



# Oregon State University

## INVITATION TO BID (ITB) #2020-001028

### NASH HALL ELEVATORS – NEW AND MODERNIZATION

ISSUE DATE: September 30, 2019

PRE-BID CONFERENCE: October 7, 2019 at 1:30 PM  
Pacific Time (PT)  
OR  
October 14, 2019 at 1:30 PM Pacific Time (PT)  
in the East Entrance Lobby of Nash Hall at 2820 SW  
Campus Way, Corvallis, OR 97331.

BID DUE DATE/TIME: October 22, 2019 at 2:00 PM  
Pacific Time (PT) at Construction Contracts  
Administration (Front Office) 644 SW 13<sup>th</sup> St., Corvallis,  
OR 97333  
\*\*Front Office is closed daily from noon to 1:00 PM.

PROJECT NUMBER: 2082-18

#### **CONTRACT ADMINISTRATOR:**

Matt Hausman, Construction Contracts Officer  
Construction Contracts Administration  
Oregon State University  
644 SW 13<sup>th</sup> St.  
Corvallis, OR 97333  
Phone: (541) 737-3401  
Email: [ConstructionContracts@oregonstate.edu](mailto:ConstructionContracts@oregonstate.edu)

#### **AWARD DECISION APPEALS:**

Hanna Emerson, Construction Contracts Manager  
Construction Contracts Administration  
Oregon State University  
644 SW 13<sup>th</sup> St.  
Corvallis, OR 97333  
Phone: (541) 737-7694  
Email: [hanna.emerson@oregonstate.edu](mailto:hanna.emerson@oregonstate.edu)

*OSU standards and policies govern this solicitation ([Procurement Thresholds and Methods](#), [Procurement Solicitations and Contracts](#)) unless otherwise referenced or stated.*

## 1.0 INTRODUCTION

**1.1 Background.** Founded in 1868 as Oregon’s land grant institution, Oregon State University (OSU) serves the state, the nation and the world as a premier 21st-century research university. OSU is committed to exceptional research, discovery, innovation and engagement — and to integrating its research and engagement mission with the delivery of a high-quality, globally relevant and affordable education for the people of Oregon and beyond. OSU is one of only two land, sea, space and sun grant universities in the U.S. and is the only university in Oregon to have earned both Carnegie Classifications for Very High Research Activity and Community Engagement.

The university’s 570-acre main campus is located in the city of Corvallis, a vibrant college town of nearly 58,000 in the heart of Western Oregon’s Willamette Valley. Corvallis consistently ranks among the safest, most highly educated and greenest small cities in the nation.

**1.2 Location.** Nash Hall was originally called the Bioscience Building and was completed in 1970. It is named for Wallis Nash who served as secretary of Oregon Agricultural College’s Board of Regents from 1886 to 1898. He was a local lawyer and businessman.

**1.3 Summary of Work.** The Work consists of the following:

The Work consists of the modernization of an existing elevator and the installation of a new elevator within an existing vacant shaft originally intended for this purpose within Nash Hall on the Oregon State University Campus, Corvallis, Oregon.

Work shall be completed within 490 calendar days from the date of Contract execution.

## 2.0 SCHEDULE

Solicitation Issue Date	September 27, 2019
<b>Pre-Bid Meeting/Site Visit</b>	<b>October 7, 2019 at 1:30 PM Pacific Time (PT)</b>
<b>*Secondary Pre-Bid Meeting/Site Visit</b>	<b>October 14, 2019 at 1:30 PM Pacific Time (PT)</b>
Question Deadline	October 15, 2019 at 5:00 PM Pacific Time (PT)
Solicitation Revision Request Deadline	October 15, 2019 at 5:00 PM Pacific Time (PT)
Final Addendum Deadline (if necessary)	October 18, 2019
Bid Due Date/Time	October 22, 2019 at 2:00 PM Pacific Time (PT)

*\*Bidders **must** attend at least one of the Pre-Bid Meeting/Site Visits. Bids will not be accepted from firms who do not attend at least one Pre-Bid Meeting/Site Visit. Attendance at both Pre-Bid Meetings/Site Visits is welcomed, but not required.*

**The following dates are tentative and subject to change without notice:**

Notice of Intent to Award	October 29, 2019
Estimated Contract Execution	November 13, 2019
Estimated Notice to Proceed	November 13, 2019
Estimated Substantial Completion	March 2021
Estimated Final Completion	April 2021

### 3.0 QUESTIONS, SOLICITATION REVISION REQUESTS, CHANGE OR MODIFICATION

#### 3.1 Questions

**3.1.1** If a Bidder is unclear about any information contained in this document or its exhibits (Project, scope, agreement terms, etc.), they may submit those questions for formal clarification to the **Contract Administrator** at any time prior to the Question Deadline listed in Section 2.0 of this ITB.

**3.1.2** All questions and contacts with Owner regarding any information in this ITB must be addressed either in writing or email to the **Contract Administrator**, unless otherwise stated in this ITB document at the address or email listed in this document no later than the Question Deadline listed in Section 2.0 of this ITB.

**3.1.3** Any clarification provided by the Owner for this ITB or the documents included as exhibits to this ITB shall be made by a duly issued Addendum. The Owner will not be responsible for any other explanation or interpretation of this ITB or the documents included as exhibits to this ITB nor for any other approval of a particular manufacturer's process or item.

#### 3.2 Solicitation Revision Requests

**3.2.1** Bidders may submit a written request for change of particular solicitation provisions and/or contract terms and conditions to Hanna Emerson, Construction Contracts Manager at the address or email listed in this document. Such requests for change shall be received no later than the Solicitation Revision Deadline listed above.

**3.2.2** Such requests for change shall include the reasons for the request and any proposed changes to the solicitation provisions, specifications and/or contract terms and conditions.

**3.2.3** Requests for contract terms and conditions revisions may not be considered if request(s) are not received by the Solicitation Revision Deadline.

#### 3.3 Change or Modification

**3.3.1** Any change or modification to the specifications or particular solicitation provisions will be in the form of an addendum to the ITB and will be made available to all firms. No information received in any manner different than as described herein shall serve to change the ITB in any way, regardless of the source of the information.

### 4.0 PUBLIC RECORD

Owner will retain this ITB and one copy of each bid received, together with copies of all documents pertaining to the award of a contract. These documents will be made a part of a file or record, which shall be open to public inspection after Owner has announced its intent to award a contract. If a bid contains any information that is considered a trade secret under ORS 192.345(2), you must mark each trade secret with the following legend: **“This data constitutes a trade secret under ORS 192.345(2), and shall not be disclosed except in accordance with the Oregon Public Records Law, ORS Chapter 192.”**

The Oregon Public Records Law exempts from disclosure only bona fide trade secrets, and the exemption from disclosure applies only “unless the public interest requires disclosure in the particular instance.”

Therefore, non-disclosure of documents or any portion of a document submitted as part of a proposal may depend upon official or judicial determination made pursuant to the Public Records Law.

In order to facilitate public inspection of the non-confidential portion of the proposal, material designated as confidential shall accompany the proposal, but shall be readily separable from it. Prices, makes, model or catalog numbers of items offered, scheduled delivery dates, and terms of payment shall be publicly available regardless of any designation to the contrary. Any proposal marked as a trade secret in its entirety shall be considered non-responsive and shall be rejected.

## **5.0 FORM OF AGREEMENT**

A sample copy of the standard Reserve Supplement is included as an exhibit. The sample contract may contain certain notes or alternative provisions. Those alternative provisions will be included at the sole discretion of the Owner.

## **6.0 BUREAU OF LABOR AND INDUSTRIES (BOLI) PREVAILING WAGES**

In compliance with Oregon Prevailing Wage Law, the following is incorporated into this ITB:

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

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

These BOLI wage rates are available here: [https://www.oregon.gov/boli/WHD/PWR/Pages/pwr\\_state.aspx](https://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx).

## **7.0 INSTRUCTIONS TO BIDDERS**

**7.1 Summary of Work.** The Work contemplated in this document shall be for the Owner in connection with the Project described in the Summary of Work in Section 1.0 of this document.

### **7.2 Pre Bid Conference and Examination of Site Conditions**

**7.2.1** Before submitting a Bid, if required by this ITB, the Bidder shall attend the mandatory Pre-Bid Conference, which may include a site examination. Attendance will be documented through a sign-in sheet prepared by the Owner. Prime bidders who arrive more than five (5) minutes after start time of the meeting (as stated in the ITB and by the Owner's clock) 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.

**7.2.2** In any event, the Bidder shall examine the Work site to ascertain its physical condition. Failure to comply with this section will not release Contractor from entering into the Contract nor excuse Contractor from performing the Work in strict accordance with the terms and conditions of the Contract Documents.

**7.2.3** The Bidder shall be responsible for being fully informed as to the quality, quantity and sources of supply of the materials listed within the documents included as exhibits to this ITB.

**7.2.4** The Owner will not be responsible for any loss or unanticipated costs which may arise as a result of Contractor's failure to be fully informed in advance with regard to all conditions pertaining to the Work and the character of the Work required.

**7.2.5** No statement made by any officer, agent, or employee of the Owner in relation to the physical conditions pertaining to the Work site or quality, quantity, and supply of materials will be binding on the Owner, unless included in writing in the documents included as exhibits to this ITB or an Addendum.

**7.3** **Brand-Name Specification.** To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the documents included as exhibits to this ITB 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 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 they do so or not.

#### **7.4** **Substitution Approval Process**

**7.4.1** Prior to submitting a Bid that contains a Substitution, the Bidder must first seek approval of the Substitution from the Owner by submitting a written request to the **Contract Administrator** for approval prior to the deadline for questions as stated in this Solicitation.

**7.4.2** Substitution requests shall be submitted in accordance with Division 01 requirements.

**7.4.3** Only approved Substitution requests will be acknowledged via Addendum(a) to this ITB and shall become a part of the documents included as exhibits to this ITB. When approved, it is with the understanding that the substituted article or material is of equal or better value and utility than the one specified.

#### **7.5** **Execution of the Bid Form**

**7.5.1** The Bid Form is hereby defined as the OSU form furnished by Owner to be completed by Bidder.

**7.5.2** The Bid Form relates to Bids on this ITB. Only the amounts and information asked for on the Bid Form will be considered as the Bid. Each Bidder shall Bid upon the Work exactly as set forth in the Bid Form. The Bidder shall include in the Bid a sum to cover the cost of all items contemplated by the documents included as exhibits to this ITB. Bids that fail to address alternates set forth on the Bid Form may be considered non-responsive.

**7.5.3** Each Bid Form must: 1) Be completed in accordance with these instructions; 2) Include the appropriate signatures as noted on the Bid Form; and 3) Include numbers pertaining to the Base Bid(s) stated both in writing and in figures.

**7.5.4** 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."

**7.5.5** When Bidding on unit prices, quantities stated on the Bid Form are estimates and are included for the purpose of award of a Contract. In the event of a discrepancy between unit prices and extensions, the unit price shall govern.

**7.5.6** Incomplete Bids may be rejected.

**7.5.7** Bids that contain conditions not provided for on the Bid Form may be rejected.

**7.5.8** Bids that contain ambiguities may be rejected.

**7.5.9** With the exception of filling in the required fields on the Bid Form, no other alterations to the Bid Form shall be made.

**7.6** **Submission of Bid.** Each Bid shall be sealed in an envelope, properly addressed to the **Contract Administrator**, showing on the outside of the envelope the name of the Bidder and the name of the project. Bids must be received at the time and place stated in this ITB.

**7.7** **Bid Closing and Opening of Bids**

**7.7.1** All Bids must be received by the Owner before the Closing Date and Time. The Owner's official clock shall prevail in any time conflict. Any Bid received after the Closing Date and Time will be rejected, and will be retained and part of the Owner's archive records in accordance with OSU Standards.

**7.7.2** At the time of opening and reading of Bids, each Bid received, irrespective of any irregularities or informalities, may be publicly opened and read aloud.

**7.8** **Acceptance or Rejection of Bids by Owner**

**7.8.1** The procedures for Contract awards shall be in compliance with the provisions of OSU standards and policies adopted by the Owner.

**7.8.2** The Owner reserves the right to reject any or all Bids and to waive minor informalities.

**7.8.3** Unless all Bids are rejected, the Owner will award the Contract(s) based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the Contract(s), the Contract(s) will be awarded to the next lowest responsive Bid from a responsible Bidder or Bidders in succession, provided this ITB is not cancelled under the provisions of OSU standards and policies adopted by the Owner.

**7.8.4** The Owner reserves the right to hold the Bid of the three lowest Bidders for a period of sixty (60) Days from the time of Bid opening pending Award of the Contract.

**7.8.5** In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all Base Bids as well as alternates or combinations indicated in the Bid Form.

**7.8.5.1** When alternates are included on the Bid Form, they may be exercised at the sole discretion of the Owner within sixty (60) Days of the Effective Date of the Contract, unless extended by written mutual agreement of the Parties.

**7.8.5.2** The Owner has the right to accept alternates without regard to order or sequence; but, such acceptance must not deliberately impair the selection of a low, responsible and responsive Bidder to whom the Contract would be awarded under an equitable bid procedure.

**7.8.6** If Owner has not accepted a Bid within sixty (60) Days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted.

## **7.9 Withdrawal of Bid**

**7.9.1** At any time prior to the Closing Date and Time a Bidder may withdraw its Bid in accordance with OSU Standards. This will not preclude the submission of another Bid by such Bidder prior to the Closing Date and Time.

**7.9.2** After the Closing Date and Time, Bidders are prohibited from withdrawing their Bid, except as provided by OSU Standards.

## **7.10 Execution of Contract, Agreement, Performance Bond and Payment Bond**

**7.10.1** The Bidder shall be required to execute the Contract as provided, and, if applicable, deliver a Performance Bond and a Payment Bond from a surety company licensed to do surety business in the State of Oregon within time period contained in the Award letter. The Contract Documents shall be delivered to the Owner in the manner stated in the Award letter.

**7.11 Public Works Bond.** At the time of submission of its Bid, each Bidder shall have on file with the Construction Contractors Board a public works bond required by ORS 279C.836, unless otherwise exempt under that statute. Failure to have on file a public works bond at the time of submission of the Bid may result in rejection of the Bid as non-responsive.

**7.12 Equity Contracting.** Owner will require the successful Contractor to comply with OSU Standards, policies, rules and procedures requiring good faith efforts in subcontracting with minority, women, emerging small business or service-disabled veteran owned business enterprises.

## **8.0 SUPPLEMENTAL INSTRUCTIONS TO BIDDERS - RESERVED**

## **9.0 EXHIBITS**

Exhibit A – Bid Form

Exhibit B – Sample OSU Public Improvement Contract

Exhibit C – General Conditions for Public Improvement Contracts

Exhibit D – Supplemental General Conditions for Public Improvement Contracts

Exhibit E – Performance Bond, Payment Bond

Exhibit F – MWESB Project Contract Report Instructions and Report

Exhibit G – Specifications dated 9/20/2019

Exhibit H – Drawings, stamped by Rowell Brokaw, dated 9/20/2019

Exhibit I – Asbestos Survey Report

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**End of ITB**



EXHIBIT A



# Oregon State University

## BID FORM

ITB NUMBER & NAME: ITB 2020-001028 – NASH HALL ELEVATORS – NEW & MODERNIZATION

BID DUE DATE AND TIME: \_\_\_\_\_  
(fill in)

FROM: \_\_\_\_\_  
(Name of Contractor)

TO: Oregon State University ("Owner")  
Construction Contracts Administration  
644 SW 13th St.  
Corvallis, Oregon 97333

1. The Undersigned 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 Base Bid as follows:

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

and the Undersigned agrees to be bound by the documents either contained in or incorporated by reference in the Invitation to Bid and ADDENDA numbered \_\_\_\_ through\_\_\_\_, inclusive. (fill in blanks)

The Undersigned proposes to add to or deduct from the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications:

ALTERNATE 1: RETAIN EXISTING GEARED MACHINE & DEFLECTOR SHEAVE

(circle one) ADD/DEDUCT: \$ \_\_\_\_\_

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

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

4. 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 wages.

5. Contractor's CCB license number is \_\_\_\_\_. As a condition to submitting a Bid, Contractor must be licensed with the Oregon Construction Contractors Board in accordance with ORS 701.021 to 701.128, and disclose the license number. Failure to be licensed and disclose the number will render the Bid unresponsive and it will be rejected, unless contrary to federal law.

6. The Bidder hereby certifies that all subcontractors who perform construction work as described in ORS 701.005(5) are licensed with the Construction Contractors Board in accordance with ORS 701.021 to 701.128 at the time the Bid is submitted.

7. Contractor's Project Manager for this project is: \_\_\_\_\_,

Email: \_\_\_\_\_ Cell Phone: \_\_\_\_\_.

8. The Undersigned agrees, if awarded the Contract, to deliver to Owner, a satisfactory Performance Bond and Payment Bond, each in an amount equal to one hundred (100) percent of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

\_\_\_\_\_  
*(name of surety company - not insurance agency)*

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

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

NAME OF FIRM: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

FEDERAL TAX ID: \_\_\_\_\_

TELEPHONE NO: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Authorized Signature

\_\_\_\_\_  
Printed Name

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

EXHIBIT B

# OREGON STATE UNIVERSITY PUBLIC IMPROVEMENT CONTRACT

This Public Improvement Contract for the **(Insert Project Name)** (the "Contract"), made by and between Oregon State University, hereinafter called OWNER, and **(Insert Contractor's Name)** hereinafter called the CONTRACTOR (collectively the "Parties"), shall become effective on **(Insert contract award date)**, or the date this Contract has been signed by all the Parties, whichever is later.

## 1. Contract Price, Contract Documents and Work

The CONTRACTOR, in consideration of the sum of \_\_\_\_\_ (the "Contract Price"), to be paid to the CONTRACTOR by OWNER in the manner and at the time hereinafter provided, and subject to the terms and conditions provided for in the Instructions to Bidders and other Contract Documents (as defined in the Oregon State University General Conditions referenced within the Instructions to Bidders), all of which are incorporated herein by reference, hereby agrees to perform all Work described and reasonably inferred from the Contract Documents. The Contract Price is the amount contemplated by the Base Bid adjusted for Alternates\_\_\_\_, as indicated in the accepted Bid.

Also, the following documents are incorporated by reference in this Contract and made a part hereof if checked for inclusion [X]:

[ ] (RESERVED)

## 2. Representatives

CONTRACTOR has named **(Insert Name)** its' Authorized Representative to act on its behalf. OWNER designates, or shall designate, its Authorized Representative as indicted below (check one):

A. [ ] Unless otherwise specified in the Contract Documents, the OWNER designates **(Insert Name)** as its Authorized Representative in the administration of this Contract. The above-named individual shall be the initial point of contact for matters related to Contract performance, payment authorization, and to carry out the responsibilities of the OWNER.

B. [X] Name of OWNER'S Authorized Representative shall be submitted by OWNER in a separate writing.

## 3. Contract Dates.

COMMENCEMENT DATE: Within **(Insert # of Days)** days of the execution of the Contract ("Execution").

SUBSTANTIAL COMPLETION DATE: **(Insert # of Days)** from Contract Execution **(or a date certain)**.

FINAL COMPLETION DATE: **(Insert # of Days)** from Contract Execution **(or a date certain)**.

## 4. Minimum Wage Rates

Prevailing Wage Rates requirements apply to this Project. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates and the required public works bond, as outlined in Sections C.1, C.2 and G.2.3 of the 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, July 1, 2019, which can be downloaded at the following web address:

[\[http://www.boli.state.or.us/BOLI/WHD/PWR/pwr\\_book.shtml\]](http://www.boli.state.or.us/BOLI/WHD/PWR/pwr_book.shtml)

The Work will take place in Benton County, Oregon.

**5. Integration**

The Contract documents constitute the entire agreement between the parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. CONTRACTOR, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

**In witness whereof**, Oregon State University executes this Contract and the CONTRACTOR does execute the same as of the day and year indicated below.

CONTRACTOR DATA:

**(Insert Contractor Name & Address)**

CONTRACTOR NAME:

CONTRACTOR FEDERAL ID #

CONTRACTOR CCB #

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

CONTRACTOR SIGNATURE

By \_\_\_\_\_  
Name/Title Date

Oregon State University

By \_\_\_\_\_

Michael J. Green Date  
Vice President for Finance and Administration

EXHIBIT C

# OREGON STATE UNIVERSITY GENERAL CONDITIONS FOR PUBLIC IMPROVEMENT CONTRACTS

June 30, 2017

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

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**SECTION A  
GENERAL PROVISIONS**

**A.1 DEFINITION OF TERMS**

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

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

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

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

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

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

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

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

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

**CONTRACT DOCUMENTS**, means the Public Improvement Contract, Public Improvement General Conditions, Supplemental General Conditions if any, the accepted Offer, Plans, Specifications, Construction Change Directives, Solicitation Document and addenda thereto, Instructions to Offerors, and Supplemental Instructions to Offerors, the CM/GC's RFQ proposal, the GMP Amendment, and any other Amendment, the Construction Schedule prepared and approved in accordance with the Construction Documents, and all other required Submittals.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**PROJECT**, means the development, design, construction

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

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

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

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

**SUBMITTAL**, means a shop drawing, product data, sample, catalog cut, or similar item for specific portions of the Work as required by the Construction Documents.

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

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

**PUBLIC IMPROVEMENT SUPPLEMENTAL GENERAL CONDITIONS**, means those conditions that remove from, add to, or modify these Public Improvement General Conditions. Public Improvement 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. Execution of the Contract by the Contractor is an express representation (1) that the Contractor understands the intent stated herein with respect to the Preconstruction Phase Services, and (2) the Contractor's execution of an Amendment, including the GMP Amendment, shall be an express and unqualified representation that the Contractor understands the intent stated herein and therein.

## **A.3 INTERPRETATION OF CONTRACT DOCUMENTS**

A.3.1 Unless otherwise specifically defined in the Contract

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

- (a) Amendments and Construction Change Directives, with those of later date having precedence over those of an earlier date;
  - (b) The Supplemental General Conditions;
  - (c) Public Improvement General Conditions;
  - (d) The Public Improvement Contract;
  - (e) Construction Change Directive;
  - (f) Division One (General Requirements) of the Specifications;
  - (g) Detailed Schedules of finishes, equipment and other items included in the Specifications;
  - (h) Plans and Specifications (other than Division One and the Detailed Schedules to the Specifications);
  - (i) Large-scale drawings on Plans;
  - (j) Small-scale drawings on Plans;
  - (k) Dimension numbers written on Plans which shall prevail and take precedence over dimensions scaled from Plans;
  - (l) The Solicitation Document, and any addenda thereto.
  - (m) The Contractor's RFQ proposal.
- A.3.2 In the case of an inconsistency between Plans and Specifications or within either document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Owner's interpretation in writing.
- A.3.3 If the Contractor finds discrepancies in, or omissions from the Contract Documents, or if the Contractor is in doubt as to their meaning, the Contractor shall at once notify the Owner in writing. Matters concerning and interpretation of requirements of the Contract Documents will be decided by the Owner, who may delegate that duty in some instances to the Architect/Engineer. Responses to Contractor's requests for interpretation of Contract Documents will be made in writing by Owner (or the Architect/Engineer) within any time limits agreed upon or otherwise with reasonable promptness. Interpretations and decisions of the Owner (or Architect/Engineer) will be consistent with the intent of and reasonably inferable from the Contract Documents. Contractor shall not proceed without direction in writing from the Owner (or Architect/Engineer).
- A.3.4 References to standard specifications, manuals, codes of any technical society, organization or association, to the laws or regulations of any governmental authority, whether such reference be specific or by implication,

shall mean the latest standard specification, manual, code, laws or regulations in effect in the jurisdiction where the project is occurring on the first published date of the Solicitation Document, except as may be otherwise specifically stated.

#### **A.4 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE**

- A.4.1 It is understood that the Contractor, before submitting an Offer, has made a careful examination of the Contract Documents; has become fully informed as to the quality and quantity of materials and the character of the Work required; and has made a careful examination of the location and conditions of the Work and the sources of supply for materials. The Owner will in no case be responsible for any loss or for any unanticipated costs that may be suffered by the Contractor as a result of the Contractor's failure to acquire full information in advance in regard to all conditions pertaining to the Work. No oral agreement or conversation with any officer, agent, or personnel of the Owner, or with the Architect/Engineer either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.
- A.4.2 Should the Plans or Specifications fail to particularly describe the materials, kind of goods, or details of construction of any aspect of the Work, Contractor shall have the duty to make inquiry of the Owner and Architect/Engineer as to what is required prior to performance of the Work. Absent Specifications to the contrary, the materials or processes that would normally be used to produce first quality finished Work shall be considered a part of the Contract requirements.
- A.4.3 Any design errors or omissions noted by the Contractor shall be reported promptly to the Owner and confirmed in writing, including without limitation, any nonconformity with Applicable Laws.
- A.4.4 If the Contractor believes that adjustments to cost or Contract Time is involved because of clarifications or instructions issued by the Owner (or Architect/Engineer) in response to the Contractor's notices or requests for information, the Contractor must submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt by Contractor of the clarifications or instructions issued. If the Owner denies Contractor's request for additional compensation, additional Contract Time, or other relief that Contractor believes results from the clarifications or instructions, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process. If the Contractor fails to perform the obligations of Sections A.4.1 to A.4.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

#### **A.5 INDEPENDENT CONTRACTOR STATUS**

The service or services to be performed under this Contract are those of an independent contractor as defined in ORS 670.600.

Contractor represents and warrants that it is not an officer, employee or agent of the Owner as those terms are used in ORS 30.265.

#### **A.6 RETIREMENT SYSTEM STATUS AND TAXES**

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

#### **A.7 GOVERNMENT EMPLOYMENT STATUS**

- A.7.1 If this payment is to be charged against federal funds, Contractor represents and warrants that it is not currently employed by the Federal Government. This does not preclude the Contractor from holding another contract with the Federal Government.
- A.7.2 Contractor represents and warrants that Contractor is not an employee of the State of Oregon for purposes of performing Work under this Contract

### **SECTION B ADMINISTRATION OF THE CONTRACT**

#### **B.1 OWNER'S ADMINISTRATION OF THE CONTRACT**

- B.1.1 The Owner shall administer the Contract as described in the Contract Documents (1) during construction (2) until Final Payment is due and (3) during the one-year period for correction of Work. The Owner will act as provided in the Contract Documents, unless modified in writing in accordance with other provisions of the Contract. In performing these tasks, the Owner may rely on the Architect/Engineer or other consultants to perform some or all of these tasks.
- B.1.2 The Owner will visit the site at intervals appropriate to the stage of the Contractor's operations (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Owner will not make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner will neither have control over or charge of, nor be responsible for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work. Inspection of the progress, quantity, or quality of the Work done by the Owner, any Owner representative, and public agency, the Architect/Engineer, or any inspector, shall not relieve the Contractor of any responsibility for the compliance of all Work with the Contract Documents.
- B.1.3 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall communicate with each other about matters arising out of or relating to the Contract. Communications by and with the Architect/Engineer's consultants shall be through the Architect/Engineer. Communications by

and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

#### **B.2 Based upon the Architect/Engineer's evaluations of the Contractor's Application for Payment, or unless otherwise stipulated by the Owner, the Architect/Engineer will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts. CONTRACTOR'S MEANS AND METHODS; MITIGATION OF IMPACTS**

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

#### **B.3 MATERIALS AND WORKMANSHIP**

- B.3.1 The intent of the Contract Documents is to provide for the construction and completion in every detail of the Work described. All Work shall be performed in a professional manner and unless the means or methods of performing a task are specified elsewhere in the Contract Documents, Contractor shall employ methods that are generally accepted and used by the industry, in accordance with industry standards.
- B.3.2 The Contractor is responsible to perform the Work as required by the Contract Documents. Defective Work shall be corrected at the Contractor's expense.
- B.3.3 Work done and materials furnished shall be subject to inspection and/or observation and testing by the Owner to determine if they conform to the Contract Documents. Inspection of the Work by the Owner does not relieve the Contractor of responsibility for the Work in accordance with the Contract Documents.
- B.3.4 Contractor shall furnish adequate facilities, as required, for the Owner to have safe access to the Work including without limitation walkways, railings, ladders, tunnels, and platforms. Producers, suppliers, and fabricators shall also provide proper facilities and access to their

facilities.

- B.3.5 The Contractor shall furnish Samples of materials for testing by the Owner and include the cost of the Samples in the Contract Price.

#### **B.4 PERMITS**

Contractor shall obtain and pay for all necessary permits, licenses and fees, 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.

#### **B.5 COMPLIANCE WITH GOVERNMENT REGULATIONS**

- B.5.1 Contractor shall comply with Applicable Laws pertaining to the Work and the Contract. Failure to comply with such requirements shall constitute a breach of Contract and shall be grounds for Contract termination. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following, as applicable: (i) Title VI and VII of Civil Rights Act of 1964, as amended; (ii) Section 503 and 504 of the Rehabilitation Act of 1973, as amended; (iii) the Health Insurance Portability and Accountability Act of 1996; (iv) the Americans with Disabilities Act of 1990, as amended; (v) ORS Chapter 659; as amended; (vi) ORS Chapter 659A; as amended; (vii) all regulations and administrative rules established pursuant to the foregoing laws; and (viii) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

- B.5.2 Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations, and

- (a) Contractor shall not discriminate against Disadvantaged, Minority, Women or Emerging Small Business enterprises, as those terms are defined in ORS 200.005, or a business enterprise that is owned or controlled by or that employs a disabled veteran, as that term is defined in ORS 408.225, in the awarding of subcontracts.
- (b) Contractor shall maintain, in current and valid form, all licenses and certificates required by Applicable Laws or this Contract when performing the Work.

- B.5.3 Unless contrary to federal law, Contractor shall certify that it shall not accept a bid from Subcontractors to perform Work as described in ORS 701.005 under this Contract unless such Subcontractors are registered with the Construction Contractors Board in accordance with ORS 701.021 to 701.068 at the time they submit their bids to the Contractor.

- B.5.4 Unless contrary to federal law, Contractor shall certify that each landscape contractor, as defined in ORS 671.520(2), performing Work under this Contract holds a valid landscape contractor's license issued pursuant to

ORS 671.560.

- B.5.5 The following notice is applicable to Contractors who perform excavation Work. ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-00100. You may obtain copies of the rules by calling the center at (503)232-1987.

- B.5.6 Failure to comply with any or all of the requirements of B.5.1 through B.5.5 shall be a breach of Contract and constitute grounds for Contract termination. Damages or costs resulting from such noncompliance shall be the responsibility of Contractor.

#### **B.6 SUPERINTENDENCE**

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

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

- B.7.1 Owner shall have access to the Work at all times.

- B.7.2 Inspection of the Work will be made by the Owner at its discretion. The Owner will have authority to reject Work that does not conform to the Contract Documents. Any Work found to be not in conformance with the Contract Documents, in the discretion of the Owner, shall be removed and replaced at the Contractor's expense.

- B.7.3 Contractor shall make or obtain at the appropriate time all tests, inspections and approvals of portions of the Work required by the Contract Documents or by Applicable Laws or orders of public authorities having jurisdiction. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner.

- B.7.4 As required by the Contract Documents, Work done or material used without required inspection or testing and/or without providing timely notice to the Owner may be ordered removed at the Contractor's expense.

- B.7.5 If directed to do so any time before the Work is accepted, the Contractor shall uncover portions of the completed Work for inspection. After inspection, the Contractor shall restore such portions of Work to the standard required by the Contract. If the Work uncovered is unacceptable or was done without required testing or inspection or sufficient notice to the Owner, the uncovering and restoration shall be done at the Contractor's expense. If the Work uncovered is acceptable and was done with sufficient notice to the

Owner, the uncovering and restoration will be paid for pursuant to an Amendment.

- B.7.6 If any testing or inspection reveals failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Owner's and Architect/Engineer's services and expenses, shall be at the Contractor's expense.
- B.7.7 When the United States government participates in the cost of the Work, or the Owner has an agreement with other public or private organizations, or if any portion of the Work is being performed for a third party or in close proximity to third party facilities, representatives of these organizations shall have the right to inspect the Work affecting their interests or property. Their right to inspect shall not make them a party to the Contract and shall not interfere with the rights of the parties of the Contract. Instructions or orders of such parties shall be transmitted to the Contractor, through the Owner.

#### **B.8 SEVERABILITY**

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

#### **B.9 ACCESS TO RECORDS**

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

#### **B.10 WAIVER**

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

#### **B.11 SUBCONTRACTS AND ASSIGNMENT**

- B.11.1 Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound by the terms and conditions of these Public Improvement General Conditions, and to assume toward the Contractor all of the obligations and responsibilities which the Contractor assumes toward the Owner thereunder, unless (1) the same are clearly inapplicable to the subcontract at issue because of legal requirements or industry practices, or (2) specific exceptions are requested by Contractor and approved in writing by Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors at any level.
- B.11.2 At Owner's request, Contractor shall submit to Owner prior to their execution either Contractor's form of subcontract, or the subcontract to be executed with any particular Subcontractor. If Owner disapproves such form, Contractor shall not execute the form until the matters disapproved are resolved to Owner's satisfaction. Owner's review, comment upon or approval of any such form shall not relieve Contractor of its obligations under this Agreement or be deemed a waiver of such obligations of Contractor.

- B.11.3 Contractor shall not assign, sell, or transfer its rights, or delegate its responsibilities under this Contract, in whole or in part, without the prior written approval of the Owner. No such written approval shall relieve Contractor of any obligations of this Contract, and any transferee shall be considered the agent of the Contractor and bound to perform in accordance with the Contract Documents. Contractor shall remain liable as between the original parties to the Contract as if no assignment had occurred.

#### **B.12 SUCCESSORS IN INTEREST**

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

#### **B.13 OWNER'S RIGHT TO DO WORK**

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

#### **B.14 OTHER CONTRACTS**

In all cases and at any time, the Owner has the right to execute other contracts related to or unrelated to the Work of this

Contract. The Contractor of this Contract shall fully cooperate with any and all other contractors without additional cost to the Owner in the manner described in section B.13.

#### **B.15 GOVERNING LAW**

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

#### **B.16 LITIGATION**

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

#### **B.17 ALLOWANCES**

B.17.1 The Contractor shall include in the Contract Price all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.

B.17.2 Unless otherwise provided in the Contract Documents:

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

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

B.18.1 The Contractor shall prepare and keep current, for the Architect's/Engineer's approval (or for the approval of Owner if approval authority has not been delegated to the Architect/Engineer), a schedule and list of

Submittals which is coordinated with the Contractor's construction schedule and allows the Architect/Engineer reasonable time to review Submittals. Owner reserves the right to finally approve the schedule and list of Submittals. Submittals include, without limitation, Shop Drawings, product data, and samples which are described below:

- (a) Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor (including any sub-subcontractor), manufacturer, supplier or distributor to illustrate some portion of the Work.
- (b) Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- (c) Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

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

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



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

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

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

B.18.7 In the event that Owner elects not to have the obligations and duties described under this Section B.18 performed by the Architect/Engineer, or in the event no Architect/Engineer is employed by Owner on the project, all obligations and duties assigned to the Architect/Engineer hereunder shall be performed by the Owner.

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

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

#### **B.20 USE OF PLANS AND SPECIFICATIONS**

Plans, Specifications and related Contract Documents furnished to Contractor by Owner or Owner's Architect/Engineer shall be used solely for the performance of the Work under this Contract. Contractor and its Subcontractors and suppliers are authorized to use and reproduce applicable portions of such documents appropriate to the execution of the Work, but shall not claim any ownership or other interest in them beyond the scope of

this Contract, and no such interest shall attach. Unless otherwise indicated, all common law, statutory and terminate the Contract.

#### **B.21 FUNDS AVAILABLE AND AUTHORIZED**

If Owner fails to receive funding, appropriations, allocations or other expenditure authority as contemplated by Owner's budget and Owner determines, in its assessment and ranking of the policy objectives explicit or implicit in Owner's budget, Owner may other reserved rights, in addition to copyrights, are retained by Owner.

#### **B.22 NO THIRD PARTY BENEFICIARIES**

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

### **SECTION C WAGES AND LABOR**

#### **C.1 MINIMUM WAGE RATES ON PUBLIC WORKS**

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

#### **C.2 PAYROLL CERTIFICATION AND FEE REQUIREMENTS**

C.2.1 In accordance with ORS 279C.845, the Contractor and every Subcontractor shall submit written certified statements to the Owner, on the form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker which the Contractor or the Subcontractor has employed on the project and further certifying that no worker employed on the project has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the Contract, which certificate and statement shall be verified by the oath of the Contractor or the Subcontractor that the Contractor or Subcontractor has read the certified statement, that the Contractor or Subcontractor knows the contents of the certified statement, and, that to the Contractor's or Subcontractor's best knowledge and belief, the certified statement is true. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of

hours worked, deductions made, and actual wages paid. Certified statements for each week during which the Contractor or Subcontractor has employed a worker on the project shall be submitted once a month, by the fifth business day of the following month. The Contractor and Subcontractors shall preserve the certified statements for a period of ten (10) years from the date of completion of the Contract.

C.2.2 Pursuant to ORS 279C.845(7), the Owner shall retain 25 percent of any amount earned by the Contractor on this public works project until the Contractor has filed the certified statements required by section C.2.1. The Owner shall pay to the Contractor the amount retained under this subsection within 14 days after the Contractor files the required certified statements, regardless of whether a Subcontractor has failed to file certified statements. 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.2.3 In accordance with statutory requirements and administrative rules promulgated by the Commissioner of the Bureau of Labor and Industries, the fee required by ORS 279C.825(1) will be paid by Owner to the Commissioner.

### **C.3 PROMPT PAYMENT AND CONTRACT CONDITIONS**

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

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

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

C.3.1.3 Not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished. Contractor will not assign any claims that Contractor has against Owner, or assign any sums due by Owner, to Subcontractors, suppliers, or manufacturers, and will not make any agreement or act in any way to give Subcontractors a claim or standing to make a claim against the Owner.

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

C.3.2 As a condition to Owner's performance hereunder, if Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor of a Subcontractor by any person in connection with the project as such claim becomes due, the proper officer(s) representing the Owner may pay the claim and charge the amount of the payment against funds due or to become due Contractor under this Contract.

Payment of claims in this manner shall not relieve the Contractor or the Contractor's surety from obligation with respect to any unpaid claims.

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

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

### **C.4 PAYMENT FOR MEDICAL CARE**

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

### **C.5 HOURS OF LABOR**

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

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

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

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

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

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

**SECTION D  
CHANGES IN THE  
WORK**

**D.1 CHANGES IN WORK**

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

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

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

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

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

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

be utilized in establishing fixed pricing, and such mark-ups shall not be exceeded. Cost and price data relating to adjustments to or deletions from the Work shall be supplied by Contractor to Owner upon request, but Owner shall be under no obligation to make such requests.

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

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

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

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

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

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

- D.1.4 Any necessary adjustment of Contract Time that may be required as a result of adjustments to or deletions from the Work must be agreed upon by the parties before the start of the revised Work unless Owner authorizes Contractor to start the revised Work before agreement on Contract Time adjustment. Contractor shall submit any request for additional compensation (and additional Contract Time if Contractor was authorized to start Work before an adjustment of Contract Time was approved) as soon as possible but no later than thirty (30) Days after receipt of Owner's request for additional Work. Contractor agrees that this thirty (30) Day notice period is adequate time for it to request and document the amount of additional compensation or adjustment of Contract Time. If Contractor's request for additional compensation or adjustment of Contract Time is not made within the

thirty (30) Day time limit, Contractor agrees its requests pertaining to that additional Work shall be barred. The thirty (30) Day time limit for making requests shall not be extended for any reason, including without limitation Contractor's claimed inability to determine the amount of additional compensation or adjustment of Contract Time, unless an extension is granted in writing by Owner. If the Owner denies Contractor's timely request for additional compensation or adjustment of Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process. No other reimbursement, compensation, or payment will be made, except as provided in Section D.1.5 for impact claims.

- D.1.5 If any adjustment to Work under Section D.1.3 causes an increase or decrease in the Contractor's cost of, or the Contract Time required for the performance of any other part of the Work under this Contract, Contractor shall submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt of Owner's request for adjustments to or deletions from the Work by Contractor.

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

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

- D.1.6 Contractor agrees that no request or Claim for additional costs or an adjustment of Contract Time shall be allowed if made after receipt of Final Payment application under this Contract. Final Payment

application must be made by Contractor within the time required under Section E.6.4.

- D.1.7 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, unless and only to the extent otherwise provided in the Contract Documents, to the Contractor directly related to the number of changes. Each change will be evaluated for extension of Contract Time and increase or decrease in compensation based on its own merit.

## **D.2 DELAYS**

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

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

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

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

- (a) To the extent caused by any actions of the Owner, or any other employee or agent of the Owner, or by separate contractor employed by the Owner.
- (b) To the extent caused by any site conditions that differ materially from what was represented in the Contract Documents or from conditions that would normally be expected to exist and be inherent to the construction activities defined in the Contract Documents. The Contractor agrees to notify the Owner immediately of differing site conditions before the area has been disturbed. The Owner will investigate the area and make a determination as to whether the conditions differ materially from either the conditions stated in the Contract Documents or those that could reasonably be expected in execution of this particular Contract. If Contractor and the Owner agree that a differing site condition exists, any adjustment to compensation or Contract Time will be determined based on the process set forth in Section D.1.5 for adjustments to or deletions from Work. If the Owner disagrees that a differing site

condition exists and denies Contractor's request for additional compensation or Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

- (c) To the extent caused by Force Majeure acts, events or occurrences that could not have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors.
- (d) To the extent caused by adverse weather conditions. Any adverse weather conditions must be substantiated by documentary evidence that weather conditions were abnormal for the specific time period claimed, could not have been anticipated by the Contractor, and adversely impacted the Project in a manner that could not be avoided by rescheduling the Work or by implementing measures to protect against the weather so that the Work could proceed. A rain, windstorm, high water, or other natural phenomenon for the specific locality of the Work, which might reasonably have been anticipated from the previous 10-year historical records of the general locality of the Work, shall not be construed as abnormal. The parties agree that rainfall greater than the following levels cannot be reasonably anticipated:

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

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

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

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

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

In the event of any requests for additional compensation or additional Contract Time, or both, as applicable, arising under this Section D.2.3 for Unavoidable Delays, other than requests for additional compensation or additional Contract Time for differing site conditions for which a review process is established under Section D.2.1.2 (b), Contractor must submit a written notification of the delay to the Owner within two (2) Days of the occurrence of the cause of the delay. This

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

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

### **D.3 CLAIMS REVIEW PROCESS**

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

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

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

recommend approval of all or part of the Claim; or  
(5) propose an alternate resolution.

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

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

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

D.3.6 Should the parties arrive at an impasse regarding any Claims or disputed Claims, it is agreed that the parties shall participate in mediation as specified in Section D.3.5. The mediation process will be considered to have been commenced as of the date one party delivers to the other its request in writing to mediate. The mediator shall be an individual mutually acceptable to both parties, but in the absence of agreement each party shall select a temporary mediator and the temporary mediators shall jointly select the permanent mediator. Each party shall pay its own costs for the time and effort involved in mediation. The cost of the mediator shall be split equally between the two parties. Both parties agree to exercise their best effort in good faith to resolve all disputes in mediation. Participation in mediation is a mandatory requirement of both the Owner and the Contractor. The schedule, time and place for mediation will be mutually acceptable, or, failing mutual agreement, shall be as established by the mediator. The parties agree to comply with Owner's administrative rules governing the confidentiality of mediation, if any, and shall execute all necessary documents to give effect to such confidentiality rules. In any event, the parties shall not subpoena the mediator or otherwise require the mediator to produce records, notes or work product, or to testify in any future proceedings as to information disclosed or representations made in the course of mediation, except to the extent disclosure is required by law.

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

## **SECTION E PAYMENTS**

### **E.1 SCHEDULE OF VALUES**

The Contractor shall submit, at least ten (10) Days prior to submission of its first application for progress payment, a schedule of values ("Schedule of Values") for the contracted Work. This schedule shall provide a breakdown of values for the contracted Work and will be the basis for progress payments. The breakdown shall demonstrate reasonable, identifiable, and measurable components of the Work.

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

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

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

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

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

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

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

E.2.2 .2 Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing payments for materials and labor including payments to Subcontractors. Contractor shall include in its application for payment a schedule of the percentages of the various parts of the Work completed, based on the Schedule of Values which shall aggregate to the payment application total, and shall include, on the face of each copy thereof, a certificate in substantially the following form:

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

Signed: \_\_\_\_\_  
Dated: \_\_\_\_\_"

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

- (a) The request for stored material shall be submitted at least thirty (30) Days in advance of the application for payment on which it appears. Applications for payment shall be entertained for major equipment, components or expenditures only.
- (b) The Contractor shall submit applications for payment showing the quantity and cost of the material stored.
- (c) The material shall be stored in a bonded warehouse and Owner shall be granted the right to access the material for the purpose of removal or inspection at any time during the Contract Period.
- (d) The Contractor shall name the Owner as co-insured on the insurance policy covering the full value of the property while in the care and custody of the Contractor until it is installed. A certificate noting this coverage shall be issued to the Owner.
- (e) Payments shall be made for materials and equipment only. The submitted amount in the application for payment shall be reduced by the cost of transportation from the storage site to the project site and for the cost of an inspector to verify delivery and condition of the goods at the storage site. The cost of storage and inspection shall be borne solely by the Contractor.
- (f) Within sixty (60) Days of the application for payment, the Contractor shall submit evidence of

payment covering the material and/or equipment stored and of payment for the storage site.

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

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

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

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

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

- (a) Take that portion of the Contract Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Price allocated to that portion of the Work in the Schedule of Values, less retainage as provided in Section E.5. Pending final determination of cost to the Owner of changes in the Work, no amounts for changes in the Work can be included in applications for payment until the Contract Price has been adjusted by an Amendment or 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 has withheld or nullified payment as provided in the Contract Documents.

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

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

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

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

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

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

### **E.4 DUAL PAYMENT SOURCES**

Contractor shall not be compensated for Work performed

under this Contract from any state agency other than the agency that is a party to this Contract.

### **E.5 RETAINAGE**

E.5.1 Retainage shall be withheld and released in accordance with the requirements set forth in OSU Standard 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 discretion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed at Owner's sole discretion and only upon written application by the Contractor, which application shall include written approval of Contractor's surety; except that when the Work is 97-1/2 percent completed the Owner may, at its discretion and without application by the Contractor, reduce the retained amount to 100 percent of the value of the Work remaining to be done. Upon receipt of written application by the Contractor, Owner shall respond in writing within a reasonable time.

E.5.1.2 Contractor may request in writing:

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

When the Owner has accepted the Contractor's election of option

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

E. 5.1.3 The retainage held by Owner shall be included in and paid to the Contractor as part of the Final Payment of the Contract Price. The Owner shall pay to Contractor interest at the rate of two-thirds of one percent per month on the final payment due Contractor, interest to commence forty-five (45) Days after the date which Owner receives Contractor's final approved application



for payment and Work under the Contract has been completed and accepted and to run until the date when final payment is tendered to Contractor. The Contractor shall notify Owner in writing when the Contractor considers the Work complete and deliver to Owner its final application for payment and Owner shall, within fifteen (15) Days after receiving the written notice and the application for payment, either accept the Work or notify the Contractor of Work yet to be performed on the Contract. If Owner does not within the time allowed notify the Contractor of Work yet to be performed to fulfill contractual obligations, the interest provided by this subsection shall commence to run forty-five (45) Days after the end of the 15- Day period.

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

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

## **E.6 FINAL PAYMENT**

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

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

required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

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

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

## **SECTION F JOB SITE CONDITIONS**

### **F.1 USE OF PREMISES**

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

### **F.2 PROTECTION OF WORKERS, PROPERTY AND THE PUBLIC**

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

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

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

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

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

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

### **F.3 CUTTING AND PATCHING**

F.3.1 Contractor shall be responsible for coordinating all cutting, fitting, or patching of the Work to make its several parts come together properly and fit to receive or be received by work of other contractors or Subcontractors shown upon, or reasonably implied by, the Contract Documents.

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

### **F.4 CLEANING UP**

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

### **F.5 ENVIRONMENTAL CONTAMINATION**

F.5.1. Contractor shall be held responsible for and shall indemnify, defend (with counsel of Owner's choice), and hold harmless Owner from and against any costs, expenses, damages, claims, and causes of action, (including attorneys' fees), or any of them, resulting from

all spills, releases, discharges, leaks and disposal of environmental pollution, including storage, transportation, and handling during the performance of the Work or Contractor's obligations under the Contract which occur as a result of, or are contributed by, the negligence or actions of Contractor or its personnel, agents, or Subcontractors or any failure to perform in accordance with the Contract Documents (except to the extent otherwise void under ORS 30.140). Nothing in this section F.5.1 shall limit Contractor's responsibility for obtaining insurance coverages required under Section G.3 of this Contract, and Contractor shall take no action that would void or impair such coverages.

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

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

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

F.5.2 Contractor shall report all reportable quantity releases, as such releases are defined in Applicable Laws, including but not limited to 40 CFR Part 302, Table 302.4 and in OAR 340-142- 0050, to applicable federal, state, and local regulatory and emergency response agencies. Upon discovery, regardless of quantity, Contractor must telephonically report all releases to the Owner. A written follow-up report shall be submitted to Owner within 48 hours of the telephonic report. Such written report shall contain, as a minimum:

- (a) Description of items released (identity, quantity, manifest numbers, and any and all other documentation required by law.)
- (b) Whether amount of items released is EPA/DEQ reportable, and, if so, when reported.
- (c) Exact time and location of release, including a description of the area involved.
- (d) Containment procedures initiated.
- (e) Summary of communications about the release between Contractor and members of the press or Stat, local or federal officials other than

Owner.

- (f) Description of cleanup procedures employed or to be employed at the site, including disposal location of spill residue.
- (g) Personal injuries, if any, resulting from, or aggravated by, the release.

#### **F.6 ENVIRONMENTAL CLEAN-UP**

- F.6.1 Unless disposition of environmental pollution is specifically a part of this Contract, or was caused by the Contractor (reference F.5 Environmental Contamination), Contractor shall immediately notify Owner of any hazardous substance(s) which Contractor discovers or encounters during performance of the Work required by this Contract. "Hazardous substance(s)" means any hazardous, toxic and radioactive materials and those substances defined as "hazardous substances," "hazardous materials," "hazardous wastes," "toxic substances," or other similar designations in any federal, state, or local law, regulation, or ordinance, including without limitation asbestos, polychlorinated biphenyl (PCB), or petroleum, and any substances, materials or wastes regulated by 40 CFR, Part 261 and defined as hazardous in 40 CFR S 261.3. In addition to notifying Owner of any hazardous substance(s) discovered or encountered, Contractor shall immediately cease working in any particular area of the project where a hazardous substance(s) has been discovered or encountered if continued work in such area would present a risk or danger to the health or well-being of Contractor's or any Subcontractor's work force, property or the environment.
- F.6.2 Upon being notified by Contractor of the presence of hazardous substance(s) on the project site, Owner shall arrange for the proper disposition of such hazardous substance(s).

#### **F.7 FORCE MAJEURE**

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

### **SECTION G INDEMNITY, BONDING, AND INSURANCE**

#### **G.1 RESPONSIBILITY FOR DAMAGES / INDEMNITY**

- G.1.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under this Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, sub-subcontractors of any tier, suppliers, employees, guests, visitors, invitees and agents.
- G.1.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner, Architect/Engineer, Architect/Engineer's consultants, and their respective

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

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

#### **G.2 PERFORMANCE AND PAYMENT SECURITY; PUBLIC WORKS BOND**

- G.2.1 When the Contract Price is \$100,000 or more (or \$50,000 or more in the case of Contracts for highways, bridges and other transportation projects), the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents.
- G.2.2 Bond forms furnished by the Owner and notarized by awarded Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.
- G.2.3 Before execution of the Contract the Contractor shall file with the Construction Contractors Board, and maintain in full force and effect, the separate public works bond required by Oregon Laws 2015, Chapter 279C, and OAR 839-025-0015, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the

Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

### **G.3 INSURANCE**

G.3.1 Primary Coverage: Insurance carried by Contractor and Subcontractors under this Contract shall be the primary coverage. 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 the minimum amount required by statute 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 coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

G.3.3 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 forms, including earthquake and flood, for an amount equal to the full amount of the Contract, plus any changes in values due to modifications, Change Orders and loss of materials added. Such Builder's Risk shall include, in addition to earthquake and flood, theft, vandalism, mischief, collapse, transit, debris removal, and architect's fees "soft costs" associated with delay of project due to insured peril. Any deductible shall not exceed \$50,000 for each loss, except the earthquake and flood deductible which shall not exceed 2 percent of each loss or \$50,000, whichever is greater. The deductible shall be paid by Contractor if Contractor or its Subcontractors are negligent. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear.

G.3.3.2 Builder's Risk Installation Floater: For Work other than new construction, Contractor shall obtain and keep in effect during the term of this Contract, a Builder's Risk Installation Floater for coverage of the Contractor's labor, materials and equipment to be used for completion of the Work performed under this Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contract. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear. Owner may waive this requirement at their sole and absolute discretion.

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

G.3.3.4 Loss insured under the Builder's Risk insurance shall be adjusted by the Owner and made payable to the

Owner as loss payee. 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 of any tier in similar manner. The Owner shall have power to adjust and settle a loss with insurers.

G.3.4 General Liability Insurance:

G.3.4.1 Commercial General Liability: Upon issuance of a Contract, Contractor shall obtain, and keep in effect at Contractor's expense for the term of the Contract, Commercial General Liability Insurance covering bodily injury and property damage in the amount of \$1,000,000 per claim and \$2,000,000 per occurrence in a form satisfactory to Owner. This insurance shall include personal injury liability, products and completed operations, no subcontractors' limitations, and blanket contractual liability coverage for the indemnities 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.

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, 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 \$1,000,000 per claim and \$2,000,000 per occurrence. Contractor and its Subcontractors shall be responsible for ensuring that all non-owned vehicles maintain adequate Automobile Liability insurance while on site.

G.3.4.3 Owner may adjust the insurance amounts required in Section G.3.4.1 and G.3.4.2 based upon institution specific risk assessments through the issuance of Supplemental General Conditions and a Contract.

G.3.4.4 "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 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this Contract. Owner's receipt of the policy endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).

G.3.4.5: Umbrella Liability: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Umbrella liability Insurance over and above the general liability, automobile liability and workers' compensation coverage if required by Owner in specified limits at time of requirement.

G.3.4.6 Pollution Liability (if required by Owner through issuance of Supplemental General Conditions): Contractor shall obtain, at Contractor's expense, and

keep in effect during the term of this Contract, Pollution liability Insurance in minimum amounts of \$3,000,000 naming Owner as "additional insured," as noted in the "additional insured section below.

- G.3.5 Additional Insured: The general liability insurance coverage, professional liability, umbrella, and pollution liability if required, shall include the Owner as additional insureds but only with respect to the Contractor's activities to be performed under this Contract, and shall include completed operations coverage.

If Contractor cannot obtain an insurer to name the Owner 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 Owner as additional insureds with not less than a \$2,000,000 limit per occurrence. This policy must be kept in effect for at least 36 months following Final Completion. As evidence of coverage, Contractor shall furnish the actual policy to Owner prior to execution of the Contract.

- G.3.6 Notice of Cancellation or Change: If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to this Contract, unless all required insurance remain in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner and its institutions, divisions, officers, and employees.

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

- G.3.7 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 for this contract. Insurance coverage required under this Contract shall be obtained from insurance companies or entities acceptable to the Owner and that are eligible 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 conduct an insurance business and issue policies of insurance in the state of Oregon, and certain non-admitted surplus lines insurers that satisfy the requirements of applicable Oregon law and which are subject to approval by the Owner. 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 subject to approval by the Owner in writing and shall be a condition precedent to the effectiveness of any Contract. The Owner has the right to require the Contractor at any time during the performance of the Work to furnish to Owner copies of the Contractor's actual policies.

## **SECTION H SCHEDULE OF WORK**

### **H.1 CONTRACT PERIOD**

- H.1.1 Time is of the essence. The Contractor shall at all times carry on the Work diligently, without delay and punctually fulfill all requirements herein. If required by the Contract Documents, Contractor shall commence Work on the site within fifteen (15) Days of Notice to Proceed, unless directed otherwise.
- H.1.2 Unless specifically extended by an Amendment or 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 provisions of Section D.1.
- H.1.3 The Owner shall not waive any rights under the Contract by permitting the Contractor to continue or complete in whole or in part the Work after the date described in Section H.1.2 above.

### **H.2 SCHEDULE**

- H.2.1 Contractor shall provide, by or before the pre-construction conference, the initial as-planned Construction Schedule for review and acceptance by the Owner. The submitted Construction Schedule must illustrate Work by project components, labor trades, and long lead items broken down by building and/or floor where applicable. If Owner shall so elect, Contractor shall provide the Construction Schedule in CPM format showing the graphical network of planned activities, including i) a reasonably detailed list of all activities required to complete the Work; ii) the time and duration that each activity will take to completion; and iii) the dependencies between the activities. Construction Schedules lacking adequate detail, or unreasonably detailed, will be rejected. The Construction Schedule shall include the following: Notice to Proceed or the date the Work commences, if no Notice to Proceed is issued by Owner, Substantial Completion, and Final Completion. Construction Schedules shall be updated monthly, unless otherwise required by the Contract Documents, and submitted with the monthly application for payment. Acceptance of the Construction Schedule by the Owner does not constitute agreement by the Owner as to the Contractor's sequencing, means, methods, or durations. Any positive difference between the Contractor's scheduled completion and the Contract completion date is float owned by the 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, whether incorporated in the Work or not. Removal and replacement shall be without loss or expense to the Owner, and Contractor shall bear the cost of repairing all Work destroyed or damaged by such removal or replacement. Contractor shall be allowed a period of no longer than thirty (30) Days after Substantial Completion for completion of defective (Punch List) work. At the end of the thirty-day period, or earlier if requested by the Contractor, Owner shall arrange for inspection of the Work by the Architect/Engineer. Should the work not be complete, and all corrections made, the costs for all subsequent re-inspections shall be borne by the Contractor. If Contractor fails to complete the Punch List work within the thirty (30) Day period, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand without affecting Contractor's obligations.

**I.2 WARRANTY WORK**

I.2.1 Neither the final certificate of payment nor any provision of the Contract Documents shall relieve the Contractor from responsibility for defective Work and, unless a longer period is specified, Contractor shall correct all defects that appear in the Work within a period of one year from the date of issuance of the written notice of Substantial Completion by the Owner except for latent defects which will be remedied by the Contractor at any time they become apparent. The Owner shall give Contractor notice of defects with reasonable promptness. The Contractor shall perform the warranty Work by correcting defects within twenty-four (24) hours of

notification by Owner, unless otherwise specified in the Contract Documents. Should the Contractor fail to respond within the specified response time, the Owner may, at its option, complete the necessary repairs using another contractor or its own forces. If Owner completes the repairs using Owner's own forces, Contractor shall pay Owner at the rate of one and one-half (1½) times the standard hourly rate of Owner's forces, plus related overhead and any direct non-salary costs. If Owner completes the repairs using another contractor, Contractor shall pay Owner the amount of Owner's direct costs billed by the other contractor for the work, plus the direct salary costs and related overhead and direct non-salary expenses of Owner's forces who are required to monitor that contractor's work. Work performed by Owner using Owner's own forces or those of another contractor shall not affect the Contractor's contractual duties under these provisions, including warranty provisions. In the event of warranty work consisting of emergency repairs, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand, without affecting Contractor's obligations.

I.2.2 Nothing in this Section I.2 provision shall negate guarantees or warranties for periods longer than one year including without limitation such guarantees or warranties required by other sections of the Contract Documents for specific installations, materials, processes, equipment or fixtures.

I.2.3 In addition to Contractor's warranty, manufacturer's warranties shall pass to the Owner and shall not take effect until such portion of the Work covered by the applicable warranty has been accepted in writing by the Owner.

I.2.4 The one-year period for correction of Work shall be extended with respect to portions of Work performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work, and shall be extended by corrective Work performed by the Contractor pursuant to this Section, as to the Work corrected. The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

I.2.5 Nothing contained in this Section I.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the period for correction of Work as described in this Section I.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

I.2.6 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Price will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

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

**J.1 OWNER'S RIGHT TO SUSPEND THE WORK**

J.1.1 The Owner has the authority to suspend portions or all of the Work due to the following causes:

- (a) Failure of the Contractor to correct unsafe conditions;
- (b) Failure of the Contractor to carry out any provision of the Contract;
- (c) Failure of the Contractor to carry out orders;
- (d) Conditions, in the opinion of the Owner, which are unsuitable for performing the Work;
- (e) Time required to investigate differing site conditions;
- (f) Any reason considered to be in the public interest.

J.1.2 The Owner shall notify Contractor and the Contractor's Surety in writing of the effective date and time of the suspension, and Owner shall notify Contractor and Contractor's surety in writing to resume Work.

**J.2 CONTRACTOR'S RESPONSIBILITIES**

J.2.1 During the period of the suspension, Contractor is responsible to continue maintenance at the project just as if the Work were in progress. This includes, but is not limited to, protection of completed Work, maintenance of access, protection of stored materials, temporary facilities, and clean-up.

J.2.2 When the Work is recommenced after the suspension, the Contractor shall replace or renew any Work damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete the project in every respect as though its prosecution had been continuous and without suspension.

**J.2.3 COMPENSATION FOR SUSPENSION**

**J.2.4**

J.2.1 Depending on the reason for suspension of the Work, the Contractor or the Owner may be due compensation by the other party. If the suspension was required due to acts or omissions of Contractor, the Owner may assess the Contractor actual costs of the suspension in terms of administration, remedial work by the Owner's forces or another contractor to correct the problem associated with the suspension, rent of temporary facilities, and other actual costs related to the suspension. If the suspension was caused by acts or omissions of the Owner, the Contractor may be due compensation which shall be defined using Section D, Changes in Work. If the suspension was required through no fault of the Contractor or the Owner, neither party shall owe the other for the impact.

**J.4 OWNER'S RIGHT TO TERMINATE CONTRACT**

J.4.1 The Owner may, without prejudice to any other right or

remedy, and after giving Contractor seven (7) Days' written notice and an opportunity to cure, terminate the Contract in whole or in part under the following conditions:

- (a) If Contractor should, voluntarily or involuntarily, seek protection under the United States Bankruptcy Code and Contractor as debtor-in-possession or the Trustee for the estate fails to assume the Contract within a reasonable time;
- (b) If Contractor should make a general assignment for the benefit of Contractor's creditors;
- (c) If a receiver should be appointed on account of Contractor's insolvency;
- (d) If Contractor should repeatedly refuse or fail to supply an adequate number of skilled workers or proper materials to carry on the Work as required by the Contract Documents, or otherwise fail to perform the Work in a timely manner;
- (e) If Contractor should repeatedly fail to make prompt payment to Subcontractors or for material or labor, or should disregard laws, ordinances or the instructions of the Owner; or
- (f) If Contractor is otherwise in breach of any part of the Contract.
- (g) If Contractor is in violation of Applicable Laws, either in the conduct of its business or in its performance of the Work.

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

**J.5 TERMINATION FOR CONVENIENCE**

J.5.1 Owner may terminate the Contract in whole or in part whenever Owner determines that termination of the Contract is in the best interest of Owner or the public.

The Owner shall provide the Contractor with seven (7) Days prior written notice of a termination for Owner's or for public convenience. After such notice, the Contractor shall provide the Owner with immediate and peaceful possession of the premises and materials located on and off the premises for which the Contractor received progress payment under Section E. Compensation for Work terminated by the Owner under this provision will be according to Section E. In no circumstance shall Contractor be entitled to lost profits for Work not performed due to termination.

**J.6 ACTION UPON TERMINATION**

J.6.1 Upon receiving a notice of termination, and except as directed otherwise by the Owner, Contractor shall immediately cease placing further subcontracts or orders for materials, services, or facilities. In addition, Contractor shall terminate all subcontracts or orders to the extent they

relate to the Work terminated and, with the prior written approval of the Owner, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts and orders.

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

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

## **SECTION K CONTRACT CLOSE OUT**

### **K.1 RECORD DOCUMENTS**

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

### **K.2 OPERATION AND MAINTENANCE MANUALS**

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

### **K.3 COMPLETION NOTICES**

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

must be signed by the Contractor and the Owner to be valid. The Owner shall provide the final signature on the notices. The notices shall take effect on the date they are signed by the Owner.

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

### **K.4 TRAINING**

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

### **K.5 EXTRA MATERIALS**

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

### **K.6 ENVIRONMENTAL CLEAN-UP**

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

### **K.7 CERTIFICATE OF OCCUPANCY**

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

### **K.8 OTHER CONTRACTOR RESPONSIBILITIES**

The Contractor shall be responsible for returning to the



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

**K.9 SURVIVAL**

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

EXHIBIT D

# **OREGON STATE UNIVERSITY**

## **SUPPLEMENTAL GENERAL CONDITIONS**

**To The**

### **PUBLIC IMPROVEMENT GENERAL CONDITIONS**

**Project Name: NASH HALL ELEVATORS – NEW & MODERNIZATION**

**The following modify the June 30, 2017 Oregon State University General Conditions (“OSU Public Improvement General Conditions”) for this Contract. Where a portion of the OSU General Conditions is modified by these Supplemental General Conditions, the unaltered portions shall remain in effect.**

SG-1 Section B.4 is modified as follows: Revise to read:

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

SG-2 Section F.2.4 is modified as follows: Add the following:

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

SG-3 Section H.2.1 is replaced with the following:

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

EXHIBIT E

**OREGON STATE UNIVERSITY**

**PERFORMANCE BOND**

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

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

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

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

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

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

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

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

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

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

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

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

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL:** \_\_\_\_\_

By \_\_\_\_\_

Signature

\_\_\_\_\_  
Official Capacity

Attest: \_\_\_\_\_

Corporation Secretary

**SURETY:** \_\_\_\_\_

*[Add signatures for each surety if using multiple bonds]*

**BY ATTORNEY-IN-FACT:**

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

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Fax

**OREGON STATE UNIVERSITY**

**PAYMENT BOND**

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

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

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

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

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

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

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



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

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

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

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

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL:** \_\_\_\_\_

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Official Capacity

Attest: \_\_\_\_\_  
Corporation Secretary

**SURETY:** \_\_\_\_\_

*[Add signatures for each if using multiple bonds]*

**BY ATTORNEY-IN-FACT:**

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

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Phone Fax

EXHIBIT F

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

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



EXHIBIT G

Specifications are available at the OSU Planroom (<https://www.osuplanroom.com/>) under Public Jobs

EXHIBIT H

Plans are available at the OSU Planroom (<https://www.osuplanroom.com/>) under Public Jobs

EXHIBIT I



Engineering +  
Environmental

# Asbestos Survey Report

Nash Hall  
2820 SW Campus Way  
Corvallis, OR 97330

Prepared for:

Oregon State University

General Information	1.1
Inspection Summary	1.2
Asbestos Survey Drawings	2.1
Sample Inventories	3.1
Laboratory Data	Not Numbered
AHERA Certificates	Not Numbered

**March 2008**  
**Project No.: 51412.002**

2645 Willamette Street #A, Eugene, OR 97405  
541.686.8684 Main  
541.686.4602 Fax  
888.968.8684 Toll-Free

[www.pbsenv.com](http://www.pbsenv.com)



**GENERAL INFORMATION****BUILDING DATA**

Nash Hall  
2820 SW Campus Way  
Corvallis, OR 97330

**CLIENT DATA**

Oregon State University  
Adams Hall, 130 Oak Creek Building  
Corvallis, OR 97330

**Year Built:** Late 1960's

**Square Footage:** 102,425 SF

**Construction Information:** Lift slab construction, flat built-up roof, flat membrane roof, brick exterior.

**SURVEY SCOPE**

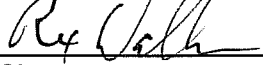
PBS Engineering + Environmental (PBS) has performed a general asbestos survey of accessible building areas in accordance with OSHA in 29 CFR 1910.1001 and compiled a report with the following information:

- The type, location and approximate quantity of suspect asbestos-containing materials
- Bulk sampling of selected suspect building materials
- Laboratory analytical data of bulk materials sampled

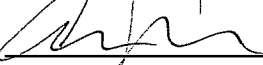
PBS endeavored to locate all the suspect asbestos-containing materials in the building; however, suspect asbestos-containing materials may be present concealed within wall, ceiling, or floor spaces. If suspect materials are uncovered during demolition activities that are not identified in this report, testing should be performed prior to impact.

PBS has conducted a physical inspection of the building, compiled this report consistent with the survey scope, and certifies that the information is correct and accurate within the standards of professional quality and contractual obligations.

Rex Wallace  
RG, Director of Operations, Eugene  
Accreditation # IR-07-8647

  
\_\_\_\_\_  
Signature                      Date      3/7/08

Adam Jones  
Prime Inspector  
Accreditation # IMR-07-4640A

  
\_\_\_\_\_  
Signature                      Date      3-7-08

**INSPECTION SUMMARY**

<b>DATES</b>	<b>SURVEYED BY</b>	<b>ACTIVITY</b>
2/12/2008	Adam S. Jones	Suspect Material Inventory
2/16/2008	Adam S. Jones	Suspect Material Inventory
2/19/2008	Adam S. Jones	Bulk Sample Collection

PBS has investigated accessible areas inside of the building(s) to locate suspect asbestos-containing materials (ACM). Suspect materials may be present in concealed areas (e.g. behind walls and under carpet). The findings are listed below.

**ASBESTOS MATERIALS**

The following materials either tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled may contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.  
(+) Tested Positive, (M) Mixed Results, (P) Presumed Positive, (T) Previously Tested Positive.

<b>Result</b>	<b>Material (type)</b>	<b>Location</b>	<b>Approx. Quantity</b>
(+)	Vinyl Floor Tile, 9" X 9" Beige / Mastic, Black (1)	Hallways on the first floor through the fifth floors. Vinyl floor tile & associated mastic are asbestos-containing.	15,850 SF
(+)	Vinyl Floor Tile, 9" X 9" Tan / Mastic, Black (2)	Offices, classrooms, and some labs in the basement and the first through fifth floors. Vinyl floor tile and associated mastic are asbestos-containing.	21,250 SF
(+)	Vinyl Floor Tile, 9" X 9" Grey / Mastic, Black (3)	Stairway landings from the basement to the sixth floor of the east stairwell and from the first floor to the sixth floor in the south stairwell. Vinyl floor tile and associated mastic are asbestos-containing.	1,400 SF
(+)	Vinyl Floor Tile, 12" X 12" Light Grey / Mastic, Black (4)	Rooms 134, 502D, & the elevator. The floor tile does not contain asbestos; however, the mastic received mixed results and is considered asbestos-containing.	535 SF
(M)	Floor Tile Mastic, Black	Beneath Vinyl Floor Tile (1-3). Remnant mastic was observed on other flooring materials. Specific mastic locations are unknown.	UNKNOWN
(+)	Sheet Vinyl Flooring, Dark Tan Mosaic / Mastic, Yellow (1)	First floor in L102 & room 102. Sheet vinyl flooring and associated mastic are asbestos-containing.	265 SF

**INSPECTION SUMMARY**

(+)	Sheet Vinyl Flooring, Tan Mosaic / Mastic, Yellow (3)	Rooms 222, 224, 350, 352, 412, 418, 428, 516, 526, & 528. Sheet vinyl flooring & associated mastic are asbestos-containing.	11,750 SF
(+)	Sheet Vinyl Flooring, Green Mosaic / Mastic, Yellow (4)	Rooms 450, 452, 552, & 554. Sheet vinyl flooring does not contain asbestos, but is contaminated with asbestos-containing mastic.	4,800 SF
(+)	Vinyl Stair Riser, Black / Mastic, Brown	The brown mastic behind the vinyl stair risers in both stairwells from the basement through the sixth floor is asbestos-containing.	750 SF
(+)	Vinyl Stair Base, Black / Mastic, Brown	The brown mastic behind the vinyl stair risers in both stairwells is asbestos-containing.	75 LF
(+)	Vinyl Stairtread, Grey / Mastic, Brown	The brown mastic beneath the vinyl stairtreads in both stairwells from the basement through the sixth floor is asbestos-containing.	1,110 SF
	Carpet Mastic, Orange (3)	This material was exposed in room 556 at the time of the site work. This material may be present beneath other carpets throughout the building. This material contains <1% asbestos. The indicated quantity includes exposed material only.	135 SF
(+)	Covebase, Various Colors / Mastic, Brown	The brown mastic behind all covebase throughout the building is asbestos-containing.	NOT QUANTIFIED
(+)	Lay-in Ceiling Tile, Brown / Mastic, Grey (2)	This material was observed within room 008A. The ceiling tile does not contain asbestos, but it is glued to the grid with asbestos containing mastic.	110 SF
(+)	Sealant, Beige (1)	Between the exterior metal panels on the mechanical room penthouse on the sixth floor.	4,000 LF

**INSPECTION SUMMARY**

(T)	Pipe Fitting Insulation	The original pipe fitting insulation throughout the building is asbestos-containing. This material was observed near the ceiling exposed in some areas, and is presumed to be present above the suspended ceilings throughout. Much abatement has been conducted throughout the building since the original survey was conducted in 1990. The indicated quantity includes pipe fitting insulation that is exposed in public areas and mechanical spaces. Concealed pipe fitting insulation was not quantified. Pipe fitting insulation was observed on pipe fitting ranging from 3/4" diameter to 12" diameter and larger throughout the building.	500 EA
(T)	Tank Insulation	On tank by the ceiling in the southwest corner of room 174.	52 SF
(P)	Chemical Proof Window Sill	Window sills throughout the building. The associated mastic is presumed to contain asbestos. Each window sill is 2 square feet.	165 EA
(P)	Lab Counter Top (1)	Various locations throughout the building. This material was used for table tops, reagent racks, and glassware racks.	NOT QUANTIFIED
(P)	Cement Asbestos Board	Within some fume hoods in lab areas throughout the building. The quantity indicated is per fume hood. Typical square footage is between 50 - 80 square feet.	23 EA
(P)	Chalkboard / Mastic	The chalkboards and associated mastic throughout the building are presumed to contain asbestos.	NOT QUANTIFIED
(P)	Mechanical Isolation Cloth	On various HVAC units throughout the building.	NOT QUANTIFIED

**INSPECTION SUMMARY****MATERIALS WHICH TESTED NEGATIVE FOR ASBESTOS**

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact through demolition, renovation, etc.

<b><u>Material (type)</u></b>	<b><u>Location</u></b>
Carpet Mastic, Beige (2)	Beneath carpet in various locations.
Carpet Mastic, Yellow (1)	Beneath carpet in various locations.
Corkboard / Mastic	Wall surfaces in the hallways on all floors of the building.
Duct Insulation, Silver (2)	Observed in classrooms, labs, and mechanical spaces with no suspended ceiling. This material is assumed to be throughout the building.
Glued-on Ceiling Tiles / Mastic (1)	Ceiling above the landings in the stairwells from the first floor through the sixth floor. Ceilings throughout the east stairwell above landings and stairways from the basement through the first floor.
Gypsum Board / Joint Compound / Splatter Texture (1)	Room 008 east wall.
Gypsum Board / Joint Compound / Smooth Texture (2)	Room 104 bisecting wall on both sides.
Lab Counter Top, Black (Tan Core) (2)	This material was observed as replacement countertops sporadically throughout the building.
Lay-in Ceiling Tile, 2' X 4' Fissured & Stippled (3)	Rooms 104, 130, & 252. This material was observed as a replacement ceiling tile intermixed with Lay-in Ceiling Tile (1) as a replacement tile.
Lay-in Ceiling Tile, 2' X 4' Random Holes (1)	Original ceiling tile located throughout the building.
Lay-in Ceiling Tile, 2' X 4' Stippled and Scarified (4)	Room 108.
Plaste, White Sandy, Troweled Texture / Gypsum Board (2)	Room 114 north wall, and walls throughout room 230.
Plaster, Grey Sandy (1)	Exterior plaster. On soffits and the entry to the south stairwell throughout all floors.
Plaster, White Sandy, Sand Texture / Gypsum Board (1)	Original interior plaster. All original interior walls throughout the building.
Poured Flooring, Brown, Beige, & White (2)	Room 012.
Poured Flooring, Fine-Grained Green (5)	Room 180A.
Poured Flooring, Grey Sanded (6)	Room 430 and the entry to room 430.

**INSPECTION SUMMARY**

Poured Flooring, Light Brown, Dark Brown, & Beige (3)	Rooms 110, 112, 124, 128, 208, 408, 504, & 522.
Poured Flooring, Olive, Turquoise, & Beige (1)	Flooring in rooms 024, 026, 030, 046, 144, 236, 256, 264, 332, 340, 440, 456, 501, 502, 502A, 502B, 502C, & 512.
Poured Flooring, Turquoise & Yellow (4)	Rooms 106 & 306.
Sheet Vinyl Flooring, Brown Faux Wood / Mastic, Beige (5)	Room 404 by the sink.
Sheet Vinyl Flooring, Grey & Blue Mosaic / Mastic, White (2)	Rooms 406, 414, 416, 416A, & 514.
Sheet Vinyl Flooring, Grey Mosaic / Mastic, Tan (6)	Rooms 518, 520, & 550.
Textured Paint, Tan (1)	walls from 4' to the floor throughout all restrooms.
Textured Paint, White & Black (2)	Ceilings in lab areas throughout the building.
Vinyl Floor Tile, 12" X 12" Beige with Brown Streaks / Mastic, Orange (6)	Room 142.
Vinyl Floor Tile, 12" X 12" Tan / Mastic, Orange (7)	Room 212.
Vinyl Floor Tile, 12" X 12" White / Mastic, Yellow (8)	Room 324 in the southeast corner.
Window Glazing Compound, White	Between the window frames and glass throughout all windows.

## INSPECTION SUMMARY

Nash Hall is a five story building with a full basement and roof penthouse. The building is lift slab constructed, with CMU and red brick exterior walls, a flat membrane roof on the north portion and the penthouse, and a flat built-up roof on the south portion. Nash Hall is approximately 102,000 square feet total and was constructed in the late 1960's.

PBS Engineering + Environmental inspected all accessible areas within the building for the presence of asbestos-containing building materials. Spaces accessed include laboratories, classrooms, faculty and graduate offices, and mechanical rooms throughout the building. PBS did not check above suspended ceiling systems or within walls, nor was limited demolition performed to gain access to concealed materials. The membrane roofing over the north portion of the roof and the penthouse roof was not sampled. The built-up roof over the south portion of the building was inaccessible due to fume hood exhaust and was not inspected.

PBS was provided with a previous asbestos survey report conducted by PSI in October of 1990. The PSI survey included bulk sampling of thermal systems insulation materials, ceiling tiles, and spray applied fireproofing. PBS relied on the bulk sample results from the PSI survey on these materials.

Other materials not sampled and presumed to contain asbestos include lab countertops, reagent racks, glassware rack, chalkboards & associated mastics, window sills and associated mastics, mechanical isolation cloth HVAC duct joints, cement-asbestos board ceiling tiles, and cement-asbestos board panels within fume hoods. These materials are likely to contain asbestos and were not sampled to avoid damage to the materials.

Previous abatement within Nash Hall includes pipe fitting insulation, tank insulation, fireproofing, and flooring materials. Abatement records were not provided to PBS, and specific abatement locations are not known. Anecdotal information was provided to PBS regarding abatement of the fireproofing within the crawlspace areas in the sub-basement. The existing fireproofing was sampled and determined not to contain asbestos. The possibility exists that remnant asbestos-containing fireproofing material may exist on the concrete floor of the crawlspace, or in inaccessible areas within the building support structure within crawlspace areas.

## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.

- ⑥ ASBESTOS-CONTAINING FIREPROOFING WAS ABATED IN THE LATE 1990'S. REMNANT ASBESTOS-CONTAINING FIREPROOFING MAY BE PRESENT CONTAMINATING CONCRETE FLOOR SURFACES, ABOVE BEAMS AND OTHER INACCESSIBLE LOCATIONS. THE REPLACEMENT FIREPROOFING DOES NOT CONTAIN ASBESTOS.

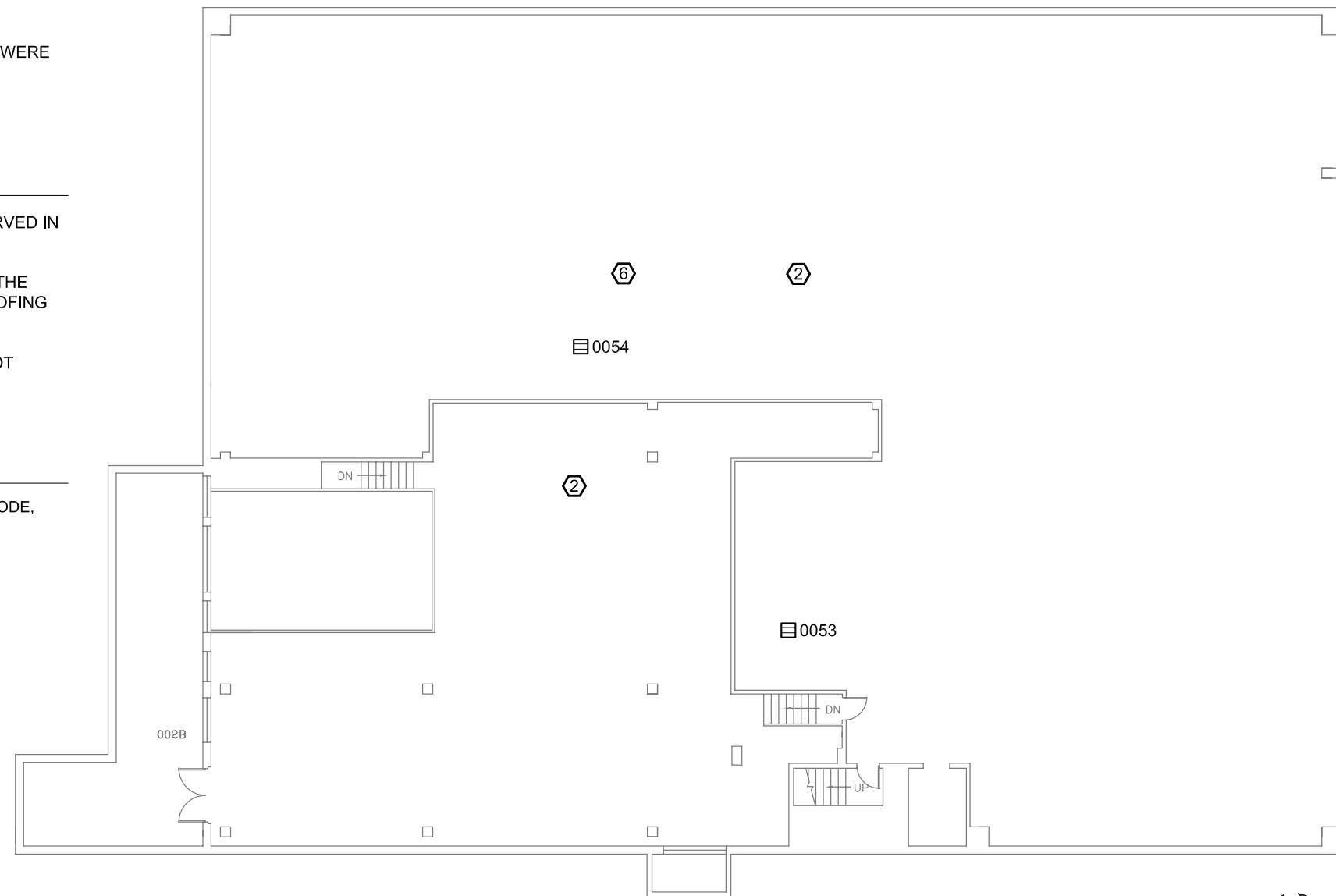
## ASBESTOS SAMPLE SYMBOLS

- ◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

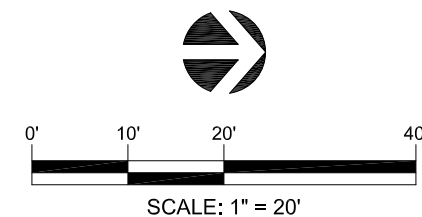
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	⊞	■	SURFACING MATERIAL
◇	◇	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
⊞ 0053	51412.002-0053	(-)	FP
⊞ 0054	51412.002-0054	(-)	FP



**SUB-BASEMENT FLOOR PLAN**



**PBS**

Engineering +  
Environmental

2645 Willamette Street  
Suite A  
Eugene, OR 97405  
541.686.8684 Main  
541.686.4602 Fax  
www.pbsenv.com

OREGON STATE UNIVERSITY  
ASBESTOS SURVEY DRAWING  
2820 SW CAMPUS WAY  
CORVALLIS, OREGON

NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

**2.1**



## GENERAL NOTES

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2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ① ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.

## ASBESTOS SAMPLE SYMBOLS




- ① 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
- MATERIAL SYMBOL

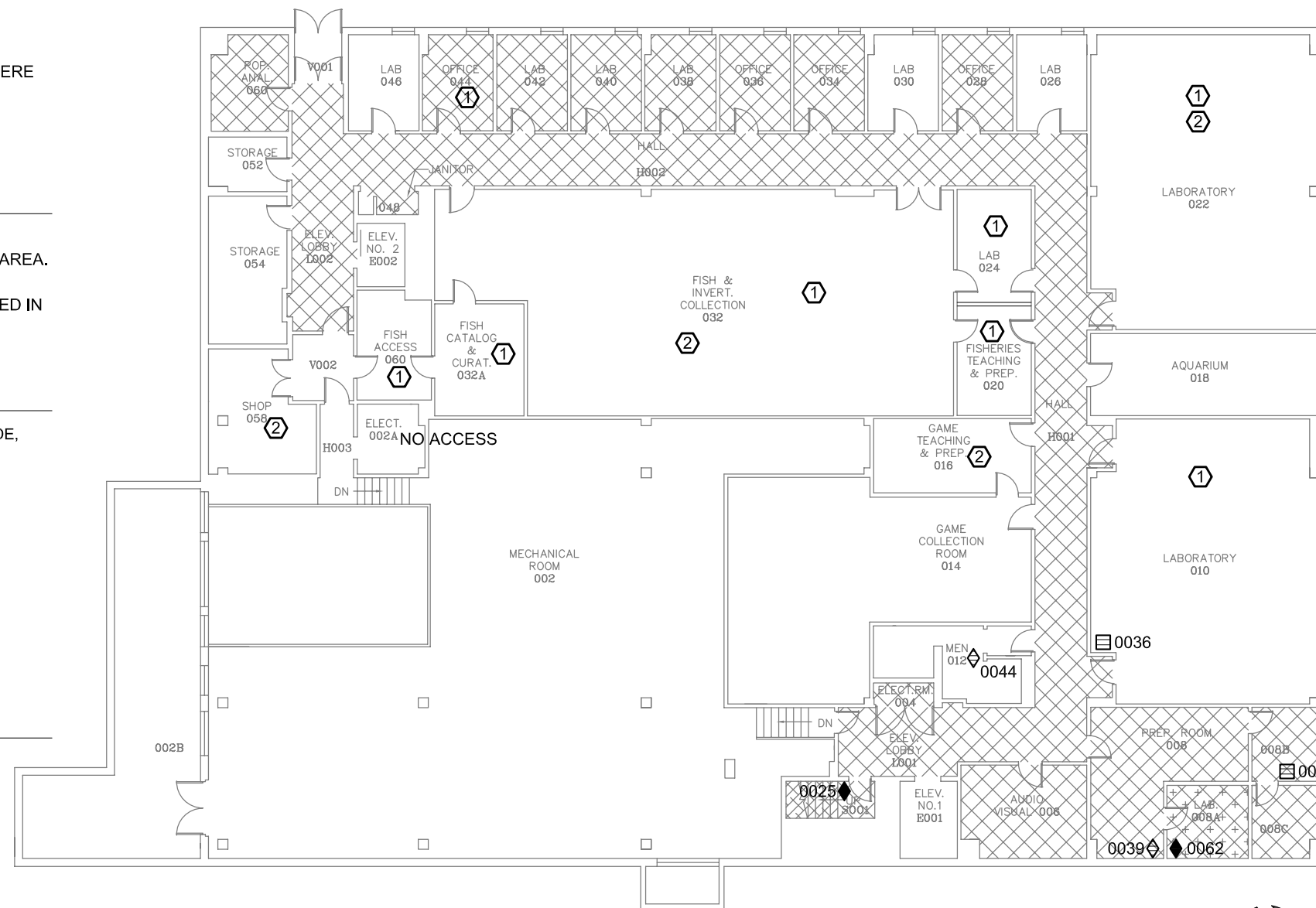
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	▤	■	SURFACING MATERIAL
◇	◊	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

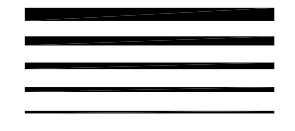
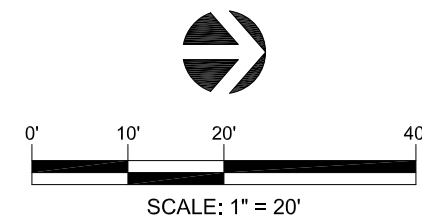
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◆ 0025	51412.002-0025	(-/+)	SB(1)
▤ 0036	51412.002-0036	(-)	WALL(1)
◊ 0039	51412.002-0039	(-)	WALL(3)
◊ 0044	51412.002-0044	(-)	WALL(7)
▤ 0057	51412.002-0057	(-)	MISC(2)
◆ 0062	51412.002-0062	(-/+)	LCT(2)

## LEGEND

-  ASBESTOS-CONTAINING FLOOR TILE AND MASTIC
-  NON-ASBESTOS CONTAINING STAIR TREADS, STAIR RISERS AND STAIR BASE... WITH ASBESTOS-CONTAINING MASTIC
-  NON-ASBESTOS CONTAINING LAY-IN CEILING TILES WITH ASBESTOS-CONTAINING SEALANT BETWEEN THE TILE AND THE GRID.



## BASEMENT FLOOR PLAN



# PBS

Engineering +  
Environmental

2645 Willamette Street  
Suite A  
Eugene, OR 97405  
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NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008






FIGURE:

# 2.2

## GENERAL NOTES

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- ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
- COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
- CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
- WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
- MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
- NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## LEGEND

-  ASBESTOS-CONTAINING FLOOR TILE AND MASTIC
-  NON-ASBESTOS CONTAINING FLOOR TILE AND ASBESTOS CONTAINING MASTIC
-  ASBESTOS-CONTAINING FLOOR TILE AND MASTIC CONCEALED BENEATH CARPET
-  ASBESTOS-CONTAINING SHEET FLOOR COVERING AND MASTIC
-  NON-ASBESTOS CONTAINING STAIR TREADS AND STAIR RISERS WITH ASBESTOS-CONTAINING MASTIC

## ASBESTOS SAMPLE SYMBOLS

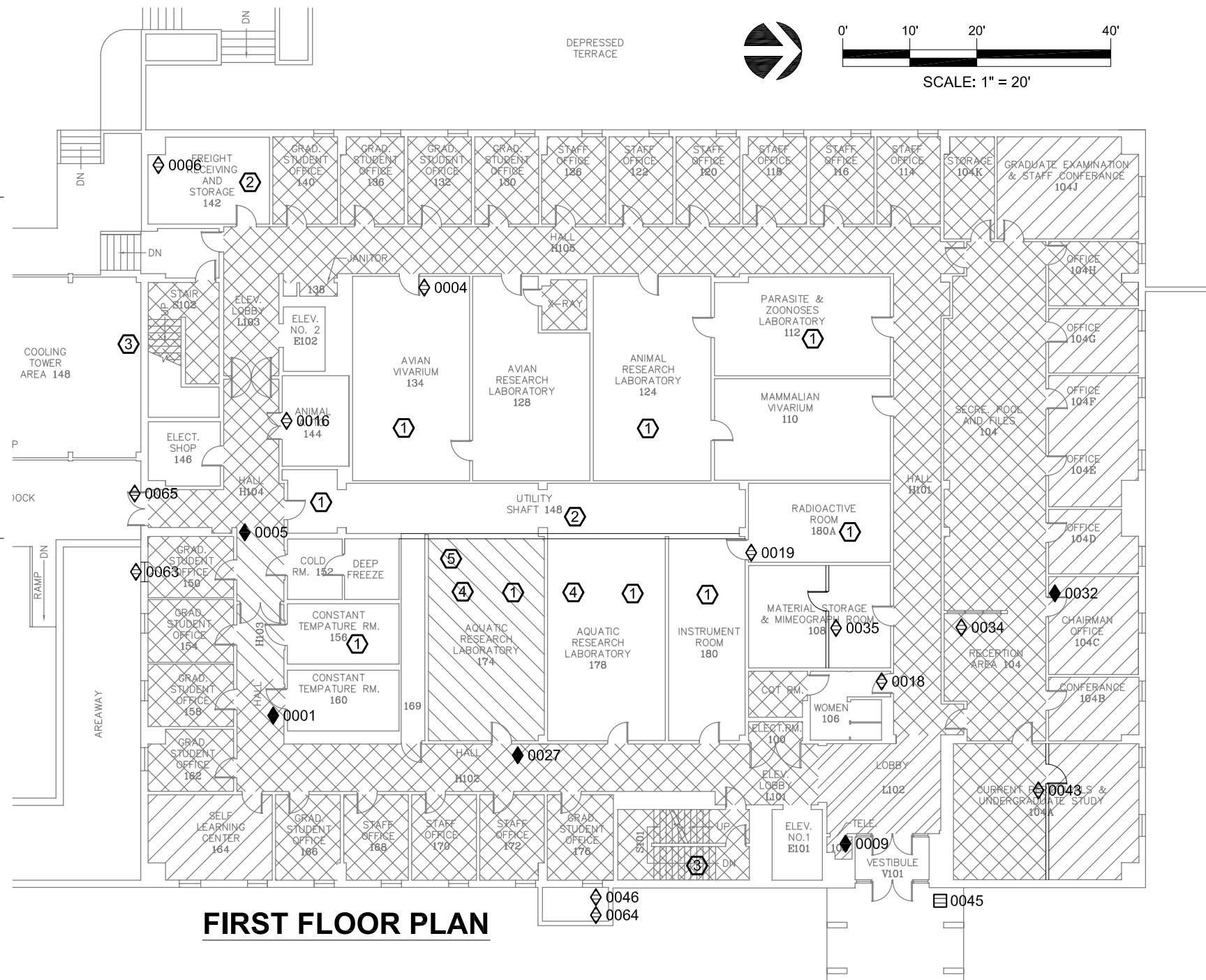
- ◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
- MATERIAL SYMBOL
- |            |          |          |                        |
|------------|----------|----------|------------------------|
| NOT TESTED | NEGATIVE | POSITIVE |                        |
| ○          | ⊖        | ⊕        | MECHANICAL INSULATION  |
| □          | ⊞        | ■        | SURFACING MATERIAL     |
| ◇          | ◇        | ◇        | MISCELLANEOUS MATERIAL |

## ABATEMENT KEY NOTES

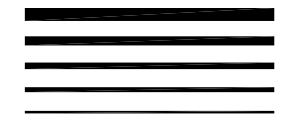
- ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- CEMENT ASBESTOS BOARD CEILING PANELS OVER STAIRS.
- FUME HOOD WITH CEMENT ASBESTOS BOARD PANELS OBSERVED IN THIS AREA.
- ASBESTOS-CONTAINING TANK INSULATION OBSERVED IN THIS AREA.

## INVENTORY OF ASBESTOS SAMPLES

DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◆ 0001	51412.002-0001	(+/+)	VAT(1)
◇ 0004	51412.002-0004	(-)	VAT(4)
◆ 0005	51412.002-0005	(-/-/+)	VAT(5)
◆ 0006	51412.002-0006	(-)	VAT(6)
◆ 0009	51412.002-0009	(+)	SHT(1)
◇ 0016	51412.002-0016	(-)	PORD(2)
◇ 0018	51412.002-0018	(-)	PORD(4)
◇ 0019	51412.002-0019	(-)	PORD(5)
◆ 0027	51412.002-0027	(-/+)	COVBAS(1)
◆ 0032	51412.002-0032	(-/-/+)	COVBAS(6)
◇ 0034	51412.002-0034	(-)	LCT(3)
◇ 0035	51412.002-0035	(-)	LCT(4)
◇ 0043	51412.002-0043	(-)	GYP/JC/TXT(2)
⊞ 0045	51412.002-0045	(-)	PLASTER(2)
◇ 0046	51412.002-0046	(-)	GLZ
◇ 0063	51412.002-0063	(-)	GLZ
◇ 0064	51412.002-0064	(-)	SEALANT(3)
◇ 0065	51412.002-0065	(-)	SEALANT(4)



**FIRST FLOOR PLAN**



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OREGON STATE UNIVERSITY  
ASBESTOS SURVEY DRAWING  
2820 SW CAMPUS WAY  
CORVALLIS, OREGON

NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

**2.3**

## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ① ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- ③ CEMENT ASBESTOS BOARD CEILING PANELS OVER STAIRS.
- ④ FUME HOOD WITH CEMENT ASBESTOS BOARD PANELS OBSERVED IN THIS AREA.

## ASBESTOS SAMPLE SYMBOLS

◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

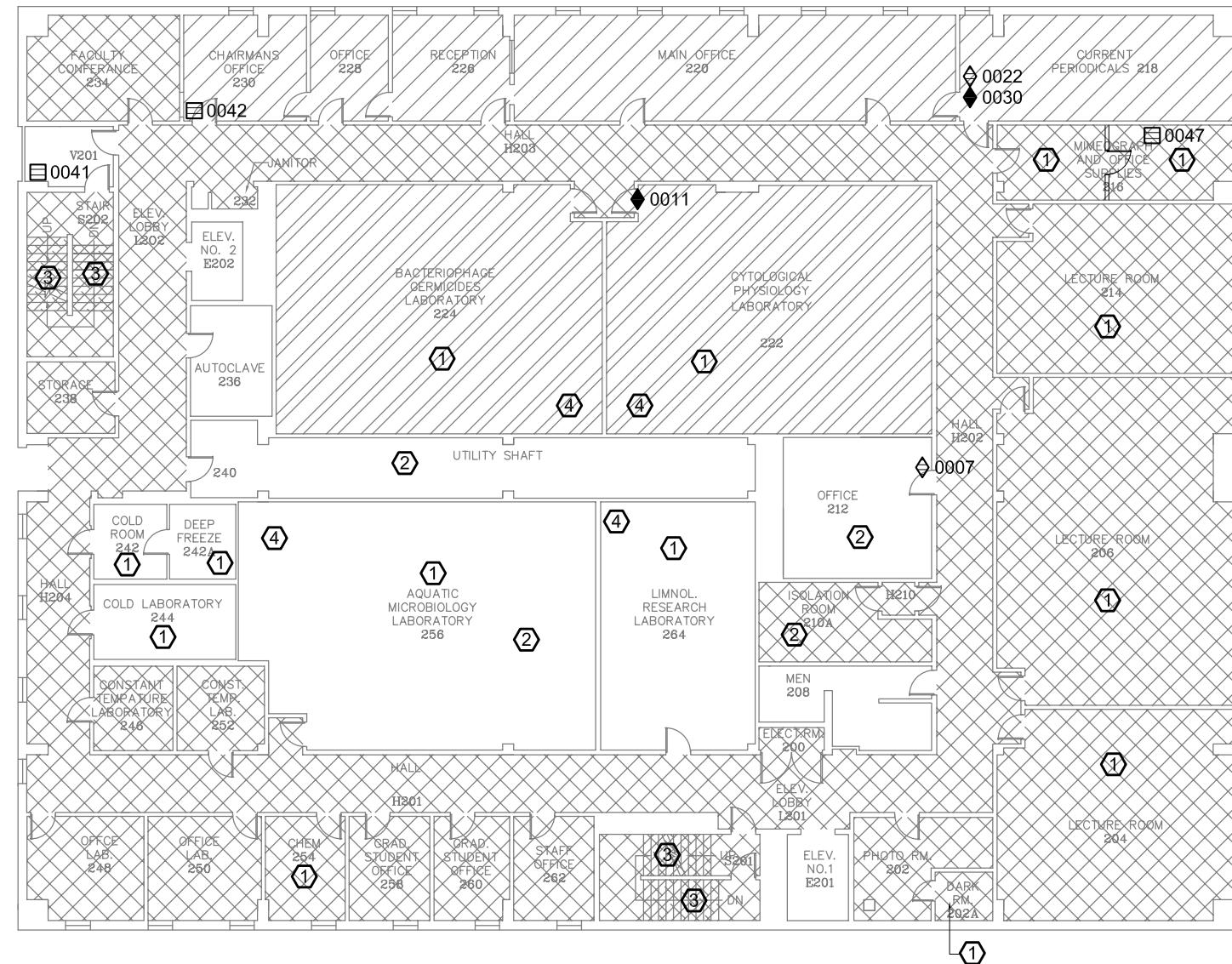
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	▤	■	SURFACING MATERIAL
◇	◇	◇	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

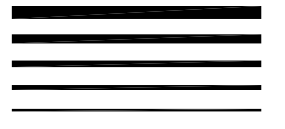
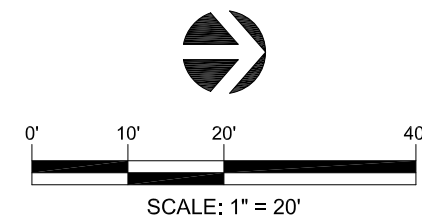
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◇ 0007	51412.002-0007	(-)	VAT(7)
◇ 0011	51412.002-0011	(+)	SHT(3)
◇ 0022	51412.002-0022	(-)	CMAS(2)
◇ 0030	51412.002-0030	(+)	COVBAS(4)
▤ 0041	51412.002-0041	(-)	WALL(4)
▤ 0042	51412.002-0042	(-)	WALL(5)
▤ 0047	51412.002-0047	(-)	CLG(5)

## LEGEND

	ASBESTOS-CONTAINING FLOOR TILE AND MASTIC		NON-ASBESTOS CONTAINING STAIR TREADS AND STAIR RISERS WITH ASBESTOS-CONTAINING MASTIC
	ASBESTOS-CONTAINING FLOOR TILE AND MASTIC CONCEALED BENEATH CARPET		
	ASBESTOS-CONTAINING SHEET FLOOR COVERING AND MASTIC		



## SECOND FLOOR PLAN



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NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

# 2.4

## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ① ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- ③ CEMENT ASBESTOS BOARD CEILING PANELS OVER STAIRS.
- ④ FUME HOOD WITH CEMENT ASBESTOS BOARD PANELS OBSERVED IN THIS AREA.

## ASBESTOS SAMPLE SYMBOLS

- ◆ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

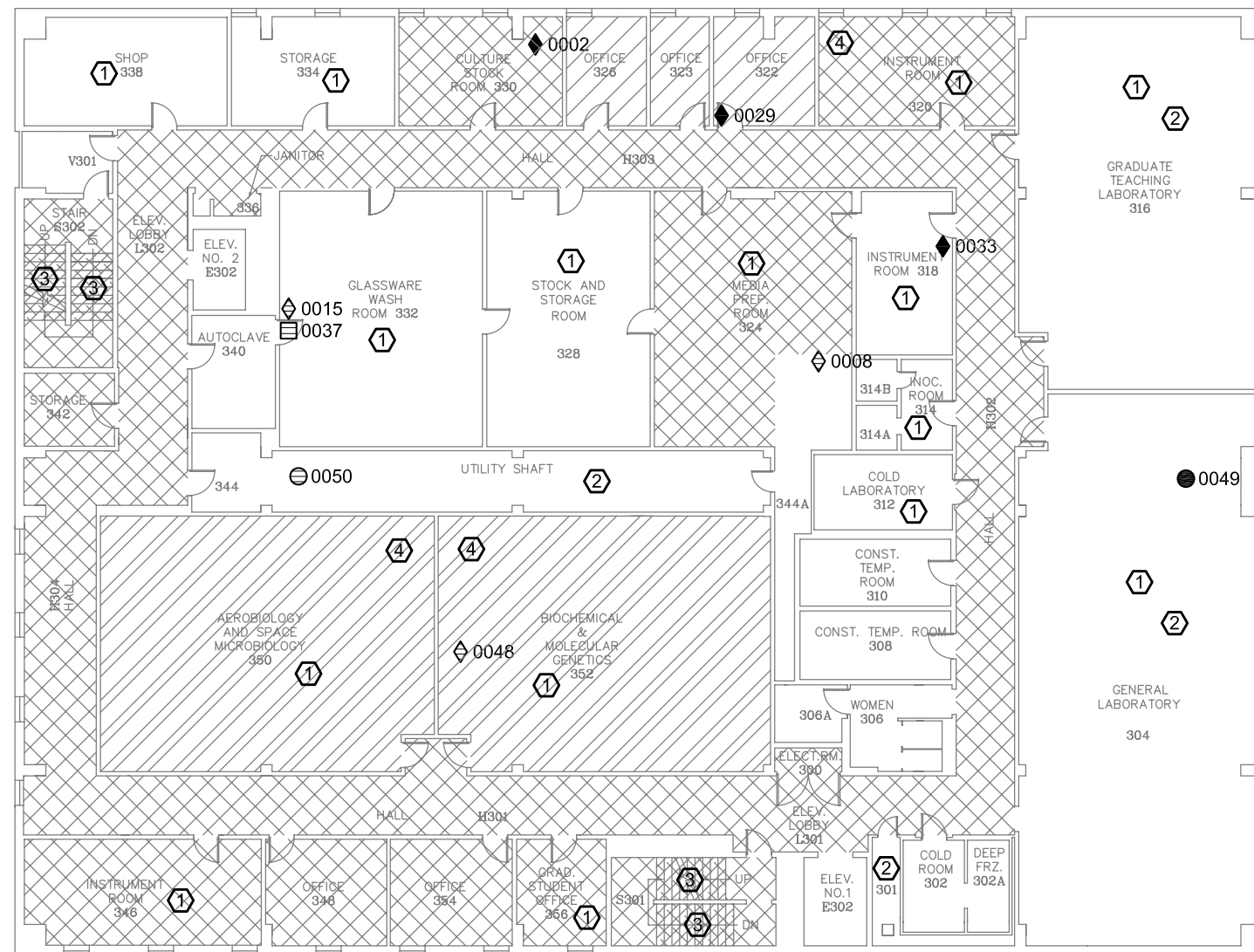
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	●	MECHANICAL INSULATION
□	▢	■	SURFACING MATERIAL
◇	◊	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

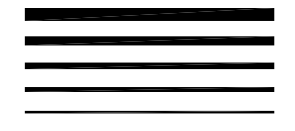
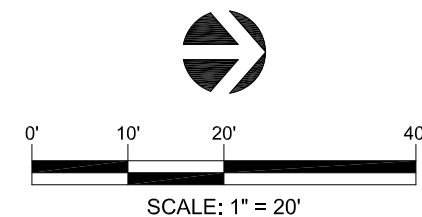
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◆ 0002	51412.002-002	(+)	VAT(2)
◊ 0008	51412.002-008	(-)	VAT(8)
◊ 0015	51412.002-0015	(-)	PORD(1)
◆ 0029	51412.002-0029	(+)	COVBAS(3)
◆ 0033	51412.002-0033	(+)	COVBAS(7)
▢ 0037	51412.002-0037	(-)	WALL(1)
◊ 0048	51412.002-0048	(-)	LBTSS
● 0049	51412.002-0049	(+)	D(1)
⊖ 0050	51412.002-0050	(-)	D(2)

## LEGEND

- ASBESTOS-CONTAINING FLOOR TILE AND MASTIC
- ASBESTOS-CONTAINING FLOOR TILE AND MASTIC CONCEALED BENEATH CARPET
- ASBESTOS-CONTAINING SHEET FLOOR COVERING AND MASTIC
- NON-ASBESTOS CONTAINING STAIR TREADS AND STAIR RISERS WITH ASBESTOS-CONTAINING MASTIC



## THIRD FLOOR PLAN



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NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

# 2.5



## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- 1 ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- 2 ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- 3 CEMENT ASBESTOS BOARD CEILING PANELS OVER STAIRS.
- 4 FUME HOOD WITH CEMENT ASBESTOS BOARD PANELS OBSERVED IN THIS AREA.

## ASBESTOS SAMPLE SYMBOLS






 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

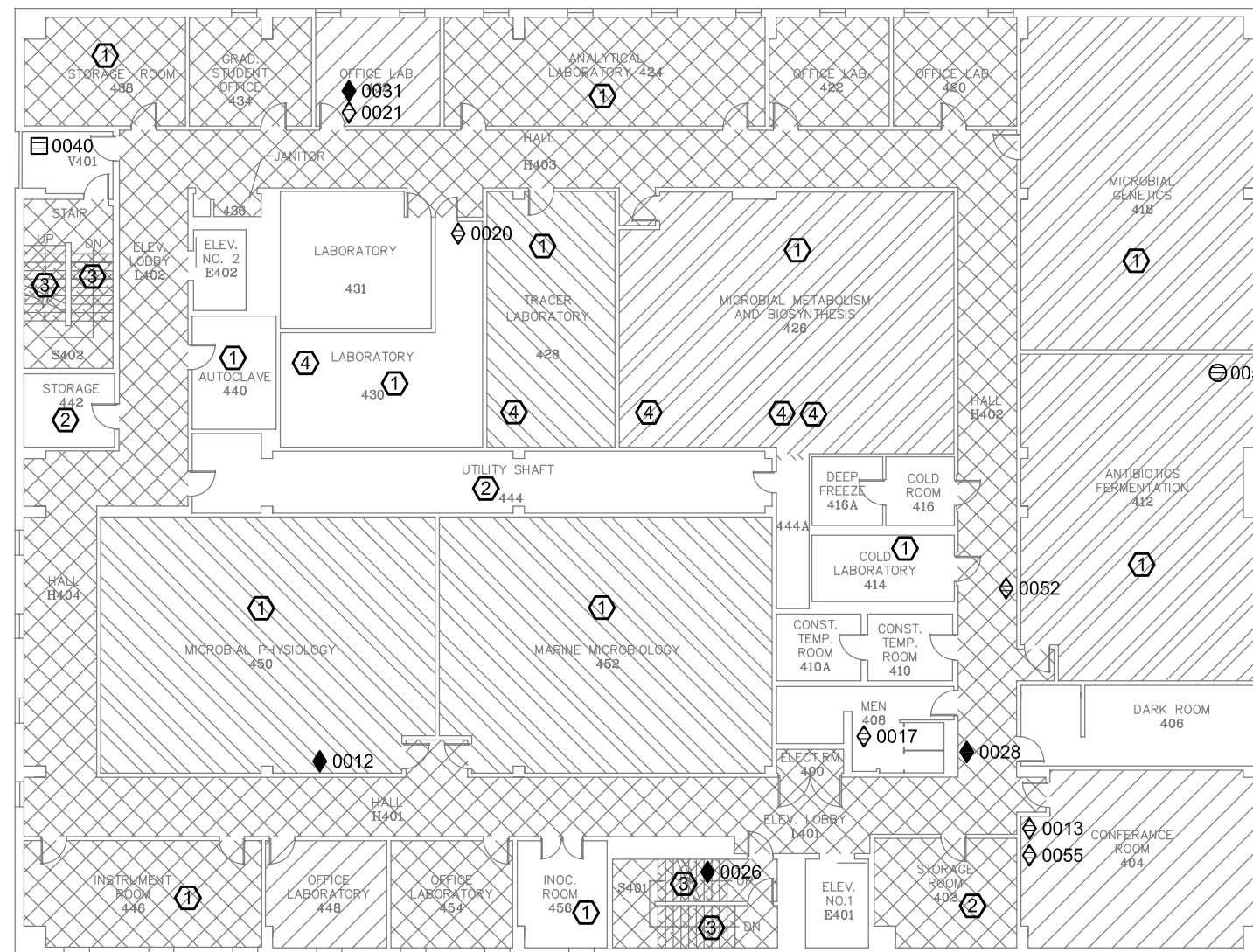
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	▨	■	SURFACING MATERIAL
◇	◊	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

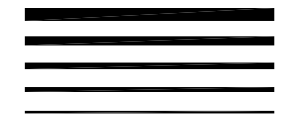
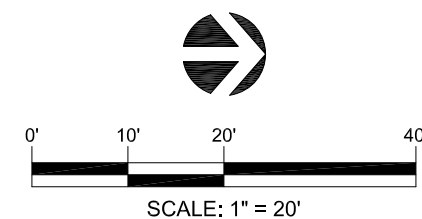
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◆ 0012	51412.002-0012	(+)	SHT(4)
◆ 0013	51412.002-0013	(-)	SHT(5)
◆ 0017	51412.002-0017	(-)	PORD(3)
◆ 0020	51412.002-0020	(-)	PORD(6)
◆ 0021	51412.002-0021	(-)	CMAS(1)
◆ 0026	51412.002-0026	(+)	SR(1)
◆ 0028	51412.002-0028	(+)	COVBAS(2)
◆ 0031	51412.002-0031	(+)	COVBAS(5)
▨ 0040	51412.002-0040	(-)	WALL(4)
⊖ 0051	51412.002-0051	(-)	D(2)
◊ 0052	51412.002-0052	(-)	CKB
◊ 0055	51412.002-0055	(-)	MISC(1)

## LEGEND

	ASBESTOS-CONTAINING FLOOR TILE AND MASTIC		NON-ASBESTOS-CONTAINING SHEET FLOOR COVERING AND ASBESTOS-CONTAINING MASTIC
	ASBESTOS-CONTAINING FLOOR TILE AND MASTIC CONCEALED BENEATH CARPET		NON-ASBESTOS CONTAINING STAIR TREADS AND STAIR RISERS WITH ASBESTOS-CONTAINING MASTIC
	ASBESTOS-CONTAINING SHEET FLOOR COVERING AND MASTIC		



## FOURTH FLOOR PLAN



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 CORVALLIS, OREGON

NASH

HALL

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

# 2.6

## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ① ASBESTOS-CONTAINING LAB COUNTERTOPS, GLASSWARE RACKS, AND/OR REAGENT RACKS OBSERVED WITHIN THIS AREA.
- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- ③ CEMENT ASBESTOS BOARD CEILING PANELS OVER STAIRS.
- ④ FUME HOOD WITH CEMENT ASBESTOS BOARD PANELS OBSERVED IN THIS AREA.

## ASBESTOS SAMPLE SYMBOLS

① 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

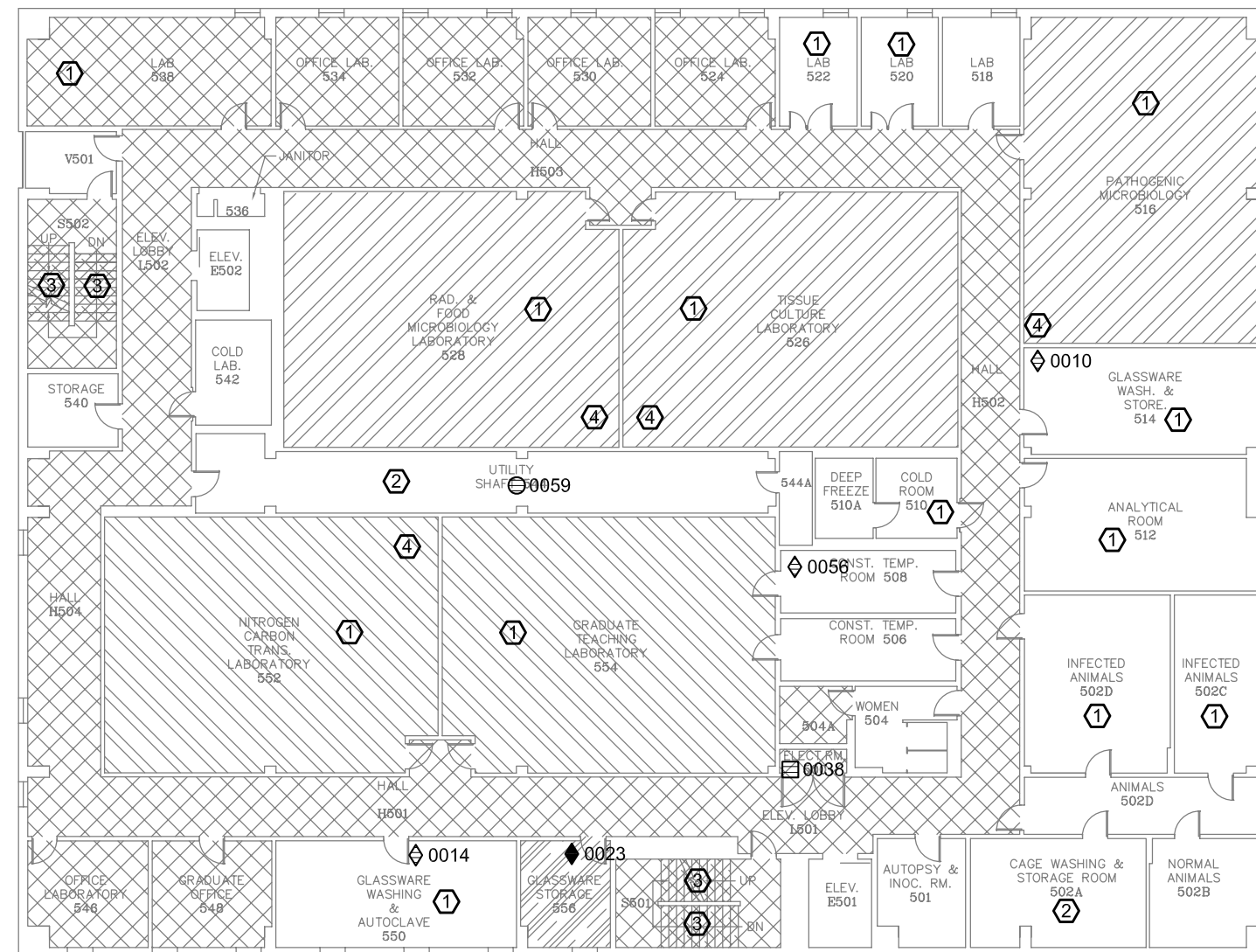
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	⊞	⊟	SURFACING MATERIAL
◇	◇	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

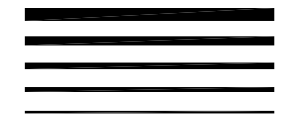
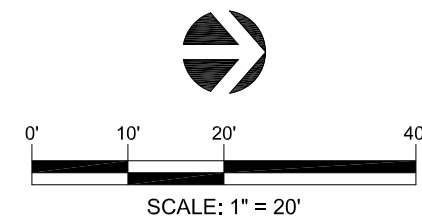
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
① 0010	51412.002-0010	(-)	SHT(2)
① 0014	51412.002-0014	(-)	SHT(6)
① 0023	51412.002-0023	(+)	CMAS(3)
① 0038	51412.002-0038	(-)	PLAS/GYP(1)
① 0056	51412.002-0056	(-)	MISC(2)
① 0059	51412.002-0059	(-)	DJT

## LEGEND

	ASBESTOS-CONTAINING FLOOR TILE AND MASTIC		NON-ASBESTOS-CONTAINING SHEET FLOOR COVERING AND ASBESTOS-CONTAINING MASTIC
	ASBESTOS-CONTAINING SHEET FLOOR COVERING AND MASTIC		NON-ASBESTOS CONTAINING STAIR TREADS AND STAIR RISERS WITH ASBESTOS-CONTAINING MASTIC
	CARPET MASTIC CONTAINS <1% CHRYSOTILE IN THIS AREA.		



**FIFTH FLOOR PLAN**



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**ASBESTOS SURVEY DRAWING**  
**2820 SW CAMPUS WAY**  
**CORVALLIS, OREGON**

**NASH**

**HALL**

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

# 2.7

## GENERAL NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.
3. COVEBASE MASTIC CONTAINS ASBESTOS THROUGHOUT THE BUILDING.
4. CHALKBOARDS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
5. WINDOWS SILLS AND ASSOCIATED MASTIC ARE PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
6. MECHANICAL ISOLATION CLOTH IS PRESUMED TO CONTAIN ASBESTOS THROUGHOUT THE BUILDING.
7. NON-ASBESTOS CONTAINING SOAPSTONE COUNTERTOPS WERE OBSERVED SPORADICALLY THROUGHOUT THE BUILDING.

## ABATEMENT KEY NOTES

- ② ASBESTOS-CONTAINING PIPE FITTING INSULATION OBSERVED IN THIS AREA.
- ⑦ PRESUMED ASBESTOS-CONTAINING MEMBRANE ROOFING. THE MATERIAL WAS NOT SAMPLED AS PART OF THIS SURVEY.
- ⑧ PRESUMED ASBESTOS-CONTAINING BUILT-UP ROOFING. THE MATERIAL WAS NOT SAMPLED AS PART OF THIS SURVEY.

## ASBESTOS SAMPLE SYMBOLS

◆ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES  
 — MATERIAL SYMBOL

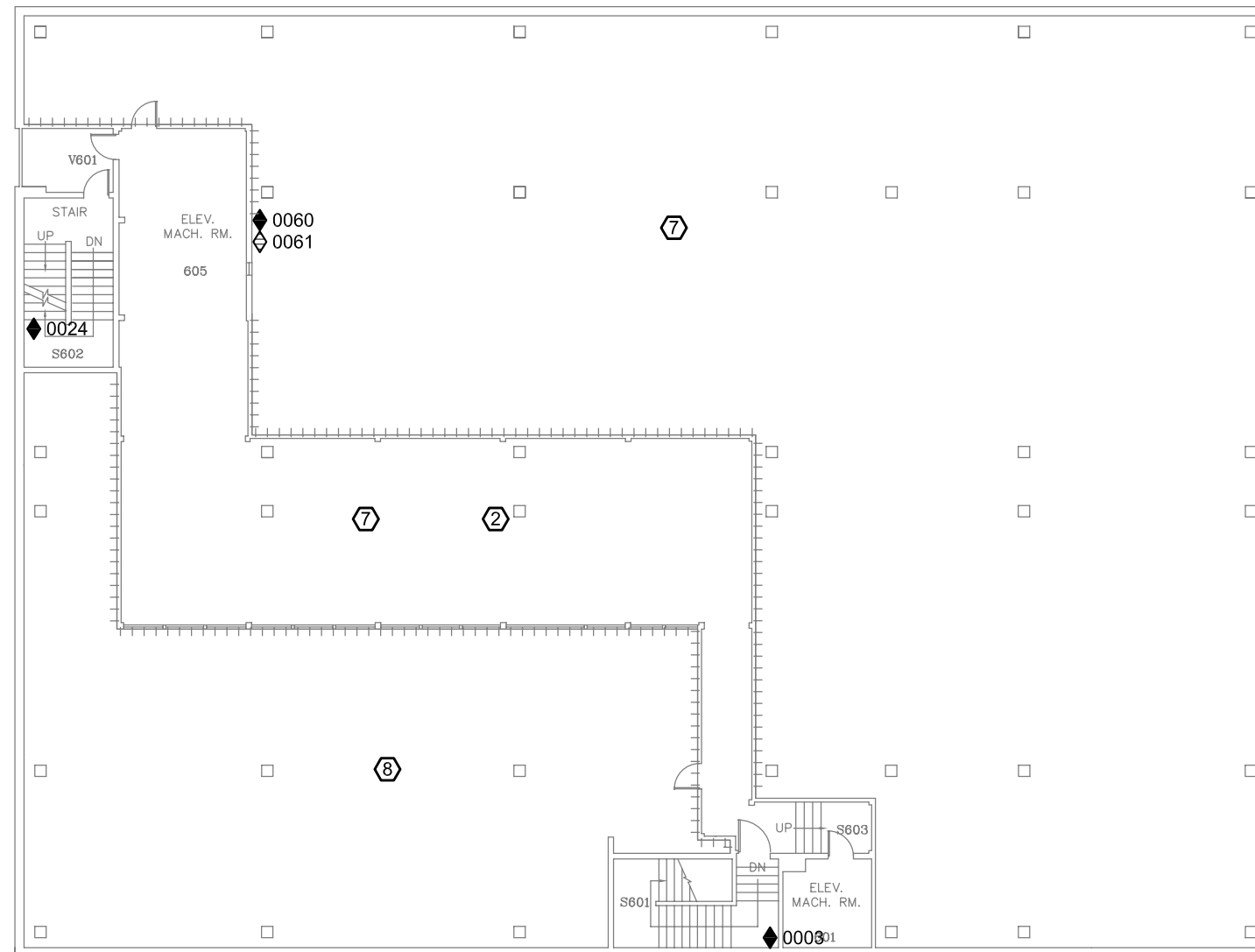
NOT TESTED	NEGATIVE	POSITIVE	
○	⊖	⊕	MECHANICAL INSULATION
□	▤	■	SURFACING MATERIAL
◇	◊	◆	MISCELLANEOUS MATERIAL

## INVENTORY OF ASBESTOS SAMPLES

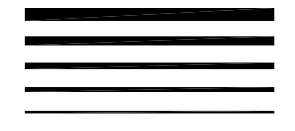
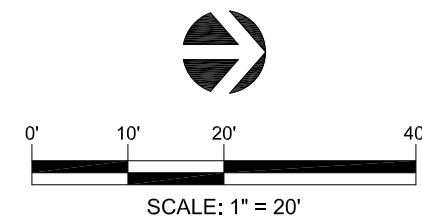
DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◆ 0003	51412.002-0003	(+)	VAT(3)
◆ 0024	51412.002-0024	(-/+)	ST(1)
◆ 0060	51412.002-0060	(+)	SEALANT(1)
◊ 0061	51412.002-0061	(-)	SEALANT(2)

## LEGEND

+++++ ASBESTOS-CONTAINING SEALANT BETWEEN METAL EXTERIOR PANELS



**SIXTH FLOOR / ROOF PLAN**



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 2820 SW CAMPUS WAY  
 CORVALLIS, OREGON

**NASH**

**HALL**

PROJECT: 51412.002

DATE: MARCH 2008

FIGURE:

# 2.8

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0001	Vinyl Floor Tile / Mastic (1)	H103 by the door to room 160.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 9" X 9" Beige	3% Chrysotile	
	Layer 2	Mastic, Black	5% Chrysotile	
51412.002-0002	Vinyl Floor Tile / Mastic (2)	Room 330 in the northeast corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 9" X 9" Tan	3% Chrysotile	
	Layer 2	Mastic, Black	4% Chrysotile	
51412.002-0003	Vinyl Floor Tile / Mastic (3)	East stairwell top landing, water damaged area in the northeast corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 9" X 9" Grey	3% Chrysotile	
	Layer 2	Mastic, Black	4% Chrysotile	
51412.002-0004	Vinyl Floor Tile / Mastic (4)	Room 134 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Floor tile, 12" X 12" Light Grey	No Asbestos Detected	
	Layer 2	Mastic, Black	No Asbestos Detected	
51412.002-0005	Vinyl Floor Tile / Mastic (5)	H103 by the south entry.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 12" X 12" Beige	No Asbestos Detected	
	Layer 2	Mastic, Yellow	No Asbestos Detected	
	Layer 3	Mastic, Black	3% Chrysotile	
51412.002-0006	Vinyl Floor Tile / Mastic (6)	Room 142 in the southwest corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 12" X 12" Beige with Brown Streaks	No Asbestos Detected	
	Layer 2	Mastic, Orange	No Asbestos Detected	
51412.002-0007	Vinyl Floor Tile / Mastic (7)	Room 212 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 12" X 12" Tan	No Asbestos Detected	
	Layer 2	Mastic, Orange	No Asbestos Detected	



**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0008	Vinyl Floor Tile / Mastic (8)	Room 324 in the southeast corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Floor Tile, 12" X 12" White	No Asbestos Detected	
	Layer 2	Mastic, Yellow	No Asbestos Detected	
51412.002-0009	Sheet Vinyl Flooring / Mastic (1)	Room 102 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Sheet Vinyl Flooring, Tan Mosaic / Mastic, Yellow	40% Chrysotile	
	<b>Comments:</b> Sheet vinyl flooring and mastic could not be separated.			
51412.002-0010	Sheet Vinyl Flooring / Mastic (2)	Room 514 in the northwest corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Sheet Vinyl Flooring, Grey & Blue Mosaic	No Asbestos Detected	
	Layer 2	Mastic, White	No Asbestos Detected	
51412.002-0011	Sheet Vinyl Flooring / Mastic (3)	Room 222 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Sheet Vinyl Flooring, Dark Tan Mosaic	40% Chrysotile	
	Layer 2	Mastic, Beige	4% Chrysotile	
	Layer 3	Mastic, Black	No Asbestos Detected	
51412.002-0012	Sheet Vinyl Flooring / Mastic (4)	Room 450 on the east wall approx. 15' from the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Sheet Vinyl Flooring, Green Mosaic	No Asbestos Detected	
	Layer 2	Mastic, Tan	4% Chrysotile	
51412.002-0013	Sheet Vinyl Flooring / Mastic (5)	Room 404 by the cabinet.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Sheet Vinyl Flooring, Brown Faux Wood	No Asbestos Detected	
	Layer 2	Mastic, Beige	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0014	Sheet Vinyl Flooring / Mastic (6)	Room 550 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Sheet Vinyl Flooring, Grey Mosaic	No Asbestos Detected	
	Layer 2	Mastic, Tan	No Asbestos Detected	
51412.002-0015	Poured Flooring (1)	Room 332 by the door to the autoclave room.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Olive, Turquoise, & Beige	No Asbestos Detected	
51412.002-0016	Poured Flooring (2)	Room 144 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Brown, Beige, & White	No Asbestos Detected	
51412.002-0017	Poured Flooring (3)	Room 408 beneath the sink.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Light Brown, Dark Brown, & Beige	No Asbestos Detected	
51412.002-0018	Poured Flooring (4)	Room 106 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Turquoise & Yellow	No Asbestos Detected	
51412.002-0019	Poured Flooring (5)	Room 180A by the door to room 180		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Fine-Grained Green	No Asbestos Detected	
51412.002-0020	Poured Flooring (6)	Room 430 entry by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Poured Flooring, Grey	No Asbestos Detected	
51412.002-0021	Carpet Mastic (1)	Room 432 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Carpet Mastic, Yellow	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0022	Carpet Mastic (2)	Room 218 by the door to room 220.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Carpet Mastic, Beige	No Asbestos Detected	
51412.002-0023	Carpet Mastic (3)	Room 556 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Carpet Mastic, Orange	<1% Chrysotile	
51412.002-0024	Vinyl Stairtread / Mastic	S502 at the top of the stairwell.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Stairtread, Grey	No Asbestos Detected	
	Layer 2	Mastic, Brown	3% Anthophyllite	
51412.002-0025	Vinyl Stair Base	S002 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Stair Base, Black	No Asbestos Detected	
	Layer 2	Mastic, Brown	3% Anthophyllite	
51412.002-0026	Vinyl Stair Riser / Mastic	S402 on the stairs to the fifth floor.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Vinyl Stair Riser, Black	No Asbestos Detected	
	Layer 2	Mastic, Brown	2% Anthophyllite	
51412.002-0027	Covebase / Mastic (1)	H102 by the door to room 174.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Tan	No Asbestos Detected	
	Layer 2	Mastic, Brown	2% Anthophyllite	
51412.002-0028	Covebase / Mastic (2)	H402 on the corner adjacent to room 404.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Black	No Asbestos Detected	
	Layer 2	Mastic, Brown	2% Anthophyllite	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0029	Covebase / Mastic (3)	Room 322 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Light Grey	No Asbestos Detected	
	Layer 2	Mastic, Beige	No Asbestos Detected	
	Layer 3	Mastic, Brown	<1% Anthophyllite	
51412.002-0030	Covebase / Mastic (4)	Room 218 by the door to room 220.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Purple	No Asbestos Detected	
	Layer 2	Mastic, Beige	No Asbestos Detected	
	Layer 3	Mastic, White	No Asbestos Detected	
	Layer 4	Mastic, Brown	3% Anthophyllite	
51412.002-0031	Covebase / Mastic (5)	Room 432 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Grey	No Asbestos Detected	
	Layer 2	Mastic, Beige	No Asbestos Detected	
	Layer 3	Mastic, Brown	3% Anthophyllite	
51412.002-0032	Covebase / Mastic (6)	Room 104C by the door to room 104.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Blue	No Asbestos Detected	
	Layer 2	Mastic, Tan	No Asbestos Detected	
	Layer 3	Mastic, Brown	3% Anthophyllite	
51412.002-0033	Covebase / Mastic (7)	Room 318 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Covebase, 4" Light Brown	No Asbestos Detected	
	Layer 2	Mastic, White	No Asbestos Detected	
	Layer 3	Mastic, Brown	2% Anthophyllite	
51412.002-0034	Lay-in Ceiling Tile (3)	Room 104 above the reception area.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Lay-in Ceiling Tile, 2' X 4' Fissured & Stippled	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0035	Lay-in Ceiling Tile (4)	Room 108 entry by the door to room 108.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Lay-in Ceiling Tile, 2' X 4' Stippled & Scarrified	No Asbestos Detected	
51412.002-0036	Plaster / Gypsum Board (1)	Room 010 by the east door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Plaster, White Sandy, Sand Texture	No Asbestos Detected	
	Layer 2	Gypsum Board	No Asbestos Detected	
51412.002-0037	Plaster / Gypsum Board (1)	Room 332 by the door to the autoclave room.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Plaster, White Sandy, Sand Texture	No Asbestos Detected	
	Layer 2	Gypsum Board	No Asbestos Detected	
51412.002-0038	Plaster / Gypsum Board (1)	Room 500 in the southwest corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Plaster, White Sandy, Sand Texture	No Asbestos Detected	
	Layer 2	Gypsum Board	No Asbestos Detected	
51412.002-0039	Gypsum Board / Joint Compound / Texture (1)	Room 008 by the door to room 008A.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Gypsum Board	No Asbestos Detected	
	Layer 2	Joint Compound	No Asbestos Detected	
	Layer 3	Splatter Texture	No Asbestos Detected	
51412.002-0040	Plaster (1)	Northwest corner of the exterior entry to S402.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Plaster, Grey Sandy, Sand Texture	No Asbestos Detected	
51412.002-0041	Plaster (1)	Southeast corner of the exterior entry to S202.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Plaster, Grey Sandy, Sand Texture	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0042	Gypsum Board / Plaster (2)	Room 230 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Plaster, White Sandy, Trowelled Texture	No Asbestos Detected	
	Layer 2	Gypsum Board	No Asbestos Detected	
51412.002-0043	Gypsum Board / Joint Compound / Texture (2)	Room 104A by the door to the adjacent room to the east.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Gypsum Board	No Asbestos Detected	
	Layer 2	Joint Compound	No Asbestos Detected	
	<b>Comments:</b>	Wall is not skimcoated.		
51412.002-0044	Textured Paint (1)	Room 012 by the door to the entry.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Textured Paint, Tan	No Asbestos Detected	
51412.002-0045	Plaster (1)	Northeast corner of the east entry soffit.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Plaster, Grey Sandy, Sand Texture	No Asbestos Detected	
51412.002-0046	Window Glazing Compound	Exterior on the the east facing wall, window to room 176.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Window Glazing Compound, White	No Asbestos Detected	
51412.002-0047	Textured Paint (2)	Room 216A above the file cabinets.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Textured Paint, White	No Asbestos Detected	
51412.002-0048	Lab Countertop (2)	Room 352 on the west wall.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Lab Countertop, Soapstone	No Asbestos Detected	
	Layer 2	Mastic, Grey	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0049	Pipe Fitting Insulation	Room 304 in the northeast corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Lagging, Cloth, White / Insulation, White Chalky	15% Chrysotile	
51412.002-0050	Duct Insulation (2)	Room 344 by the door to the hallway.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Lagging, Fiberglass Reinforced Foil	No Asbestos Detected	
	Layer 2	Insulation, Fiberglass	No Asbestos Detected	
	Layer 3	Mastic, Orange	No Asbestos Detected	
51412.002-0051	Pipe Insulation (1)	Room 412 in the northwest corner.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Lagging, Cloth, White	No Asbestos Detected	
	Layer 2	Insulation, Fiberglass	No Asbestos Detected	
	Layer 3	Mastic, Orange	No Asbestos Detected	
51412.002-0052	Corkboard / Mastic	H402 by the door to room 412.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
	Layer 1	Corkboard	No Asbestos Detected	
	Layer 2	Mastic, Clear	No Asbestos Detected	
51412.002-0053	Fireproofing	Room 002A on the east beam at the south end.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Fireproofing, Blue Tinted	No Asbestos Detected	
51412.002-0054	Fireproofing	Room 002B on the east beam adjacent to the door to room 002.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Fireproofing, Blue Tinted	No Asbestos Detected	
51412.002-0055	Sink Undercoat	Room 404 on the underside of the stainless steel sink.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>	
		Sink Undercoat, White	No Asbestos Detected	

**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0056	Sprayed-on Plaster	Room 544A above the ceiling to room 506.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Plaster, Light Grey Sandy	<b>Analysis:</b> No Asbestos Detected	
51412.002-0057	Sprayed-on Plaster	Room 008B above the ceiling on the east wall.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Plaster, Light Grey Sandy	<b>Analysis:</b> No Asbestos Detected	
51412.002-0058	Mastic, Tan	Room 404 beneath the chalkboard.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Mastic, Tan	<b>Analysis:</b> No Asbestos Detected	
51412.002-0059	Duct Joint Tape	Room 544 on the fume hood ductwork.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Duct Joint Tape, Grey	<b>Analysis:</b> No Asbestos Detected	
51412.002-0060	Sealant (1)	Roof on the exterior of the penthouse by the elevator control room.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Sealant, Beige	<b>Analysis:</b> 6% Chrysotile	
51412.002-0061	Sealant (2)	Roof on the exterior of the penthouse by the elevator control room on plaster portion.		LabCor Portland, Inc.
	<b>Layer:</b> Layer 1	<b>Description:</b> Sealant, White, Brittle	<b>Analysis:</b> No Asbestos Detected	
51412.002-0062	Lay-in Ceiling Tile (2)	Room 008A in the southwest corner.		LabCor Portland, Inc.
	<b>Layer:</b> Layer 1	<b>Description:</b> Lay-in Ceiling Tile, Brown	<b>Analysis:</b> No Asbestos Detected	
	<b>Layer:</b> Layer 2	<b>Description:</b> Sealant, Light Grey	<b>Analysis:</b> 4% Tremolite or Actinolite	
51412.002-0063	Window Glazing Compound	Exterior on the the south facing wall, window to room 150.		LabCor Portland, Inc.
	<b>Layer:</b>	<b>Description:</b> Window Glazing Compound, White	<b>Analysis:</b> No Asbestos Detected	



**BULK SAMPLE INVENTORY**

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
51412.002-0064	Sealant (3)	Exterior on the east facing wall around window frame on the window to room 174.		LabCor Portland, Inc.
		<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>
			Sealant, Grey	No Asbestos Detected
51412.002-0065	Sealant (4)	Exterior on the south facing wall by the exterior door.		LabCor Portland, Inc.
		<b>Layer:</b>	<b>Description:</b>	<b>Analysis:</b>
		Layer 1	Sealant, White, Pliable	No Asbestos Detected
		Layer 2	Insulation, Grey	No Asbestos Detected

080346



Engineering + Environmental

**TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES**


Project No.: 51412.002

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

**SENDER**

Date Sent: February 25, 2008


**PBS Engineering + Environmental**  
2645 Willamette Street #A  
Eugene, OR 97405  
541.686.8684, Fax: 541.686.4602

ADAM S. JONES  
Name  
  
Authorized Signature  
2-25-08  
Date

**RECEIVER**

Date Received: 2/26/08 8:50

Company: LabCor Portland, Inc.  
Address: 4321 SW Corbett Ave #A  
Portland, OR 97239  
(503) 224-505

Amber Basting  
Name  
  
Authorized Signature  
2/26/08  
Date

Sender's ID No.	Brief Description	Receiver's ID No.
51412.002-0001		
51412.002-0002		
51412.002-0003		
51412.002-0004		
51412.002-0005		
51412.002-0006		
51412.002-0007		
51412.002-0008		
51412.002-0009		
51412.002-0010		
51412.002-0011		
51412.002-0012		
51412.002-0013		
51412.002-0014		
51412.002-0015		



**TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES**

51412.002-0016		
51412.002-0017		
51412.002-0018		
51412.002-0019		
51412.002-0020		
51412.002-0021		
51412.002-0022		
51412.002-0023		
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51412.002-0031		
51412.002-0032		
51412.002-0033		
51412.002-0034		
51412.002-0035		
51412.002-0036		
51412.002-0037		
51412.002-0038		
51412.002-0039		
51412.002-0040		
51412.002-0041		
51412.002-0042		
51412.002-0043		



**TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES**

51412.002-0044		
51412.002-0045		
51412.002-0046		
51412.002-0047		
51412.002-0048		
51412.002-0049		
51412.002-0050		
51412.002-0051		
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51412.002-0055		
51412.002-0056		
51412.002-0057		
51412.002-0058		
51412.002-0059		
51412.002-0060		
51412.002-0061		
51412.002-0062		
51412.002-0063		
51412.002-0064		
51412.002-0065		

Please analyze the enclosed 65 sample(s) for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed.

Request verbal results by: \_\_\_\_\_ AM/PM \_\_\_\_\_ Date.

Please fax and mail the results to the above address.

**TURNAROUND DESIRED:      24 Hour**

**SPECIAL INSTRUCTIONS:**

*Asbestos and Environmental Analysis*

**Client:** PBS Engineering and Environmental  
2645 Willamette Street, Suite A  
Eugene, OR 97405

**Report Number:** 080346R01  
**Report Date:** 02/26/2008

**Job Number:** 080346

**P.O. No:** n/a

**Project Name:**

**Project Number:** 51412.002

**Project Notes:**

<b>Client Sample ID:</b>	51412.002-0001	<b>Sample ID:</b>	S1	<b>Date Analyzed:</b>	02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b>	Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		<b>Percent Asbestos:</b>
<b>Layer 01</b>						
vinyl, grey	95 %	3 %	-	-		3 %
<b>Layer 02</b>						
mastic, black	5 %	5 %	-	-		5 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	97 %
<b>Layer 02</b>	-	-	-	-	-	95 %

<b>Client Sample ID:</b>	51412.002-0002	<b>Sample ID:</b>	S2	<b>Date Analyzed:</b>	02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b>	Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		<b>Percent Asbestos:</b>
<b>Layer 01</b>						
vinyl, tan	95 %	3 %	-	-		3 %
<b>Layer 02</b>						
mastic, black	5 %	4 %	-	-		4 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	1 %	-	-	-	96 %
<b>Layer 02</b>	-	-	-	-	-	96 %

<b>Client Sample ID:</b>	51412.002-0003	<b>Sample ID:</b>	S3	<b>Date Analyzed:</b>	02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b>	Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		<b>Percent Asbestos:</b>
<b>Layer 01</b>						
vinyl, grey	95 %	3 %	-	-		3 %
<b>Layer 02</b>						
mastic, black	5 %	4 %	-	-		4 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	97 %
<b>Layer 02</b>	-	-	-	-	-	96 %

Job Number: 080346

Report Number: 080346R01

Report Date: 02/26/2008

<b>Client Sample ID:</b> 51412.002-0004		<b>Sample ID:</b> S4		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>						
vinyl, grey	90 %	-	-	-		NAD
<b>Layer 02</b>						
mastic, black	10 %	-	-	-		NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	100 %
<b>Layer 02</b>	-	5 %	-	-	-	95 %

<b>Client Sample ID:</b> 51412.002-0005		<b>Sample ID:</b> S5		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>						
vinyl, tan	90 %	-	-	-		NAD
<b>Layer 02</b>						
mastic, yellow	5 %	-	-	-		NAD
<b>Layer 03</b>						
mastic, black	5 %	3 %	-	-		3 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	100 %
<b>Layer 03</b>	-	-	-	-	-	97 %

<b>Client Sample ID:</b> 51412.002-0006		<b>Sample ID:</b> S6		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>						
vinyl, tan	97 %	-	-	-		NAD
<b>Layer 02</b>						
mastic, yellow	3 %	-	-	-		NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	100 %
<b>Layer 02</b>	-	1 %	-	-	-	99 %

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<b>Client Sample ID:</b> 51412.002-0007	<b>Sample ID:</b> S7	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, off white	90 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
mastic, yellow	10 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	-	5 %	-
			95 %

<b>Client Sample ID:</b> 51412.002-0008	<b>Sample ID:</b> S8	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, white	92 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
mastic, yellow	7 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
mastic, black	1 %	2 %	-
			<b>2 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	-	3 %	-
			97 %
<b>Layer 03</b>	-	-	-
			98 %

<b>Client Sample ID:</b> 51412.002-0009	<b>Sample ID:</b> S9	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, grey	85 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
fibrous backing w/ yellow mastic, grey	15 %	40 %	-
			<b>40 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	-	5 %	-
			55 %

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<b>Client Sample ID:</b> 51412.002-0010		<b>Sample ID:</b> S10			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin					
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
vinyl, grey	70 %	-	-	-			NAD
<b>Layer 02</b>							
fibrous backing, grey	27 %	-	-	-			NAD
<b>Layer 03</b>							
mastic, cream	3 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	10 %	-	-	-	-	90 %
<b>Layer 03</b>	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0011		<b>Sample ID:</b> S11			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin					
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
vinyl, grey	40 %	-	-	-			NAD
<b>Layer 02</b>							
fibrous backing, grey	30 %	40 %	-	-			40 %
<b>Layer 03</b>							
mastic, black	10 %	-	-	-			NAD
<b>Layer 04</b>							
mastic, yellow	20 %	4 %	-	-			4 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	5 %	-	-	-	-	55 %
<b>Layer 03</b>	-	8 %	-	-	-	-	92 %
<b>Layer 04</b>	-	-	-	-	-	-	96 %

<b>Client Sample ID:</b> 51412.002-0012		<b>Sample ID:</b> S12			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin					
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
vinyl, green	90 %	-	-	-			NAD
<b>Layer 02</b>							
mastic, yellow	10 %	4 %	-	-			4 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	96 %



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<b>Client Sample ID:</b> 51412.002-0013	<b>Sample ID:</b> S13	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, brown	40 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
fibrous backing, grey	55 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
mastic, yellow	5 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	3 %	52 %	-
			Wollastonite 5 %
			40 %
<b>Layer 03</b>	1 %	2 %	-
			97 %

<b>Client Sample ID:</b> 51412.002-0014	<b>Sample ID:</b> S14	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, grey	80 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
fibrous backing, grey	15 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
mastic, yellow	5 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	3 %	40 %	-
			Wollastonite 7 %
			50 %
<b>Layer 03</b>	1 %	2 %	-
			95 %

<b>Client Sample ID:</b> 51412.002-0015	<b>Sample ID:</b> S15	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, multi-colored	40 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
compact chalky material, white	55 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
mastic, yellow	5 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
			100 %
<b>Layer 02</b>	-	-	-
			100 %
<b>Layer 03</b>	-	-	-
			100 %



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<u>Client Sample ID:</u> 51412.002-0016		<u>Sample ID:</u> S16			<u>Date Analyzed:</u> 02/26/2008		
<u>Client Sample Description:</u>					<u>Analyst:</u> Payam Amin		
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
<b>Layer 01</b>							
vinyl, grey	30 %	-	-	-			NAD
<b>Layer 02</b>							
compact powder, white	40 %	-	-	-			NAD
<b>Layer 03</b>							
cementitious material, grey	40 %	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	-	100 %
Layer 03	-	-	-	-	-	-	100 %

<u>Client Sample ID:</u> 51412.002-0017		<u>Sample ID:</u> S17			<u>Date Analyzed:</u> 02/26/2008		
<u>Client Sample Description:</u>					<u>Analyst:</u> Payam Amin		
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
<b>Layer 01</b>							
vinyl, tan	30 %	-	-	-			NAD
<b>Layer 02</b>							
compact powder, white	40 %	-	-	-			NAD
<b>Layer 03</b>							
cementitious material, grey	40 %	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	-	100 %
Layer 03	-	-	-	-	-	-	100 %

<u>Client Sample ID:</u> 51412.002-0018		<u>Sample ID:</u> S18			<u>Date Analyzed:</u> 02/26/2008		
<u>Client Sample Description:</u>					<u>Analyst:</u> Payam Amin		
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
<b>Layer 01</b>							
vinyl, blue	80 %	-	-	-			NAD
<b>Layer 02</b>							
compact chalky material, white	20 %	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	-	100 %



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<b>Client Sample ID:</b> 51412.002-0019	<b>Sample ID:</b> S19	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Homogeneous</b>			
granular material, grey	100 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
			100 %

<b>Client Sample ID:</b> 51412.002-0020	<b>Sample ID:</b> S20	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl w/ paint, grey	90 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
compact powder w/ granular material, white/orange	10 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>			
			100 %
<b>Layer 02</b>			
			100 %

<b>Client Sample ID:</b> 51412.002-0021	<b>Sample ID:</b> S21	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
woven material, white	55 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
woven material, green	30 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
mastic, yellow	15 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>			
		100 %	-
<b>Layer 02</b>			
		100 %	-
<b>Layer 03</b>			
			100 %

<b>Client Sample ID:</b> 51412.002-0022	<b>Sample ID:</b> S22	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Homogeneous</b>			
mastic, yellow	100 %	-	-
			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
		4 %	-
			96 %

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<b>Client Sample ID:</b> 51412.002-0023		<b>Sample ID:</b> S23			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b> mastic, yellow	100 %	Trace	-	-			< 1 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	4 %	-	-	-	-	96 %

<b>Client Sample ID:</b> 51412.002-0024		<b>Sample ID:</b> S24			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b> vinyl, grey	97 %	-	-	-			<b>NAD</b>
<b>Layer 02</b> mastic, brown	3 %	-	-	-	Anthophyllite- 3 %		<b>3 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	97 %

<b>Client Sample ID:</b> 51412.002-0025		<b>Sample ID:</b> S25			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b> rubbery material, black	97 %	-	-	-			<b>NAD</b>
<b>Layer 02</b> mastic, brown	3 %	-	-	-	Anthophyllite- 3 %		<b>3 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	97 %

<b>Client Sample ID:</b> 51412.002-0026		<b>Sample ID:</b> S26			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b> vinyl, black	98 %	-	-	-			<b>NAD</b>
<b>Layer 02</b> mastic, brown	2 %	-	-	-	Anthophyllite- 2 %		<b>2 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	98 %



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<b>Client Sample ID:</b> 51412.002-0027	<b>Sample ID:</b> S27	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, tan	98 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
mastic, brown	2 %	-	-
			Anthophyllite- 2 %
			<b>2 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
<b>Layer 02</b>	-	-	-
			100 %
			98 %

<b>Client Sample ID:</b> 51412.002-0028	<b>Sample ID:</b> S28	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>			
vinyl, black	30 %	-	-
			<b>NAD</b>
<b>Layer 02</b>			
cementitious material, grey	40 %	-	-
			<b>NAD</b>
<b>Layer 03</b>			
cementitious material, white	15 %	-	-
			<b>NAD</b>
<b>Layer 04</b>			
mastic, brown	15 %	-	-
			Anthophyllite- 2 %
			<b>2 %</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
<b>Layer 01</b>	-	-	-
<b>Layer 02</b>	-	-	-
<b>Layer 03</b>	-	-	-
<b>Layer 04</b>	-	-	-
			100 %
			100 %
			100 %
			98 %





Job Number: 080346

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Report Date: 02/26/2008

**Client Sample ID:** 51412.002-0029

**Sample ID:** S29

**Date Analyzed:** 02/26/2008

**Client Sample Description:**

**Analyst:** Payam Amin

<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Matrix		Percent Asbestos:
<b>Layer 01</b>								
rubbery material, grey	90 %	-	-	-				NAD
<b>Layer 02</b>								
mastic, brown	3 %	-	-	-	Anthophyllite- Trace			< 1 %
<b>Layer 03</b>								
mastic, cream	2 %	-	-	-				NAD
<b>Layer 04</b>								
paper, tan	5 %	-	-	-				NAD
<b>Other Fibers</b>								
	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other			
<b>Layer 01</b>	-	-	-	-	-	-		100 %
<b>Layer 02</b>	-	2 %	-	-	-	-		98 %
<b>Layer 03</b>	-	-	-	-	-	-		100 %
<b>Layer 04</b>	-	80 %	-	-	-	-		20 %

**Client Sample ID:** 51412.002-0030

**Sample ID:** S30

**Date Analyzed:** 02/26/2008

**Client Sample Description:**

**Analyst:** Payam Amin

<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Matrix		Percent Asbestos:
<b>Layer 01</b>								
rubbery material, red	80 %	-	-	-				NAD
<b>Layer 02</b>								
mastic, cream	6 %	-	-	-				NAD
<b>Layer 03</b>								
chalky material, white	4 %	-	-	-				NAD
<b>Layer 04</b>								
mastic, tan	6 %	-	-	-				NAD
<b>Layer 05</b>								
mastic, brown	4 %	-	-	-	Anthophyllite- 3 %			3 %
<b>Other Fibers</b>								
	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other			
<b>Layer 01</b>	-	-	-	-	-	-		100 %
<b>Layer 02</b>	-	-	-	-	-	-		100 %
<b>Layer 03</b>	-	-	-	-	-	-		100 %
<b>Layer 04</b>	-	-	-	-	-	-		100 %
<b>Layer 05</b>	-	-	-	-	-	-		97 %

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<b>Client Sample ID:</b> 51412.002-0031		<b>Sample ID:</b> S31			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
vinyl, grey	90 %	-	-	-			NAD
<b>Layer 02</b>							
mastic, cream	5 %	-	-	-			NAD
<b>Layer 03</b>							
mastic, brown	3 %	-	-	-	Anthophyllite- 3 %		3 %
<b>Layer 04</b>							
cementitious material, white	2 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %
<b>Layer 03</b>	-	-	-	-	-	-	97 %
<b>Layer 04</b>	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0032		<b>Sample ID:</b> S32			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
vinyl, grey	85 %	-	-	-			NAD
<b>Layer 02</b>							
mastic, yellow	7 %	-	-	-			NAD
<b>Layer 03</b>							
mastic, brown	5 %	-	-	-	Anthophyllite- 3 %		3 %
<b>Layer 04</b>							
chalky material, white	3 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %
<b>Layer 03</b>	-	-	-	-	-	-	97 %
<b>Layer 04</b>	-	-	-	-	-	-	100 %

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<b>Client Sample ID:</b> 51412.002-0033		<b>Sample ID:</b> S33			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
rubbery material, brown	84 %	-	-	-			<b>NAD</b>
<b>Layer 02</b>							
mastic, grey	1 %	-	-	-			<b>NAD</b>
<b>Layer 03</b>							
mastic w/ paint, brown	10 %	-	-	-	Anthophyllite- 2 %		<b>2 %</b>
<b>Layer 04</b>							
cementitious material, white	5 %	-	-	-			
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %
<b>Layer 03</b>	-	-	-	-	-	-	98 %
<b>Layer 04</b>	-	-	-	-	-	-	-

<b>Client Sample ID:</b> 51412.002-0034		<b>Sample ID:</b> S34			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
compressed fibers, grey	100 %	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	40 %	40 %	-	-	-	20 %

<b>Client Sample ID:</b> 51412.002-0035		<b>Sample ID:</b> S35			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
compressed fibers, grey	100 %	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	40 %	40 %	-	-	-	20 %



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<b>Client Sample ID:</b> 51412.002-0036		<b>Sample ID:</b> S36			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>							
	fine compact powder, white	35 %	-	-	-		NAD
<b>Layer 02</b>							
	compact chalky material w/ paper, white	65 %	-	-	-		NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	4 %	-	-	-	-	96 %

<b>Client Sample ID:</b> 51412.002-0037		<b>Sample ID:</b> S37			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>							
	compact chalky material w/ paper, white	35 %	-	-	-		NAD
<b>Layer 02</b>							
	cementitious material, white	15 %	-	-	-		NAD
<b>Layer 03</b>							
	cementitious material, grey	50 %	-	-	-		NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	5 %	-	-	-	-	95 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %
<b>Layer 03</b>	-	2 %	-	-	-	-	98 %

<b>Client Sample ID:</b> 51412.002-0038		<b>Sample ID:</b> S38			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite		
<b>Layer 01</b>							
	compact chalky material, white	30 %	-	-	-		NAD
<b>Layer 02</b>							
	paper w/ loose fibers, grey	10 %	-	-	-		NAD
<b>Layer 03</b>							
	cementitious material, grey	60 %	-	-	-		NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	70 %	-	-	-	-	30 %
<b>Layer 03</b>	-	3 %	-	-	-	-	97 %



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<b>Client Sample ID:</b> 51412.002-0039		<b>Sample ID:</b> S39			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
compact chalky material w/ paper, grey	95 %	-	-	-			NAD
<b>Layer 02</b>							
fine compact powder, white	5 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	5 %	-	-	-	-	95 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0040		<b>Sample ID:</b> S40			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
cementitious material, grey	100 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0041		<b>Sample ID:</b> S41			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
cementitious material, grey	100 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0042		<b>Sample ID:</b> S42			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
fine compact powder, white	100 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	-	-	-	-	-	100 %



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<b>Client Sample ID:</b> 51412.002-0043	<b>Sample ID:</b> S43	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Amber Basting	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite Crocidolite
<b>Homogeneous</b>			<b>Percent Asbestos:</b>
compact chalky material w/ paper, white	100 %	- - -	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool Synthetic Other
	2 %	5 %	- - - - - 93 %

<b>Client Sample ID:</b> 51412.002-0044	<b>Sample ID:</b> S44	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Amber Basting	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite Crocidolite
<b>Homogeneous</b>			<b>Percent Asbestos:</b>
fine compact powder, white	100 %	- - -	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool Synthetic Other
	-	-	- - - - - 100 %

<b>Client Sample ID:</b> 51412.002-0045	<b>Sample ID:</b> S45	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Amber Basting	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite Crocidolite
<b>Homogeneous</b>			<b>Percent Asbestos:</b>
compact powder, offwhite	100 %	- - -	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool Synthetic Other
	-	-	- - - - - 100 %

<b>Client Sample ID:</b> 51412.002-0046	<b>Sample ID:</b> S46	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Amber Basting	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite Crocidolite
<b>Homogeneous</b>			<b>Percent Asbestos:</b>
granular material, grey	100 %	- - -	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool Synthetic Other
	-	-	- - - - - 100 %

<b>Client Sample ID:</b> 51412.002-0047	<b>Sample ID:</b> S47	<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>		<b>Analyst:</b> Amber Basting	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite Crocidolite
<b>Homogeneous</b>			<b>Percent Asbestos:</b>
loose particulate, grey	100 %	- - -	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool Synthetic Other
	-	-	- - - - - 100 %



*Asbestos and Environmental Analysis*

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<b>Client Sample ID:</b> 51412.002-0048		<b>Sample ID:</b> S48			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
hard granular material, brown	94 %	-	-	-			NAD
<b>Layer 02</b>							
mastic, silver	6 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0049		<b>Sample ID:</b> S49			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Amber Basting		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
compact fibrous powder, offwhite	100 %	10 %	5 %	-			15 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	5 %	15 %	-	-	-	65 %

<b>Client Sample ID:</b> 51412.002-0050		<b>Sample ID:</b> S50			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
loose fibrous material, yellow	90 %	-	-	-			NAD
<b>Layer 02</b>							
metal foil w/ fibrous backing, silver	10 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	100 %	-	-	-	-
<b>Layer 02</b>	10 %	40 %	-	-	-	-	50 %



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<b>Client Sample ID:</b> 51412.002-0051		<b>Sample ID:</b> S51		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite	
<b>Layer 01</b>						
fibrous sheet w/ paint and metal foil, white		20 %	-	-	-	NAD
<b>Layer 02</b>						
loose fibrous material, yellow		80 %	-	-	-	NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
<b>Layer 01</b>	-	50 %	-	-	-	50 %
<b>Layer 02</b>	-	-	100 %	-	-	-

<b>Client Sample ID:</b> 51412.002-0052		<b>Sample ID:</b> S52		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite	
<b>Layer 01</b>						
plastic, colorless		1 %	-	-	-	NAD
<b>Layer 02</b>						
cork, brown		99 %	-	-	-	NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
<b>Layer 01</b>	-	-	-	-	-	100 %
<b>Layer 02</b>	-	50 %	-	-	-	50 %

<b>Client Sample ID:</b> 51412.002-0053		<b>Sample ID:</b> S53		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite	
<b>Homogeneous</b>						
compact fibrous material, green		100 %	-	-	-	NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	40 %	-	-	-	60 %

<b>Client Sample ID:</b> 51412.002-0054		<b>Sample ID:</b> S54		<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>		Percent of Sample:	Chrysotile	Amosite	Crocidolite	
<b>Homogeneous</b>						
compact fibrous material, green		100 %	-	-	-	NAD
<b>Other Fibers</b>		Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	40 %	-	-	-	60 %

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<b>Client Sample ID:</b> 51412.002-0055		<b>Sample ID:</b> S55			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
compact powder w/ paint, tan	100%	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
							100%

<b>Client Sample ID:</b> 51412.002-0056		<b>Sample ID:</b> S56			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
cementitious material, grey	100%	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
							100%

<b>Client Sample ID:</b> 51412.002-0057		<b>Sample ID:</b> S57			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
compact chalky material, white	100%	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
							100%

<b>Client Sample ID:</b> 51412.002-0058		<b>Sample ID:</b> S58			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
mastic, yellow	100%	-	-	-			<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
							100%

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<b>Client Sample ID:</b> 51412.002-0059		<b>Sample ID:</b> S59			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
plastic, silver	30 %	-	-	-			NAD
<b>Layer 02</b>							
woven material, white	30 %	-	-	-			NAD
<b>Layer 03</b>							
mastic, yellow	40 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	100 %
<b>Layer 02</b>	-	90 %	-	-	-	-	10 %
<b>Layer 03</b>	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0060		<b>Sample ID:</b> S60			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
granular material, grey	100 %	6 %	-	-			6 %
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	4 %	-	-	-	-	90 %

<b>Client Sample ID:</b> 51412.002-0061		<b>Sample ID:</b> S61			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Homogeneous</b>							
rubbery material, off white	100 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	-	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0062		<b>Sample ID:</b> S62			<b>Date Analyzed:</b> 02/26/2008		<b>Percent Asbestos:</b>
<b>Client Sample Description:</b>					<b>Analyst:</b> Payam Amin		
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
<b>Layer 01</b>							
granular material, grey	97 %	-	-	-	Fibrous 4 % Amphibole-		4 %
<b>Layer 02</b>							
wood, brown	3 %	-	-	-			NAD
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
<b>Layer 01</b>	-	-	-	-	-	-	96 %
<b>Layer 02</b>	-	100 %	-	-	-	-	-

Comments: qualitative TEM recommended



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<b>Client Sample ID:</b> 51412.002-0063	<b>Sample ID:</b> S63			<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite	<b>Percent Asbestos:</b>
<b>Homogeneous</b>					
cementitious material, grey	100 %	-	-	-	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0064	<b>Sample ID:</b> S64			<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite	<b>Percent Asbestos:</b>
<b>Homogeneous</b>					
rubbery material, grey	100 %	-	-	-	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	100 %

<b>Client Sample ID:</b> 51412.002-0065	<b>Sample ID:</b> S65			<b>Date Analyzed:</b> 02/26/2008	
<b>Client Sample Description:</b>				<b>Analyst:</b> Payam Amin	
<b>Asbestos Mineral Fibers</b>	Percent of Sample:	Chrysotile	Amosite	Crocidolite	<b>Percent Asbestos:</b>
<b>Layer 01</b>					
rubbery material, white	50 %	-	-	-	<b>NAD</b>
<b>Layer 02</b>					
foam, off white	50 %	-	-	-	<b>NAD</b>
<b>Other Fibers</b>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
<b>Layer 01</b>	-	-	-	-	100 %
<b>Layer 02</b>	-	-	-	-	100 %





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**BULK SAMPLE ASBESTOS ANALYSIS**

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*Asbestos and Environmental Analysis*

**Job Number: 080346**

**Report Number: 080346R01**

**Report Date: 02/26/2008**

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP).  
Testing method is per 40 CFR 763 Subpart F, Appendix A, PLM.

Layered samples are considered non-homogeneous. "Misc" is miscellaneous. "NAD" is No Asbestos Detected.  
Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.  
Small diameter fibers such as those found in vinyl floor tiles, may not be detected by PLM.  
Asbestos detection interferences may result from material binders.

Qualitative and quantitative TEM analysis may be recommended for difficult samples.


Quantitative analysis by PLM point count or TEM is recommended for samples testing at < or = to 1% asbestos.

The following estimate of error for this method by visual estimation of asbestos percent are as follows:

1% asbestos: 0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.

This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:

  
Payam Amin  
Analyst



THIS IS TO CERTIFY THAT

**ADAM JONES**

**HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE**

for

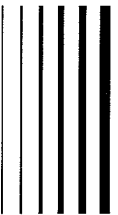
**ASBESTOS INSPECTOR / MANAGEMENT  
PLANNER REFRESHER**

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 04/19/2007

Course Location: Eugene, OR

Certificate: IMR-07-4640A



**PBS**

AHERA is the Asbestos Hazard Emergency  
Response Act enacting Title II of Toxic  
Substance Control Act (TSCA)

Expiration Date: 04/19/2008

For verification of the authenticity of this  
certificate contact: PBS Environmental  
4412 SW Corbett Avenue, Portland, OR 97239  
(503) 248-1939

  
David Stover, Director of Training

EXHIBIT J



June 27, 2019

Mr. Austin Bailey  
Rowell Brokaw  
1 East Broadway  
Suite 300  
Eugene, Oregon 97401

**RE: OSU Nash Hall Elevators – New & Modernization of Existing – Oregon State University  
Structural Engineering Services**  
Project Number: 2018133.00

Austin:

The attached calculations are provided for the sizing of the new elevator mechanical room framing at OSU Nash Hall. Also, the calculations show that the proposed anchorage for the condensing unit to the existing concrete wall is adequate. The project is at the Nash Hall building, which is part of the Oregon State University campus in Corvallis, Oregon. Our calculations are based on the requirements of the 2014 Oregon Structural Specialty Code. The calculations are based upon the scope of work shown on structural sheets S-001 to S601 dated June 28, 2019.

Sincerely,

catena consulting engineers



John McDonald, P.E., S.E.  
Principal

A handwritten signature in black ink that reads "D. Andreani".

Damian Andreani  
Engineer

**a connected series of related elements**

1500 ne irving street • suite 412 • portland oregon 97232 • v 503. 467. 4980 • f 503. 467. 4797

### Search Information

**Address:** Nash Hall, 2820 SW Campus Way, Corvallis, OR 97331, USA

**Coordinates:** 44.5662036, -123.28269139999998

**Elevation:** 248 ft

**Timestamp:** 2019-06-24T22:37:42.650Z

**Hazard Type:** Seismic

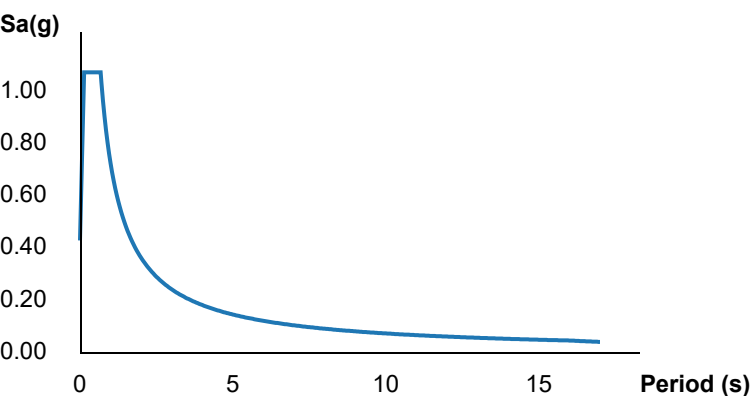
**Reference Document:** ASCE7-10

**Risk Category:** III

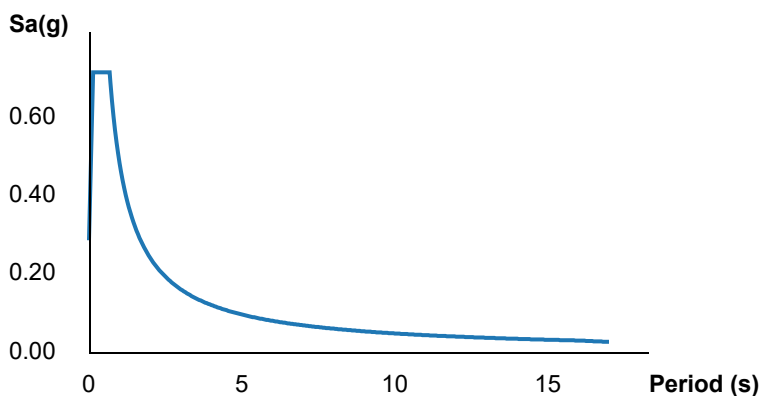
**Site Class:** D



### MCER Horizontal Response Spectrum



### Design Horizontal Response Spectrum



### Basic Parameters

Name	Value	Description
$S_S$	0.966	MCE <sub>R</sub> ground motion (period=0.2s)
$S_1$	0.477	MCE <sub>R</sub> ground motion (period=1.0s)
$S_{MS}$	1.076	Site-modified spectral acceleration value
$S_{M1}$	0.726	Site-modified spectral acceleration value
$S_{DS}$	0.717	Numeric seismic design value at 0.2s SA
$S_{D1}$	0.484	Numeric seismic design value at 1.0s SA

### Additional Information

Name	Value	Description
SDC	D	Seismic design category
$F_a$	1.114	Site amplification factor at 0.2s
$F_v$	1.523	Site amplification factor at 1.0s

CR <sub>S</sub>	0.859	Coefficient of risk (0.2s)
CR <sub>1</sub>	0.84	Coefficient of risk (1.0s)
PGA	0.457	MCE <sub>G</sub> peak ground acceleration
F <sub>PGA</sub>	1.043	Site amplification factor at PGA
PGA <sub>M</sub>	0.477	Site modified peak ground acceleration
T <sub>L</sub>	16	Long-period transition period (s)
SsRT	0.966	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.125	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.5	Factored deterministic acceleration value (0.2s)
S1RT	0.477	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.568	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.6	Factored deterministic acceleration value (1.0s)
PGAd	0.5	Factored deterministic acceleration value (PGA)

*The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.*

## Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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DL

4 1/2" ON 3" DECK  $\Rightarrow$  75 psf CONCRETE

MISC  $\Rightarrow$  5 psf

$L_{TRIB} = 4'$

$$\therefore DL = (80 \text{ psf})(4') + SW = 0.4 \text{ k/ft} + 300 \text{ lb} = 0.43 \text{ k/ft}$$

USE 0.45 k/ft

LL

$$LL = (25 \text{ psf}) L_{TRIB} = \underline{100 \text{ lb/ft}}$$

MACHINE ROOM LOADS

PER COORDINATION IN APRIL 2019.

13.3K LOAD CENTERED @ BEAM

& 19.5K LOAD @  $\approx 2'$  FROM WALL.

SEE NEXT PAGE FOR S-BEAM ANALYSIS.



RAM SBeam v06.00.00

Nash Hall



# Gravity Beam Design

06/26/19 16:14:38

**STEEL CODE: AISC 360-10 LRFD**

**SPAN INFORMATION (ft): I-End (0.00,0.00) J-End (8.50,0.00)**

Beam Size (User Selected) = W14X30 Fy = 50.0 ksi  
 Total Beam Length (ft) = 8.50  
 Mp (kip-ft) = 197.08  
 Top flange braced by decking.

**POINT LOADS (kips):**

Dist (ft)	DL	LL	PartL	Flange Bracing	
				Top	Bottom
4.250	13.30	0.00	0.00	No	No
6.500	19.50	0.00	0.00	No	No

**LINE LOADS (k/ft):**

Load	Dist (ft)	DL	LL	PartL
1	0.000	0.352	0.100	0.000
	8.500	0.352	0.100	0.000

**SHEAR (Ultimate): Max Vu (1.4DL) = 32.28 kips 1.00Vn = 111.78 kips**

**MOMENTS (Ultimate):**

Span	Cond	LoadCombo	Mu kip-ft	@ ft	Lb ft	Cb	Phi	Phi*Mn kip-ft
Center	Max +	1.4DL	71.3	4.3	0.0	1.00	0.90	177.37
Controlling		1.4DL	71.3	4.3	0.0	1.00	0.90	177.37

**REACTIONS (kips):**

	Left	Right
DL reaction	12.73	23.06
Max +LL reaction	0.42	0.42
Max +total reaction (factored)	17.83	32.28

**DEFLECTIONS:**

Dead load (in)	at	4.46 ft =	-0.073	L/D =	1390
Live load (in)	at	4.46 ft =	-0.001	L/D =	73508
Net Total load (in)	at	4.46 ft =	-0.075	L/D =	1364



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**Specifier's comments:**

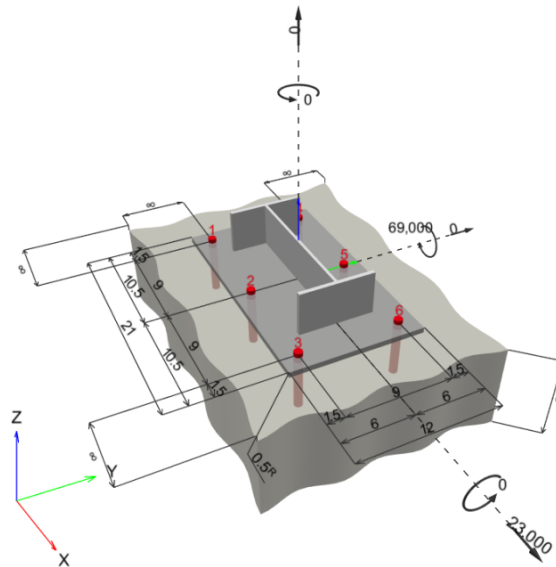
**1 Input data**

<b>Anchor type and diameter:</b>	<b>Kwik Bolt TZ - CS 3/4 (4 3/4)</b>
Item number:	not available
Effective embedment depth:	$h_{ef} = 4.750 \text{ in.}$ , $h_{nom} = 5.563 \text{ in.}$
Material:	Carbon Steel
Evaluation Service Report:	ESR-1917
Issued   Valid:	3/1/2019   5/1/2019
Proof:	Design Method ACI 318 / AC193
Stand-off installation:	$e_b = 0.000 \text{ in.}$ (no stand-off); $t = 0.500 \text{ in.}$
Anchor plate <sup>R</sup> :	$l_x \times l_y \times t = 21.000 \text{ in.} \times 12.000 \text{ in.} \times 0.500 \text{ in.}$ ; (Recommended plate thickness: not calculated)
Profile:	W shape (AISC), W14X30; (L x W x T x FT) = 13.800 in. x 6.730 in. x 0.270 in. x 0.385 in.
Base material:	cracked concrete, 4000, $f'_c = 4,000 \text{ psi}$ ; $h = 8.000 \text{ in.}$
Reinforcement:	tension: condition B, shear: condition B; no supplemental splitting reinforcement present edge reinforcement: none or < No. 4 bar
Seismic loads (cat. C, D, E, or F)	no



<sup>R</sup> - The anchor calculation is based on a rigid anchor plate assumption.

**Geometry [in.] & Loading [lb, in.lb]**



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**1.1 Design results**

Case	Description	Forces [lb] / Moments [in.lb]	Seismic	Max. Util. Anchor [%]
1	Combination 1	N = 0; V <sub>x</sub> = 23,000; V <sub>y</sub> = 0; M <sub>x</sub> = 0; M <sub>y</sub> = 69,000; M <sub>z</sub> = 0;	no	44

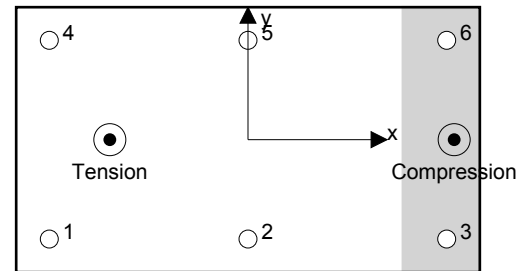
**2 Load case/Resulting anchor forces**

Load case: Design loads

**Anchor reactions [lb]**

Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	1,538	3,833	3,833	0
2	674	3,833	3,833	0
3	0	3,833	3,833	0
4	1,538	3,833	3,833	0
5	674	3,833	3,833	0
6	0	3,833	3,833	0



max. concrete compressive strain: 0.05 [%]  
 max. concrete compressive stress: 212 [psi]  
 resulting tension force in (x/y)=(-6.258/0.000): 4,424 [lb]  
 resulting compression force in (x/y)=(9.339/0.000): 4,424 [lb]

Anchor forces are calculated based on the assumption of a rigid anchor plate.

**3 Tension load**

	Load N <sub>ua</sub> [lb]	Capacity φ N <sub>n</sub> [lb]	Utilization β <sub>N</sub> = N <sub>ua</sub> /φ N <sub>n</sub>	Status
Steel Strength*	1,538	18,840	9	OK
Pullout Strength*	N/A	N/A	N/A	N/A
Concrete Breakout Failure**	4,424	15,448	29	OK

\* highest loaded anchor    \*\*anchor group (anchors in tension)



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3.1 Steel Strength

$N_{sa}$  = ESR value refer to ICC-ES ESR-1917  
 $\phi N_{sa} \geq N_{ua}$  ACI 318-08 Eq. (D-1)

Variables

$A_{se,N}$ [in. <sup>2</sup> ]	$f_{uta}$ [psi]
0.24	106,000

Calculations

$N_{sa}$ [lb]
25,120

Results

$N_{sa}$ [lb]	$\phi_{steel}$	$\phi N_{sa}$ [lb]	$N_{ua}$ [lb]
25,120	0.750	18,840	1,538



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**3.2 Concrete Breakout Failure**

$$N_{cbg} = \left( \frac{A_{Nc}}{A_{Nc0}} \right) \Psi_{ec,N} \Psi_{ed,N} \Psi_{c,N} \Psi_{cp,N} N_b \quad \text{ACI 318-08 Eq. (D-5)}$$

$$\phi N_{cbg} \geq N_{ua} \quad \text{ACI 318-08 Eq. (D-1)}$$

$A_{Nc}$  see ACI 318-08, Part D.5.2.1, Fig. RD.5.2.1(b)

$$A_{Nc0} = 9 h_{ef}^2 \quad \text{ACI 318-08 Eq. (D-6)}$$

$$\Psi_{ec,N} = \left( \frac{1}{1 + \frac{2 e_N}{3 h_{ef}}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-9)}$$

$$\Psi_{ed,N} = 0.7 + 0.3 \left( \frac{c_{a,min}}{1.5 h_{ef}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-11)}$$

$$\Psi_{cp,N} = \text{MAX} \left( \frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-13)}$$

$$N_b = k_c \lambda \sqrt{f_c} h_{ef}^{1.5} \quad \text{ACI 318-08 Eq. (D-7)}$$

**Variables**

$h_{ef}$ [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]	$\Psi_{c,N}$
4.750	1.758	0.000	∞	1.000
$c_{ac}$ [in.]	$k_c$	$\lambda$	$f_c$ [psij]	
9.000	17	1	4,000	

**Calculations**

$A_{Nc}$ [in. <sup>2</sup> ]	$A_{Nc0}$ [in. <sup>2</sup> ]	$\Psi_{ec1,N}$	$\Psi_{ec2,N}$	$\Psi_{ed,N}$	$\Psi_{cp,N}$	$N_b$ [lb]
540.56	203.06	0.802	1.000	1.000	1.000	11,131

**Results**

$N_{cbg}$ [lb]	$\phi_{concrete}$	$\phi N_{cbg}$ [lb]	$N_{ua}$ [lb]
23,766	0.650	15,448	4,424



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### 4 Shear load

	Load $V_{ua}$ [lb]	Capacity $\phi V_n$ [lb]	Utilization $\beta_v = V_{ua}/\phi V_n$	Status
Steel Strength*	3,833	8,888	44	OK
Steel failure (with lever arm)*	N/A	N/A	N/A	N/A
Pryout Strength**	23,000	57,540	40	OK
Concrete edge failure in direction **	N/A	N/A	N/A	N/A

\* highest loaded anchor    \*\*anchor group (relevant anchors)

#### 4.1 Steel Strength

$V_{sa}$  = ESR value      refer to ICC-ES ESR-1917  
 $\phi V_{steel} \geq V_{ua}$       ACI 318-08 Eq. (D-2)

#### Variables

$A_{se,V}$ [in. <sup>2</sup> ]	$f_{uta}$ [psi]
0.24	106,000

#### Calculations

$V_{sa}$ [lb]
13,674

#### Results

$V_{sa}$ [lb]	$\phi_{steel}$	$\phi V_{sa}$ [lb]	$V_{ua}$ [lb]
13,674	0.650	8,888	3,833

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**4.2 Pryout Strength**

$$V_{cp,g} = k_{cp} \left[ \left( \frac{A_{Nc}}{A_{Nc0}} \right) \Psi_{ec,N} \Psi_{ed,N} \Psi_{c,N} \Psi_{cp,N} N_b \right] \quad \text{ACI 318-08 Eq. (D-31)}$$

$$\phi V_{cp,g} \geq V_{ua} \quad \text{ACI 318-08 Eq. (D-2)}$$

 $A_{Nc}$  see ACI 318-08, Part D.5.2.1, Fig. RD.5.2.1(b)

$$A_{Nc0} = 9 h_{ef}^2 \quad \text{ACI 318-08 Eq. (D-6)}$$

$$\Psi_{ec,N} = \left( \frac{1}{1 + \frac{2 e_N}{3 h_{ef}}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-9)}$$

$$\Psi_{ed,N} = 0.7 + 0.3 \left( \frac{c_{a,min}}{1.5 h_{ef}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-11)}$$

$$\Psi_{cp,N} = \text{MAX} \left( \frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}} \right) \leq 1.0 \quad \text{ACI 318-08 Eq. (D-13)}$$

$$N_b = k_c \lambda \sqrt{f_c} h_{ef}^{1.5} \quad \text{ACI 318-08 Eq. (D-7)}$$

**Variables**

$k_{cp}$	$h_{ef}$ [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]
2	4.750	0.000	0.000	$\infty$
$\Psi_{c,N}$	$c_{ac}$ [in.]	$k_c$	$\lambda$	$f_c$ [psi]
1.000	9.000	17	1	4,000

**Calculations**

$A_{Nc}$ [in. <sup>2</sup> ]	$A_{Nc0}$ [in. <sup>2</sup> ]	$\Psi_{ec1,N}$	$\Psi_{ec2,N}$	$\Psi_{ed,N}$	$\Psi_{cp,N}$	$N_b$ [lb]
749.81	203.06	1.000	1.000	1.000	1.000	11,131

**Results**

$V_{cp,g}$ [lb]	$\phi_{concrete}$	$\phi V_{cp,g}$ [lb]	$V_{ua}$ [lb]
82,200	0.700	57,540	23,000

**5 Combined tension and shear loads**

$\beta_N$	$\beta_V$	$\zeta$	Utilization $\beta_{N,V}$ [%]	Status
0.286	0.431	5/3	38	OK

$$\beta_{NV} = \beta_N^{\zeta} + \beta_V^{\zeta} \leq 1$$



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## 6 Warnings

- The anchor design methods in PROFIS Engineering require rigid anchor plates per current regulations (AS 5216:2018, ETAG 001/Annex C, EOTA TR029 etc.). This means load re-distribution on the anchors due to elastic deformations of the anchor plate are not considered - the anchor plate is assumed to be sufficiently stiff, in order not to be deformed when subjected to the design loading. PROFIS Engineering calculates the minimum required anchor plate thickness with CBFEM to limit the stress of the anchor plate based on the assumptions explained above. The proof if the rigid anchor plate assumption is valid is not carried out by PROFIS Engineering. Input data and results must be checked for agreement with the existing conditions and for plausibility!
- Condition A applies where the potential concrete failure surfaces are crossed by supplementary reinforcement proportioned to tie the potential concrete failure prism into the structural member. Condition B applies where such supplementary reinforcement is not provided, or where pullout or pryout strength governs.
- Refer to the manufacturer's product literature for cleaning and installation instructions.
- For additional information about ACI 318 strength design provisions, please go to <https://submittals.us.hilti.com/PROFISAnchorDesignGuide/>

**Fastening meets the design criteria!**

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Company:  
 Address:  
 Phone | Fax:  
 Design: Concrete - May 1, 2019  
 Fastening point:

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### 7 Installation data

Profile: W shape (AISC), W14X30; (L x W x T x FT) = 13.800 in. x 6.730 in. x 0.270 in. x 0.385 in.

Hole diameter in the fixture:  $d_f = 0.813$  in.

Plate thickness (input): 0.500 in.

Recommended plate thickness: not calculated

Drilling method: Hammer drilled

Cleaning: Manual cleaning of the drilled hole according to instructions for use is required.

Anchor type and diameter: Kwik Bolt TZ - CS 3/4 (4 3/4)

Item number: not available

Installation torque: 1,320 in.lb

Hole diameter in the base material: 0.750 in.

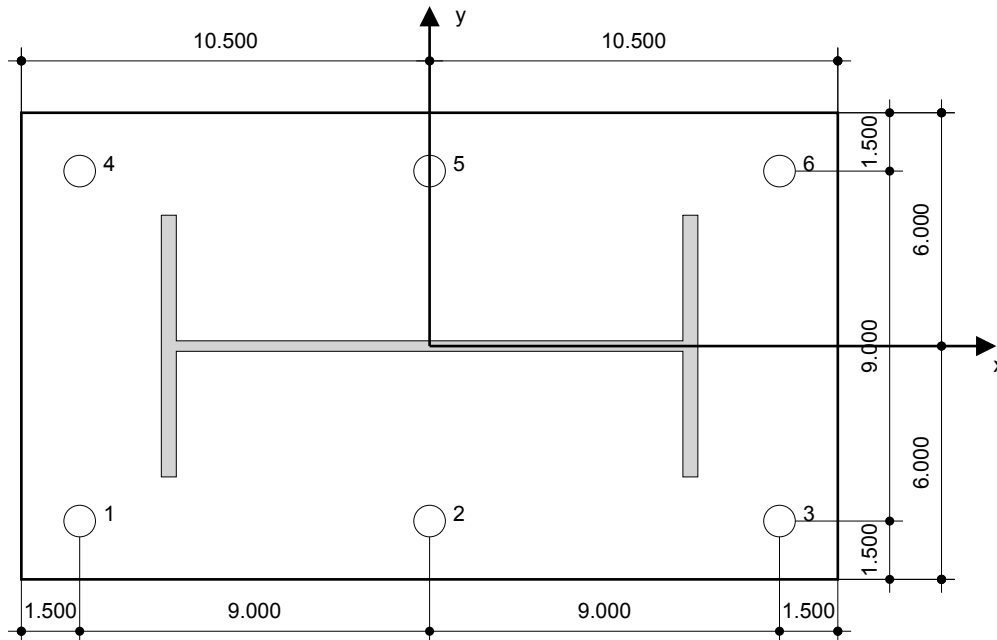
Hole depth in the base material: 5.750 in.

Minimum thickness of the base material: 8.000 in.

Hilti KB-TZ stud anchor with 5.5625 in embedment, 3/4 (4 3/4), Carbon steel, installation per ESR-1917

#### 7.1 Recommended accessories

Drilling	Cleaning	Setting
<ul style="list-style-type: none"> <li>Suitable Rotary Hammer</li> <li>Properly sized drill bit</li> </ul>	<ul style="list-style-type: none"> <li>Manual blow-out pump</li> </ul>	<ul style="list-style-type: none"> <li>Torque wrench</li> <li>Hammer</li> </ul>



Coordinates Anchor in.

Anchor	x	y	c <sub>-x</sub>	c <sub>+x</sub>	c <sub>-y</sub>	c <sub>+y</sub>	Anchor	x	y	c <sub>-x</sub>	c <sub>+x</sub>	c <sub>-y</sub>	c <sub>+y</sub>
1	-9.000	-4.500	-	-	-	-	4	-9.000	4.500	-	-	-	-
2	0.000	-4.500	-	-	-	-	5	0.000	4.500	-	-	-	-
3	9.000	-4.500	-	-	-	-	6	9.000	4.500	-	-	-	-

Input data and results must be checked for conformity with the existing conditions and for plausibility!  
 PROFIS Engineering (c) 2003-2018 Hilti AG, FL-9494 Schaan Hilti is a registered Trademark of Hilti AG, Schaan





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## 8 Remarks; Your Cooperation Duties

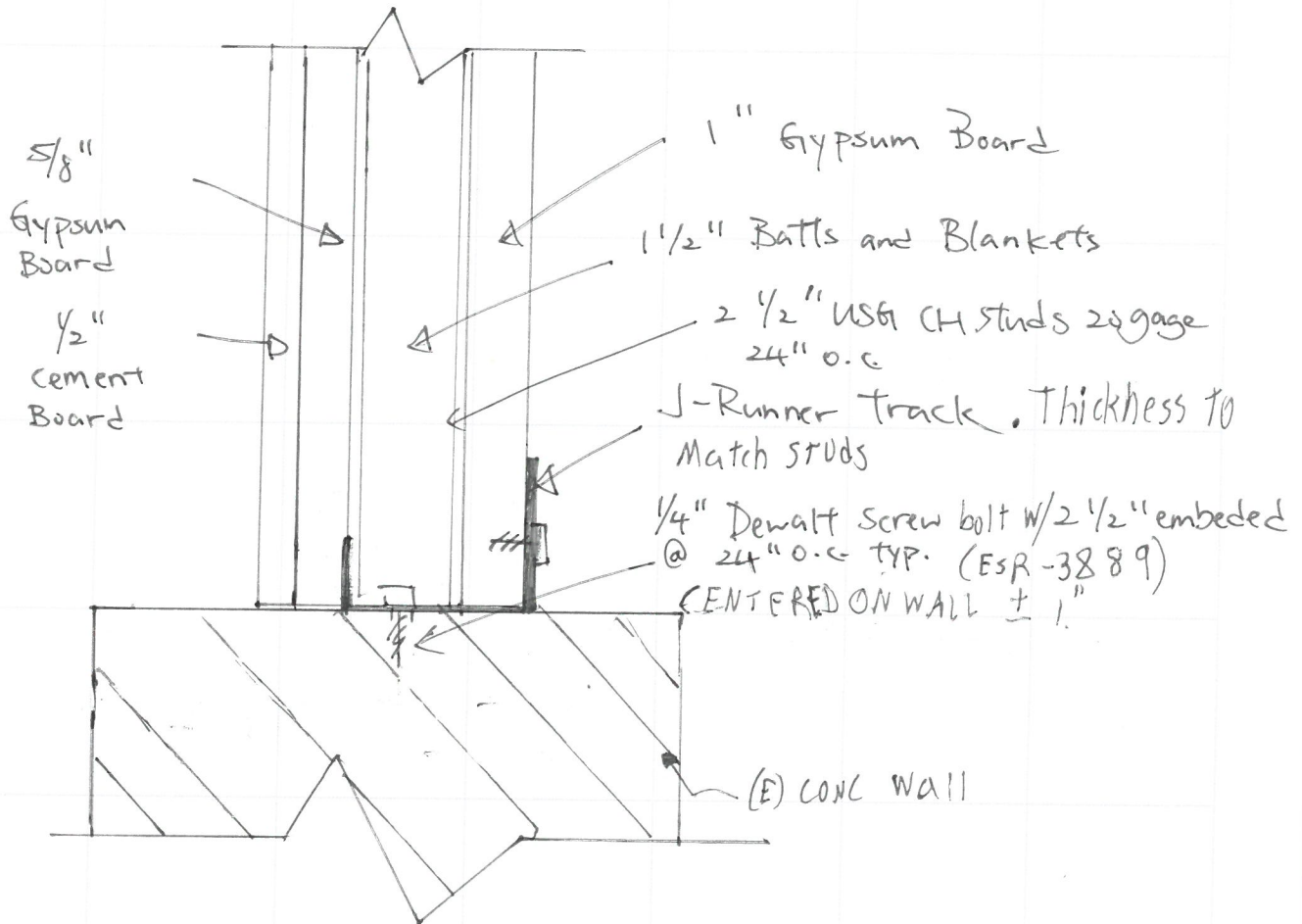
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OSU Wash Hall

2018.33.00

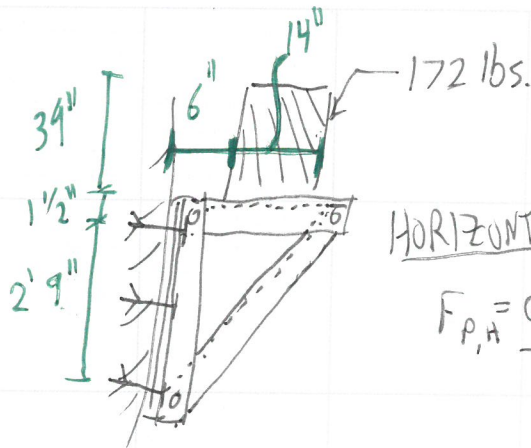
Shaft Wall Connection

K.C.



Shaft Wall connection

N.T.S.



HORIZONTAL FORCE

$$F_{p,H} = \frac{0.4 \alpha_p S_{os} W}{\left(\frac{R_p}{I_p}\right)} \left(1 + 2 \frac{z}{h}\right)$$

$$S_{os} = 0.717g$$

$$\alpha_p = 2.5 \quad [ASCE 7-16]$$

$$R_p = 3.0$$

$$W = 172 \text{ lbs}$$

$$z/h = 1.0$$

$$I_p = 1.0$$

$$F_{p,H} = 123 \text{ lbs}$$

VERTICAL FORCE:

$$F_{p,V} = W + 0.25 S_{os} W = 197 \text{ lbs}$$

$$M = F_{p,H} \left( \frac{39''}{2} + 1.5'' + \frac{2'9''}{2} \right) + F_{p,V} \left( \frac{14''}{2} + 6'' \right) = 7173 \text{ lb in}$$

$$T = C = \frac{M}{2'9''} = 217 \text{ lbs}$$

w/2 ANCHORS ..

OK

BY INSPECTION

EXHIBIT K



# Mechanical Compliance Certificate

## Section 1: Project Information

Energy Code: **2014 Oregon Energy Efficiency Specialty Code**  
Project Title: OSU Nash Hall New & Mod Elevators  
Project Type: New Construction

Construction Site:  
2820 SW Campus Way  
Corvallis OR , OR 97331

Owner/Agent:  
Aaron Follet  
Oregon State University  
2820 SW Campus Way  
Corvallis, OR 97331

Designer/Contractor:  
Paul Fooks  
Systems West Engineers  
725 A Street  
Springfield, OR 97477

## Section 2: General Information

Building Location (for weather data): Corvallis, Oregon  
Climate Zone: 4c

## Section 3: Mechanical Systems List

### Quantity System Type & Description

- 1 HVAC System 1 (Single Zone) :  
Cooling: 1 each - Split System, Capacity = 11 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None  
Proposed Efficiency = 19.00 SEER, Required Efficiency: 13.00 SEER  
Fan System: FC-1 | Elevator Machine Room -- Compliance (Motor nameplate HP method) : Passes
- Fans:  
FAN 1 Supply, Constant Volume, 400 CFM, 0.1 motor nameplate hp

## Section 4: Requirements Checklist

*In the following requirements, blank checkboxes identify requirements that the applicant has not acknowledged as being met. Checkmarks identify requirements that the applicant acknowledges are met or excepted from compliance. 'Plans reference page/section' identifies where in the plans/specs the requirement can be verified as being satisfied.*

### Requirements Specific To: HVAC System 1 :

1. Equipment meets minimum efficiency: Split System: 13.00 SEER
2. Energy recovery ventilation systems. Individual fan systems that have both a design supply air capacity of 5,000 cfm or greater and a minimum outside air supply of 70 percent or greater of the design supply air quantity have an energy recovery system.
- Exception(s):*
- Where energy recovery systems are prohibited by the International Mechanical Code.
  - Systems serving spaces that are not cooled and are heated to less than 60°F.
  - Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
  - Type 1 kitchen exhaust hoods.
  - Cooling systems in climates with a 1-percent cooling design wet-bulb temperature less than 64°F (18°C).
  - Systems requiring dehumidification that employ series-style energy recovery coils wrapped around the cooling coil when the evaporative coil is located upstream of the exhaust air stream.
  - Systems exhausting toxic, flammable, paint exhaust, corrosive fumes, or dust.
  - Laboratory fume hood systems that include qualifying features.

Plans reference page/section: Equipment schedule on Sheet M-001

**Generic Requirements: Must be met by all systems to which the requirement is applicable:**

- ✓ 1. Calculation of heating and cooling loads. Design loads are determined in accordance with the procedures described in the ASHRAE/ACCA Standard 183. Alternatively, design loads have been determined by an approved equivalent computation procedure.
- ☐ 2. Cooling equipment economizers: The total capacity of all cooling equipment without economizers must be less than 240 kBtu/h. This project lists 0 kBtu/h capacity without economizers. That portion of the equipment serving dwelling units and guest rooms is not included in determining the total capacity of units without economizers.

Plans reference page/section: NA

- ✓ 3. Equipment and system sizing. Heating and cooling equipment and systems capacity do not exceed the loads calculated in accordance with Section 503.2.1.

Plans reference page/section: \_\_\_\_\_

- ✓ 4. HVAC Equipment Performance Requirements. Reported efficiencies have been tested and rated in accordance with the applicable test procedure. The efficiency has been verified through certification under an approved certification program or, if no certification program exists, the equipment efficiency ratings are supported by data furnished by the manufacturer.
- ✓ 5. Thermostatic Controls. The supply of heating and cooling energy to each zone is controlled by individual thermostatic controls that respond to temperature within the zone.

Plans reference page/section: Specification section 23 09 30

- ☐ 6. Heat pump supplementary heat. Heat pumps having supplementary electric resistance heat have controls that, except during defrost, prevent supplementary heat operation when the heat pump can meet the heating load.

Plans reference page/section: NA

- ☐ 7. Set point overlap restriction. Where used to control both heating and cooling, zone thermostatic controls provide a temperature range or deadband of at least 5°F (2.8°C) within which the supply of heating and cooling energy to the zone is capable of being shut off or reduced to a minimum.

Exception(s):

- ☐ Thermostats requiring manual change over between heating and cooling modes.

Plans reference page/section: NA

- ✓ 8. Optimum Start Controls. Each HVAC system has controls that vary the start-up time of the system to just meet the temperature set point at time of occupancy.

Plans reference page/section: Specification section 23 81 28

- ✓ 9. Off-hour controls. Each zone is provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.

✓ **Exception applies:** Zones that will be operated continuously.

Plans reference page/section: \_\_\_\_\_

- ☐ 10. Shutoff damper controls. Both outdoor air supply and exhaust are equipped with not less than Class I motorized dampers.

Exception(s):

- ☐ Gravity dampers shall be permitted for outside air intake or exhaust airflows of 300 cfm or less.

Plans reference page/section: NA

- ✓ 11. Freeze Protection and Snow melt system controls. Freeze protection systems, such as heat tracing of outdoor piping and heat exchangers, including self-regulating heat tracing, include automatic controls capable of shutting off the systems when outdoor air temperatures meet code criteria.

Plans reference page/section: Specification section 23 81 28

- ☐ 12. Separate air distribution systems. Zones with special process temperature requirements and/or humidity requirements are served by separate air distribution systems from those serving zones requiring only comfort conditions; or shall include supplementary control provisions so that the primary systems may be specifically controlled for comfort purposes only.

Exception(s):

- ☐ [503.2.4.8 +] Zones requiring only comfort heating or comfort cooling that are served by a system primarily used for process temperature and humidity control.

Plans reference page/section: NA

- ☐ 13. Humidity control. Where a humidity control device exists it is set to prevent the use of fossil fuel or electricity to produce relative humidity in excess of 30 percent. Where a humidity control device is used for dehumidification, it is set to prevent the use of fossil fuel or electricity to reduce relative humidity below 60 percent.

Exception(s):

- Hospitals, process needs, archives, museums, critical equipment, and other non-comfort situations with specific humidity requirements outside this range.

Plans reference page/section: NA

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14. Humidity control. Where a humidity control device exists it is set to maintain a deadband of at least 10% relative humidity where no active humidification or dehumidification takes place.

Exception(s):

- Heating for dehumidification is provided with heat recovery or heat pumping and the mechanical cooling system efficiency is 10 percent higher than required in section 503.2.3, HVAC equipment performance requirements.

Plans reference page/section: NA

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15. Ventilation. Ventilation, either natural or mechanical, is provided in accordance with Chapter 4 of the International Mechanical Code. Where mechanical ventilation is provided, the system has the capability to reduce the outdoor air supply to the minimum required by Chapter 4 of the International Mechanical Code.

Plans reference page/section: NA

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16. Demand controlled ventilation (DCV). DCV is required for spaces larger than 500 ft<sup>2</sup> for simple systems and spaces larger than 150 ft<sup>2</sup> for multiple zone systems.

Exception(s):

- Systems with energy recovery complying with Section 503.2.6
- Spaces less than 750 ft<sup>2</sup> (69.7 m<sup>2</sup>) where an occupancy sensor turns the fan off, closes the ventilation damper, or closes the zone damper when the space is unoccupied.

Plans reference page/section: na

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17. Kitchen hoods. Kitchen makeup is provided as required by the Oregon Mechanical Specialty Code.

Exception(s):

- Where hoods are used to exhaust ventilation air that would otherwise be exhausted by other fan systems.
- Kitchen exhaust systems that include exhaust air energy recovery complying with section 503.2.6.

Plans reference page/section: NA

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18. Enclosed parking garage ventilation controls. In Group S-2, enclosed parking garages used for storing or handling automobiles employ automatic carbon monoxide sensing devices.

Plans reference page/section: NA

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19. Duct and plenum insulation and sealing. All supply and return air ducts and plenums are insulated with the specified insulation. When located within a building envelope assembly, the duct or plenum is separated from the building exterior or unconditioned or exempt spaces by a minimum of R-8 insulation. All ducts, air handlers and filter boxes are sealed. Joints and seams comply with Section 603.9 of the International Mechanical Code.

20. Low-pressure duct systems. All longitudinal and transverse joints, seams and connections of low-pressure supply and return ducts are securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems or tapes installed in accordance with the manufacturer's installation instructions.

Plans reference page/section: NA

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21. Medium-pressure duct systems. All ducts and plenums designed to operate medium-pressure are insulated and sealed in accordance with Section 503.2.7. Pressure classifications specific to the duct system are clearly indicated on the construction documents.

Plans reference page/section: NA

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22. High-pressure duct systems. Ducts designed to operate at high-pressure are insulated and sealed in accordance with Section 503.2.7. In addition, ducts and plenums are leak-tested in accordance with the SMACNA HVAC Air Duct Leakage Test Manual.

Plans reference page/section: NA

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23. Manuals. The construction documents require that an operating and maintenance manual be provided to the building owner by the mechanical contractor. See long description for specifications.

Plans reference page/section: Specification section 23 05 00

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24. Air System Design and Control. Each HVAC system having a total fan system motor nameplate hp exceeding 5 hp meets the provisions of Sections 503.2.10.1 through 503.2.10.2.

Plans reference page/section: NA

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25. Allowable fan floor horsepower. Each HVAC system at fan system design conditions does not exceed the allowable fan system motor nameplate hp (Option 1) or fan system bhp (Option 2) as shown and calculated in requirement details.

Exception(s):

- Hospital and laboratory systems that utilize flow control devices on exhaust and/or return to maintain space pressure relationships necessary for occupant health and safety or environmental control shall be permitted to use variable volume fan power limitation.
- Individual exhaust fans with motor nameplate horsepower of 1 hp or less.

Plans reference page/section: NA

- 26. Motor nameplate horsepower. For each fan, the selected fan motor is no larger than the first available motor size greater than the brake horsepower (bhp).  
Exception(s):
  - For fans less than 6 bhp, where the first available motor larger than the brake horsepower has a nameplate rating within 50 percent of the bhp, selection of the next larger nameplate motor size is allowed.
  - For fans 6 bhp and larger, where the first available motor larger than the bhp has a nameplate rating within 30 percent of the bhp, selection of the next larger nameplate motor size is allowed.

Plans reference page/section: NA

- 27. Large Volume Fan Systems. Fan systems over 8,000 (7 m3/s) cfm without direct expansion cooling coils that serve single zones reduce airflow based on space thermostat heating and cooling demand. A two-speed motor or variable frequency drive reduces airflow to a maximum 60 percent of peak airflow or minimum ventilation air requirement as required by Chapter 4 of the International Mechanical Code, whichever is greater.  
Exception(s):
  - Systems where the function of the supply air is for purposes other than temperature control, such as maintaining specific humidity levels or supplying an exhaust system.

Plans reference page/section: NA

- 28. All air-conditioning equipment and air-handling units with direct expansion cooling and a cooling capacity at ARI conditions greater than or equal to 110,000 Btu/h that serve single zones have their supply fan operation controlled according to code specific requirements.  
Exception(s):
  - Systems where the function of the supply air is for purposes other than temperature control, such as maintaining specific humidity levels or supplying an exhaust system.

Plans reference page/section: NA

- 29. Series fan-powered terminal unit fan motors. Fan motors for series fan-powered terminal units are electronically-commutated motors and have a minimum motor efficiency of 70 percent when rated in accordance with NEMA Standard MG 1-2006 at full load rating conditions.

Plans reference page/section: NA

- 30. Hot Gas Bypass Limitation. For cooling systems <= 240 kBtu/h, maximum hot gas bypass capacity is no more than 50% total cooling capacity.

Plans reference page/section: NA

## Section 5: Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2014 Oregon Energy Efficiency Specialty Code requirements in COMcheck Version 4.1.1.0 and to comply with the mandatory requirements in the Requirements Checklist.

Paul E. Fooks, P.E. Mechanical Engineer

Name - Title

  
Signature

06/28/2019

Date

## Section 6: Post Construction Compliance Statement

- HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
- HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name

Signature

Date