required.)
  2. If fault diagnosis requires a separate, detachable device, it shall be furnished.
- F. Operation:
1. Provide standard "Simplex Selective/Collective Operation" for the one passenger elevator.
- G. Computer Display Terminal-Simplex Car:
1. A monitor and computer shall be provided in the machine room. The monitor will be a minimum 17-in. diagonal measure. These devices shall provide menu-driven access to reports and other functions. As a minimum, the following reports shall be provided:
    - a. Job Configuration-This report shall provide a brief description of the system, including the job number, programmable job name, number of cars, number of landings, openings per landing for each car, programmable car designation, programmable landing designation, fire service options, serial communication port definitions and other system options.
    - b. System Performance Graph-This report shall provide elevator system performance data based on hall call waiting times. At the end of each hour, the quantity of up and down hall calls shall be tallied. Up and down average waiting times shall be calculated and saved in the controller's non-volatile RAM. This information shall be kept for a minimum of seven (7) days.
    - c. Hall Call Distribution-This report shall provide hourly call distribution in a tabulated format for each hour, showing the number of hall calls which were answered within 15 to 90 second intervals for each landing and direction, and show the percentage and number of cars that were in service during a specified time frame. This information is saved for at least twenty-four (24) hours.
    - d. Graph Display of Elevator Status-This report shall provide a graphic display of the elevator hoistway that gives the user a comprehensive picture of car locations, door status, direction of travel, car calls registered, hall calls registered, hall call assignments, estimated time of arrival of a car for a registered hall call, wait time of a registered hall call, floor labels, system status and a car status window. A per-car status window shall be provided that shows the status of the car, such as, automatic operation, inspection, firefighters' service; time out of service; top floor demand and bottom floor demand.
- H. Entering Hall And Car Calls:
1. The computer terminal shall provide a means for entering hall and car calls using the arrow and enter keys. If the call is valid and registered, a corresponding symbol shall be displayed on the screen.

- I. Real Time Clock:
  - 1. The user shall be provided with the capability to program the controller's real-time clock.
- J. Car Inputs And Outputs:
  - 1. The monitor shall provide simultaneous viewing of most individual car input and output signals to detect important sequential events.
- K. Special Event Calendar Menu:
  - 1. The special-event calendar menu shall provide three options. The first display of Special Events Entries allows the user to examine the documented faults or events. The second, List and Description of Events, allows the user to examine the faults and events, which are monitored. The third, Initialize the special-event Calendar, allows the user to clear all the documented faults and events.
- L. Printer:
  - 1. One printer shall be provided, located in the elevator machine room, to allow the user to obtain permanent copy of reports available from the computer terminal. The printouts can be used for records or for ease of reference.
- M. Independent Service:
  - 1. Independent service operation shall be provided for the elevator through the actuation of a keyed switch or toggle switch in the main car operating service panel. This service will cancel any existing car and hall calls, and hold the doors open at the landing. The car will only respond to car calls. While on independent service the hall arrival lanterns shall be inoperative.
- N. Hoist Machine Brake Electrical Device:
  - 1. Provide electrical controls that will "sense" when the hoist machine brake is "picked" during the startup of the elevator to operate.
  - 2. If the brake electrical circuit is "not made", and is sending a signal to the elevator controller that the brake is not "picked" the elevator shall not leave the landing.
  - 3. After a predetermined time the car shall attempt to start again. This operation shall attempt the start up at least three (3) times. If, after that third (3rd) time, system and the brake is not "picked" the elevator shall shut down.
  - 4. In order to start the elevator after this cycle the main line disconnect or a manual switch in the controller must be turned to the off position and then to the on position for normal elevator service. This operation shall also be in effect during car top inspection mode.
- O. Anti-Nuisance:
  - 1. An anti-nuisance feature shall be provided which cancels all car calls if, while in normal automatic operation, the car makes a pre-determined number of stops in response to car calls, without the car door detector being interrupted, indicating that no one is entering or leaving the car, all registered car calls shall be canceled.
  - 2. Once the car calls are canceled, the anti-nuisance feature shall not function again until the car door detector has been interrupted at least once.
  - 3. Load detection combined with number of registered car calls may be used as a method of providing call cancellation.
- P. Load Weigher:
  - 1. The load weigher shall consist of load sensors, amplifier and buffer board. The buffer output shall be connected to the machine room via two conventional wires. The output circuit shall be virtually impervious to damage from transients or accidental connection to voltages up to 120 vac.
  - 2. Adjusted devices shall be provided to allow hall call by-pass from thirty percent (30%) to eighty percent (80%) of rated capacity.
- Q. Ascending Car Overspeed and Unintended Car Movement Protection:
  - 1. Provide ascending car overspeed and unintended car movement protection.

- R. Simplex Selective Collective Automatic Operation:
1. Automatic operation by means of one button in the car for each landing served, one button at each terminal landing and double buttons at each intermediate landing. When elevator is idle, automatically start car and dispatch it to floor corresponding to registered car or hall call. Slow down and stop car automatically at floor corresponding to registered call. As slowdown is initiated for a hall call, automatically cancel the call and render the hall button for that direction of travel ineffective until the car leaves the floor. Cancel car calls in same manner. Hold car at arrival floor an adjustable time interval to allow passenger transfer. Illuminate appropriate button to indicate call registration. Extinguish light when call is answered.
  2. An anti-nuisance feature shall be provided which cancels all car calls if, while in normal automatic operation, the car makes a pre-determined number of stops in response to car calls, without the car door detector being interrupted, indicating that no one is entering or leaving the car, all registered car calls shall be canceled. Once the car calls are canceled, the anti-nuisance feature shall not function again until the car door detector has been interrupted at least once. Load detection combined with number of registered car calls may be used as a method of providing call cancellation.
- S. Firefighters' Service:
1. Provide all elevator control functions, car operating devices, and hall operating devices necessary for "Firefighters Service-Automatic Elevators" as required by the Elevator Safety Code. The "Designated Level" and the "Alternate Level" shall be designated by the University of Oregon. Provide a key box for the recall station and for the elevator machine room door, the box locks to match the Eugene Fire Department standard key. Provide Firefighter's Service Phase I & II the elevator machine room key and any other key required to open doors to gain access to the elevator machine room, in the key box.
- T. Automatic Leveling Device:
1. The elevator shall be provided with a two-way automatic maintaining leveling device.
- U. Landing Control Stations:
1. Provide "Surface Mounted" one (1) station at each floor. LED's shall be provided to illuminate when the hall push button(s) are activated. Include pushbuttons for direction of travel. Engrave safety message "In Case of Fire..." (per ASME A17.1 Appendix H) on push-button faceplate. Height and width of sign to be three and one-half inches (3 1/2") wide by four inches (4") high Provide Braille and UP & DN. marking inserts to the left of each button. Locate each hall station forty-two inches (42") to center of buttons from floor level.
  2. Provide 1" digital type in height hall position indicator in upper area of each hall station. Provide vandal resistant plastic cover over position indicator.
  3. Provide Phase I Firefighters' Service key switch with engraved instruction at the main recall floor hall station.
  4. Provide #4 Stainless Steel finish cover plates. Provide Stainless Steel vandal resistant fastening screws on cover plates.
- V. Signals:
1. Car Position Indicator:
    - a. Provide car position indicator, 4" high digital type together with directional arrows located above car operating station. Provide 1/4" thick clear Lexan lens cover or a type that shall be vandal resistant. Provide an audible signal as the car stops or passes a floor. Provide Stainless Steel cover plate to cover the existing car position indicator with vandal resistant fastening screws.
  2. Car Traveling Lanterns:
    - a. Provide car traveling lanterns in both car entrance columns with 2" high directional arrows corresponding to the direction of car travel. Provide #4 Stainless Steel cover plate with vandal resistant #4 Stainless Steel fastening screws.
  3. Hall Position Indicator:
    - a. Provide 4" high digital hall position including directional arrows indicator above the 1<sup>st</sup> floor hoistway door frame. Provide Stainless Steel cover plate with vandal resistant fastening screws.

- W. Door Operator:
1. Provide a new door operator with direct current motor to open and close the car and hoistway doors simultaneously. The package shall include the following: lifting rods, pickup rollers, clutch assembly, interlocks with anti-egress device, car door electrical switch and all related modernization hardware. Opening speed shall not be less than 2-1/2 feet per second. Closing speed shall not exceed the limitations set by the ASME A17.1. Car door operator shall be capable of closing doors under Firefighters Service operation without slamming in open and close sequence.
- X. Door Edge Protective Device:
1. Provide car door with a slim line infrared type reopening device extending the full height of the car door.

## 2.08 PIT

- A. Emergency Stop Switch:
1. Provide new emergency stop switch as required by ASME A17.1.
  2. Locate two stop switches, one at 18" above the floor level of the lowest landing, within reach from this access floor and adjacent to the pit ladder and the other at 4' above the pit floor.
  3. Switch shall be permanently marked STOP and RUN.
- B. Buffers:
1. Retain existing buffers. Provide marking plates. Paint with one coat of black enamel.
- C. Pit Access Ladder:
1. Provide a non-combustible pit ladder to a minimum height of forty eight inches (48") above the sill of pit access hoistway door. Overall width of ladder shall be sixteen inches (16"). Distance vertically of rung to rung shall be twelve inches (12"). Distance of outside of each rung to hoistway wall shall be not less than four and one-half inches (4-1/2"). Provide handhold at top of ladder.

## Part 3 - Execution

### 3.01 MODERNIZATION OF ELEVATOR SYSTEMS

- A. General:
1. Comply with manufacturer's instructions and the Elevator Safety Code for work required during modernization.
  2. Before beginning the modernization, the Elevator Contractor shall examine the hoistway and machine room to verify conditions and provide written notice to the University of Oregon of any conditions which would substantially hinder or prevent proper execution of the work. The Elevator Contractor shall not proceed with the modernization until the cited conditions are corrected.
- B. Premodernization Meeting:
1. Prior to modernization of the elevator equipment, a meeting of Elevator Contractor, University of Oregon Construction Coordinator, and Elevator Consultant shall be held to review modernization approach and identify any special circumstances pertaining to this modernization.
- C. Welded Construction:
1. Provide welded connections for modernization of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance and replacement of worn parts. Comply with standards of AWS D1.1 for workmanship and for qualifications of welding operators.
- D. Electrical Work:
1. All work shall conform to the requirements of the Elevator Specifications.

2. Mark each component, including but not limited to relays, switches, timers, fuses and overload devices, with permanent identification that corresponds with the nomenclature of the wiring diagrams and the operations and maintenance manuals.
3. Terminate all field wiring at each control cabinet on terminal strips suitable for the use. Field wiring shall not terminate on the studs of relays or other devices and equipment.

E. Coordination:

1. Coordinate elevator work with work of other Crafts/Trades for proper time and sequence to avoid elevator modernization delays.

F. Sound Isolation:

1. Mount rotating and vibrating elevator equipment and components on vibration-absorption mounts, designed to effectively prevent transmission of vibrations to structure, and thereby eliminate sources of structure-borne noise from elevator system.

G. Lubrication:

1. Lubricate operating parts of systems as recommended by manufacturers.

### 3.02 FIELD QUALITY CONTROL

A. Compliance Testing:

1. Upon nominal completion of elevator modernization, and before permitting use of elevator (either temporary or permanent), perform acceptance tests as required and recommended by Code and governing regulations or agencies. Advise University of Oregon and Elevator Consultant and inspection departments of governing agencies, in advance, of dates and times tests are to be performed on elevator. University of Oregon and Elevator Consultant shall be notified seven (7) days in advance of these tests.

B. Acceptance Tests:

1. Conduct operational test of car within one (1) week of issue of the State of Oregon Permanent Operating Permit.

### 3.03 PERFORMANCE

A. Speed:

1. +/- 1% of contract speed under any loading condition in down direction. Rated speed in up direction under any loading conditions.

B. Capacity:

1. Stop level at all landings, in both directions, with rated load.

C. Stopping Accuracy:

1. +/- Level to 1/8" under any loading conditions or direction of travel.

D. Door Opening Time: Seconds from start of opening to fully open:

1. 2.0 seconds.

E. Floor-to-Floor Performance Time: Seconds from start of doors closing until doors are 3/4 open and car level and stopped at next successive floor under any loading condition or travel direction.

1. 10.5 seconds.
2. Provide a smooth start, high speed operation and stop in both directions.

F. Noise Level:

1. The measured noise level in the elevator cab of elevator equipment shall not exceed 60 dBA during car operating conditions and a maximum increase of 7 dBA during door operation.
2. Maximum of 80 dBA in machine room.

G. Ride Quality:

1. Horizontal vibration, side to side and front to back with car during normal operation shall not exceed 25 mg in the 1-10 Hz range.

2. Vertical vibration not more than 20 mg. Provide smooth and constant acceleration and deceleration of not more than 2.8 feet/second/second with an initial ramp between 0.5 and 0.75 second/second.
3. Provide smooth and constant acceleration and deceleration of not more than 2.8 feet/second/second with an initial ramp between 0.5 and 0.75 second.
4. Provide no more than 12 ft/sec<sup>3</sup> of maximum jerk.

H. Running Test:

1. Load elevator to its rated capacity and operate continuously for one (1) hour over its full travel distance, stopping at each landing, providing a complete door open and close cycle.
  - a. Record temperature rise of hoist motor during 60-minute test period. Motor temperature rise within manufacturer's tolerances.
  - b. Record speed up and down and leveling relative to landing sills at the end of the period. Landing accuracy as noted in Specifications.

I. Protection:

1. At time of final completion of elevator work (or portion thereof), provide suitable protective coverings, barriers, devices, signs or such other methods or procedures to protect elevator work from damage or deterioration. Maintain protective measures throughout remainder of modernization period. Elevator Contractor is responsible for damage and wear during the modernization period, and shall repair or replace, to the University of Oregon's satisfaction, any components worn significantly or damaged before the University of Oregon obtains beneficial use.

### 3.04 INSTRUCTION AND MAINTENANCE

- A. Instruct University of Oregon's personnel in proper use, operations and maintenance of elevator. Review emergency provisions, including emergency access and procedures to be followed at time of failure in operation.

### 3.05 CONDITIONS PRECEDENT TO FINAL ACCEPTANCE

A. Instructions To Operators:

1. The Elevator Contractor shall have completed instruction of the designated employees of the University of Oregon in the operation and care of equipment and systems.

B. Code Compliance:

1. All Code compliance tests shall have been performed and acceptance certified by the authorities having jurisdiction and permanent elevator operating permit issued to the University of Oregon.

C. Acceptance Tests:

1. All acceptance tests shall have been completed and compliance certified by the University of Oregon and Elevator Consultant.

D. Submittal Of Maintenance Manuals:

1. All manuals shall have been submitted and approved by the University of Oregon and Elevator Consultant.

E. Submittal Of Construction Record Drawings:

1. Drawings of the work shall have been marked to show changes and actual modernization conditions, sufficient to form a complete record for University of Oregon's purposes. Give particular attention to work which will be concealed and difficult to measure and record at a later date, particularly items which may require servicing or replacement during the life of the projects.

- F. Final Check:
  - 1. Make a final check of elevator operation, with University of Oregon's personnel and Elevator Consultant present and just prior to date of substantial completion to determine that control systems and operating devices are functioning properly. Any and all damage and/or significant wear shall have been repaired.
  
- G. Cleaning:
  - 1. The work site shall be clean at all times. The Elevator Contractors shall clear away all debris, surplus materials, etc., resulting from their work or operations, leaving the job and equipment furnished in a clean, first-class condition on a daily basis.
  
- H. Punchlist:
  - 1. All items on the punchlist prepared by Elevator Consultant shall be completed to the satisfaction of the University of Oregon and Elevator Consultant. Elevator Contractor to submit to Elevator Consultant and University of Oregon a copy of the State of Oregon Elevator Inspectors Field Report including all Punch List items. List shall be provided to Elevator Consultant and University of Oregon the same day the State of Oregon Elevator Inspector inspects the elevator.

END OF SECTION



SECTION 26 01 00

GENERAL ELECTRICAL PROVISIONS

Part 1 - General

1.01 CONTRACT CONDITIONS

- A. Work of this Section is bound by the provisions of this Specification and accompanying Drawings.

1.02 DESCRIPTION OF SYSTEM

- A. Provide all related Electrical Work specified herein and diagramed or scheduled on Electrical Drawings. All work shall conform to applicable national, state, and local codes.

1.03 COORDINATION

- A. Coordinate the Work specified in this Division with all other trades. Note that there is some mechanical work related to this project in the elevator penthouse. Coordinate all aspects of electrical work with the mechanical contractor.

1.04 SUBMITTALS

- A. Provide submittal information for the following:
  1. Panelboard
  2. Wiring devices
  3. Elevator recall equipment
  4. Light fixtures

1.05 RECORD DRAWINGS

- A. Provide record drawings showing all deviations to plan shown electrical work.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. In event of damage, immediately make all repairs and/or replacements necessary to approval of Engineer, at no additional expense to Owner.

1.07 PROTECTION

- A. Suitably protect any unfinished Work from potential physical damage.

1.08 EXISTING JOB CONDITIONS

- A. Report any discrepancies discovered between existing job conditions and Work to be installed. Fully resolve such discrepancies prior to continuation of work.

1.09 STANDARD WARRANTY

- A. Warrant all Work included in this Specification for period of one year from date of final acceptance, UON.

1.10 SCHEDULE OF VALUES

- A. After award of contract, submit to Engineer a cost breakdown of work.

## Part 2 - Products

### 2.01 MATERIAL

- A. Provide new material and equipment items that are standard products of manufacturers regularly engaged in production of such materials and equipment.

## Part 3 - Execution

### 3.01 COMPLETION

- A. Complete each system as shown or specified herein and place in operation, except where only roughing-in or partial systems are called for.

### 3.02 SITE VISITATION AND INSPECTION

- A. Visit site of proposed Work before submitting bid, and become familiar with all job conditions affecting Work.

### 3.03 SCHEDULING OF WORK

- A. Schedule Work with all other Contractors to maintain job progress schedule, and avoid conflicts in installation of Work by various trades.

### 3.04 SLEEVES AND OPENINGS

- A. Provide through floors and walls for Electrical Work.

### 3.05 EXCAVATION

- A. There will be no excavation for electrical needs, this project.

### 3.06 TRENCHING AND BACKFILLING

- A. None required this project.

### 3.07 CUTTING AND PATCHING

- A. Provide all cutting and patching for electrical work.

### 3.08 COORDINATION

- A. Coordinate all light fixture, device, and control equipment locations with other trades and elevator contractor to avoid possible conflicts with ducts, sprinkler piping, and other obstacles affecting installation.

END OF SECTION

SECTION 26 01 60

ELECTRICAL DEMOLITION

Part 1 - General

1.01 SECTION INCLUDES

- A. In general, electrical demolition will entail:
  - 1. Light fixture removals, lamp removals and wiring removals.

Part 2 - Products

2.01 MATERIALS AND EQUIPMENT

- A. Materials and Equipment for Patching and Extending Work: As specified in individual sections.

Part 3 - Execution

3.01 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit serving them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed.
- B. Repair adjacent construction and finishes damaged during demolition and extension work.
- C. Extend existing installations using materials and methods compatible with existing electrical installations.
- D. Check branch circuit wiring disturbed in execution of this Work which is to remain for continuity, overloads and grounds. Repair any deficiencies.

END OF SECTION



WIRE AND CABLE

Part 1 - General

1.01 SECTION INCLUDES

- A. Building wire.
- B. Cable.
- C. Wiring connections and terminations.

Part 2 - Products

2.01 BUILDING WIRE

- A. Feeders and Branch Circuits:
  - 1. Copper conductor.
  - 2. 600 volt insulation.
  - 3. THHN/THWN.
  - 4. Stranded conductor, only.
  - 5. Not less than 98% conductivity.
  - 6. UL approved.
- B. Color Coding: (Obtain state and local electrical inspectors' approval.)
  - 1. 120/208 Volt System:
    - a. A phase - black
    - b. B phase - red
    - c. C phase - blue
    - d. Neutral - white
    - e. Travelers - violet, purple, lavender also
    - f. Switch leg - pink
    - g. Ground - green

Part 3 - Execution

3.01 GENERAL WIRING METHODS

- A. Use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 16 AWG for control wiring.
- B. Place an equal number of conductors for each phase of a circuit in same raceway or cable.
- C. Edison circuits not allowed.
- D. All conductors shall maintain the same color the entire length of the circuit.

3.02 WIRING INSTALLATION IN RACEWAYS

- A. Install wire in raceway after interior of building has been physically protected from the weather and all mechanical work likely to injure conductors has been completed.
- B. Equipment Grounding Conductors:
  - 1. Provide a separate, insulated equipment grounding conductor in feeder, lighting, and receptacle branch circuits. Provide and use a crimp lug on all terminations.

3.03 WIRING CONNECTIONS AND TERMINATIONS

- A. Splice only in accessible junction boxes.

END OF SECTION

SECTION 26 05 29  
SUPPORTING DEVICES

Part 1 - General

1.01 SECTION INCLUDES

- A. Conduit and equipment supports.
- B. Fastening hardware.

1.02 QUALITY ASSURANCE

- A. Support systems shall be adequate for weight of equipment and conduit, including wiring, which they carry.

Part 2 - Products

2.01 MATERIAL

- A. Support Channel: Zinc plated.
- B. Hardware: Corrosion resistant.

Part 3 - Execution

3.01 INSTALLATION

- A. Equipment Support From Building Structure:
  - 1. Expansion anchors.
  - 2. Spring steel clips.
  - 3. Powder-actuated anchors, if approved for use by Owner. (Do not use driven "nails." All anchors shall have screwdriver or bolt type heads for easy removal.)
  - 4. Do not fasten supports to piping, ductwork, mechanical equipment, or conduit.
  - 5. Do not drill structural steel members.
- B. Equipment Support from Partitions:
  - 1. Toggle bolts or hollow wall fasteners in hollow masonry, plaster, or gypsum board partitions and walls.
  - 2. Expansion anchors in solid masonry walls.
  - 3. Self-drilling anchors or expansion anchor on concrete surfaces.
  - 4. Sheet metal screws in sheet metal studs.
  - 5. Do not use plastic expansion type anchors in sheet rock walls or ceilings.
- C. Cabinets and Panelboards:
  - 1. Minimum of four anchors.
  - 2. Bridge studs top and bottom with channels to support flush-mounted cabinets and panelboards in stud walls.

END OF SECTION





SECTION 26 05 30

CONDUIT

Part 1 - General

1.01 SECTION INCLUDES

- A. Electrical metallic tubing and fittings.
- B. Flexible metal conduit and fittings.
- C. Liquidtight flexible metal conduit and fittings.

Part 2 - Products

2.01 ELECTRIC METALLIC TUBING (EMT)

- A. Manufacturer: Allied Tube and Conduit, Triangle PWC Inc., or approved.

2.02 FLEXIBLE CONDUIT

- A. Manufacturer: Anamet (Type DE-710), Triangle PWC, Inc. (Type 710), or approved.

2.03 FLEXIBLE CONDUIT, LIQUID TIGHT

- A. Manufacturer: AFC Nortek, Alflex, Anamet (Type "UA"), Electriflex, Thomas & Betts, or approved.

2.04 COUPLINGS AND CONNECTORS FOR ELECTRICAL METALLIC TUBING (EMT)

- A. Exterior: Raintight compression type, employing split corrugated ring and tightening nut.
- B. Interior: Set-screw type shall be permitted:
  - 1. Hex head set screw for 2-1/2" and larger; screw type for smaller.
  - 2. Provide insulated throat type.
  - 3. Steel type, only. Cast connectors prohibited.
  - 4. No crimp fittings allowed.
- C. Manufacturer: Appleton, Raco, Thomas & Betts, or approved.

Part 3 - Execution

3.01 CONDUIT SIZING AND ARRANGEMENT

- A. Size conduit for Type THW conductors, 1/2 inch minimum size unless otherwise noted. Fill each conduit to 50% of NEC-allowed fill, only.

3.02 CONDUIT SUPPORT

- A. Arrange conduit supports to prevent distortion of alignment by wire pulling operations.
- B. Fasten conduit using galvanized straps, lay-in adjustable hangers, clevis hangers, or bolted split stamped galvanized hangers. No J-nails allowed.
- C. Attachment of one hole straps on horizontal runs shall be from below.

### 3.03 CONDUIT PENETRATIONS

- A. Fire-Rated Walls and Floors: Seal conduit penetrations using one of the following methods:
  1. Provide mechanical fire-stop fittings with UL listed fire rating equal to wall or floor rating.
  2. Seal opening around conduit with UL listed foamed silicone elastomer compound.

### 3.04 FLEXIBLE CONDUIT

- A. Use limited to the following:
  1. Lighting fixture pigtails to remote junction box in accessible ceilings.
  2. Interior motor connections.
  3. At building expansion joints.
  4. Vibrating or movable equipment connections.
  5. Flexible conduit may not be installed in stud walls in new construction.
  6. MC cable not allowed.
  7. Provide separate ground conductor full length of flexible conduit (not outside of conduit).

### 3.05 FLEXIBLE CONDUIT, LIQUID TIGHT

- A. Where called for on drawings.

### 3.06 ELECTRICAL METALLIC TUBING

- A. Dry locations where not subject to damage.

END OF SECTION

SECTION 26 05 32

OUTLET, PULL AND JUNCTION BOXES

Part 1 - General

1.01 SECTION INCLUDES

- A. Wall and ceiling outlet boxes.
- B. Pull and junction boxes.

Part 2 - Products

2.01 ACCEPTABLE MANUFACTURERS - OUTLET BOXES

- A. Appleton.
- B. Bowers.
- C. Crouse Hinds.
- D. Killark.
- E. O Z Gedney.
- F. Raco/Bell.
- G. Steel City.
- H. Thepitt.
- I. Substitutions: under provisions in Section 26 01 00.

2.02 OUTLET BOXES

- A. Sheet Metal Outlet Boxes: Galvanized steel.
- B. Cast Boxes: Aluminum or cast ferrous alloy, deep type, gasketed cover, threaded hubs.

Part 3 - Execution

3.01 COORDINATION OF BOX LOCATIONS

- A. Provide electrical boxes as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections, and code compliance.

3.02 OUTLET BOX INSTALLATION

- A. Do not install boxes back-to-back in walls. Provide minimum 6 inch separation, except provide minimum 24 inch separation in acoustic-rated walls.

3.03 PULL AND JUNCTION BOX INSTALLATION

- A. Locate pull boxes and junction boxes above accessible ceilings or in unfinished areas.
- B. Support pull and junction boxes independent of conduit.

END OF SECTION



SECTION 26 05 53

ELECTRICAL IDENTIFICATION

Part 1 - General

1.01 SECTION INCLUDES

- A. Nameplates.
- B. Wire and cable markers.

Part 2 - Products

2.01 MATERIALS

- A. Nameplates:
  - 1. Engraved three-layer laminated plastic.
  - 2. Black letters.
  - 3. White background.
- B. Wire and Cable Markers:
  - 1. Cloth markers split sleeve or tubing type. Use 3M vinyl markers.

Part 3 - Execution

3.01 INSTALLATION

- A. Secure nameplates to equipment fronts using screws, rivets, or adhesive. Secure nameplate to inside face of recessed panelboard doors in finished locations.

3.02 WIRE IDENTIFICATION

- A. Provide wire markers on each conductor in panelboards gutters, pull boxes, and at load connection.

3.03 NAMEPLATE ENGRAVING SCHEDULE

- A. Identify all electrical distribution and control equipment, and loads served.

3.04 PULL BOX AND JUNCTION BOX IDENTIFICATION

- A. Identify each junction box with complete system description.
- B. Marking Methods:
  - 1. Neat hand lettering with permanent black marker.

3.05 RECEPTACLE COVER PLATE IDENTIFICATION

- A. Identify each coverplate with panel source and branch circuit number.
- B. P-touch label acceptable.

END OF SECTION



SECTION 26 24 16

PANELBOARDS

Part 1 - General

1.01 SECTION INCLUDES

- A. Lighting and appliance branch circuit panelboards, load center type.

Part 2 - Products

2.01 MANUFACTURERS

- A. General Electric.
- B. Siemens.
- C. Square D.
- D. Cutler Hammer.

2.02 BRANCH CIRCUIT LOAD CENTERS

- A. Enclosure:
  - 1. Indoor: Type 1, unless otherwise noted.
  - 2. Cabinet size: 4 inches deep, 14 inches wide UON.
  - 3. Provide cabinet front with concealed hinge.
  - 4. Provide plug-on type (non-tandem style) circuit breakers, 22 KAIC minimum.
  - 5. Finish in manufacturer's standard gray enamel.
  - 6. Copper bus (no aluminum). Size in accordance with UL 891 limited to heat rise of 65 degrees C.

Part 3 - Execution

3.01 INSTALLATION

- A. Install panelboards plumb in conformance with NEMA PD 1.1.
- B. Height: 6 ft. to top.

END OF SECTION





SECTION 26 27 26

WIRING DEVICES

Part 1 - General

1.01 SECTION INCLUDES

- A. Wall switches.
- B. Receptacles.

Part 2 - Products

2.01 ACCEPTABLE MANUFACTURERS - WALL SWITCHES AND RECEPTACLES

- A. Arrow Hart.
- B. Hubbell.
- C. Leviton.

2.02 WALL SWITCHES (STANDARD TOGGLE)

- A. Specification grade, self grounding type.
- B. Grey handle
- C. Leviton 1220 Series.

2.03 RECEPTACLES

- A. Straight-blade Receptacles:
  - 1. Specification grade, self grounding type.
  - 2. Leviton 20 amp, 125 V., 5362 Series UON.
  - 3. Grey face.
- B. GFCI Receptacles:
  - 1. Duplex convenience receptacle.
  - 2. Leviton 6898-H66 125 V. 20 AMP.
  - 3. Color, same as for straight-blade receptacles.

2.04 WALL PLATES

- A. Acceptable Manufacturers:
  - 1. Arrow Hart.
  - 2. Hubbell.
  - 3. Leviton 80700, 84000, and MNW Series.
- B. Decorative Cover Plate:
  - 1. Satin brushed stainless steel.

Part 3 - Execution

3.01 INSTALLATION

- A. Switches:
  - 1. Wall switches 48 inches above floor to top of box.
  - 2. OFF position down, UON.

- B. Receptacles:  
1. 18" above floor to top of box, UON.

END OF SECTION

SECTION 26 50 00  
LIGHTING FIXTURES

Part 1 - General

1.01 WORK INCLUDED

- A. Provide a typical lighting fixture, complete with lamps, at each lighting outlet shown.

1.02 SECTION INCLUDES

- A. Interior luminaires and accessories.
- B. Lamps.
- C. Ballasts.

1.03 SUBMITTALS

- A. Submit product data under provisions of Section 26 01 00.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Section 26 01 00.
- B. Store and protect products under provisions of Section 26 01 00.

1.05 JOB CONDITIONS

- A. Existing Conditions:
  - 1. Prior to ordering lighting fixtures, verify conditions for mounting lighting fixtures and select proper mounting hardware.

Part 2 - Products

2.01 INTERIOR LUMINAIRES AND ACCESSORIES

- A. See Building Luminaire Schedule.
- B. Lighting Fixture Construction:
  - 1. Light leaks not accepted. Fixture designed or gasketed to eliminate light leaks.
  - 2. Surface Mounted Fixture With Surface Conduit: Constructed with knockouts or collars to allow fixture mounting tight to ceiling or wall. Fixtures not allowed to mount on surface boxes, U.O.N.
  - 3. Prismatic lenses shall be A19, 0.156 inches minimum thickness virgin acrylic. See luminaire schedule for thicker lens requirements at selected luminaires.
  - 4. Lampholders (sockets) for T5 and T8 linear lamps shall be rotating and locking.
  - 5. Provide internal mounted in-line fusing.

2.02 LAMPS

- A. Fluorescent T8 Lamps:
  - 1. Average Lamp Life: 24,000 hrs.
  - 2. Minimum color rendering index of 85.
  - 3. Correlated color temperature of 3,500°K.
  - 4. Must comply with federal TCLP standards for mercury content.
  - 5. All by same manufacturer.
  - 6. Manufacturer: Osram Sylvania, "XPS" Series.

## 2.03 ELECTRONIC FLUORESCENT BALLASTS

- A. General:
  - 1. Solid state electronic.
  - 2. Minimum power factor: 90%.
  - 3. Maximum crest factor: 1.4.
  - 4. Maximum total harmonic distortion: 20%
  - 5. Minimum lamp frequency: 40 KHz.
  - 6. Sound rating: A.
  - 7. UL listed: Class P.
  - 8. Integral leaded ballasts shall be color coded to ANSI standard C82.11.
  - 9. Manufacturer:
    - a. As noted for each ballast type below.
    - b. Substitutions: Other manufacturers that can meet the basic specification may formally submit for approval per Section 26 01 00.
  - 10. All ballasts to meet U of O/EWEB sheet, for example: Osram Sylvania, Extreme Systems, QTP2X32/UNIV-PSX-F-PRS.
- B. Type - T8 Fluorescent:
  - 1. Rapid start.
  - 2. Ballast factor: 0.86-0.89.
  - 3. Manufacturers: Osram Sylvania.

### Part 3 - Execution

#### 3.01 PREPARATION

- A. Field Measurements:
  - 1. Coordinate lighting fixture location in elevator spaces with elevator equipment. Report adverse conditions to Engineer.
  - 2. Lighting fixtures are generally located for symmetrical pattern and to suit structural conditions. Location changes shall be approved by Architect.
  - 3. Do not install any work until any discrepancies discovered have been resolved.
- B. Preparation of Surfaces:
  - 1. Clean field painted lighting fixtures, etc., prior to application of paint.
  - 2. Label all fixture ballasts with fixture install date and voltage. Felt tip marker is suitable for this purpose.

#### 3.02 INSTALLATION

- A. Install lamps in luminaires and lampholders.

#### 3.03 RELAMPING

- A. Relamp luminaires which have failed lamps at substantial completion of work.

#### 3.04 ADJUSTING AND CLEANING

- A. Align luminaires and clean lenses and diffusers at completion of work. Clean paint splatters, dirt, and debris from installed luminaires.

#### 3.05 NOISY BALLASTS

- A. Engineer shall determine which ballasts are excessively noisy and to be replaced at no cost to Owner.
- B. Check: Ballasts shall be tightly fastened to fixture and have no loose connections.

### 3.06 BUILDING LUMINAIRE SCHEDULE

- A. See Drawings.

### 3.07 PRODUCT WARRANTY

- A. Manufacturers' Warranty (see Section 26 01 00):
  - 1. Ballast manufacturer's warranty statements:
    - a. Include a "Statement of Compatibility" indicating that the ballast/lamp combination supplied to the project has been tested to insure full advertised ballast and lamp life, and full flicker free lamp lumen output.
    - b. Include in manufacturer's warranty statement, that any failed electronic ballast will be replaced (including labor), in the fixture, within 48 hours, for a period of five (5) years commencing at current project phase substantial completion.

END OF SECTION



SECTION 28 32 23

ELEVATOR RECALL CONTROL SYSTEM

Part 1 - General

1.01 SECTION INCLUDES

- A. Addressable Elevator Recall Control System. This project provides for a new addressable control panel capable of elevator recall requirements for the attendant elevator modernization project.

1.02 RELATED SECTIONS

- A. Section 26 05 19 - Wire and Cable
- B. Section 26 05 30 - Conduit
- C. Section 26 05 53 - Electrical Identification

1.03 REGULATORY REQUIREMENTS

- A. System: UL listed.
- B. Conform to requirements of City of Eugene, the Authority having jurisdiction.
- C. Recall Control System: Addressable, automatic alarm system.
- D. All control equipment must have transient protection devices to comply with UL 864 requirements.
- E. In addition to the UL requirement mentioned above, the system controls shall be UL listed for Power Limited applications per NEC 760. All circuits must be marked in accordance with NEC Article 760-10.
- F. Installer:
  - 1. Company specializing in smoke detection and fire alarm systems with five years documented experience.
  - 2. Company factory certified by the manufacturer as an approved fire alarm installing Contractor.

1.04 GENERAL

- A. The system shall operate as a low voltage, intelligent, Point Identification fire management system with capabilities for 50 to 64 addressable points.
- B. The Elevator Recall Control System shall monitor Addressable (DIGITAL) devices, point identify the alarm location, capture elevators and transmit a signal to the monitoring agency.
- C. The control panel shall allow for loading or editing special instructions and operating sequences as required. The system shall be capable of on site programming to accommodate and facilitate expansion, building parameter changes or changes as required by local codes. All software operations shall be stored in a non-volatile programmable memory within the control panel. Loss of primary and secondary power shall not erase the instructions stored in memory.
- D. The control panel shall have an external printer port to enable printing of a hard copy of records stored in the event buffer and for printing a record of walk testing.

## 1.05 OPERATION

- A. An alarm shall be displayed on an alphanumeric display. The information displayed shall be the point label and the device type identifier. The system alarm red LED shall flash on the control panel and shall indicate the specific device in alarm. A subsequent alarm received from another zone after acknowledged shall flash the system alarm LED on the control panel. The LCD display shall show the new alarm information.
  - 1. An alarm tone shall occur within the control panel until acknowledged.
- B. The alarm indicating appliances may be silenced by entering the locked control cabinet and operating the alarm silence switch. A subsequent alarm condition shall reactivate the signals.
- C. Alarm Verification: The activation of any system smoke detector shall initiate an Alarm Verification operation whereby the panel will reset the activated detector and wait for a second alarm activation. If, within one (1) minute after resetting, a second alarm is reported from the same or any other smoke detector, the system shall process the alarm as described previously. (The time period for alarm verification reset shall be programmable from 0 - 60 seconds.) If no second alarm occurs within the alarm verification time window, the system shall resume normal operation. The Alarm Verification shall operate only on smoke detector alarms. Other activated initiating devices shall be processed immediately. The alarm verification operation shall be selectable by DEVICE, not just by zone.
  - 1. The control panel shall have the capability to display the number of times a zone or detector has gone into a verification mode.
  - 2. Alarm verification events are to be displayed at main panel and the annunciator panel.
- D. A manual evacuation switch shall be provided at the alarm panel to operate the systems alarm indicating devices. Other control circuits such as fan shutdown, door release or elevator recall shall not be activated. However, a true alarm shall be processed as described previously.
- E. All functions of the control panel shall be field programmable for maximum flexibility and expandability.

## 1.06 POWER REQUIREMENTS

- A. The control panel shall receive 120 VAC power as noted on the plans via a dedicated circuit.
- B. The system shall be provided with sufficient battery capacity to operate the entire system upon loss of normal 120 VAC power in a normal supervisory mode for a period of twenty-four (24) hours with five (5) minutes of alarm operation at the end of this period. The system shall automatically transfer to the standby batteries upon power failure. All battery charging and recharging operations shall be automatic.
- C. All circuits requiring system operating power shall be 24 VDC and shall be individually fused at the control panel.

## 1.07 SUBMITTALS

- A. Submit plans and specifications to the local Fire Marshal. Obtain written acceptance of the system prior to beginning work and ordering equipment.
- B. Submit shop drawings and product data under provisions of Section 26 01 00.
  - 1. Include wiring diagrams, data sheets, and equipment ratings, layout, dimensions, and finishes.
  - 2. Include manufacturer's installation instructions under provisions of Section 26 01 00.
  - 3. Include battery calculations showing the current load of the entire system during AC power loss and show that the batteries provided are sized adequately.
  - 4. Include the panel name, panel location and circuit numbers serving the elevator recall system.
  - 5. Include a printed copy of final test.



## 1.08 OPERATION AND MAINTENANCE DATA

- A. Submit data under provisions of Section 26 01 00.
- B. Install an additional manual inside the control panel.
- C. Include operating instructions for basic system operations, including the following:
  - 1. Alarm acknowledgment.
  - 2. System reset.
  - 3. Interpreting systems output at display and at printer.
  - 4. Operation of manual evacuation signaling.
  - 5. Ancillary function controls.
  - 6. Other basic operations.
- D. Include detailed trouble shooting instructions and maintenance and repair procedures, including the following:
  - 1. Field wiring trouble conditions such as opens, grounds loop failures, etc.
  - 2. List and description of all trouble signals that may be annunciated by the system.
  - 3. Provide a step-by-step description of isolating the cause of the trouble and the required correction procedures.
- E. Include the panel name, panel location and circuit numbers serving the elevator recall system.
- F. Include manufacturer representative's letter stating that the system is operational.
- G. Include the document entitled Record of Completion from NFPA 72 1-7.2.
  - 1. Include one copy in each manual.
  - 2. Provide one copy to owner.
  - 3. Include one copy inside the control panel.
- H. Include a complete list of addressable system input and output points.
- I. Include a hard copy of program parameters for each addressable point.

## Part 2 - Products

### 2.01 APPROVED MANUFACTURERS

- A. G.E./EST, i064.
- B. Notifier, Fire Warden-50(E).

### 2.02 ELEVATOR RECALL CONTROL PANEL

- A. Construction shall be modular with solid state microprocessor based electronics. An alphanumeric display shall indicate alarms supervisory service conditions and any troubles.
- B. The control panel shall contain the following:
  - 1. LCD display.
  - 2. Minimum of two (2) indicating appliance circuits.
  - 3. Non-volatile EEPROM memory.
  - 4. Multiple password levels.
  - 5. RS232 port for programming and printer.
- C. Programming:
  - 1. Programming shall be accomplished using a standard IBM compatible computer, either desk or laptop.
  - 2. The resident program shall be stored in non-volatile EEPROM memory.
  - 3. The system shall have the capability to store the system program on a Hard or Floppy Disk for future changes, upgrades, or replacement.

4. Software will allow the user to reprogram system points, add system points, add or change point descriptions and update the data file. System output functions shall be field programmable to allow custom operation.

#### 2.03 VOICE ALARM

- A. Voice alarm is not required in this control panel.

#### 2.04 DIALER OPTION CARD

- A. Provide DLD dialer communications transmitter for two phone line connections for sending alarm messages compatible with the E.C. Cares management group monitoring facilities.

#### 2.05 SPARE AND INCLUDED RECALL SYSTEM DEVICES

- A. The Contractor shall include spare devices in the quote. The number shall be as specified, unless the percentage specified is greater than the percentage of the installed devices.
  1. Three (3) or 5% of installed smoke detectors.
  2. Three (3) or 5% of installed relay modules.

#### 2.06 PRICING FOR ADDED/INSTALLED/REQUIRED RECALL SYSTEM DEVICES

- A. Any extra/added/required devices to a job shall be priced on an installed price included in the quote.

#### 2.07 PERIPHERAL DEVICES

- A. Manual stations:
  1. None required this project.
- B. Smoke Detectors shall be listed to UL Standard 268 and shall be documented compatible with the control equipment to which it is connected. The Smoke Detectors shall be photoelectric type with a plug-in base and visual indication of detector actuation. All detectors are to be addressable and intelligent, with the capability of Alarm Verification, sensitivity adjustment by detector and "maintenance alert" circuitry.
- C. Alarm Signal Devices:
  1. None required this project.

### Part 3 - Execution

#### 3.01 INSTALLATION

- A. Provide and install the system in accordance with the plans and specifications, all applicable codes and the manufacturer's recommendations. All wiring shall be installed in strict compliance with all the provisions of NEC: Article 760A and C. Power-Limited Fire Protective Signaling Circuits or, if required, may be reclassified as non-power limited and wired in accordance with NEC: Article 760A and B. Upon completion, the Contractor shall so certify in writing to the Owner and Engineer.
- B. Mounting Heights:
  1. Mount new control panel as detailed in Drawings.
- C. Wire:
  1. Per manufacturer's recommendations and as per NEC.
  2. Install wiring in conduit in concealed ceilings and walls, and in equipment rooms.
- D. Make conduit and wiring connections to elevator controller equipment as required for Firefighters Service.

- E. All junction boxes for recall system shall be labeled in minimum 1/4" letters: ELEV RECALL, and be painted red.
- F. The Contractor shall test all conductors for ground conditions before making final wiring connections.
- G. Wiring color code shall be maintained throughout the installation.
- H. Elevator recall control: Provide panel system programming, detectors, control modules, and connections as described below:
  - 1. Elevator recall to the primary exiting floor level upon the alarm condition of any elevator lobby smoke detector, or elevator equipment room smoke detector.
  - 2. Elevator recall to a designated alternate floor if the elevator lobby detector at the primary exiting floor level is in alarm.
- I. Elevator shunt trip not required this project. E.C. Cares is not a sprinklered building.
- J. Installation of equipment and devices that pertain to other work in the contract shall be closely coordinated with the appropriate subcontractors.
- K. The Contractor shall clean all dirt and debris from the inside and the outside of the recall equipment after completion of the installation.
- L. The manufacturer's authorized representative shall provide on-site supervision of installation.
- M. Provide lock-off devices on circuit breakers serving control panel.

### 3.02 WIRING METHODS

- A. Wiring for recall control systems shall be a minimum of 3/4 inch trade size electrical metallic conduit. An exemption shall be made for a single run of conduit going to a single device and shall be 1/2 inch electrical metallic tubing. These conduit runs shall comply with the electrical specifications of these design criteria.
- B. Junction boxes and device boxes shall be a minimum of a standard 4 inch square by 1-1/4 inch deep two-gang box.
- C. If a shielded or unshielded control cable is used in the conduit runs and junction boxes, a single cable shall be sized for conduit and box fill as a #6 AWG THHN, single conductor cable, as per NFPA 70. If single conductor wire is used, the size shall be as specified by the control panel manufacturer or a minimum size of #16 THHN. The conduit and box fill can then be calculated on the wire gauge size of the actual conductor used.
- D. Conductors/cables entering and exiting junction boxes, device boxes and panels shall be labeled as to function and circuit number.
- E. If splicing is required in junction boxes, wire nuts are acceptable if accomplished in a workmanlike manner.

### 3.03 MANUFACTURER'S FIELD SERVICES

- A. The supplier shall have the capabilities of responding to a service call with a factory trained Technical Representative within 24 hours. Also, this supplier shall maintain an adequate stock of all parts necessary for the repair of this equipment on hand at all times.
- B. Include services of certified technician to supervise installation, adjustments, final connections, and system testing.
- C. The installation drawings shall show point-to-point wiring diagrams, floor plans, conduit runs and device locations.

- D. Complete maintenance instructions for all devices including trouble shooting procedures shall be provided to the Owner.
- E. Training as described below.

#### 3.04 INSPECTION UPON COMPLETION OF SYSTEM

- A. Check out and final connections to the recall control panel shall be made by factory trained technicians in the employ of a factory authorized franchised dealer for the products installed. In addition, factory trained technicians shall demonstrate operation of the complete system and each major component to the owner's authorized representative.
- B. The system, upon completion of installation by the Electrical Contractor, shall be checked out and all connections to initiating and indicating devices shall be supervised by factory trained technicians in the employ of a factory franchised dealer for the product installed. Each individual device shall be checked out and tested for operation by a factory trained technician.
- C. Field inspection and testing will be performed under provisions of Section 26 01 00.

#### 3.05 ANNUAL RECALL SYSTEM INSPECTION

- A. A newly installed recall panel shall be stickered by the installer with date of final test and technician's name.
- B. The recall panel will be tested by the installer between 11 and 12 months after acceptance by the customer. Any shortcomings of the installed system shall be corrected by the installer as warrantee work.

#### 3.06 TESTING

- A. The system, upon completion of installation by the Electrical Contractor, shall be tested. All initiating devices and indicating devices and control functions shall be tested for operation.
  - 1. The completed Elevator Recall System shall be fully tested (100% point tested) in accordance with NFPA 72 by the Contractor in the presence of the owner's authorized representative and the local Fire Marshal.
  - 2. The test shall be supervised by factory trained technicians in the employ of a factory franchised dealer for the product installed.
  - 3. Each individual device shall be checked out and tested for operation by a factory trained technician.
  - 4. Upon completion of a successful test, the Contractor shall so certify in writing to the Owner and Engineer.
  - 5. Provide printed copy of final test in O & M Manuals.

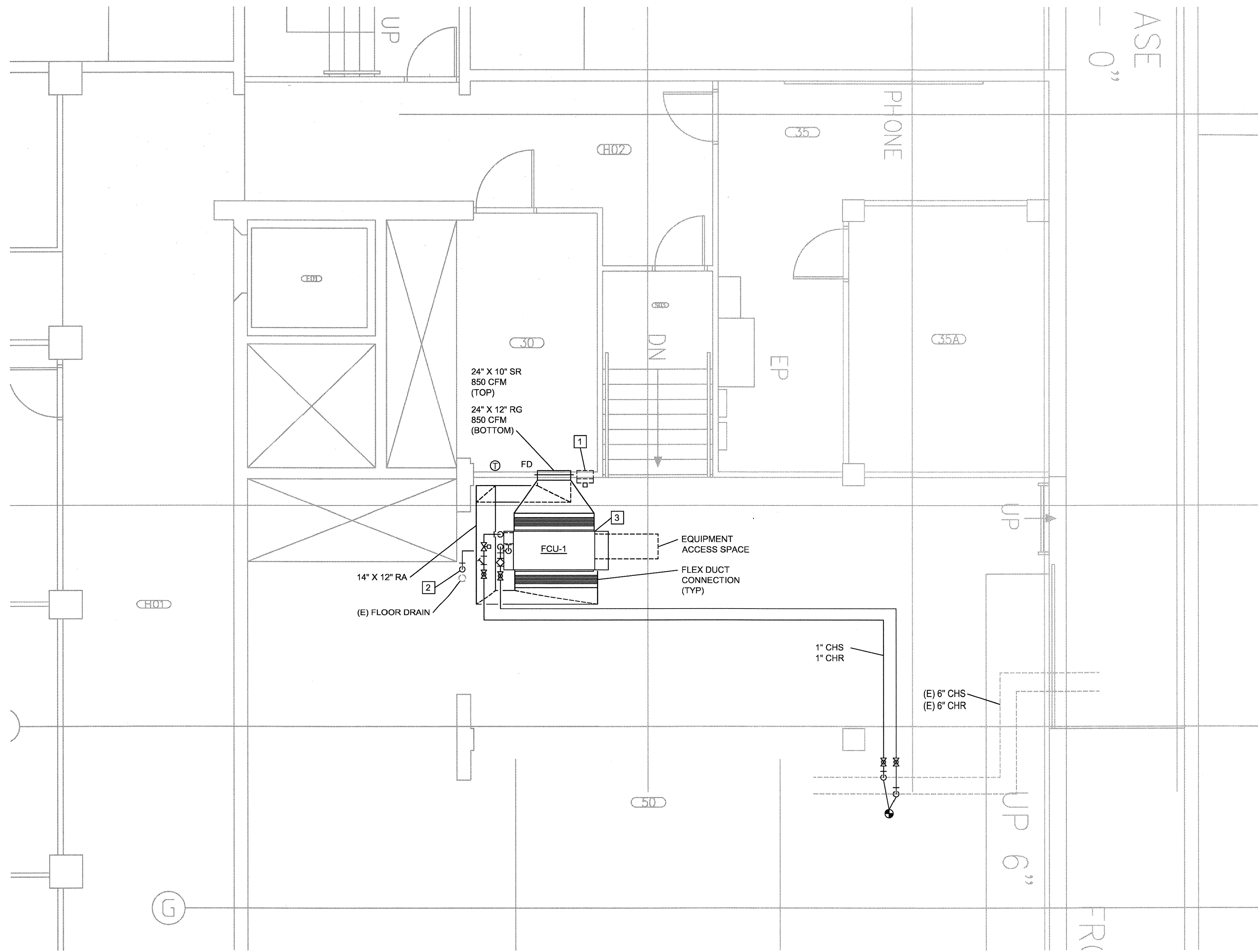
#### 3.07 WARRANTY

- A. The Contractor shall warrant the completed Elevator Recall System wiring and equipment to be free from inherent mechanical and electrical defects for a period of one (1) year from the date of substantial completion.
- B. The equipment supplier shall make available to the Owner a maintenance contract proposal in compliance with NFPA 72 guidelines.

#### 3.08 TRAINING

- A. Provide two hours of training by factory certified trainer for Owner's maintenance staff.
- B. Include appropriate classroom and hands-on teaching aids.
  - 1. Include training and factory manuals describing programming, troubleshooting, and normal maintenance.

END OF SECTION



NORTH  
**PARTIAL BASEMENT HVAC PLAN**  
 SCALE: 1/4" = 1'-0"

**GENERAL NOTES:**

- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
- HVAC AND MECHANICAL SPECIFICATIONS SHALL BE IN ACCORDANCE WITH UNIVERSITY OF OREGON SITE STANDARD SPECIFICATIONS AND SPECIFICATIONS INDICATED ON THIS DRAWING.

**KEYED PLAN NOTES:** [X]

- REMOVE EXISTING EXHAUST FAN (EF-14), FIRE DAMPER, EXHAUST GRILLE, AND CONTROLS. PATCH EXISTING WALL AS REQUIRED.
- TERMINATE CONDENSATE DRAIN OVER EXISTING FLOOR DRAIN.
- INSTALL FAN COIL UNIT USING HANGER RODS WITH NEOPRENE VIBRATION ISOLATION PADS.

**OPEN COORDINATION ITEMS:**

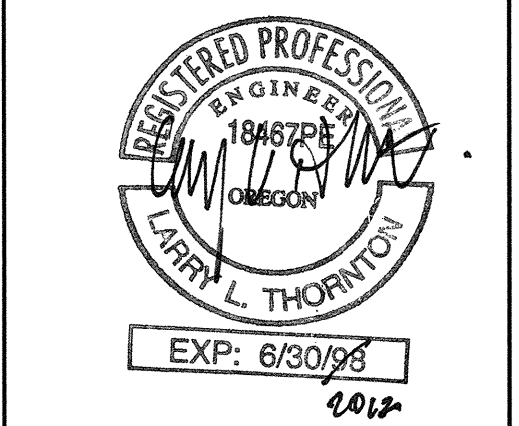
- VERIFY CHILLED WATER OPERATING TEMPERATURES.
- COORDINATE TEMPERATURE CONTROLS WITH OWNER.

**HVAC SPECIFICATIONS:**

- DUCTWORK MATERIALS:**
  - GENERAL: LATEST EDITION OF OMSC DUCT CONSTRUCTION STANDARDS OR LATEST EDITION OF ASHRAE GUIDE TABLE.
  - GALVANIZED STEEL: HOT-DIPPED GALVANIZED STEEL SHEET, LOCK-FORMING GRADE, CONFORMING TO ASTM A924 AND A653, HAVING G90 ZINC COATING IN CONFORMANCE WITH ASTM A90.
- HVAC DUCTWORK SYSTEMS:**
  - LOW VOC DUCT SEALER:
    - DESCRIPTION: INDOOR / OUTDOOR, LOW VOC (<20 GPL), WATER BASED WITH FIBER REINFORCEMENT
    - MANUFACTURERS: HARDCAST "DUCT-SEAL 321", UNITED DUCT SEALER, DURO-DYNE SEALANT, VULKEM SEALANT, 3M DUCT SEALER
  - BRANCH TAKE-OFFS: BRANCH TAKE-OFFS SHALL BE 45 DEGREE ENTRY WITH MANUAL BALANCING DAMPER, UNLESS THE DIFFUSER IS LOCATED ABOVE AN INACCESSIBLE CEILING. SPIN-IN FITTINGS ARE NOT ACCEPTABLE.
  - SUPPORT DUCTWORK IN ACCORDANCE WITH OMSC AND SMACNA SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS.
  - SYSTEM CRITERIA:
    - SUPPLY AIR - GALVANIZED STEEL, 2" PRESSURE CLASS, SMACNA SEAL CLASS C.
    - RETURN AIR - GALVANIZED STEEL, MINUS 2" PRESSURE CLASS, SMACNA SEAL CLASS A.
- HVAC DUCTWORK INSULATION:**
  - GENERAL:
    - DUCTWORK DIMENSIONS ARE INDICATED AS INTERNAL FREE-AREA.
    - DUCTWORK INSULATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE OREGON ENERGY EFFICIENCY SPECIALTY CODE
  - FLEXIBLE DUCTWORK WRAP:
    - CERTAIN TEED CORPORATION, DUCT WRAP INSULATION, TYPE 75
    - JOHNS MANVILLE, R-SERIES MICROLITE
    - OWENS CORNING, FIBERGLAS ALL SERVICE DUCT WRAP
  - SYSTEM CRITERIA:
    - SUPPLY AIR - 1-1/2" THICK EXTERNAL WRAP
    - RETURN AIR - 1-1/2" THICK EXTERNAL WRAP
- HVAC DUCTWORK ACCESSORIES:**
  - DUCT ACCESS DOORS:
    - MANUFACTURERS: DURO-DYNE, RUSKIN, VENTFABRICS
  - DUCTWORK FLEXIBLE CONNECTIONS:
    - DURO-DYNE NEOPRENE METAL FAB OR SUPER METAL FAB
    - VENTFABRICS, INC. VENTGLASS (TYPICAL)
  - TURNING VANES:
    - DURO-DYNE VANE RAIL
    - ELGEN ALL-TIGHT
  - FIRE DAMPERS FOR DUCT MOUNTING (FD):
    - DESCRIPTION: CURTAIN TYPE, UL LABELED ASSEMBLY WITH FRAME, THIN-LINE DESIGN, INTERLOCKING BLADES, 165 DEG F FUSIBLE LINK, STAINLESS STEEL SPRINGS AND LATCHES, HORIZONTAL AND VERTICAL INSTALLATIONS WITH BLADES STORED OUT OF THE AIRSTREAM.
    - SELECT STATIC OR DYNAMIC DAMPER ACCORDING TO THE SYSTEM OPERATION.
- HVAC EQUIPMENT:**
  - FAN COIL UNITS:
    - MANUFACTURERS: CARRIER, LENNOX, TRANE, YORK
    - FAN COIL UNIT (FCU-1): TRANE, MODEL FCDB10 HORIZONTAL FAN COIL UNIT, RATED 850 CFM, 20.5 MBH (TOTAL) / 19.3 MBH (SENSIBLE), 80 DEG F DB / 64 DEG F WB EAT, 4.2 GPM, 45 DEG F EWT, 55 DEG F LWT, 7.4 FT WPD, 0.20" ESP, 157 WATTS SUPPLY FAN, 120V/1PH, 1" MERV 8 FILTER, 190 LBS MAX OPERATING WEIGHT. ACCESSORIES: 24V TRANSFORMER AND TERMINAL STRIP.
  - GRILLES, REGISTERS AND DIFFUSERS:
    - MANUFACTURERS: TITUS, PRICE, KRUEGER, OR APPROVED EQUAL
    - GENERAL: PROVIDE MANUAL BALANCING DAMPER ABOVE ACCESSIBLE CEILING AT DUCT TAKE-OFF.
    - SIDEWALL SUPPLY REGISTER (SR): TITUS, MODEL 300 FL, DOUBLE DEFLECTION, 3/2" BLADE SPACING, STEEL FRAME AND WHITE FINISH.
    - SIDEWALL RETURN GRILLE (RG): TITUS, MODEL 350 RL, 3/2" BLADE SPACING, 35 DEGREE DEFLECTION, STEEL FRAME AND WHITE FINISH
- TEMPERATURE CONTROLS:**
  - COOLING ONLY THERMOSTAT WITH "ON / OFF / AUTO" FAN SWITCH.
  - 2-WAY MODULATING CONTROL VALVE.
- AIR SYSTEMS TESTING AND BALANCING:**
  - PROVIDE INDEPENDENT AIR SYSTEMS TESTING AND BALANCING CONTRACTOR.
  - BALANCING CONTRACTOR SHALL BE CERTIFIED BY NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR ASSOCIATED AIR BALANCE COUNCIL (AABC).
  - PROVIDE TESTING AND BALANCING ON THE FOLLOWING SYSTEMS:
    - FAN COIL UNIT: FCU-1

**MECHANICAL SPECIFICATIONS:**

- PIPING MATERIALS:**
  - COPPER PIPE AND FITTINGS:
    - PIPE: ANSI/ASTM B88, TYPE K OR L, HARD-DRAWN TEMPERED
    - FITTINGS: ANSI B16.18, CAST COPPER, SOLDERED, OR ANSI B16.22, WROUGHT COPPER, SOLDERED
  - JOINTS:
    - 2-1/2" AND LARGER: BRAZED OR GROOVED
    - 2" AND SMALLER: SOLDERED
  - STEEL PIPE AND FITTINGS, SCHEDULE 40:
    - PIPE:
      - 2-1/2" AND LARGER: CARBON STEEL, BLACK, ASTM A53, TYPE B, ERW OR SEAMLESS, SCHEDULE 40, PLAIN END OR THREADED
      - 2" AND SMALLER: MALLEABLE IRON, BLACK, ASTM A197, ANSI B16.3, STANDARD WIGHT
    - JOINTS:
      - 2-1/2" AND LARGER: WELDED, THREADED OR GROOVED
      - 2" AND SMALLER: WELDED OR THREADED
- PIPING SYSTEMS:**
  - SUPPORT PIPING IN ACCORDANCE WITH OMSC AND SMACNA SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS
  - CHILLED WATER SUPPLY (CWS) AND RETURN (CWR):
    - 4" AND LARGER: STEEL, SCHEDULE 40
    - 2-1/2" AND SMALLER: COPPER, TYPE L
  - CONDENSATE DRAIN (CD): COPPER, TYPE L
- PIPING SYSTEM INSULATION:**
  - GENERAL:
    - HIGH-DENSITY FIBERGLASS PIPE INSULATION WITH PROTECTIVE REINFORCED, SELF-ADHESIVE JACKET. JOHNS MANVILLE MICRO-LOK, OWENS CORNING SSL-11 ASJ OR APPROVED EQUAL
  - CHILLED WATER SUPPLY (CWS) AND RETURN (CWR):
    - 1-1/2" AND SMALLER: 1-1/2" FIBERGLASS
    - 2" AND LARGER: 2" FIBERGLASS
  - CONDENSATE DRAIN (CD): NO PIPE INSULATION
- PIPING ACCESSORIES:**
  - BALANCING VALVE:
    - DESCRIPTION: BELL & GOSSETT, CIRCUIT SETTER PLUS, MODEL CB OR APPROVED EQUAL
    - APPROVED MANUFACTURERS: BELL & GOSSETT, TACO
  - MANUAL AIR VENT:
    - DESCRIPTION: BELL & GOSSETT, MODEL 4V OR APPROVED EQUAL
    - APPROVED MANUFACTURERS: ARMSTRONG, BELL & GOSSETT, HOFFMAN, AND SPIRAX SARCO
  - Y-STRAINER:
    - DESCRIPTION: FULL LINE SIZE, TYPE 304 STAINLESS STEEL, SCREENS, 1/16 INCH DIAMETER HOLES, 2-1/2 TO 1 MINIMUM OPEN AREA, GASKETED CAP AND BLOW OFF OUTLET
    - COPPER PIPE INSTALLATIONS: MUELLER 253-1/2
    - STEEL PIPE INSTALLATIONS: MUELLER 11
  - APPROVED MANUFACTURERS: ARMSTRONG, KECKLEY, HOFFMAN, AND MUELLER
- MECHANICAL SYSTEM IDENTIFICATION:**
  - APPROVED MANUFACTURERS:
    - H. BRADLEY COMPANY
    - SETON NAMEPLATE CORPORATION
    - MARKING SERVICES INC
  - PROVIDE MECHANICAL IDENTIFICATION ON THE FOLLOWING:
    - PIPING LABELS: VINYL OR VINYL CLOTH WITH PERMANENT, PRESSURE SENSITIVE ADHESIVE. LABEL COLOR, LETTERING COLOR, AND LETTERING HEIGHT IN ACCORDANCE WITH ANSI A13.1 AND OSHA REQUIREMENTS. PROVIDE SEPARATE FLOW DIRECTIONAL ARROWS.
- WATER SYSTEMS TESTING AND BALANCING:**
  - PROVIDE INDEPENDENT WATER SYSTEMS TESTING AND BALANCING CONTRACTOR
  - PROVIDE TESTING AND BALANCING ON THE FOLLOWING SYSTEMS
    - FAN COIL UNIT (FCU-1)



PROJECT TITLE  
**UNIVERSITY OF OREGON CLINICAL SERVICES BUILDING - ELEVATOR UPGRADE**

SHEET TITLE  
**PARTIAL BASEMENT HVAC PLAN AND SPECIFICATION**

DATE  
 4/2/22

DESIGNER  
 LLT

PROJECT  
 8900-000-12

FILENAME  
 hvac.dwg

SHEET NO  
 M1





**BALZHISER & HUBBARD ENGINEERS**  
MECHANICAL  
ELECTRICAL  
CIVIL  
SURVEYORS

100 WEST 13TH AVENUE  
EUGENE, OR 97401  
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PROJECT TITLE  
**UNIVERSITY OF OREGON 2012 CLINICAL SERVICES - ELEVATOR**

SHEET TITLE  
**SYMBOLS LIST, ONE LINE DIAGRAMS SCHEDULES**

PROJECT TITLE

SHEET TITLE

DATE

4/2/12

DESIGNER

KMW

PROJECT

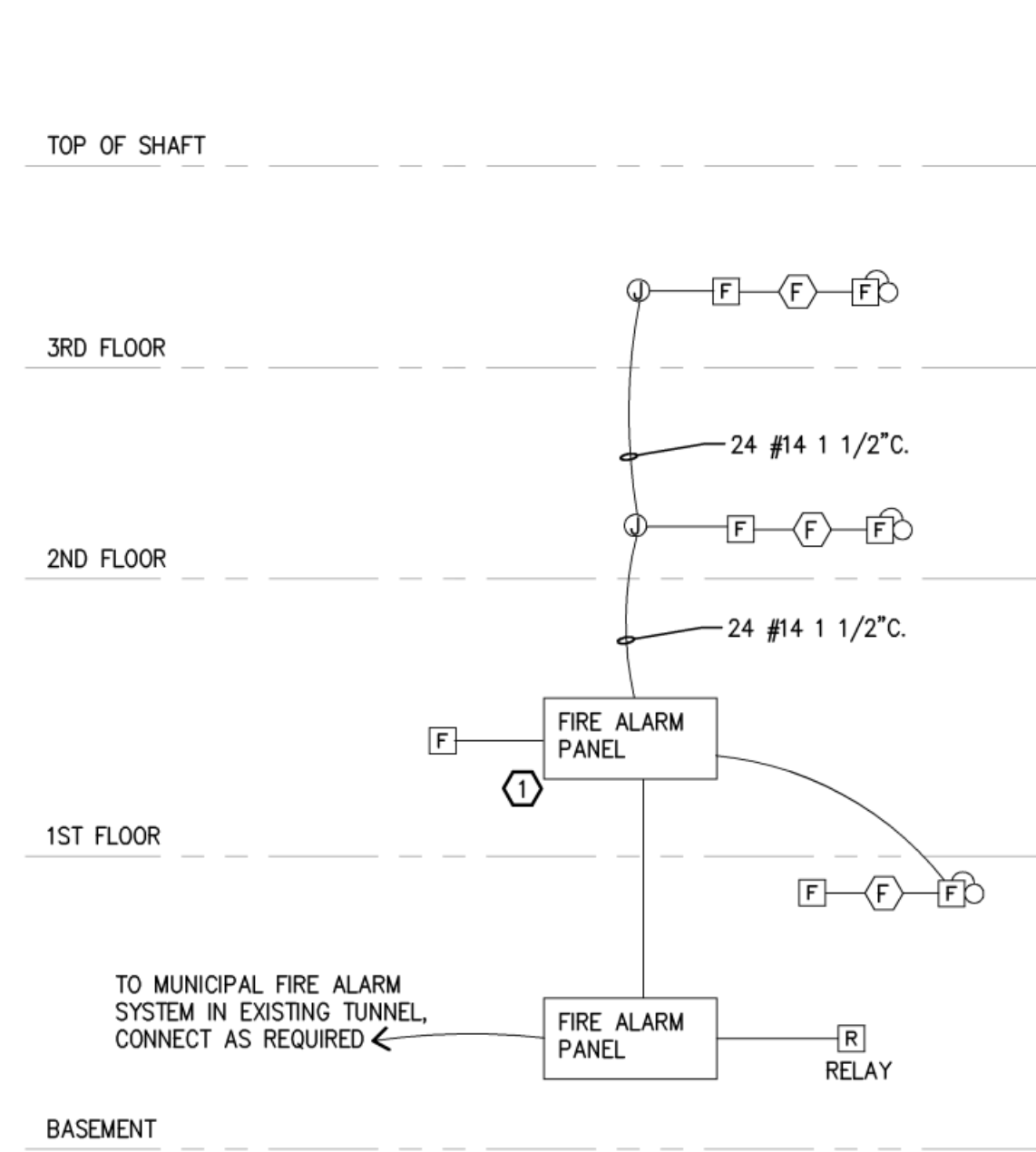
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SHEET NO

E1

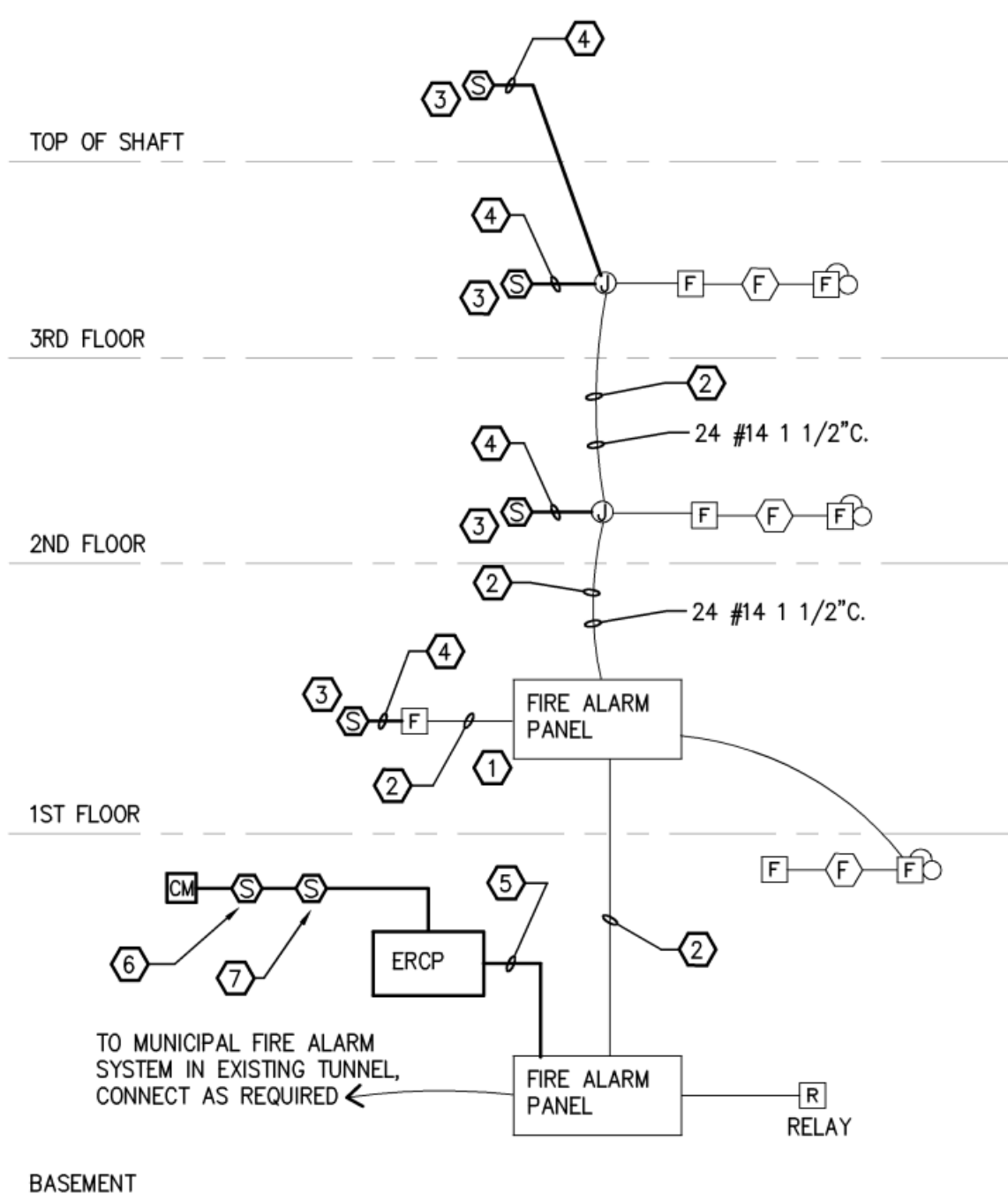


**EXISTING FIRE ALARM RISER DIAGRAM**

SCALE: NONE

**FIRE ALARM RISER DIAGRAM NOTES:**

- 1 ABANDONED ANNUNCIATOR PANEL LIKELY USED AS A PULLBOX. FIELD VERIFY.
- 2 EXISTING CONDUIT ALREADY CONTAINS FIRE ALARM CABLES. PULL IN ADDITIONAL FIRE ALARM CABLE(S) IN EXISTING CONDUIT.
- 3 ACTIVATE NEW DETECTOR BY PROVIDING NEW FIRE ALARM CABLE FROM NEW DETECTOR BACK TO THE ERCP. UTILIZE EXISTING CONDUIT SYSTEM WHERE INDICATED BY SHEET NOTE 2.
- 4 PROVIDE NEW CONDUIT WITH NEW FIRE ALARM CABLE AND EXTEND THE NEW CONDUIT TO EXISTING CONDUIT SYSTEM FOR THE EXISTING FIRE ALARM SYSTEM.
- 5 PROVIDE CONDUIT BETWEEN NEW ERCP AND (E) FIRE ALARM MASTER PANEL. PROVIDE FIRE ALARM CABLES FOR NEW SMOKE DETECTORS ON THE 1ST, 2ND, THIRD, AND ROOF LEVELS AND ROUTE TO THE ERCP THRU THIS CONDUIT. ALSO PROVIDE A CONTACT CLOSURE SIGNAL FROM THE ERCP TO THE (E) FIRE ALARM MASTER PANEL TO SOUND THE NOTIFICATION DEVICES ON AN ALARM CONDITION IF ONE OF THE NEW (NEW ELEVATOR RECALL SYSTEM) SMOKE DETECTORS GOES INTO ALARM.
- 6 SMOKE DETECTOR IN ELEVATOR MACHINE ROOM.
- 7 SMOKE DETECTOR ON BASEMENT LEVEL AT ELEVATOR LANDING.



**REVISED FIRE ALARM RISER DIAGRAM**

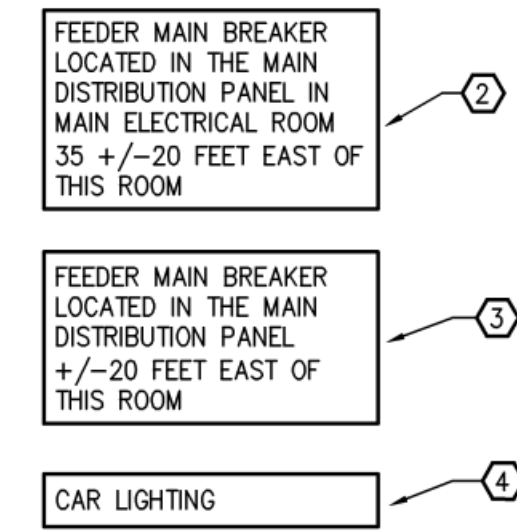
SCALE: NONE

**GENERAL NOTES:**

- 1. MAINTAIN ACCESSIBILITY OF EQUIPMENT AND JUNCTION BOXES AS PER NEC AND TO OWNER'S SATISFACTION.
- 2. THE LOCATION OF EXISTING WIRING SYSTEMS SHOWN ON PLANS IS BASED ON OLD PLAN DRAWINGS AND VISUAL VERIFICATION OF GENERAL LOCATIONS IN THE FIELD. FIELD VERIFY ALL EXISTING CONDITIONS AFFECTING NEW ELECTRICAL WIRING PRIOR TO BID DATE. NO ALLOWANCES WILL BE MADE FOR FAILURE TO CONFIRM CONDITIONS SHOWN OR NOT SHOWN ON DRAWINGS.
- 3. THE WORD "PROVIDE" WHEN USED ON THESE ELECTRICAL PLANS IS INTENDED TO MEAN THAT THE ELECTRICAL CONTRACTOR IS TO FURNISH AND INSTALL THE RELATED WORK DESCRIBED. VERIFY EXACT LOCATION OF ALL OUTLET BOXES PRIOR TO ROUGH-IN.
- 4. MAINTAIN THE INTEGRITY OF ALL FIRE WALLS.
- 5. RUN ALL NEW WIRING CONCEALED IN FINISHED AREAS.
- 6. PAINT ALL NEW EXPOSED "EMT" DUCT RUNS TO MATCH WALLS EXCEPT IN MACHINE ROOM AND ELEVATOR PIT.
- 7. FOR RECORD DRAWINGS, IDENTIFY ON PROJECT DRAWING SET ACTUAL PANEL CIRCUIT NUMBERS SERVING ALL PLAN SHOWN NEW ELECTRICAL OUTLETS.
- 8. SEE SHEET E1 FOR BUILDING LUMINAIRE SCHEDULE.
- 9. ADD A LIMITED DETECTION SYSTEM FOR ELEVATOR RECALL, THIS PROJECT.

**ELECTRICAL SYMBOLS LIST**

SYMBOL	ABBR.	DESCRIPTION
		CEILING, SURFACE OR PENDANT MOUNT LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR DETAILS.
		STRIP FIXTURE.
		CEILING, RECESSED LUMINAIRE. CIRCLE REPRESENTS APPROXIMATE SIZE. SEE LUMINAIRE SCHEDULE FOR DETAILS.
		SWITCH. SINGLE POLE.
		120 VOLT, DUPLEX RECEPTACLE, MOUNTED AT STANDARD HEIGHT.
		EQUIPMENT CONNECTION.
		JUNCTION BOX.
		FUSED DISCONNECT SWITCH.
		WIRING IN OR ON CEILING OR WALLS.
		CONDUCTORS IN CONDUIT. THREE SHOWN, #12 U.O.N.
		HOME RUN TO PANEL.
		CONDUIT UP - CONDUIT DOWN.
		EXISTING WIRING.
		BRANCH PANEL SURFACE MOUNTED.
		FIRE ALARM SMOKE DETECTOR, SPOT TYPE.
		FIRE ALARM CONTROL MODULE.
		NOTE REFERENCE.
		ROOM NUMBER.
		INDICATES NEW DEVICE.
		INDICATES EXISTING DEVICE.
		INDICATES EXISTING DEVICE TO BE RELOCATED.
		INDICATES EXISTING DEVICE TO BE REPLACED.
		INDICATES EXISTING DEVICE IN NEW LOCATION.
		GROUND FAULT INTERRUPTER.
		UNLESS OTHERWISE NOTED.
		CONNECT AS REQUIRED.
		FIRE ALARM CONTROL PANEL.
		ELEVATOR RECALL CONTROL PANEL.

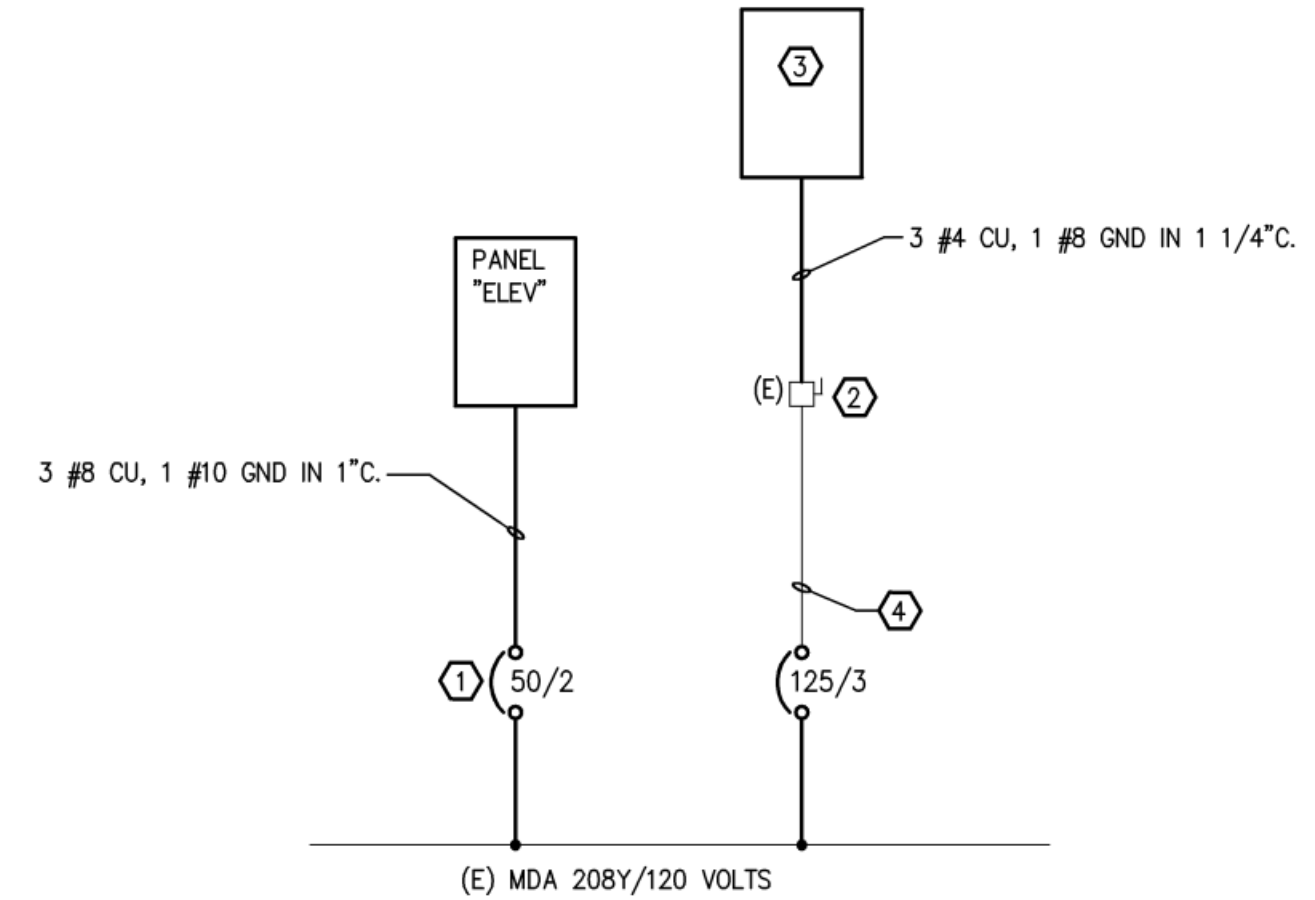


**PARTIAL REVISED ONE LINE DIAGRAM**

NO SCALE

**ELEVATOR NAMEPLATE DETAIL NOTES:**

- 1 PROVIDE APPROPRIATELY SIZED RED PHENOLIC NAMEPLATES WITH WORDING SHOWN. LETTERS TO BE 1/4" HIGH, MINIMUM. SCREW ATTACH TO EQUIPMENT AS FURTHER NOTED.
- 2 INSTALL THIS NAMEPLATE ON FRONT OF MAIN LINE DISCONNECT SWITCH.
- 3 SAME AS NOTE 2, EXCEPT PANEL "ELEV" FRONT.
- 4 SAME AS NOTE 2, EXCEPT ON PANEL "ELEV" DEADFRONT NEXT TO APPROPRIATE BREAKER.



**PARTIAL REVISED ONE LINE DIAGRAM**

NO SCALE

**PARTIAL ONE LINE DIAGRAM NOTES:**

- 1 PROVIDE NEW BREAKER IN EXISTING MAIN DISTRIBUTION ASSEMBLY. BREAKERS SHALL HAVE A 25000 AMP S.C.C.R.
- 2 EXISTING DISCONNECT SWITCH TO REMAIN.
- 3 NEW ELEVATOR CONTROLLER. PROVIDE NEW FEEDER WIRING BETWEEN DEVICES SHOWN.
- 4 VERIFY EXISTING FEEDER CONTAINS A GROUND CONDUCTOR. IF NOT PULL IN NEW GROUND CONDUCTOR.

**PANEL SCHEDULE**

PANEL: ELEV  
VOLTS: 208/120  
LOCATION: ELEVATOR MACHINE ROOM  
MOUNTING: SURFACE  
TYPE: PLUG-ON AMPS: 125  
PHASE: 1 WIRE: 3  
MAIN: MLO  
NOTES: LOAD CENTER TYPE PANEL. ALL BREAKERS 10,000 AMPS S.C.C.R. PROVIDE HANDLE LOCK OFF UNITS AT ALL BREAKERS AND EQUIPMENT GROUND BAR.

LOAD CLASS	Conn. VA	Demand Factor	Demand Load VA
LIGHTING	400	125%	500
OUTLETS	0	*	0
MOTOR LOADS	0	**	0
RESISTANCE LOADS	0	100%	0
SUBFEED	0	100%	0
MISC. LOADS	1496	100%	1496
SUBFEED BREAKER	0		0
		Connected	Demand
TOTAL VOLT-AMPS		1,896	1,996
MAXIMUM PHASE AMPS		9.1	9.1

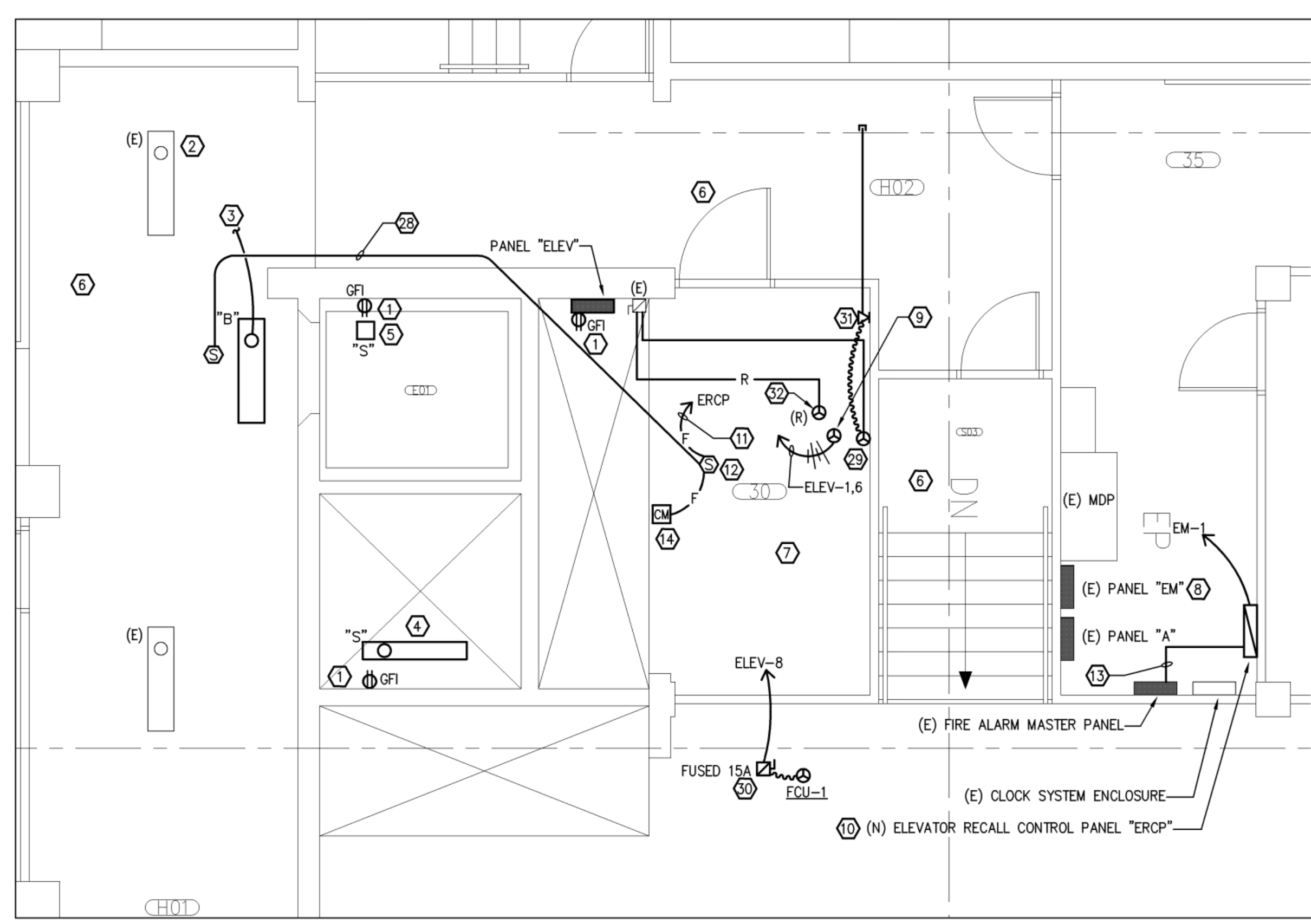
BREAKER A	P	DESCRIPTION	WATTS	CIR. NO.	PHASE	CIR. NO.	WATTS	DESCRIPTION	BREAKER P	A
20	1	LIGHTS-CAR	400	1	A	2		SPARE	1	20
20	1	SPARE		3	B	4	400	POWER LOSS RELAY	1	20
20	1	SPARE		5	A	6	400	CONTROLLER INTERCOM	1	20
				7	B	8	696	FCU-1	1	20
				9	A	10				
				11	B	12				

PHASE TOTALS  
Connected VA 800 1096  
Demand VA 900 1096  
Connected Amps 6.7 9.1  
Demand Amps 7.5 9.1

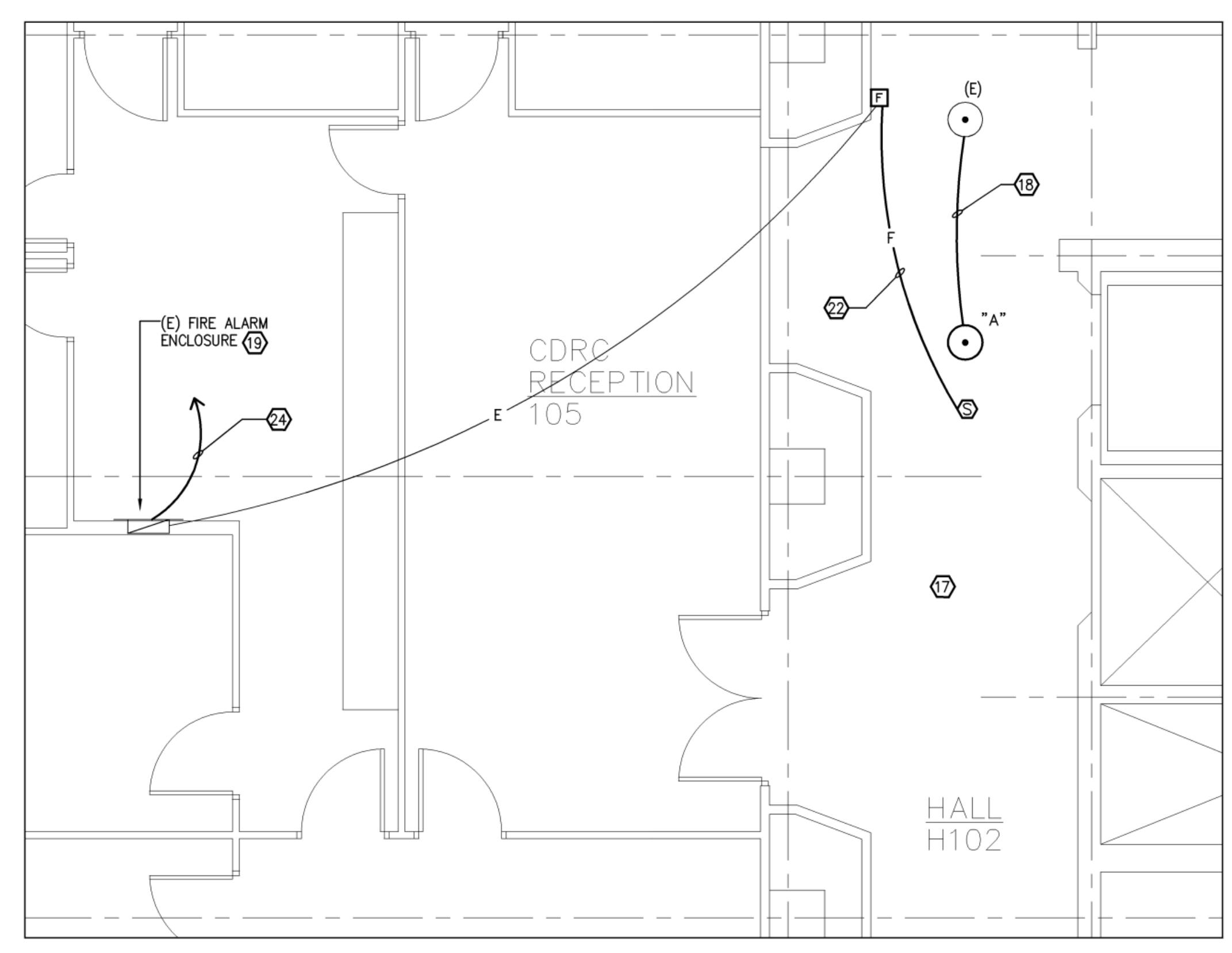
\* 10kVA at 100%, remainder at 50%  
\*\* 100% plus 25% of the largest Motor

U of O. Clinical Services Building, Elevator Upgrade Luminaire Schedule							
TYPE	DESCRIPTION	MANUFACTURER	LAMP	VOLTAGE	FINISH	MOUNTING	REMARKS
A	CEILING MOUNTED 14" ROUND COMPACT FLUORESCENT FIXTURE, 2 LAMP WITH POLYCARBONATE DIFFUSER. PROVIDE BATTERY BACKUP BALLAST IN LIGHT FIXTURE.	LIGHTOLIER OPALITE SERIES	26W QUAD	120	WHITE	SURFACE	
B	SWIVEL CANOPY STEM MOUNTED 2 LAMP WRAPAROUND FLUORESCENT FIXTURE	HE WILLIAMS 21 SERIES, METALUX WE SERIES, LITHONIA SB SERIES	F32T8	120	WHITE	STEM, APPROX 40" LENGTH	MATCH HEIGHT OF ADJACENT FIXTURES
C	EXTERIOR COMPACT FLUORESCENT LIGHT FIXTURE, 1 LAMP	LITHONIA TWAC, DAYBRIGHT WLD	42T	120	STANDARD	SURFACE WALL	APPROX 8' A.F.F.
S	8" X 48" 2 LAMP, LINEAR ENCLOSED AND GASKETED FLUORESCENT FIXTURE	LITHONIA DM-232 SERIES, METALUX VT SERIES, DAYBRIGHT VAPORLUME SERIES	F32T8	120	WHITE	SURFACE WALL	

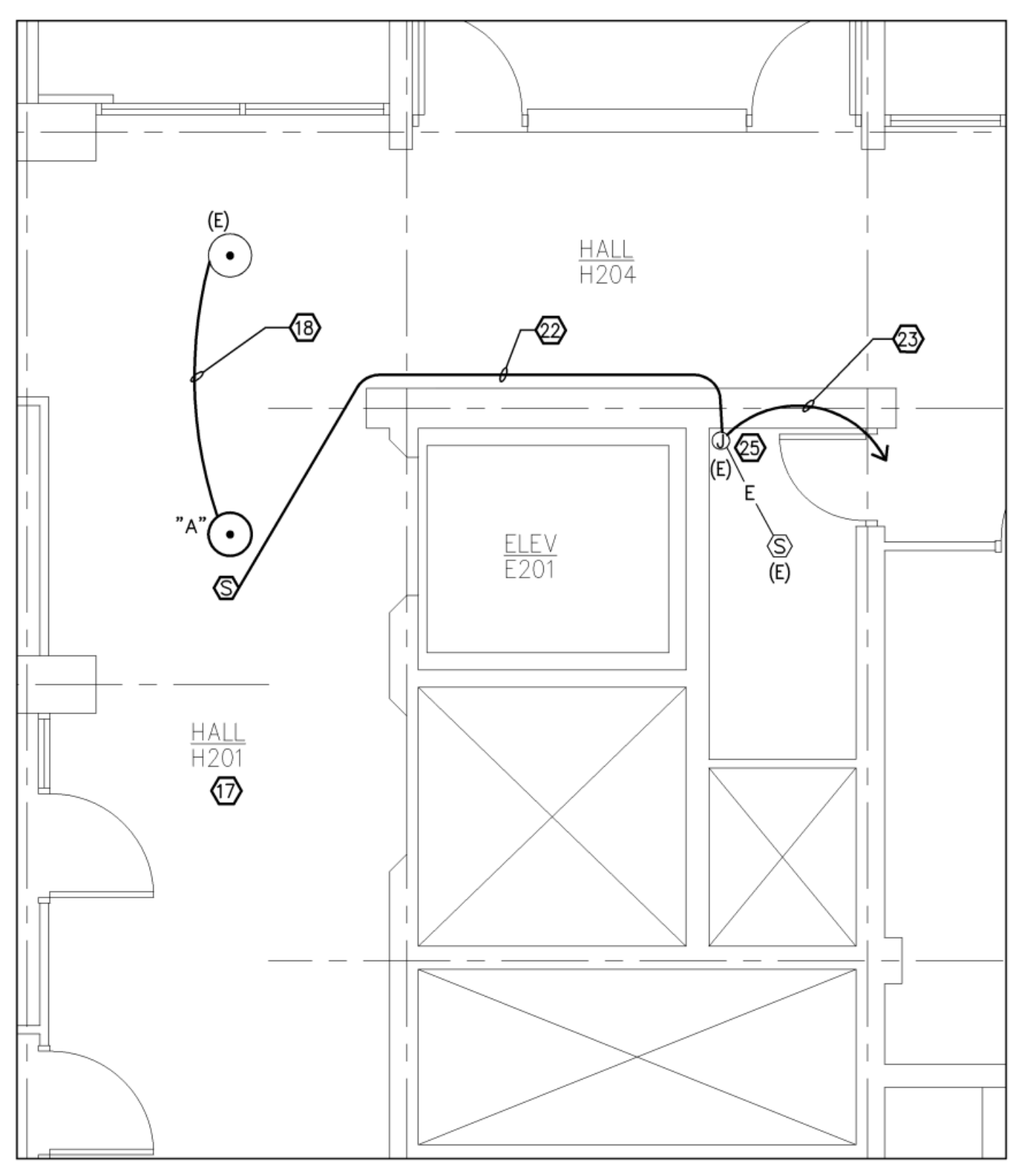




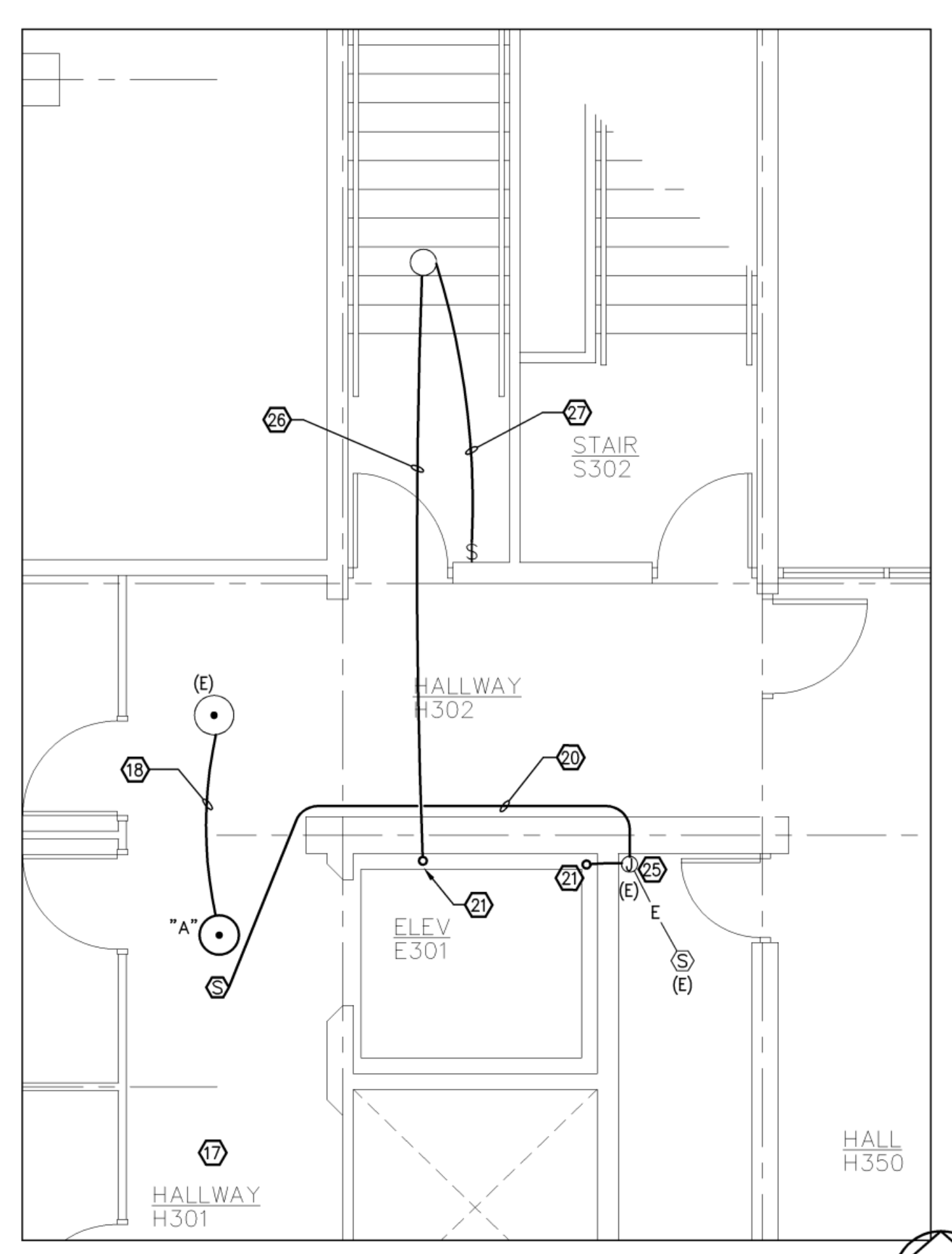
**PARTIAL BASEMENT PLAN - ELECTRICAL**  
SCALE: 1/4"=1'-0"



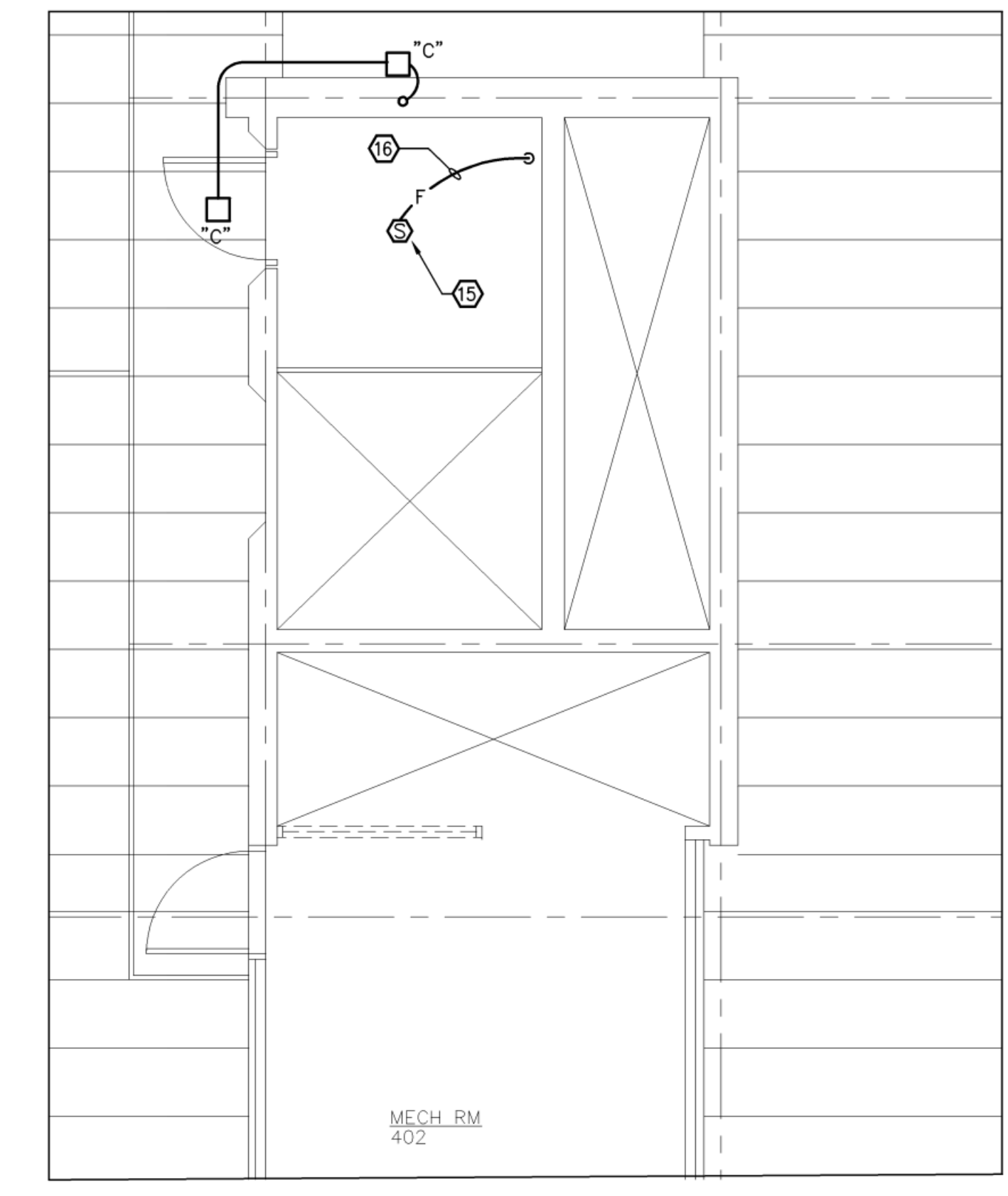
**PARTIAL FIRST FLOOR PLAN - ELECTRICAL**  
SCALE: 1/4"=1'-0"



**PARTIAL SECOND FLOOR PLAN - ELECTRICAL**  
SCALE: 1/4"=1'-0"

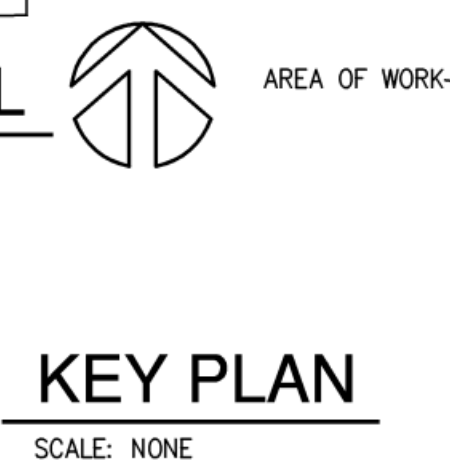


**PARTIAL THIRD FLOOR PLAN - ELECTRICAL**  
SCALE: 1/4"=1'-0"



**PARTIAL FOURTH FLOOR PLAN - ELECTRICAL**  
SCALE: 1/4"=1'-0"

- SHEET NOTES:**
- REPLACE EXISTING DUPLEX RECEPTACLE WITH A DUPLEX GFI RECEPTACLE.
  - EXISTING CANOPY STEM MOUNTED LIGHT FIXTURE. MODIFY ONE OF CANOPY ATTACHMENT POINTS AS NECESSARY TO GAIN ACCESS TO THE EXISTING LIGHTING CIRCUIT EMBEDDED IN THE CONCRETE CEILING.
  - PROVIDE CONDUIT WITH CONDUCTORS SURFACE MOUNTED TO THE CEILING AND CONNECT TO THE EXISTING LIGHTING CIRCUIT AT EXISTING NEARBY LIGHT FIXTURES.
  - REPLACE EXISTING A LAMP WIRE GUARD FIXTURE WITH A FLUORESCENT LIGHT FIXTURE. FIELD COORDINATE THE EXACT LIGHT FIXTURE LOCATION WITH DIVISION 14. TAKE CARE TO INSTALL THE NEARBY GFI RECEPTACLE SO THAT THE FIXTURE REMAINS ENERGIZED REGARDLESS OF WHETHER THE GFI RECEPTACLE HAS DETECTED A GROUND FAULT OR NOT.
  - REPLACE EXISTING A LAMP WIRE GUARD FIXTURE WITH A FLUORESCENT LIGHT FIXTURE. MOUNT FIXTURE IN THE VERTICAL ORIENTATION. LIGHT FIXTURE SHALL NOT BE CONNECTED ON THE LOAD SIDE OF A GFI DEVICE. TAKE CARE TO INSTALL THE NEARBY GFI RECEPTACLE SO THAT THE FIXTURE REMAINS ENERGIZED REGARDLESS OF WHETHER THE GFI RECEPTACLE HAS DETECTED A GROUND FAULT OR NOT.
  - NO CEILING HAS BEEN INSTALLED IN THE CORRIDOR THEREFORE THIS SPACE IS OPEN TO THE STRUCTURE (TYPICALLY CONCRETE) ABOVE.
  - UNPAINTED GYP BOARD CEILING IN THIS SPACE. WALL SURFACES ARE A MIXTURE OF UNPAINTED GYP BOARD AND EXPOSED CONCRETE.
  - PROVIDE NEW 20 AMP 1 POLE CIRCUIT BREAKER AT CIRCUIT #11 IN EXISTING GE MILAB PANEL. THE CIRCUIT BREAKER SHALL HAVE A 25,000 AMPS S.C.C.R.
  - PROVIDE BRANCH CIRCUIT FOR CAR LIGHTS AND INTERCOM; C.A.R..
  - PROVIDE ELEVATOR RECALL CONTROL PANEL. PROVIDE 120 VOLT POWER CIRCUIT TO ELEVATOR RECALL CONTROL PANEL PROVIDE A CONTACT CLOSURE SIGNAL TO THE (E) FIRE ALARM MASTER PANEL ON AN ALARM CONDITION OF THE DETECTORS CONNECTED TO THE ERCP. RECONFIGURE THE (E) FIRE ALARM MASTER PANEL TO ACCEPT THE SIGNAL OF AN ALARM CONDITION OF THE ERCP TO SOUND THE NOTIFICATION APPLIANCES ON THIS CONDITION.
  - PROVIDE FIRE ALARM CABLE TO THE ERCP. IF FEASIBLE, UTILIZE EXISTING CONDUIT PATHWAY TO (E) FIRE ALARM MASTER PANEL, THEN ROUTE THROUGH NEW CONDUIT TO ERCP. OTHERWISE PROVIDE CONDUIT OUT OF ROOM TO (E) CORRIDOR CABLE TRAY. ONCE IN ROOM 35, PROVIDE ADDITIONAL J-HOOKS AND ROUTE TO ERCP THROUGH CONDUIT STUBBED UP HIGH ON THE WALL.
  - REPLACE EXISTING DETECTOR WITH A NEW SMOKE DETECTOR.
  - PROVIDE CONDUIT PATHWAY BETWEEN ERCP AND (E) FIRE ALARM MASTER PANEL.
  - PROVIDE CONTROL MODULES FOR RECALL TO MAIN, RECALL TO ALTERNATE FLOOR, FIREMAN'S HAT, AND POWER LOSS RELAY.
  - PROVIDE SMOKE DETECTOR AT THE TOP OF THE ELEVATOR SHAFT.
  - PROVIDE INITIATING DEVICE CIRCUIT BETWEEN NEW SMOKE DETECTOR AT THIS LEVEL AND THE NEW SMOKE DETECTOR AT ELEVATOR LOBBY ON THE FLOOR BELOW. IF FEASIBLE, ROUTE VIA EXISTING JUNCTION BOX ON THE THIRD FLOOR. SEE THE THIRD FLOOR PLAN FOR CONTINUATION.
  - THE HALLWAYS FEATURE A GRID CEILING COMPOSED OF 2' X 4' ACOUSTICAL TILES.
  - EXTEND EXISTING LIGHTING CIRCUIT TO NEW LIGHT FIXTURE. CONCEAL THE NEW CONDUIT ABOVE THE ACCESSIBLE CEILING.
  - ABANDONED ANNUNCIATOR PANEL LIKELY USED AS A PULLBOX. FIELD VERIFY.
  - PROVIDE FIRE ALARM CABLE BETWEEN NEW SMOKE DETECTOR AT THIS LEVEL AND THE NEW SMOKE DETECTOR AT THE ELEVATOR LOBBY ON THE FLOOR BELOW. IF FEASIBLE, ROUTE VIA EXISTING JUNCTION BOX ON THIS LEVEL. ALSO UTILIZE A SIMILAR ROUTE TO PROVIDE FIRE ALARM CABLE BETWEEN THIS SMOKE DETECTOR AND THE TOP OF SHAFT SMOKE DETECTOR ON THE FLOOR ABOVE.
  - SEE FOURTH FLOOR PLAN FOR CONTINUATION.
  - PROVIDE FIRE ALARM CABLE BETWEEN NEW SMOKE DETECTOR AT THIS LEVEL AND THE NEW ERCP IN THE BASEMENT. IF FEASIBLE, ROUTE VIA EXISTING JUNCTION BOX ON THIS LEVEL. ALSO UTILIZE A SIMILAR ROUTE TO PROVIDE FIRE ALARM CABLE BETWEEN THIS SMOKE DETECTOR AND THE SMOKE DETECTOR AT THE ELEVATOR LOBBY ON THE FLOOR ABOVE.
  - EXISTING CONDUIT ROUTED TO (E) FIRE ALARM ENCLOSURE ON FIRST FLOOR.
  - EXISTING CONDUIT ROUTED TO (E) FIRE ALARM MASTER PANEL IN THE BASEMENT.
  - EXISTING FIRE ALARM JUNCTION BOX. REFER TO FIRE ALARM RISER DIAGRAM.
  - EXTEND CIRCUIT FROM EXISTING LIGHT FIXTURE TO NEW LIGHTING ON THE ROOF. SEE FOURTH FLOOR PLAN.
  - PROVIDE NEW SWITCH LEG AND LIGHT SWITCH, SO THAT THE EXISTING FIXTURE IN THE STAIRWAY ACCESS TO THE ROOF IS SWITCHED ALONG WITH THE NEW LIGHTS ON THE ROOF.
  - PROVIDE FIRE ALARM CABLE BETWEEN NEW BASEMENT ELEVATOR LOBBY SMOKE DETECTOR AND NEW MACHINE ROOM SMOKE DETECTOR.
  - PROVIDE NEW FEEDER AND ELECTRICAL CONNECTION TO NEW ELEVATOR CONTROL PANEL.
  - VERIFY FUSE SIZE WITH MECHANICAL PRIOR TO PROVIDING FUSE.
  - PROVIDE J-BOX PLUS 1/2" EMT FROM BOX TO EXISTING CABLE TRAY IN THE HALLWAY. STUB CONDUIT INTO CABLE TRAY AND PROVIDE A PROTECTIVE GROMMET AT CONDUIT END TO PROTECT TELECOM CABLES. EXTEND FLEX DUCT FROM J-BOX TO CONTROLLER. PROVIDE CAT. 5e CABLE FROM CONTROLLER TO PATCH PANEL FOR ELEVATOR PHONE IN ROOM 35. COORDINATE WITH UO TELECOM GROUP.
  - REMOVE WIRING TO OLD CONTROLLER.



PROJECT TITLE **UNIVERSITY OF OREGON 2012 CLINICAL SERVICES - ELEVATOR**

SHEET TITLE **BASEMENT, FIRST, SECOND, AND THIRD FLOOR PLANS - ELECTRICAL**

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