

# **CENTRAL CURRY SCHOOL DISTRICT**

# DISTRICT WIDE ROOFING PROJECT AT GOLD BEACH JUNIOR/SENIOR HIGH SCHOOL RILEY CREEK ELEMENTARY SCHOOL

# **BID DOCUMENTS**



Soderstrom Architects

**FEBRUARY 14, 2024** 



PROJECT MANAGER:	Mike Freeman, Program Manager HMK Company 46 N Front Street, Suite 201 Medford, OR 97501 Phone: 541-499-7996 Email: <u>mike.freeman@hmkco.org</u>
DESIGN PROFESSIONAL:	Marlene Gillis, President Soderstrom Architects 1331 NW Lovejoy Street, Suite 775 Portland, OR 97209 Phone: 503-481-4677 Email: <u>marleneg@sdra.com</u>
SCHOOL DISTRICT:	Eric Milburn, Superintendent Cenral Curry School District 29805 Mary Street Gold Beach, OR 97444 Phone: 541-247-2003 ext. 224 Email: <u>emilburn@ccsd.k12.or.us</u>
PROJECT:	District Wide Roofing Project
LOCATIONS:	Riley Creek Elementary School 94350 Sixth Street Gold Beach, OR 97444 Gold Beach Junior/Senior High School 29516 Ellensburg Avenue Gold Beach, OR 97444



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Limiteded Regulated Building Materials Survey 57 Pages

ATTACHMENT A - Prevailing Wage Rate



### THE CENTRAL CURRY SCHOOL DISTRICT DISTRICT WIDE ROOFING PROJECT Bids Due 2:00 PM, MARCH 13, 2024

## **INVITATION FOR BIDS**

NOTICE IS HEREBY GIVEN that sealed bids will be accepted at the CENTRAL CURRY SCHOOL DISTRICT OFFICE, located at 29805 Mary Street, Gold Beach, Oregon 97444, by Mike Freeman, Program Manager, HMK Company, until 2:00 PM Local Time, March 13, 2024, at which time and place bids will be closed. The bids will be publicly opened and read immediately after closing.

The work consists of: Comprehensive roofing replacement, repair and renovation of both Gold Beach Junior/Senior High School and Riley Creek Elementary School.

The following deadlines and restrictions are applicable to the project: Project start date **June 17, 2024**. Contract must meet a Substantial Completion date of **August 16, 2024**.

A MANDATORY Pre-Bid Meeting will be held at 3:00 PM on February 21, 2024 at the Gold Beach Junior/Senior High School located at 29516 Ellensburg Avenue, Gold Beach, Oregon 97444. Representatives of the Contractors will meet with the Owner and Project Manager for review of the project specifications and then visit the sites for a walk of the facility.

All bids must be submitted on the bid forms furnished to the bidders. Each bid shall be submitted in a sealed envelope and plainly marked "**DISTRICT WIDE ROOFING PROJECT**" and show the name and business address of the bidder. Each bid must be accompanied by an unconditional cashier's check, certified check or surety bond of the bidder in the amount of ten percent (10%). Unsuccessful bidders will have their security refunded to them when the contract has been awarded.

Firms may submit bids for one or both of the listed projects above. Submission of a bid for both projects does not guarantee the firm is to be selected for both projects. The district reserves the right to select different firms for each project contingent on Oregon Revised Statute (ORS) 279C.

Bid documents may be obtained from HMK Company web site <u>https://www.hmkco.org/bid-documents/</u>.

Any objections to or comments upon the bid specifications must be submitted in writing to the attention of Mike Freeman, Program Manager, HMK Company, 46 N Front Street, Medford, Oregon 97501 | PO Box 3223, Salem, Oregon 97302. To be considered, such objections or comments must be received at least SEVEN (7) calendar days before the bid closing date.

This contract is for a public work subject to ORS 279C.800 to 279C.870 (the Oregon Prevailing Wage Rate Law). **BOLI wage rates will be applicable to this project.** The wage rates are included in the bid documents which are available as noted above.

No bid for a construction contract shall be received or considered by the public contracting agency unless the bidder is licensed by the Construction Contractors Board of the State of Oregon as required by ORS 701.035 and 701.055. Each bid must identify whether the bidder is an Oregon resident bidder, as defined in ORS 279A.120.

Bidder's attention is directed to compliance with ORS 279C.370 regarding submission of the First-Tier Subcontractor Disclosure Form. If the contract amount exceeds \$100,000.00, the First-Tier Subcontractor Disclosure Form will be required and may be submitted either with the bid or within **two (2)** hours after the bid closing time and date at the bid site address. Failure to provide the First-Tier Subcontractor Disclosure Form may result in bid rejection.



The Central Curry School District reserves the right to reject any or all bids, to waive formalities, and to postpone the award of the contract for sixty (60) days. All bids and all prices quoted in bids shall be firm for a period of sixty (60) days after the bid closing date.

Dated this February 14, 2024

Mike Freeman, Program Manager HMK Company on behalf of the Central Curry School District



# PART 1 – GENERAL

# 1.1 GENERAL

- A. The Work contemplated under this contract with the Central Curry School District, (also referred to as the Owner or the District), includes all labor, materials, transportation, equipment and services necessary for, and reasonably incidental to, the completion of all Work in connection with the project described in the bidding documents.
- B. A brief summary of the Work to be completed for the District is as follows:
  - The project is: Comprehensive roofing replacement, repair and renovation of both Gold Beach Junior/Senior High School and Riley Creek Elementary School.
- C. Provide Alternate Pricing as indicated in 01 2300

# 1.2 EXAMINATION OF SITE AND CONDITIONS

- A. Prior to submitting a bid, the bidder shall examine the facilities, and ascertain all of the physical conditions in relation thereto. The bidder shall also make a careful examination of the drawings, specifications and other contract documents and shall fully inform himself as to the quantity of materials and the sources of supply of the materials. Failure to make these precautions will not release the successful bidder from entering into a contract or excuse him from performing the Work in strict accordance with the terms of the contract.
- B. The Owner will not be responsible for any loss or any unanticipated costs that may be suffered by the successful bidder as a result of such bidder's failure to fully inform himself in advance with regard to all conditions pertaining to the Work and the character of the Work required. No statement made by any officer, agent or employee of the Owner in relation to the physical conditions pertaining to the site of the Work will be binding on the Owner.

## 1.3 INTERPRETATION OF CONTRACT DOCUMENTS

- A. If any person contemplating submitting a bid for the proposed contract finds discrepancies in, or omission from, or is in doubt as to the true meaning of any part of the drawings, specifications or form of contract documents, they may submit to the Architect a written request for an interpretation thereof to be received in the office of the Architect no later than **7 calendar days before bid, before 2:00 PM** local time. The person submitting the request will be responsible for its delivery prior to the time of closing.
- B. Any official interpretation of the drawings, specifications, and conditions of the contract or forms of contract documents will be made only by subsequent addenda issued by the Project Manager. The Owner will not be responsible for any other explanation or interpretation of the proposed documents.

## 1.4 SPECIFIED PRODUCTS AND SUBSTITUTIONS

A. Bids must be based upon the use of items and manufacturers named in the specifications, or, approved equals issued by addenda during the bidding period. <u>Approval of equals or substitutions must not be assumed.</u>



- B. If a prospective bidder or supplier seeks approval of a particular manufacturer's material or product other than the material, product and / or manufacturer designated in the specifications, he may submit a written request for such substitute material, product and / or manufacturer. Substitution requests are to be submitted using the Substitution Request Form included in this project manual. Substitution requests must be received electronically by Mike Freeman, Program Manager, no later than seven (7) calendar days before bid, before 2:00 PM local time. The person requesting the substitution will be responsible for delivery of the substitution request form prior to the time of closing. Emailed Substitution Request Forms will be accepted by Mike Freeman, Program Manager, at mike.freeman@hmkco.org.
- C. Approval of substitution requests will be made only by addenda issued by the Project Manager during the bidding period. The Owner will not be responsible for any other approval of a particular manufacturer's materials.

# 1.5 PRE-BID MEETING

- A. A MANDATORY Pre-Bid Meeting will be held at 3:00 PM on February 21, 2024, at Gold Beach Junior/Senior High School located at 29516 Ellensburg Avenue, Gold Beach, Oregon 97444. Representatives of the Contractors will meet with the Owner and Project Manager at the site for review of the project specifications and site walk of the facility.
- B. Contractors intending to submit proposals for this project must attend this pre-bid meeting. No other meeting will be held.

## 1.6 GENERAL STATUTORY PROVISIONS CONCERNING PUBLIC CONTRACTS

- A. In accordance with the provisions of Oregon Revised Statues (ORS) 279C.530, it is agreed that the Contractor shall make prompt payment, as due, to all person supplying to the contractor labor or materials for the prosecution of the Work provided for herein, pay all contributions or amounts due the State Industrial Accident Fund from the Contractor incurred in the performance of the contract herein, not permit any lien or claims to be file or prosecuted against the District on account of any labor or material furnished, and to pay the State Tax Commission all sums withheld from employees pursuant to ORS 316.169, ORS 316.189 and ORS 316.167.
- B. Pursuant to ORS 279C.515, it is agreed that if the Contractor fails, neglects or refuses to make prompt payment on any claim for labor or services furnished to the Contractor by any persons in connection with this agreement as such claim becomes due, the proper officer of officers representing the District may pay such claim to the person furnishing the labor or service and charge the amount of the payment against the Contractor. The payment of a claim in the manner authorized in this paragraph shall not relieve the Contractor or his surety from obligation with respect to any unpaid claims.
- C. Pursuant to ORS 279C.520, it is a condition of this agreement that no person shall be employed by the Contractor for more than eight (8) hours in any one (1) day, or forty hours in any one (1) week, except in cases of necessity, emergency or where the public policy absolutely requires it, and in such cases, the person shall be paid at least time and a half pay for all overtime in excess of eight (8) hours in any one (1) day and for Work performed on Saturdays and legal holidays.
- D. Pursuant to ORS 279C.525 the Contractor shall comply with the provisions of all



federal, state and local statues, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the project.

- E. Pursuant to ORS 279C.530, it is an express condition of this agreement that the Contractor shall, promptly, as due, make payment to any person, co-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, or all sums which the Contractor may or shall have deducted from their wages of his employees for such services pursuant to the terms of ORS 279B.230, and any contract entered into pursuant thereto, or collected or deducted from the wages of its employees pursuant to any law, contract or agreement for the purposes of providing or paying for such service.
- F. The hourly rate of wage to be paid by the Contractor (and incorporated in his subcontracts) shall not be less than provided in ORS 279C.800 to ORS 279C.870, and as hereinafter included in Section 00 7343-BOLI Wage Rate Requirements.
- G. Pursuant to ORS 645.001 et seq. OAR Chapter 437, Div. 3 and OAR Chapter 437-002-0320 through OAR Chapter 437-002-0325, the Contractor shall comply with the following conditions under any contract to provide the District with goods or services.
  - 1. Contractors and their employees shall comply with the requirements of the above cited Laws, Rules, Policies and Regulations
  - 2. The Contractor shall review the Material Safety Data Sheets filed by the District to determine if there are any chemicals stored at the site of Work which the Contractor or any subcontractors will use, or could be exposed to in an emergency
  - 3. Workers shall inform the executive officer at the location where services are being performed of all hazardous chemicals which they or their subcontractors bring upon education facility property, and upon request, provide the District with M.S.D.S. for such chemicals
- H. Each bid shall identify whether the bidder is an Oregon resident bidder, as defined in ORS 279A.120.
- I. Pursuant to ORS 279C.830 (3), the contractor and every subcontractor must have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

# 1.7 BID SECURITY

A. No bid will be considered unless accompanied by a cashier's check or bid bond executed in favor of the District and associated facility for an amount equal to at least ten percent (10%) of the base bid and shall accompany the bid as evidence of good faith and as guarantee that if awarded the contract the bidder will execute the contract and provide a performance bond and payment bond as required. The successful bidder's check or bid bond will be retained until the bidder has entered into a satisfactory contract and furnished a 100% performance bond and payment bond. The Owner reserves the right to hold the bid security as hereinafter noted.



- B. The bid bond shall be furnished by a bonding company licensed to do business in the State of Oregon.
- C. Should the successful bidder fail to execute and deliver the signed agreement and a satisfactory payment bond and performance bond within ten (10) days after the bid has been accepted by the Owner, the cashiers check or bid bond may be forfeited as liquidated damages at the option of the Owner. The date of acceptance of the bid and the award of the contract as contemplated by the contract documents shall mean the day on which the Owner takes official action in making the award.

## 1.8 EXECUTION OF THE BID FORM

- A. The bid form invites bids on definite drawings and specifications. Only the amounts and information asked for on the bid form furnished will be considered as the bid. Each bidder shall bid upon the Work exactly as specified and provided in the bid form. The bidder shall include in a sum to cover the cost of all items contemplated by the bidding documents.
- B. The bid form included in the project manual as Document 00 4100 is the official bid form that will be used in submitting a bid. Only the official bid form may be used in submitting a bid.
- C. All blank spaces in the official bid form shall be filled and numbers shall be stated both in writing and in figures. If the bid is made by a partnership, it shall contain the names of each partner and shall be signed in the firm name, followed by the signature of the partner signing for the firm. The address of the bidder shall be typed or printed on the bid form.
- D. Bids which are incomplete, or which are conditioned in any way, or which contain erasures or alterations may be rejected.
- E. Firms may submit bids for one or both of the listed projects above. Submission of a bid for both projects does not guarantee the firm is to be selected for both projects. The district reserves the right to select different firms for each project contingent on Oregon Revised Statute (ORS) 279C.

#### 1.9 SUBMISSION OF BID

A. The bid proposal shall be sealed in an opaque envelope, addressed as follows:

BID PROPOSAL DISTRICT WIDE ROOFING PROJECT CENTRAL CURRY SCHOOL DISTRICT 29805 Mary Street Gold Beach, Oregon 97444 Attn: Mike Freeman, Program Manager

- B. Bids will be received up to **2:00 pm**, local time, **March 13, 2024**, at the address listed above.
- C. Any bid submitted after the scheduled closing time will be returned to the bidder unopened.



- D. Bids shall be considered late if received any time after 2:00 PM Local time on March 13, 2024. Bids received after the specified time shall be rejected.
- E. The First Tier Subcontractors list **MUST** be received by 4:00 PM on March 13, 2024.
- F. The following attachments are the only items to be included with your Bid Package for the Project Name.
  - a. Attachment 1: Bid Form
  - b. Attachment 2: Bid Bond
  - c. Attachment 3: First Tier Subcontractors List
  - d. Attachment 4: References
  - e. Attachment 5: Checklist
- G. There are to be **NO** additional items included with your Bid. This checklist **MUST** be signed and dated to make your bid complete.

#### 1.10 OPENING OF BIDS

A. A public bid opening will be held immediately following the scheduled closing. Each and every bid received prior to the closing time will be publicly opened and read aloud irrespective of any irregularities or informalities contained in such bids.

#### 1.11 DURATION OF BID PROPOSALS

- A. The base bid shall be irrevocable for a period of sixty (60) days from the date and time of bid opening.
- B. The base bid may be adjusted for alternate prices and / or unit prices for a period of sixty (60) days from the date and time of bid opening.

#### 1.12 CONTRACT AND BOND

- A. Within ten (10) days after receipt of Notice of Award, any bidder to whom a contract is awarded shall execute a formal written contract and shall furnish corporate surety bonds with a surety company satisfactory to the District in an amount equal to the full contract sum based upon the estimated quantities of items covered by the contract for the faithful performance of said contract and all provisions thereof; provided, the formation of said contract shall not be completed and the District shall not be liable thereon until said formal written contract has been executed both by the successful bidder and by the District and a performance bond and a payment bond, properly executed has been delivered and accepted by the District.
- B. The cashiers check or bid bond of the bidder with whom a contract is entered into will be returned when said contract has been properly executed by the bidder and said performance and payment bond, properly executed, has been delivered to and accepted by the District. The cashiers check or bid bond to each bidder who was not awarded a contract will be returned promptly after the contract and bond of the successful bidder, properly executed, has been delivered to and accepted by the District.
- C. Any bidder to whom a contract is awarded and who shall default in executing said formal written contract or in furnishing a satisfactory performance and payment bond within the time and in the manner required by these specifications shall be liable to the



District for whatever damages, including expenses and attorney's fees as may be incurred by the District in recovering to another bidder whether by a single action or by successive actions, shall not operate to release any defaulting bidder from said liability. The parties agree that the cashiers check or bid bond amount is fair determination of the amount of damages which the District would incur as a result of any such failure on the part of the bidder and the full amount will be forfeited as liquidated damages and will not constitute a penalty. In the event competent tribunal finds that this amount does not properly represent an award of liquidated damages, expenses and attorney's fees incurred by the District as a result of the bidder's default, then the final determination of the tribunal shall be deemed to represent the damages, expenses and attorney's fees incurred by the District as a result of the bidder's default.

# 1.13 SUBSTANTIAL COMPLETION AND LIQUIDATED DAMAGES

- A. Substantial Completion shall occur at **August 16, 2024.**
- B Should the building not be ready for occupancy by the time and date listed above, liquidated damages to be paid by the Contractor to the Owner for each calendar day of delay, shall be included in the terms of any contract awarded hereunder in lieu of a penalty. The amount of liquidated damages shall be \$1,000.00 per day.

# 1.14 DISTRICT PERSONNEL EXCLUDED FROM THE CONTRACT

A. No officer, agent or employee of the District shall be permitted any interest in the contract.

# 1.15 RESERVATIONS

- A. The Board of Directors of Central Curry School District, expressly reserves the following rights:
  - 1. To reject all bids
  - 2. To waive any or all irregularities in bids submitted
  - 3. To consider the responsibility and competency of bidders in making any award
  - 4. In the event two or more bids shall be for the same amount for the same Work, to award the contract by lot or otherwise as it deems appropriate
  - 5. To award contract to one Contractor with the aggregate low bid
  - 6. To reject any bid or bids not in compliance with prescribed bidding procedures and requirements
  - 7. To reject any bid or bids not meeting the specifications set forth herein
  - 8. In the event any bidder to whom a contract is awarded shall default in executing said formal contract or in furnishing a satisfactory performance and payment bond within the time and in the manner herein before specified, to re-award the contract to another bidder.
  - 9. To accept Alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.



# 1.16 ACCEPTANCE OF CONDITIONS

A. Each bidder by submission of a bid assents to each and every term and condition set forth anywhere in these contract documents and agrees to be bound thereby.

## 1.17 INTERPRETATION UPON CONTRACT DOCUMENTS

A. Only the Board of Directors of the Central Curry School District as represented by the Project Manager has authority to place any interpretation upon the foregoing or annexed contract documents. Any interpretation, either verbal or written, attempted to be placed thereon by any other person will not be binding upon the District.

#### 1.18 EQUAL EMPLOYMENT

A. All bidders shall comply with the Provision of Executive Order 1246 (30 F.R. 12319-25) regarding Equal Employment Opportunity.

# 1.19 IMMIGRATION REFORM AND CONTROL ACT

A. All bidders shall comply with the provisions of the Immigration Reform and Control Act of 1986 regarding the verification of employment eligibility.

#### 1.20 REFERENCES REQUIREMENTS

- A. All bidders shall provide a list of three different project references for projects that the Contractor worked on within the last three years of comparable size and scope. **References must be submitted with the Bid From**.
- B. Bidders shall use their own form to supply their list of references. The list of project references shall include the following information:
  - 1. Name of the Project
  - 2. Project description
  - 3. Project location
  - 4. Project date
  - 5. Dollar value of the Project
  - 6. Name of the project contact person
  - 7. Telephone number for contact person
  - 8. Email for contact person
- C. The references will be checked to determine if they are supportive of the bidder's ability to meet the requirements of this ITB.
- D. The bidder must provide references that can be contacted regarding the quality of workmanship, level of service provided, timeliness of completion, and adherence to specifications.



- E. The District reserves the right to choose and investigate any reference whether or not furnished by the bidder, and to investigate past performance of any bidder with respect to its successful performance on similar projects, its completion or delivery of service on schedule, and its lawful payment of suppliers, Subcontractors, and employees.
- F. The District may postpone the award or execution of the Contract after the announcement of the apparent successful Contractor in order to complete its investigation. The District may reject a bid if, in the opinion of the District the overall reference responses indicate inadequate performance of the Contractor.
- G. The District representative will make three attempts to contact the references from the list provided by the Contractor. If the reference is not contacted after three attempts that reference will be removed from the list and the bid rejected as non-responsive.
- Each reference contacted shall be asked the same questions, including but not limited to: (1) quality of service; (2) delivery; (3) responsiveness to reported problems, including orders and billing; (4) how well the Contractor met the terms of the contract; and (5) whether or not the reference would choose to hire the Contractor again.

# 1.21 CRIMINAL HISTORY CHECK / PHOTO ID

- A. It is the responsibility of the Contractor to submit the names of all Contractor employees and all Subcontractor employees who will be on the job site for more than one day. These employees shall fill out a criminal history form provided by the District and the Contractor must submit the completed forms to HMK Company (HMKCO). Criminal history checks will be run through the Oregon State Police as provided for in ORS 326.603. The District shall bear the cost of processing such Criminal history checks.
  - 1. Through the signature on the criminal history form, authorization is also given to HMK Company and its representative to investigate this information. Further, with this signature, consent is given to all governmental agencies, public or private companies and individuals to release information regarding the individual to the HMK Company and to their representative. The District shall bear the cost of processing such Criminal history checks.
- B. In accordance with ORS 326.603(8) the District is required to terminate the employment or contract status of any individual who refuses to consent to a criminal history check of to be fingerprinted or falsely swears to the non-conviction of any crime.
- C. In accordance with ORS 326.603(7)(a) no individual found to have been convicted of any crime listed in ORS 342.143 or of an attempt to commit one of the listed crimes shall be allowed to work on any District site.
  - 1. It is vital that employees are instructed to accurately complete criminal history forms. Crimes listed in ORS 342.143 which automatically bar an individual from employment with or contracting with the District are primarily crimes of violence, crimes against children, and sex related crimes. However, falsely swearing that you have not been convicted of a crime obligates the District to terminate employment or contract status even if the crime is not listed in ORS 342.143.
- D. No Employee shall have direct contact with students.



E. All employees working on site for more than one day shall wear a Name and Photo Identification Badge. Any employee on site for less than one day shall wear a visitor badge. Badges shall be the responsibility of the Contractor to provide. Badge shall state the Central Curry School District, name of the project, employee name, and company they represent.

# 1.22 TOBACCO FREE EDUCATION FACILITY

- A. All bidders shall comply with OAR 581.021.0110 and ORS 326.051 regarding Tobacco Use on Public Grounds.
- B. For the purpose of this document "tobacco" is defined to include any lighted or unlighted cigarette, cigar, pipe, clove cigarette, and any other smoking product, spit tobacco, also known as smokeless, dip, chew, snuff, in any form, nicotine or nicotine delivering devices, chemicals or devices that produce the physical effect of nicotine substances or any other tobacco substitute (e.g., e-cigarettes). This does not include FDA approved nicotine replacement therapy products used for the purpose of cessation.
- C. No employee, sub-contractor, material supplier, or project visitor is permitted to smoke, inhale, dip, or chew or sell tobacco at any time, <u>including non-education hours.</u>
  - 1. In any building, facility; or
  - 2. On education facility grounds, athletic grounds, or parking lots.

# END OF SECTION



#### DATE:

#### LEGAL NAME OF BIDDER:

To: Central Curry School District Board of Directors; 29805 Mary Street Gold Beach, OR 97444

The Undersigned, having examined the Contract Documents, including the Bidding and Contract Requirements, the General Requirements, the Technical Specifications entitled:

#### DISTRICT WIDE ROOFING PROJECT

As prepared by Soderstrom Architect and Central Curry School District, as well as the premises and conditions affecting the Work, hereby proposes and agrees to perform, within the time stipulated, the Work, including all its component parts, and everything required to be performed, and to provide and furnish all labor, material, tools, expendable equipment, transportation and all other services required to perform the Work and complete in a workmanlike manner ready for use, all as required by and in strict accordance with the Contract Documents for the sums computed as follows:

Firms may submit bids for one or both of the listed projects above. Submission of a bid for both projects does not guarantee the firm is to be selected for both projects. The district reserves the right to select different firms for each project contingent on Oregon Revised Statute (ORS) 279C.

#### BASE BIDS:

**Project:** Gold Beach Junior/Senior High School

DOLLARS \$

which lump sums are hereby designated as BASE BIDS,

**Project:** Riley Creek Elementary School

\_DOLLARS <u>\$\_\_\_\_\_</u>

which lump sums are hereby designated as BASE BIDS,



# **ALTERNATES**

Provide all labor and materials necessary for the provisions of these alternate prices as referenced in 01 2300

**Project:** Gold Beach Junior/Senior High School

Alternate 1:		Dollars \$	
	Description: Grandstand Roofing Overlay		
Alternate 2:		Dollars \$	
	Description: Roof 3 Roofing Replacement		
Alternate 3:		Dollars \$	
	Description: Roof 4 and 4A Roofing Replacement		
Alternate 4:		Dollars \$	
	Description: Roof 10 Roofing Replacement in Lieu of R	oofing Restoration	
Project: Riley Creek Elementary School			
Alternate 1:		Dollars \$	
	Description: Roof 3 Roofing Restoration		



## TIME OF COMPLETION

The Undersigned agrees if awarded the Contract to complete all the Work in an acceptable manner in conformance with the Contract Documents and within the time specified.

### ADDITIONAL REQUIREMENTS

- 1. The Undersigned agrees that the enclosed Bid Guarantee (bid bond, certified or cashier's check) in the amount of ten percent (10%) of the Basic Bid sum made payable to the Owner, shall be kept in escrow with the Owner; that its amount shall be a measure of liquidated damages the Owner will sustain by failure of the Undersigned to execute agreement and furnish bond, and that if the Undersigned fails to deliver the prescribed bond within ten (10) calendar days after receipt of the written notice of award, then the Bid Guarantee shall become the property of the Owner.
- 2. Should this proposal not be accepted within thirty (30) calendar days after the date and time of bid opening, or if the Undersigned executes Agreement and delivers bond, the Bid Guarantee shall be returned.
- 3. Contractor's State of Oregon Contractors' License Registration Number.
- 4. Receipt of Addenda numbered \_\_\_\_\_ is hereby acknowledged.
- 5. The undersigned certifies that the Bidder is a \_\_\_\_\_\_ Bidder as defined in ORS 279A.120. ("Resident" or "Non-Resident", to be filled in by Bidder)
- 6. References are to be submitted with Bid Form as per Section 00 2113, 1.20.

# **SIGNATURES**

Legal Name of Bidder's Firm	
Ву:	Title:
Address:	
Email:	
State of Incorporation, if Corporation:	
Names of Partners, if Partnership:	
Signed By	

Printed Name of Bidder / Firm



Company Name: \_\_\_\_\_

The following attachments are the only items to be included with your Bid Package for the Central Curry School District - District Wide Roofing Project. All items need to be submitted individually. There are to be **NO** additional items included with your Bid. This checklist **MUST** be signed and dated to make your bid complete. All Bids are to be submitted in sealed envelope to Mike Freeman, Program Manager, at 29805 Mary Street, Gold Beach, Oregon 97444 by 2:00PM on March 13, 2024

Attachment 1: Bid Form	
Attachment 2: Bid Bond	
Attachment 3: First Tier Sub Contractors List	
Attachment 4: References	
Attachment 5: Checklist	

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

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



Bids which are submitted by Bid Closing, but for which a required disclosure submittal has not been made by the specified Disclosure Deadline, are not responsive and shall not be considered for Contract award.

## AGENCY SUPPLIED INFORMATION:

#### PROJECT NAME: District Wide Roofing Project

BID #:N/ABID CLOSING: Date: March 13, 2024 Time: 2:00 PMREQUIRED DISCLOSURE DEADLINE:Date: March 13, 2024 Time: 4:00 PMDeliver Form To (Agency):Central Curry School DistrictDesignated Recipient (Person):Mike Freeman, Program Manager, HMK CompanyAgency's Address:29805 Mary StreetGold Beach, Oregon 97444

#### **INSTRUCTIONS:**

The contracting agency will insert "N/A" below if the contract value is not anticipated to exceed \$100,000. Otherwise, this form must be submitted either with the bid or within **TWO (2)** working hours after the advertised bid closing date and time;

#### FAILURE TO SUBMIT THIS FORM BY THE DISCLOSURE DEADLINE WILL RESULT IN A NON-RESPONSIVE BID. A NON-RESPONSIVE BID WILL NOT BE CONSIDERED FOR AWARD.

It is the responsibility of bidders to submit this disclosure form and any additional sheets, with the bid number and project name clearly marked, and must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two (2) working hours after the advertised bid closing time at the location indicated by the specified disclosure deadline. See "Instructions to Bidders".

List below the name of each subcontractor that will be furnishing labor or materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter" NONE" if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED).

#### BIDDER DISCLOSURE:

SUBCONTRACTOR NAME	DOLLAR VALUE	CATEGORY OF WORK
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		



#### CENTRAL CURRY SCHOOL DISTRICT DISTRICT WIDE ROOFING PROJECT FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM SECTION 00 4339

9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

a) Five percent (5%) of the total Contract Price, but at least \$15,000. (If the Dollar Value is less than \$15,000, do not list the subcontractor above);

or

b) \$350,000 regardless of the percentage of the total Contract Price.

Form Submitted By (Bidder Name): \_\_\_\_\_

Contact Name:	

Phone #: \_\_\_\_\_

Email: \_\_\_\_\_

**END OF SECTION** 



AGREEMENT made as of the day	of, 2024,	between CENTRAL CURRY SCHOOL
DISTRICT (hereinafter "the Owner") and		, (hereinafter "the
Contractor").		

- **The Project is:** District Wide Roofing Project:
- The Owner is: Central Curry School District Eric Milburn, Superintendent 29805 Mary Street Gold Beach, Oregon 97444
- The Consultant is: Soderstrom Architects Marlene Gillis, President 1331 NW Lovejoy Street, Suite 775 Portland, OR 97209

#### The Contractor is: To Be Determined

The Owner and Contractor agree as follows:

#### ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, the General Conditions of the Contract, any Supplementary, or other Conditions, Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are incorporated by this reference herein. The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

#### **ARTICLE 2 THE WORK OF THIS CONTRACT**

The Contractor shall fully execute the Work described in the Contract Documents, including such construction activity as is reasonably inferable from the Contract Documents as necessary to produce the results intended by the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

#### ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

**3.1** The date of commencement of the Work shall be June 17, 2024. The Notice to Proceed shall be issued no less than two (2) days prior to the date of commencement provided that the Owner is in receipt of signed contracts, insurance certificates and payment and performance bonds.

**3.2** The Contract Time shall be measured from the date of commencement.

**3.3** The Contractor shall continuously and diligently prosecute the Work and shall achieve Substantial Completion of the entire Work not later than **August 16, 2024**, subject to approved adjustments of this Contract Time as provided in the Contract Documents.

**3.4**. If the Contractor fails to achieve Substantial Completion of the Work within the Contract Time and as otherwise required by the Contract Documents, the Owner shall be entitled to recover from the Contractor as liquidated damages and not as a penalty \$1,000.00 per day which shall commence on the first day following the expiration of the Contract Time and continuing until the date of Substantial Completion. Such



liquidated damages are hereby agreed to be a reasonable estimate of the damages the Owner will incur as a result of delay in the completion of the Work. The Owner may deduct any accrued liquidated damages from any unpaid amount due or to become due to the Contractor. Any Liquidated damages not so deducted shall be paid to the Owner upon demand together with interest as provided by Oregon law.

# ARTICLE 4 CONTRACT SUM

4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's proper and timely performance of the Contract and full and final completion of the Work. The Contract Sum shall be \_\_\_\_\_\_ DOLLARS AND 00/100 (\$\_\_\_\_\_\_). This sum includes all general conditions, profit, overhead and all other amounts due or to become due to the Contractor for the proper and timely performance of the Contract and full and final completion of the Work. The Contract sum is subject to authorized additions and deductions as provided in the Contract Documents.

#### 4.2 PERMITS, FEES AND NOTICES

**4.2.1** The Contractor shall secure and pay for:

.1 All pertinent specialty permits. (The owner is securing and paying for the plan review, building permit, and system development fees.)

**4.2.2** The Contractor will be responsible for any renewals of and penalties arising from the building permit and from all other permits and governmental or utility fees. The Contractor shall secure and pay for all other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required when bids are received or negotiations concluded, including without limitation electrical, sewer, water, and plumbing permits and fees.

**4.3** The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

4.4 Unit prices, if any, are as follows: See Section 00 4100, Bid Form

#### **ARTICLE 5 PAYMENTS**

#### **5.1 PROGRESS PAYMENTS**

**5.1.1** Based upon Applications for Payment which include all the necessary supporting documentation is received by the Owners Delegated Representative, and Owner not later than the first day of the month, and Certificates for Payment are issued by the Owners Delegated Representative, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

**5.1.2** The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

**5.1.3** Provided that an Application for Payment and all supporting documentation, including all full and unconditional lien waivers related to the Work for which payment is requested is received by the Owners Delegated Representative and Owner not later than the first day of a month, the Owner shall make payment to the Contractor not later than the last day following the Owners Delegated Representative's approval. If an Application for Payment is received by the Owners Delegated Representative after the application date fixed above, payment shall be as set forth below.



**5.1.4** Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Owners Delegated Representative and any Lender may require. This schedule, unless objected to by the Owners Delegated Representative, shall be used as a basis for reviewing the Contractor's Applications for Payment, provided, however, in no instance shall the schedule of values ever exceed the reasonable value of the Work performed.

**5.1.5** Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

**5.1.6** Unless otherwise provided in the Owner's agreement with any Lender, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of Five percent (5%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Subparagraph 7.3.8 of the General Conditions, or as modified by the parties;
- .2 Add that portion of the Contract Sum 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, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5%);
- .3 Subtract the aggregate of 9.5 previous Payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Owners Delegated Representative has withheld or nullified a Certificate for Payment as provided in Paragraph 9.5 of the General Conditions.

or as modified by the parties.

**5.1.7** The progress payment amount determined in accordance with Subparagraph 5.1.6 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Owners Delegated Representative, any Lender or the Owner shall determine for incomplete Work, retainage applicable to such Work and unsettled claims;
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Subparagraph 9.10.3 of the General Conditions.

**5.1.8** Reduction or limitation of retainage, if any, shall be as follows:

**5.1.9** Except with the Owner's prior written approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.



- **5.1.10** Contractor shall:
  - .1 Make payment promptly, as and when due, to all persons supplying to labor, materials, equipment or services;
  - .2 Pay all contributions or amounts due the Industrial Accident Fund from Contractor or any Subcontractor incurred in the performance of the Work;
  - .3 Not permit any lien or claim to be filed or prosecuted against the Owner, on account of any labor, materials, equipment or services furnished, supplied or provided;
  - .4 Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167;
  - .5 Demonstrate that an employee drug testing program as set forth herein is in place for Contractor and all Subcontractors pursuant to ORS 279C.505;
  - .6 To the extent that any demolition is included as a part of the Work, salvage or recycle construction and demolition debris, if feasible and cost-effective;
  - .7 To the extent that any lawn or landscape maintenance is included as a part of the Work, compost or mulch yard waste material at an approved site, if feasible and cost-effective.

**5.1.11** If the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or any Subcontractor by any person in connection with the Work as such claim becomes due, the proper officer or officers representing the Owner may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the Contractor by reason of this Agreement.

**5.1.12** If the Contractor or a first-tier Subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the Work within 30 days after receipt of payment from the Owner or the Contractor, the Contractor or first-tier Subcontractor shall owe the person the amount due plus interest charges commencing at the end of the 10-day period that payment is due under ORS 279C.505 and 279C.505 and 279C.505. The rate of interest charged to the Contractor or first-tier Subcontractor on the amount due shall equal three times the discount rate on 90-day commercial paper in effect at the Federal Reserve Bank in the Federal Reserve district that includes Oregon on the date that is 30 days after the date when payment was received from the Owner or from the Contractor, but the rate of interest shall not exceed 30 percent. The amount of interest may not be waived.

**5.1.13** If the Contractor or a Subcontractor fails neglects or refuses to make payment to a person furnishing labor or materials in connection with the Work, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.505 and 279C.580.

**5.1.14** The payment of a claim in the manner authorized in this Agreement shall not relieve the Contractor or the Contractor's surety from obligation with respect to any unpaid claims.

**5.1.15** No person shall be employed by the Contractor or any Subcontractors, which are subject to the statutory limitations of Oregon law for more than ten (10) hours in any one (1) day, or 40 hours in any one (1) week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases, the employee shall be paid at least time and a half pay:



- .1 For all overtime in excess of eight (8) hours a day or 40 hours in any one (1) week when the work week is five (5) consecutive days, Monday through Friday; or
- .2 For all overtime in excess of ten (10) hours a day or 40 hours in any one (1) week when the work week is four (4) consecutive days, Monday through Friday; and
- .3 For all Work performed on Saturday and on any legal holiday specified in ORS 279.334.

**5.1.16** The Contractor shall give notice to employees in writing, either at the time of hire or before commencement of Work on the Project, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work. The Contractor shall include an identical provision in its subcontracts and require all Subcontractors, of any tier, to include an identical provision in all subcontracts.

**5.1.17** The Contractor shall promptly, as and when due, make payment to any person, co-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 the Contractor, of all sums which the Contractor agrees to pay for such services and all moneys and sums which Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service.

**5.1.18** Every Subcontractor will comply with ORS 656.017, unless it is an exempt employer under ORS 656.126.

**5.1.19** The Contractor is not a contributing member to the Public Employees' Retirement System and will be responsible for any and all federal, state and local taxes applicable to payments received under this Agreement. The 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.

**5.1.20** The hourly rate of wage to be paid by the Contractor or every Subcontractor subject to prevailing wage rates to workers, shall be not less than the prevailing rate of wage for an hour's work in the same trade or occupation in the locality where such labor is performed.

**5.1.21** The Contractor and every Subcontractor subject to prevailing wage rates to employees shall keep the prevailing wage rates for that project posted in a conspicuous and accessible place in or about the project.

**5.1.22** The Contractor and every Subcontractor subject to prevailing wage rates to employees and shall also provide for or contribute to a health and welfare plan or a pension plan, or both, for its employees on the Project and shall post notice describing such plans in a conspicuous and accessible place in or about the Project. The notice preferably shall be posted in the same place as the notice required under 5.1.16. In addition to the description of the plans, the notice shall contain information on how and where to make claims and where to obtain further information.

**5.1.23** The Contractor represents and agrees that the specifications contain a sufficient provision stating the existing prevailing rate of wage which must be paid to workers in each trade or occupation required for such public work employed in the performance of the Work either by the Contractor or any Subcontractor or other person doing or contracting to do the whole or any part of the Work contemplated by the contract. Such workers shall be paid not less than such specified minimum hourly rate of wage.

**5.1.24** The District represents and agrees that the specifications contain a sufficient provision stating that a fee is required to be paid to the Commissioner of the Bureau of Labor and Industries as provided in ORS



279C.825. The fee shall be paid to the commissioner pursuant to the administrative rule of the commissioner.

**5.1.25** The Contractor or the Contractor's surety and every Subcontractor or Subcontractor's surety subject to prevailing wage rates shall file certified statements with the Owner in writing in the form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker which Contractor or the Subcontractor has employed upon such public work, and further certifying that no worker employed upon such public work 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 Contractor or the Contractor's surety or Subcontractor or the Subcontractor's surety that the Contractor or Subcontractor has read such statement and certificate and knows the contents thereof and that the same is true to the Contractor's or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid. Each certified statement required shall be delivered or mailed by Contractor or the Subcontractor to the public contracting agency. Certified statements for each week, during which the Contractor or the Subcontractor employs a worker upon the Project shall be submitted once a month, by the fifth (5<sup>th</sup>) business day of the following month.

**5.1.26** The Contractor or Subcontractor shall preserve the certified statements for a period of three (3) years from the date of completion of the contract.

**5.1.27** Per ORS 279C.855, the Contractor represents and agrees that the Owner has fully and timely included a provision in the Contract Documents that the Contractor and any Subcontractor shall comply with ORS 279C.840 in the invitation for bids, the request for bids, the contract specifications, the accepted bid or elsewhere in the Contract Documents and that the Owner has no liability for unpaid minimum wages.

**5.1.28** Owner shall make progress payments on the contract monthly as Work progresses. Payments shall be based upon estimates of Work completed that are approved by the Owner. A progress payment shall not be considered acceptance or approval of any Work or waiver of any defects therein. In instances when an invoice is filled out incorrectly, or when there is any defect or impropriety in any submitted invoice or when there is a good faith dispute, the Owner shall so notify the Contractor within 15 days stating the reason or reasons the invoice is defective or improper or the reasons for the dispute. A defective or improper invoice, if corrected by the Contractor within seven days of being notified by the Owner, shall not cause a payment to be made later than specified in this section.

**5.1.29** If requested in writing by a first-tier Subcontractor, Contractor, within ten (10) calendar days after receiving the request, shall send to the first-tier Subcontractor a copy of that portion of any invoice, request for payment submitted to the Owner or pay document provided by the Owner to the Contractor specifically related to any labor or materials supplied by the first-tier Subcontractor.

**5.1.30** Payment of interest may be postponed when payment on the principal is delayed because of disagreement between Owner and Contractor.

**5.1.31** The Owner may reserve as retainage from any progress payment an amount not to exceed five percent of the payment. As Work progresses, the Owner may in its sole discretion reduce the amount of the retainage and the Owner may in its sole discretion eliminate retainage on any remaining monthly contract payments after 50 percent of the Work under the contract is completed if, in the Owner's sole opinion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed only upon written application by the Contractor, which application shall include written approval of the Contractor's surety; except that when the contract 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 a written application by the Contractor, the Owner shall respond in writing within a reasonable time.



**5.1.32** The retainage held by the Owner shall be included in and paid to the Contractor as part of the final payment of the contract price. The Contractor shall notify the Owner in writing when the Contractor

considers the Work complete and the Owner shall, within 15 days after receiving the written notice, either accept the Work or notify the Contractor of Work yet to be performed on the contract.

**5.1.33** The Contractor shall not request payment from the Owner of any amount withheld or retained in accordance herewith.

**5.1.34** Such time as the Contractor has determined and certified to the Owner that the Subcontractor is entitled to the payment of such amount. A dispute between the Contractor and a first-tier Subcontractor relating to the amount or entitlement of a first-tier Subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to the terms hereof does not constitute a dispute to which the Owner is a party. The Owner shall not be included as a party in any administrative or judicial proceeding involving such a dispute. The 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:

- .1 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 Owner under such contract; and
- .2 An interest penalty clause that obligates the Contractor, if payment is not made within 30 days after receipt of payment from the Owner, to pay to the first-tier Subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to subparagraph .1 of this 5.1.34. The Contractor or first-tier Subcontractor shall not be obligated to pay an interest penalty if the only reason that the Contractor or first-tier Subcontractor did not make payment when payment was due is that the Contractor or first-tier Subcontractor did not receive payment from the Owner or the Contractor when payment was due. The interest penalty shall be:
  - (A) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and
  - (B) Computed at the rate specified in ORS 279C.515(2).

**5.1.35** The Contractor shall include in each of its subcontracts, for the purpose of performance of such contract condition, a provision requiring the first-tier Subcontractor to include a payment clause and an interest penalty clause conforming to the standards of 5.1.33 in each of its subcontracts and to require each of its Subcontractors to include such clauses in their subcontracts with each lower-tier Subcontractor or supplier.

**5.1.36** If the Contractor is an employer, the Contractor is a subject employer under Oregon's Workers' Compensation Law and shall comply with ORS 656.017 and shall provide Workers' Compensation coverage for all their "subject workers" as defined in ORS Chapter 656.

**5.1.37** The Contractor and all Subcontractors subject to licensing with the Oregon Construction Contractors Board shall be duly licensed therewith at the time they bid any Work, enter into any contract to perform any Work, perform any Work and at all times under which any warranty or repair obligation applies. The Contractor and all Subcontractors performing any Work which requires any other governmental licensing, such as those with the Elevator and Electrical Board, Plumbing Board or Landscape Contractors Board, shall be duly licensed with all appropriate governmental agencies at the time they bid any Work, enter into any contract to perform any Work, perform any Work and at all times under which any warranty or repair obligation applies.



**5.1.38** If federal funds are involved, federal laws, rules and regulations applicable to the grant shall govern in the event they conflict with any provision of this Agreement or other required by law. The Contractor

certifies that it is not currently employed by the federal government. This provision does not preclude the Contractor from holding another contract with the federal government.

**5.1.39** The Contractor shall timely provide the Owner its name, address, social security, federal employee identification number and such other information as the Department of Revenue may require or request.

**5.1.40** The Contractor shall comply and require all Subcontractors to comply with the applicable requirements of all laws, codes, ordinances, regulations and statutes, including but not limited to those in ORS Chapters 279A, B and C. To the extent that ORS Chapters 279A, B and C, or any other law, code, ordinance or regulations, requires any tender or condition to be included in this Agreement, such tender or condition is hereby incorporated by this reference. Nothing contained herein shall be construed so as to require the commission of any act contrary to law, code, rule, statute, ordinance or regulation, and wherever there is any conflict between any provisions contained herein and any statute, law, code, ordinance, rule or regulation the provision of this Agreement which is affected shall be curtailed and limited only to the extent necessary to bring it within the requirements of the law, code, rule, statute, ordinance or regulation.

**5.1.41** If the Contractor is a foreign Contractor and the contract price exceeds \$10,000, the Contractor shall promptly report to the Department of Revenue on forms to be provided by the Department of Revenue the total contract price, terms of payment, length of contract and such other information as the Department of Revenue may require before final payment can be received on the public contract. For purposes of this A.3 I, a foreign Contractor is one who is not domiciled in or registered to do business in the State of Oregon.

**5.1.42** The Contractor represents and agrees that the bid documents make sufficient specific reference to federal, state and local agencies that have enacted ordinances or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the contract and have allocated all known environmental and natural resource risks to the Contractor by listing such environmental and natural resource risks with specificity in the bid documents.

**5.1.43** The Contractor shall not discriminate against minority, women or emerging small business enterprises in the awarding of subcontracts. The Contractor shall certify that the Contractor has not and will not discriminate against minority, women, or emerging small business enterprises in obtaining any required subcontracts.

**5.1.44** The Contractor shall use recyclable products to the maximum extent economically feasible in the performance of the Contract Work set forth in this document.

**5.1.45** As referenced herein, an employee drug testing policy shall be as follows:

- .1 The Contractor or Subcontractor shall have in place at the time of the execution of this Contract, and shall maintain during the term of this Contract, a Qualifying Employee Drug Testing Program for its employees that includes, at a minimum, the following:
  - (A) A written employee drug testing policy;
  - **(B)** Required drug testing for all new Subject Employees or, alternatively, required testing of all Subject Employees every 12 months on a random selection basis; and
  - (C) Required testing of a Subject Employee when the Contractor or Subcontractor has reasonable cause to believe the Subject Employee is under the influence of drugs.



A drug testing program that meets the above requirements will be deemed a "Qualifying Employee Drug Testing Program." For the purposes of this section an employee is a "Subject Employee" only if that employee will be working on the Project job site.

- .2 The Contractor shall require each Subcontractor providing labor for the Project to:
  - (A) Demonstrate to the Contractor that it has a Qualifying Employee Drug Testing Program for the Subcontractor's Subject Employees, and represent and warrant to the Contractor that the Qualifying Employee Drug Testing Program is in place at the time of subcontract execution and will continue in full force and effect for the duration of the subcontract; or
  - **(B)** Require that the Subcontractor's Subject Employees participate in Contractor's Qualifying Employee Drug Testing Program for the duration of the subcontract.

## 5.2 FINAL PAYMENT

**5.2.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

.1 A final Certificate for Payment has been issued by the Owners Delegated Representative.

**5.2.2** The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Owners Delegated Representative's final Certificate for Payment.

## **ARTICLE 6 TERMINATION OR SUSPENSION**

**6.1** The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of the General Conditions.

6.2 The Work may be suspended by the Owner as provided in Article 14 of the General Conditions.

**6.3** The Owner shall, in addition to the Right to Stop the Work, have the right to require that the Contractor replace or remove construction personnel assigned to the Work, if, in the Owner's sole determination, specific construction personnel are impairing or impeding the prosecution of the Work.

### ARTICLE 7 MISCELLANEOUS PROVISIONS

**7.1** Where reference is made in this Agreement to a provision of the General Conditions or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

**7.2** Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

**7.3 The Owner's representative is:** Mike Freeman, Program Manager, HMK Company. The Owner may change this representative at any time.

#### 7.4 The Contractor's Representative is: To Be Determined.

**7.5** Neither the Owner's nor the Contractor's Representative shall be changed without ten (10) days written notice to the other party.



## 7.6 CONTRACTOR'S CONSTRUCTION SCHEDULES

**7.6.1** Within ten (10) days after issuance of the Notice to Proceed, the Contractor shall submit a preliminary schedule of the Work. Within 30 days after issuance of the Notice to Proceed, and before any progress payment need be made, the Contractor, after consultations with its Subcontractors and Suppliers of any tier, shall submit six copies of a Contractor's Construction Schedule to the Owners Delegated Representative and one copy to the Owner. Not less than ten percent of the Progress Payment may be withheld until a Contractor's Construction Schedule in a form satisfactory to the Owners Delegated Representative and Owner has been submitted. Neither the Owner nor the Owners Delegated Representative will review the substance of the Contractor's Construction Schedule.

**7.6.2** The Contractor's Construction Schedule shall be based upon a critical path method ("CPM") analysis of construction activities and sequence of operations needed for the orderly performance and completion of all separable parts of the Work in accordance with the Contract and within the Contract Time. The schedule shall be a critical path method type in the form of a precedence diagram and activity listing and shall be time-scaled. It shall include the Notice to Proceed date, the Date(s) of Substantial Completion, and the Date(s) of Final Completion in accordance with the Contract Documents. The Critical Path shall be clearly indicated on the Contractor's Construction Schedule. No more than 20% of the progress activities shall be on the critical path, and no more than 30% shall have less than five days of float. The value of any single activity shall not exceed \$50,000, except that 5% of the total activities may exceed this limit without prior approval. The time-scaled network diagram shall be summarized on a single sheet not to exceed 11"x 17".

**7.6.2.1** The network diagram shall show in detail and in order the sequence of all significant activities, their descriptions, start and finish dates, durations and dependencies, necessary to complete all Work and any separable parts thereof. The activity listing shall show the following information for each activity on the network diagram:

- .1 Description;
- .2 Duration (not to exceed fifteen working days);
- .3 Craft;
- .4 Equipment (including hours of usage);
- .5 Start and finish dates;
- .6 Total float time and free float time;
- .7 Dates that work must be performed and completed by other Contractors or Subcontractors to support the Work and the interfaces with such other Contractors; and
- .8 Cost-loading, correlated to the Schedule of Values, which, upon approval, shall be used as a basis for determining action on progress payments throughout the Project.

**7.6.2.2** A schedule for the purchase and receipt of items required for performance of the Work, showing lead times between purchase order placement and delivery dates, shall be integrated with the Contractor's Construction Schedule. The Contractor shall furnish the Owners Delegated Representative with copies of all purchase orders and acknowledgments and fabrication, production, and shipping schedules for all major items on the critical path within ten days of the Contractor's receipt of each purchase order, acknowledgment or schedule. Neither the Owners Delegated Representative nor the Owner shall be



deemed to have approved or accepted any such material, or its schedule, nor deemed to have waived this requirement if some or all of the material is not received.

**7.6.2.3** Milestone completion dates shall be clearly defined on the Contractor's Construction Schedule.

**7.6.2.4** If abbreviations are used in the Contractor's Construction Schedule, a legend shall be provided to define all abbreviations.

**7.6.2.5** The Contractor shall prepare and keep current a schedule of submittals, coordinated with the Contractor's Construction Schedule, which allows the Owners Delegated Representative at least ten (10) days to review the submittals.

**7.6.2.6** The Progress Schedules shall be submitted as both a paper copy and in electronic format using the latest version of Microsoft Project. The Contractor may request to use different project management software, such as, Suretrak, but must first receive approval from the Owner, by demonstrating its capabilities. This can be accomplished by submitting a sample CPM printout of similar scope. If the alternative software is accepted, the Contractor will be required to supply the Owner an authorized copy of the software with all user support manuals.

**7.6.2.7** At each monthly meeting with the Owner, the Contractor shall submit (a) a bar chart schedule showing the activities planned for the next month, and (b) a report showing actual starts and finishes from the previous month. The bar-chart schedule shall show all Work activities numbered according to the CPM, any submittal or delivery activities with less than five (5) days, one (1) float, and any permitting, testing, or inspection activities by others.

**7.6.3** Within ten days after receipt by the Owners Delegated Representative, two copies of the Contractor's Construction Schedule will be returned to the Contractor with comments, following review by the Owner. Review by the Owner and Owners Delegated Representative of the Contractor's Construction Schedule shall not constitute an approval or acceptance of the Contractor's construction means, methods, or sequencing, or its ability to complete the Work in a timely manner.

**7.6.4** The Contractor shall utilize and comply with the Contractor's Construction Schedule. The Contractor shall not be entitled to any adjustment in the Contract Time, the Contractor's Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the loss or use of any float time, including time between the Contractor's anticipated completion date and end of the Contract Time, whether or not the float time is described as such on the Contractor's Construction Schedule.

**7.6.5** Should the Contractor fail to meet any scheduled date as shown on the current Contractor's Construction Schedule, the Contractor shall, if requested, be required at its own expense to submit within ten days of the request an updated Contractor's Construction Schedule. If the Contractor's progress indicates to the Owner that the Work will not be Substantially Completed within the Contract Time, the Contractor shall, at its own expense, increase its work force and / or working hours to bring the actual completion dates of the activities into conformance with the Contractor's Construction Schedule and Substantial Completion within the Contract Time. The Contractor shall also submit a revised Contractor's Construction Schedule at its own expense within ten days of notice from the Owners Delegated Representative that the sequence of Work varies significantly from that shown on the Contractor's Construction Schedule. Neither the Owner nor the Owners Delegated Representative will, however, review the substance or sequence of the Contractor's Construction Schedule.

**7.6.6 Schedule Float Utilization.** Float belongs to the benefit of the Project for the Owner's use and no float shall be used without the Owner's written approval. Any float time to activities not on the critical path shall be used by the Contractor to optimize its construction process. Any float time between the end of the final construction activity and the final completion date shall be used by the Owner in determining if additional contract days are to be awarded for changes in the contract or for delays to the contract caused



by the Owner. The Contractor will not be entitled to any adjustment in the Contract Time, the Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the Owner's use of float time between the end of the final construction activity and the final completion date.

**7.6.7 Delays**. The Contractor shall, within seven days of the event, notify the Owner and Owners Delegated Representative in writing of any proposed changes in the Contractor's Construction Schedule or the Contract Time and of any event which could delay performance or supplying of any item of the Work and shall indicate the expected duration of the delay, the anticipated effect of the delay on the Contractor's Construction Schedule, and the action being taken to correct the delay situation. In the event the Contractor is entitled to a change in the Contract Time, the adjustment to the Contract Time shall be limited to the change in the critical path of construction activities.

**7.6.8 Final Completion.** The Contractor shall attain Final Completion of the Work in accordance with the Contract within 60 days after the date of Substantial Completion.

**7.6.9 Meetings**. During the period commencing with the issuance of Notice to Proceed and ending with the date of Final Completion of the Work, the Contractor shall attend and participate in and ensure applicable Subcontractors of any tier and Suppliers attend and participate in:

- .1 A pre-contract meeting;
- .2 A pre-construction meeting;
- .3 Regular weekly Project status meetings scheduled by the Owner or by the Owners Delegated Representative to review progress of the Work, to discuss the Contractor's progress reports, to obtain necessary Owner's or Owners Delegated Representative's approvals, and generally to keep the Owner and Owners Delegated Representative informed and involved in the progress of the Project; and
- .4 Regular on-site meetings scheduled by the Owner or by the Owners Delegated Representative to review progress of the Work and other pertinent matters.

**7.7** Any and all references to "Engineer" or "the Engineer" in this Agreement or in the General Conditions of the Contract shall be deemed for all purposes to mean and refer to: Owners Delegated Representative.

**7.8** If any provision of this Agreement or application thereof to any extent shall be invalid or unenforceable the remainder of the Agreement or its application thereof shall not be affected thereby and the provision or application shall be enforced to the fullest extent permitted by law.

**7.9** The Contractor shall not assign this Agreement without the prior written permission of the Owner. Contractor shall assign to Owner any and all rights that the Contractor now has or hereafter may acquire pursuant to a contract related to the Project which rights the Owner shall thereafter be entitled to assign to another person or entity including without limitation any Lender, upon the request of the Owner, provided, however, until the exercise of such rights of assignment by the Owner, there shall be no privity or contractual relationship between the Owner and such persons and entities. The Contractor hereby consents to the free assignment of this Agreement in whole or in part by the Owner to any other person or entity including but not limited to any Lender.

**7.10** The Contractor represents and warrants to the Owner who relies thereon as follows:

**7.10.1** It and all of its Subcontractors are financially solvent, able to pay debts as they become due and have sufficient working capital to timely perform and complete all obligations related to the Project.



**7.10.2** That it is able to timely and completely furnish all the labor, material, equipment and services to necessary to fully complete the Work within the Contract Time.

**7.10.3** It and all of its Subcontractors are duly and properly licensed with the Oregon Construction Contractors Board and all other governmental agencies and are signatories to collective bargaining agreements.

**7.10.4** It has visited the site, undertaken any and all tests it deems advisable, is familiar with the structure and that it is unaware of any potential condition with would increase the Contract Sum or Contract Time.

**7.10.5** It and all of its Subcontractors possess a high level of experience and expertise in projects similar to the Project.

**7.10.6** Neither Contractor nor any of its Subcontractors are "exempt" from the requirement to provide Workers' Compensation Insurance under Oregon law.

**7.10.7** It is fully authorized to execute this Agreement and perform all the obligations required of it hereunder.

**7.11** The representations and warranties of 7.11 are in addition to and not in lieu of any other obligation or law and survive the execution of this Agreement and final completion of the Project.

## ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

**8.1** The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

**8.1.1** This Agreement.

**8.1.2** The General Conditions.

**8.1.3** The Supplementary and other Conditions of the Contract.

8.1.4 The Specifications are those contained in the Project Manual dated February 14, 2024.

**8.1.5** The Drawings are bound in the project manual.

**8.1.6** The Addenda, if any, are as follows:

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

**8.1.7** Other documents, if any, forming part of the Contract Documents are as follows:

a. Exhibits \_\_\_\_\_

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Owners Delegated Representative for use in the administration of the Contract, and the remainder to the Owner.



## CONTRACTOR TO BE DETERMINED

## CENTRAL CURRY SCHOOL DISTRICT

By:	By:	
		Eric Milburn
Title:	 Title:	Superintendent
Date:	 Date:	
Federal		
ID #:		



#### **ARTICLE 1 GENERAL PROVISION**

### **1.1 BASIC DEFINITIONS**

## 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Agreement between Owner and Contractor (hereinafter the Agreement), the Request for Bids or Proposals. Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, and Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Consultant. Contractor acknowledges and represents that it has examined all Contract Documents and will examine all Contract Documents created after execution of the Agreement. Contractor represents that such Contract Documents are suitable and sufficient to enable Contract to timely complete the Work for the Contract Sum within the Contract Time.

## **1.1.2 THE CONTRACT**

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Consultant and Contractor, (2) between the Owner and any Subcontractor, including, but not limited to, any Sub-subcontractor, (3) between the Owner and Consultant or (4) between any persons or entities other than the Owner and Contractor. The Consultant shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Consultant's duties.

#### 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes any and all labor (including, but not limited to, supervision and management), transportation, materials, equipment and services provided or to be provided by the Contractor to timely fulfill the Contractor's obligations and render the Project complete and usable for its intended purpose. The Work includes all labor, material, equipment and services incidental to or which may be inferred from any of the Contract Documents. The Work may constitute the whole or a part of the Project.

# 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.

#### 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

#### 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.



## 1.1.7 THE PROJECT MANUAL

The Project Manual is a volume assembled for the Work which may include the bidding requirements, sample forms, Conditions of the Contract and Specifications.

## **1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS**

**1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. In case of any conflict in the requirements of the Contract Documents, the Contractor is deemed to have included the better Quality and larger Quantity of the Work.

**1.2.2** Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

**1.2.3** Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

#### **1.3 CAPITALIZATION**

**1.3.1** Terms capitalized in these General Conditions include those which are (1) specifically defined, (2) the titles of numbered articles and identified references to Paragraphs, Subparagraphs and Clauses in the document or (3) the titles of other documents.

#### **1.4 INTERPRETATION**

**1.4.1** In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

#### **1.5 EXECUTION OF CONTRACT DOCUMENTS**

**1.5.1** The Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign all the Contract Documents, the Consultant shall identify such unsigned Documents upon request.

**1.5.2** Execution of the Agreement by the Contractor is a representation that the Contractor has visited the site, become fully familiar with the nature, location and character of the site and surrounding areas, weather conditions, availability of labor, materials, equipment and services, site conditions, surface conditions, subsurface conditions, the Contract Documents, existing local conditions under which the Work is to be performed, the time period for performance and completion of the Work. Contractor represents that it has performed personal observations and correlated the observations with the requirements of the Contract Documents such that the Contractor is not aware of any discrepancies, omissions, ambiguities or conflicts in or among any of the Contract Documents.

# 1.6 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

**1.6.1** The Drawings, Specifications and other documents, including any in electronic form, prepared by the Consultant and the Consultant's consultants are documents through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any



Subcontractor, including, but not limited to, any Sub-subcontractor or material or equipment supplier shall own or claim any intellectual property rights in the Drawings, Specifications and other documents prepared by the Consultant or the Consultant's consultants. All copies of the documents, except the Contractor's record set, shall be returned or suitably accounted for to the Consultant, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Consultant and the Consultant's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, including, but not limited to, any Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Consultant and the Consultant's consultants. The Contractor, Subcontractors, including, but not limited to, any Subsubcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Consultant and the Consultant's consultants appropriate to and for use in the execution of their Work under the Contract Documents only. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the Drawings, Specifications and other documents prepared by the Consultant and the Consultant's consultants. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the any intellectual property right or other reserved rights.

#### **ARTICLE 2 OWNER**

#### 2.1 GENERAL

**2.1.1** The Owner is the entity identified as such in the Agreement and is referred to throughout the Contract Documents. The Owner may designate in writing a representative who subject to the limitations provided by law, shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Subparagraph 4.1, the Consultant does not have such authority. The term "Owner" means the Owner or the Owner's Authorized Representative.

#### 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

**2.2.1** Except for permits and fees, including those required under Subparagraph 3.7, which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

#### 2.3 OWNER'S RIGHT TO STOP THE WORK

**2.3.1** If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 1.1.3, or persistently fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, nor give rise to any claim for additions to the Contract Sum or Contract Time.

**2.3.2** The Owner shall, in addition to the Right to Stop the Work, have the right to require that the Contractor replace or remove construction personnel assigned to the Work, if, in the Owner's sole determination, specific construction personnel are impairing or impeding the prosecution of the Work.

## 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

**2.4.1** If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, immediately without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate



Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Consultant's additional services made necessary by such default, neglect or failure. Such change order shall be deemed signed by the Contractor for the purposes of this Agreement even if the Contractor fails to physically sign such Change Order. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall promptly pay the difference to the Owner. The rights stated herein shall be in addition to and not in lieu of any rights afforded the Owner.

#### **ARTICLE 3 CONTRACTOR**

#### 3.1 GENERAL

**3.1.1** The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's Authorized Representative.

**3.1.2** The Contractor shall perform and complete the Work in accordance with the Contract Documents for the Contract Sum and within the Contract Time.

**3.1.3** The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Consultant in the Consultant's administration of the Contract, or in the performance of its obligations or by tests, inspections or approvals required or performed by persons other than the Contractor.

#### 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

**3.2.1** Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner, shall take field measurements of any existing conditions, including all general reference points and interfering site conditions related to that portion of the Work and shall observe any conditions at the site affecting it and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing such activities. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions known, recognized or discovered by the Contractor shall be reported promptly to the Consultant in writing as a request for information in such form as the Consultant may require.

**3.2.2** Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the Consultant in writing, but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity recognized discovered by or made known to the Contractor shall be reported promptly to the Consultant in writing. The accuracy of grades, elevations, dimensions, locations or otherwise of existing conditions are not warranted to be accurate. The Contractor is solely responsible for verifying the accuracy of grades, elevations, dimensions, locations prior to entering in to the Contract.

**3.2.3** If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Consultant in response to the Contractor's notices or requests for information pursuant to Subparagraphs 3.2.1 and 3.2.2, the Contractor shall make Claims as provided in Subparagraphs 4.3.6 and 4.3.7. If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2, the Contractor shall make claims as provided in 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. Except as provided herein, the Contractor shall not be



liable to the Owner or Consultant for damages resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor discovered, had knowledge of, recognized or should have recognized such error, inconsistency, omission or difference and failed to report it to the Owner and to the Consultant or accepted the responsibility to verify the same. If the Contractor performs any construction activity it knows or reasonably should have known involves an error, inconsistency or omission in the Contract Documents or reports referenced therein without such notice to the Owner and the Consultant, the Contractor shall assume responsibility for such performance and shall bear the costs attributed to the correction.

**3.2.4**. In addition to and not in derogation of the Contractor's duties the Contractor shall take all field measurements and verify all field conditions and shall carefully compare such field measurements and conditions with all other information known to the Contractor or included in any of the Contract Documents before commencing any construction activity for the Work. The Owner shall not be liable for any errors, inconsistencies or omissions which should have been reasonably discovered and the Contractor shall report in writing to the Consultant and Owner any errors, inconsistencies or omissions.

**3.2.5**. Any investigations of subsurface conditions have been made for design purposes only. The results of these investigations may be available for the convenience of the Bidders and the Sub-bidders but are not a part of the Contract Documents. While the Contractor may rely on such investigation results there is no representations or warranties, express or implied that the conditions indicated are representative of those existing at the site or that unforeseen developments may not occur. The Contractor is solely responsible for reasonably interpreting the information and extrapolating beyond the location of each individual boring, test pit, or other testing location.

**3.2.6.** The Contractor shall do no work without applicable Drawings, Specifications, or written modifications or, where required, Shop Drawings, Product Data, or Samples, unless instructed to do so in writing by the Consultant and Owner.

# 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

**3.3.1** 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. Contractor shall review any specified construction or installation procedure and shall advise the Owner and the Consultant in writing if the specified procedure deviates from acceptable construction practices will impact any warranty or if the Contractor has any objection thereto.

**3.3.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors, of any tier, and their agents and employees, and any other persons or entities performing portions of the Work for or on behalf of the Contractor or any Subcontractors of any tier and for any damages, losses, costs and expenses resulting from such acts or omissions.

**3.3.3** The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

**3.3.4**. The Contractor shall inspect, prior to installation, all materials and equipment delivered to, installed at, or fabricated at the site and shall reject that which will not conform to the Contract Documents when fully and properly installed.

## 3.4 LABOR AND MATERIALS

**3.4.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, telephone, data transmission, construction equipment and machinery, water,



heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

**3.4.2** The Contractor may make substitutions only with the written consent of the Owner, after evaluation by the Consultant and in accordance with a Change Order.

**3.4.3** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

#### 3.5 WARRANTY

**3.5.1** The Contractor warrants to the Owner and Consultant that the Work, including, but not limited to, any and all 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 not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Consultant, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. In addition, the Contractor assigns to the Owner any and all warranties. The Contractor further warrants that all construction activity of the Work shall be performed on the Work so as to preserve all such warranties. To the extent that any warranty is non-assignable, Contractor warrants that it will pursue such warranty claim for the use and benefit of the Owner without cost or expense to the owner. The Contractor shall require this provision to be included in all subcontracts of any tier.

#### 3.6 TAXES

**3.6.1** The Contractor shall pay as and when due\_sales, consumer, property, occupational, Social Security benefits, unemployment compensation, use and similar taxes, excises, duties and assessments for the Work provided by the Contractor.

#### 3.7 PERMITS, FEES AND NOTICES

**3.7.1** Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required when bids are received, negotiations concluded or the Contract is executed. To the extent that there is any difference in these requirements the most stringent requirements on the Contractor shall apply.

**3.7.2** The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities applicable to performance of the Work. If the Contractor fails to comply or give such notices it will be liable for and shall to the fullest extent permitted by law defend indemnify and hold the Owner and Consultant and their respective employees, officers and agents harmless from any costs, loss, penalty or damage.

**3.7.3** Except as otherwise provided herein, it is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor becomes aware, gains knowledge, recognizes or observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly notify the



Consultant and Owner in writing, and necessary changes shall be accomplished by appropriate Modification.

**3.7.4** If the Contractor performs Work knowing the construction activity to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Consultant and Owner, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs, loss, damages and penalties attributable to correction.

#### 3.8 ALLOWANCES

**3.8.1** The Contractor shall include in the Contract Sum any and 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, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

**3.8.2** Unless otherwise provided in the Contract Documents:

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered atthe site and all required taxes, less applicable trade discounts;
- .2 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 Sum but not in the allowances;
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (I) the difference between actual costs and the allowances under Clause 3.8.2.1 and (2) changes in Contractor's costs under Clause 3.8.2.2.

**3.8.3** Materials and equipment under an allowance shall be selected by the Owner in sufficient time to avoid delay in the Work.

#### 3.9 SUPERINTENDENT

**3.9.1** The Contractor shall employ an experienced and competent superintendent and necessary assistants who shall be in attendance at the Project site at all times during performance of the Work including completion of the punch list. The Contractor shall notify the Consultant and the Owners Representative as to the identity of the superintendent who shall not be changed during the course of the Work without prior written notification to the Consultant and Owner Representative. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

#### 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

**3.10.1** The Contractor, promptly and within ten (10) days after being awarded the Contract, shall prepare and submit for the Owner's and Consultant's information a preliminary Contractor's construction schedule for the Work consistent with the with the requirements of the Contract Documents. Prior to submitting its first Application for Payment, the Contractor, after consultation with its subcontractors, shall submit six (6) hard copies and one electronic copy of the Contractor's construction schedule consistent with the requirements of the Contract Documents. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. The construction schedule shall not be changed without the prior written consent of the Owners Representative.



**3.10.2** The Contractor shall prepare and keep current, for the Consultant's review, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Owner and the Consultant reasonable time to review in accordance with the Specifications and submittal procedures. The Contractor should expect a response time of approximately 21 days from the Consultant and Consultant's consultants. Neither the Consultant nor Owner can represent or guarantee response times from governmental authorities, such as permitting agencies. Neither the Contractor's preparation, nor the Consultant's receipt or review shall modify the Contractor's responsibility to make required submittals or to do so in a timely manner.

3.10.3 The Contractor shall perform the Work in accordance with the most recent schedules submitted to the Owner and accepted by the Owner and shall promptly notify the Owner of any deviations from the schedule. Should the Contractor fail to comply with the schedule, or in the Owner's opinion fail, refuse, or neglect to supply a sufficient amount of labor, materials, equipment or services in the prosecution of the Work, the Owner shall have the right to direct the Contractor to furnish such additional labor, materials, equipment or services to comply with the schedule and all costs thereof shall be borne by the Contractor and shall not increase the Contract Sum. All schedules submitted shall be in the form acceptable to the Owner using critical path methodology (CPM) clearly showing overall Project and specific items and tasks of construction activities, dependencies and durations as well as overall and specific commencement and completions dates. The critical path activities shall be highlighted, float and non-critical activities shall be shown and the start and stop times for each activity shall be listed. Float belongs to the benefit of the Project for the Owner's use and no float shall be used without the Owner's written approval. The Contractor shall at all times monitor the progress of the Work for conformance with the CPM schedule accepted by the Owner and shall promptly advise the Owner and Consultant of any impacts or delays or potential impacts or delays. The Contractor shall also update the construction schedule to reflect actual conditions and shall propose plans in order to avoid or correct any impact or delays.

## 3.11 DOCUMENTS AND SAMPLES AT THE SITE

**3.11.1** The Contractor shall maintain at the site for the Owner one (1) record copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record field changes and selections made during construction, and one (1) record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be accessible to inspectors and available to the Consultant and Owner and shall be delivered to the Consultant for submittal to the Owner upon completion of the Work and before Contractor's request for final payment.

#### 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

**3.12.1** Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

**3.12.2** 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.

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

**3.12.4** 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 by the Consultant or any other person is subject to the limitations of Subparagraph 4.2. 7. Information submittals upon which the Consultant 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 Consultant without action.



**3.12.5** The Contractor shall review for compliance with the Contract Documents, approve and submit to the Consultant, 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 Consultant without action.

**3.12.6** By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

**3.12.7** 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 Consultant.

**3.12.8** 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 any approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Consultant and Owner in writing of such deviation at the time of submittal and (1) the Consultant has given specific written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued 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, any person's approval thereof.

**3.12.9** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Consultant on previous submittals. In the absence of such written notice, any person's approval of a resubmission shall not apply to such revisions. Contractor shall submit Shop Drawings, Product Data, Samples and similar submittals in forms and in a manner reasonably acceptable to the Consultant. Contractor shall submit no less than two (2) copies or examples for review of any Shop Drawings, Product Data, Samples or similar submittals at Contractor's sole cost and expense.

**3.12.10** The Contractor shall not be required to provide professional services which constitute the practice of Architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Consultant will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Consultant. The Owner and the Consultant shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided the Owner and Consultant have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Subparagraph 3.12.10, the Consultant will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.



# 3.13 USE OF SITE

**3.13.1** The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment. Notwithstanding anything contained in the Contract Documents to the contrary, the Contractor shall, as part of the Work, not disrupt or interfere in any manner with any of the Owner's or Owner's authorized provider's operations at the Project site or any other locations, including, without limitation any and all educational, social, athletic or recreational programs, activities, classes or events. Contractor shall not park or otherwise utilize any other area designated by the Owner or typically used by Owner's employees, staff, students, parents or visitors or local residents or businesses.

## **3.14 CUTTING AND PATCHING**

**3.14.1** The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

**3.14.2** The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work. To the extent that the Work involves renovation, alteration or repair of existing improvements, cutting and patching essential for the Project shall be successfully completed and Contractor shall perform the Work so that it is fully integrated into the existing improvements operationally and aesthetically.

#### 3.15 CLEANING UP

**3.15.1** The Contractor shall at all times keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials.

**3.15.2** If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

## 3.16 ACCESS TO WORK

**3.16.1** The Contractor shall provide the Owner and Consultant and their employees. agents and officers access to the Work in preparation and progress wherever located.

## 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

**3.17.1** The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Consultant harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Consultant. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Consultant in writing.



## 3.18 INDEMNIFICATION

**3.18.1** To the fullest extent permitted by law and to the extent claims, damages, losses or expenses are not covered by Project Management Protective Liability insurance purchased by the Contractor in accordance with Paragraph 11.2, the Contractor shall indemnify and hold harmless the Owner, Consultant, Consultant's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, any Subcontractor, anyone directly or indirectly employed by 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. 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 Paragraph 3.18.

**3.18.2** In claims against any person or entity indemnified under this Paragraph 3.18 by an employee of the Contractor, Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Subparagraph 3.18.1 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.

#### **ARTICLE 4 ADMINISTRATION OF THE CONTRACT**

#### 4.1 CONSULTANT OR OWNER'S REPRESENTATIVE

**4.1.1** The term "Consultant" as used in the Contract Documents, shall mean Soderstrom Architects or "Owner's Representative", as used in the Contract Documents, shall mean HMK Company (HMKCO), and its respective personnel.

**4.1.2.1** If a licensed Consultant is engaged by Owner who is not designated as the "Owner's Representative", the Owner shall make written directive and notification to Contractor, which shall perform any Contract Administration duties. For ease of reference and consistency, the term "Consultant" shall be used in the Contract Documents to refer to the contract administrator.

**4.1.2** Duties, responsibilities and limitations of authority of the Consultant as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, and Consultant.

**4.1.3** If the employment of the Consultant is terminated, the Owner shall employ a new Consultant under such terms and conditions as are agreeable between the Owner and the new Consultant.

#### 4.2 CONSULTANT'S ADMINISTRATION OF THE CONTRACT

**4.2.1** The Consultant may provide administration of the Contract as described in the Contract Documents, and may be an Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Paragraph 12.2. The Consultant will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

**4.2.2** The Consultant, as a representative of 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 the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents.



However, the Consultant will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Consultant 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, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Subparagraph 3.3.1.

**4.2.3** The Consultant will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Consultant will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, any Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

**4.2.4 Communications Facilitating Contract Administration.** The Owner, Owners Representative and Contractor may communicate with each other through the Consultant about matters arising out of or relating to the Contract. The Contractor shall also PROVIDE THE OWNER AND OWNERS REPRESENTATIVE WITH A DIRECT COPY OF ALL WRITTEN COMMUNICATIONS TO THE CONSULTANT, including all notices, requests, Claims and potential changes in the Contract Sum or Time, but not including Shop Drawings, Product Data or Samples. Communications by and with the Consultant's consultants shall be through the Consultant. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

**4.2.5** Based on the Consultant's evaluations of the Contractor's Applications for Payment, the Consultant may review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

**4.2.6** The Consultant may have authority to reject Work that does not conform to the Contract Documents. Whenever the Consultant considers it necessary or advisable, the Consultant may have authority to require inspection or testing of the Work in accordance with Subparagraphs 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Consultant nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Consultant to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

**4.2.7** The Consultant will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Consultant's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Consultant's professional judgment to permit adequate review. Review of such submittals 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, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Consultant's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Paragraphs 3.3, 3.5 and 3.12. The Consultant's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Consultant, of any construction means, methods, techniques, sequences or procedures. The Consultant's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

**4.2.8** The Consultant may prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Paragraph 7.4.

**4.2.9** The Consultant may conduct inspections to determine the date or dates of Substantial Completion and the date of final completion, may receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor, and may issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.



**4.2.10** If the Owner and Consultant designate, the Consultant will provide one or more project representatives to assist in carrying out the Consultant's responsibilities at the site.

**4.2.11** The Consultant may interpret and decide matters concerning performance under and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Consultant's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If no agreement is made concerning the time within which interpretations required of the Consultant shall be furnished in compliance with this Paragraph 4.2, then delay shall not be recognized on account of failure by the Consultant to furnish such interpretations until 5 days after written request is made for them.

**4.2.12** Interpretations and decisions of the Consultant, if any, will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and initial decisions, the Consultant will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.

**4.2.13** The Consultant's decisions on matters relating to aesthetic effect may be final if consistent with the intent expressed in the Contract Documents. The terms and conditions of the Owner's agreement with the Consultant shall govern the Consultant's responsibilities.

#### 4.3 CLAIMS AND DISPUTES

**4.3.1 Definition**. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, and extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

**4.3.2 Time Limits on Claims.** Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be initiated by written notice to the Consultant and the other party.

**4.3.3 Continuing Contract Performance**. Pending final resolution of a Claim except as otherwise agreed in writing or as provided in Subparagraph 9.7.1 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

4.3.4 Claims for Concealed or Unknown Conditions. Except as otherwise provided herein, if conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall give written notice to the Owner and the Consultant promptly before conditions are disturbed and in no event later than seven (7) days after first observance of the conditions. The Consultant may promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both, consistent with the requirements of the Contract Documents. If the Consultant determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Consultant may so notify the Owner and Contractor in writing, stating the reasons. Any claim of the Contractor arising from the Consultant's determination shall be made in accordance with the dispute resolution procedures set forth in Paragraphs 4.4 through 4.6. No adjustment in the Contract Time or Sum shall be permitted, however, if connection with any concealed or unknown condition which does not materially differ from those disclosed



or which should have reasonably been discovered by the Contractor's prior visits, observations, tests or for which the Contractor assumed any responsibility to verify.

**4.3.5 Claims for Additional Cost**. If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work, and a Claim must be made in accordance with Paragraphs 4.4 through 4.6 or it will be deemed waived. Prior notice is not required for Clams relating to an emergency endangering life or property arising under Paragraph 10.6.

**4.3.6** If the Contractor believes additional cost is involved for reasons, including, but not limited to:

- .1 a written interpretation from the Consultant
- .2 an order by the Owner to stop the Work where the Contractor was not at fault
- .3 a written order for a minor change in the Work issued by the Consultant
- .4 failure of payment by the Owner
- .5 termination of the Contract by the Owner
- .6 Owner's suspension or
- .7 other reasonable grounds, Claim shall be filed in accordance with this Paragraph 4.3.

All Claims for additional costs shall include any and all costs, including, but not limited to, any and all direct and indirect costs thereof.

#### 4.3.7 Claims for Additional Time

**4.3.7.1** If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given and a Claim shall be made as provided herein. The Contractor's Claim shall include an estimate of any cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary. If the delay was not caused by the Owner, the Contractor, a Subcontractor of any tier, or the Consultant, or anyone acting on behalf of any of them, the Contractor shall be entitled only to an increase in the Contract Time, in accordance with the Contract documents, but not a change in the Contract Sum. If the delay was caused by the Contractor, a Subcontractor of any tier, or anyone acting on behalf of any of them, the Contract Time or in the Contract Sum.

**4.3.7.2** If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction, and that the Work was on schedule (or was not behind schedule through the fault of the Contractor) at the time the adverse weather conditions occurred. Neither the Contract Time nor the Contract Sum will be adjusted for normal inclement weather. The Contractor shall be entitled to a change in the Contract Time only if the Contractor can substantiate to the reasonable satisfaction of the Owner and Consultant that there was materially greater than normal inclement weather considering the full term of the Contract Time and using a ten-year average of accumulated record mean values from climatological data compiled by the U.S. Department of Commerce National Oceanic and Atmospheric Administration for the locale of the Project, and that the alleged abnormal inclement weather actually extended the critical path of the Work. IF the total net accumulated number of calendar days lost due to inclement weather from commencement of the Work until Final Completion exceeds the total net accumulated to be expected for the same period from the aforesaid data, and the Owner grants the critical path.

**4.3.8 Injury or Damage to Person or Property.** If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party



is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

**4.3.9** If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

**4.3.10 Time is of the Essence.** The parties agree that the Owner shall be entitled to recover liquidated damages at the rate stated in the Agreement, which shall commence on the first day following the expiration of the Contract Time and continuing until the date of Substantial completion.

## 4.4 RESOLUTION OF CLAIMS AND DISPUTES

**4.4.1** In an effort to reduce the incidence and costs to all parties of extended disputes, all Claims, direct or indirect, arising out of, or relating to, the Contract Documents or the breach thereof, except claims which have been waived under the terms of the Contract Documents, shall be decided exclusively by the following alternative dispute resolution procedure unless the parties mutually agree in writing otherwise.

**4.4.2** The Contractor shall submit a written notice of any Claim to the Owner and the Consultant within 14 days of the occurrence of the event giving rise to such Claim and shall include a clear description of the event leading to or causing the Claim. The Contract shall submit a written Claim as providing herein within 30 days of the notice. Claims shall include a clear description of the Claim and any proposed change in the Contract Sum (showing all components and calculations) and/or Contract Time (showing cause of and analysis of the resultant delay in the critical path) of the Claim and shall provide data fully supporting the Claim. Failure to properly submit the notice of Claim shall constitute waiver of the Claim. The Claim shall be deemed to include all changes, direct and indirect, in cost and in time to which the Contractor (and Subcontractors of any tier) is entitled. Any claim of a Subcontractor of any tier may be brought only through, and after review by, the Contractor.

**4.4.3** Upon receipt of a Claim against the Contractor or at any time thereafter, the Consultant or the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Consultant or the Owner may, but is not obligated to, notify the surety's assistance in resolving the controversy.

**4.4.4** If a claim relates to or is the subject of a mechanic's lien or construction lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the Claim by the Consultant, by mediation or by litigation.

**4.4.5** Within 30 days of the Owner's receipt of the written Claim, the Contactor may require that an officer of the Contractor, a principal of the Consultant, and the Owner's Superintendent or designee (all with authority to settle) meet, confer, and attempt to resolve the Claim during the following 21 days. The Owner may continue the meeting to a time after it has assembled and reviewed data. If the Claim is not resolved, the Contractor may bring no claim against the Owner unless the Claim is first subject to nonbinding mediation as described in Paragraph 4.5. This requirement cannot be waived except by an explicit written waiver.

**4.4.6** The Contractor agrees that the Owner may join the Contractor as a party to any litigation/arbitration involving the alleged fault of the Contractor or Subcontractor of any tier.

## 4.5 MEDIATION

**4.5.1** Any Claim arising out of or relating to the Contract, except Claims relating to aesthetic effect and except those waived shall be subject to mediation as a condition precedent to the institution of legal or



equitable proceedings by either party. This requirement cannot be waived except by an express written waiver.

**4.5.2** The parties shall endeavor to resolve their claims by mediation, which unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rule of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association. Mediation shall proceed in advance of legal or equitable proceedings, which shall be stayed pending mediation unless stayed for a longer period by agreement of the parties or court order.

**4.5.3** The parties to the mediation shall share the mediator's fee and any filing fees equally. The medication shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

**4.5.4** An officer of the Contract and the Owner's Superintendent or designee must attend the mediation session with authority to settle the Claim. To the extent there are other parties in interest, such as the Consultant or Subcontractors, their representatives, also with the authority to settle the Claim, shall also attend the mediation session. Unless the Owner and the Contractor mutually agree in writing otherwise, all unresolved Claims shall be considered at a single mediation session which shall occur prior to Final Acceptance by the Owner.

#### 4.6 LITIGATION

**4.6.1** The Contractor may bring no litigation on Claims unless such Claims have been properly raised and considered in the procedures of Subparagraphs 4.4.1 through 4.4.3 above. All unresolved Claims of the Contractor shall be waived and released unless the Contractor has complied with the time limits of the Contract Documents, and litigation is served and filed within the earlier of (a) 120 days after the Date of Substantial Completion approved in writing by the Owner or (b) 60 days after Final Acceptance. This requirement cannot be waived except by an explicit written waiver signed by the Owner and the Contractor. The pendency of mediation shall toll these deadlines until the later of the mediator providing written notice to the parties of impasse or 30 days after the date of the last mediation session. Neither the Contractor nor a Subcontractor of any tier, whether claiming under a lien statute or otherwise, shall be entitled to attorneys' fees directly or indirectly from the Owner (but may recover attorneys' fees from the statutory Retainage fund itself to the extent allowable under law).

**4.6.2 Judgment on Final Award.** The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

#### **ARTICLE 5 SUBCONTRACTORS**

#### **5.1 DEFINITIONS**

**5.1.1** The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

#### 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

**5.2.1** The Contractor shall not change a Subcontractor, person or entity previously selected if the Owner or Consultant makes reasonable objection to such substitute. The Contractor shall require bids and contracts from Subcontractors to be submitted in a format which specifically sets for the amount of any credit that the Owner will ultimately be the benefit of, if all or any portion of any Subcontractor's Work is deleted. In no instance shall the Owner be obligated to pay any fee, profit or overheard for Work which is deleted from any Subcontractor's scope or from that of the Contractor.



## 5.3 SUBCONTRACTUAL RELATIONS

**5.3.1** By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner or Consultant. Each subcontract agreement shall preserve and protect the rights of the Owner and Consultant under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontractor to enter into similar agreements with other Subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontract Documents. Subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

# 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

**5.4.1** Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner or to another contractor should Owner so elect and consent, provided that:

- .1 assignment is effective only after termination of the Contract by the Owner and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

**5.4.2** Each subcontract shall specifically provide that the Owner (or other contractor) shall only be responsible to the subcontractor for those obligations that accrue after the Owner's or other contractor's exercise of rights under the conditional assignment required hereby.

#### ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

#### 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

**6.1.1** The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Paragraph 4.3.

**6.1.2** When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

**6.1.3** The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules when directed to do so. The Contractor shall make without an increase in the Contract Time or Sum any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.



**6.1.4** Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights which apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

#### 6.2 MUTUAL RESPONSIBILITY

**6.2.1** The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

**6.2.2** If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Consultant apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

**6.2.3** The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor or any Subcontractors. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, and damage to the Work or defective construction of a separate contractor.

**6.2.4** The Contractor shall promptly remedy damage wrongfully caused by the Contractor or Subcontractors to completed or partially completed construction or to property of the Owner or separate contractors as provided in Subparagraph 10.2.5.

#### 6.3 OWNER'S RIGHT TO CLEAN UP

**6.3.1** If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Consultant may allocate the cost among those responsible.

#### ARTICLE 7 CHANGES IN THE WORK

#### 7.1 GENERAL

**7.1.1** Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, solely by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

**7.1.2** A Change Order shall be based upon agreement among the Owner, Contractor and Consultant; a Construction Change Directive requires agreement by the Owner and Consultant and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Consultant alone.

**7.1.3** Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.



**7.1.4** Before effectuating a change in the Work, the Owner may request the Contractor to propose the amount of change in the Contract Sum, if any, and the extent of change in the Contract Time, if any, arising from the proposed change in the Work. The Contractor shall submit its responsive proposal as soon as possible and within 14 days and shall in good faith specify the components and amounts by which the Contract Sum and/or Contract Time would change. Labor, materials and equipment shall be limited to and itemized in the manner described in Paragraph 7.5 for the Contractor and major Subcontractors. If the Contractor fails to respond within this time, the Owner may withhold some or all of a progress payment otherwise due until the tardy proposal is received. If the Owner accepts the proposal in writing, the Owner will be immediately bound, the change will be included in a future Change Order, and the change in the Work shall commence expeditiously. The Owner may reject the proposal, in which case the Owner may either not effectuate the change in the Work or may order the change through a Construction Change Directive or an order for a minor change in the Work. The Consultant may confer directly with Subcontractors of any tier concerning any item proposed to the Owner under this Article.

# 7.2 CHANGE ORDERS

**7.2.1** A Change Order is a written instrument which may be prepared by the Consultant and signed by the Owner, Contractor and which may be signed by the Consultant, stating their agreement upon all of the following:

- .1 change in the Work;
- .2 the amount of the adjustment, if any, in the Contract Sum; and
- .3 the extent of the adjustment, if any, in the Contract Time.

**7.2.2** Methods used in determining adjustments to the Contract Sum may include those listed in Subparagraph 7.3.3. Agreement on a Change Order shall constitute full and final settlement of all issues and matters related to the change in Work which is subject to the Change Order including, without limitation, any and all direct and indirect costs and all adjustments in the Contract Time and Sum. There shall be no fee due or to become due to the Contractor related to deductive Change Orders.

## 7.3 CONSTRUCTION CHANGE DIRECTIVES

**7.3.1** A Construction Change Directive is a written order which may be prepared by the Consultant and signed by the Owner, and which may be signed by the Consultant, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

**7.3.2** A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

**7.3.3** If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 cost to be determined in a manner agreed upon by the parties (accompanied by an itemized estimate of probable cost) and a mutually acceptable fixed or percentage fee; or
- .4 as provided in Subparagraph 7.3.6.



**7.3.4** Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved. As soon as possible and within seven (7) days of receipt the Contractor shall advise the Consultant in writing of the Contractor's agreement or disagreement with the proposed adjustment or the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time. The Contractor's response shall reasonably specify the reasons for its disagreement and the adjustment or other terms that it proposes. Without such timely written response, the Contractor shall conclusively be deemed to have accepted the Owner's adjustment. The Contractor's disagreement shall not relieve the Contractor of its obligations to comply promptly with any written notice issued by the Owner or the Consultant. The adjustment shall then be determined by the Consultant in accordance with the provisions of the Contract Documents.

**7.3.5** A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be incorporated into and be construed and interpreted as a Change Order.

7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, or if cost is to be determined under Clause 7.3.3.3, the Contractor shall keep and present itemized in the categories of Paragraph 7.5 and in such form as the Consultant may prescribe, an itemized accounting together with appropriate supporting data. In order to facilitate checking of such quotations, all proposals, except those so minor that their propriety can be seen be inspection, shall be accompanied by complete itemization of costs, including labor, equipment, material and subcontract costs. Labor. equipment and materials shall be itemized in the manner described in Paragraph 7.5. When major cost items arise from Subcontractors of any tier, these items shall also be similarly itemized. Approval may not be given without such itemization. Failure to provide data within 21 days of the Owner's request shall constitute waiver of any Claim for changes in the Contract Time or Contract Sum. The total cost of any change, including a Claim under Paragraph 4.3 or 4.4, shall be limited to the reasonable value, as determined by the Consultant (subject to appeal through the dispute resolution procedure of Paragraph 4.4), of the items in Paragraph 7.5. Unless otherwise agreed in writing by the Owner, the cost shall not exceed the lower of the prevailing cost for the work in the locality of the Project or the cost of the work in the current edition of R.S. Means Company, Inc., Building Construction Cost Data as adjusted to local costs and conditions. The Consultant and the Owner may communicate directly with Subcontractors concerning costs of any Work included in a Construction Change Directive. If the Contractor disagrees with the method for the adjustment in the Contract Time, the adjustment and method shall be referred to the Consultant for determination, and any adjustment shall be limited to the change in the actual critical path of the Contractor's Construction Schedule directly caused thereby.

**7.3.7** The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be the largest of (1) the reasonable and prevailing value of the deletion or change; (2) the line item value in the Schedule of Values: or (3) the actual net cost as confirmed by the Consultant. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

**7.3.8** Pending final determination of the total cost of a Construction Change Directive to the Owner and provided that any amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. If the Contractor adds a reservation of rights that has not been initialed b the Owner, all the amounts for the Construction Change Directive shall be considered disputed unless costs are renegotiated or the reservation is withdrawn or changed in a manner satisfactory to the Owner.

**7.3.9** When the Owner and Contractor agree with the determination made by the Consultant concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.



# 7.4 MINOR CHANGES IN THE WORK

**7.4.1** The Consultant and the Owner will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out any and all such written orders promptly. If at the option of the Owner, the Consultant exercises any authority, right(s) or duty(ies) stated anywhere in this Agreement or any other Contract Document as an authority, right or duty the Consultant may perform, the Contractor shall comply with, be bound by and respond therewith and thereto, including, but not limited to, the exercise of any authority, right(s) or duty(ies) related to minor work.

#### 7.5 PRICING COMPONENTS

**7.5.1** The total cost of any changed Work or of any other increase or decrease in the Contract Sum, including a Claim, shall be limited to the following components:

- .1 Basic wages: The hourly wage (without markup, fringe benefits or labor burden) not to exceed that specified in the applicable "Intent to Pay Prevailing Wage" for the laborers, apprentices, journeymen, and foremen performing and/or directly supervising the changed Work on the site. The premium portion of overtime wages is not included unless pre-approved by the Owner.
- .2 Fringe benefits: Fringe benefits paid by the Contractor as established by the Oregon Bureau of Labor and Industries or contributed to labor trust funds as itemized fringe benefits, whichever is applicable. Costs paid or incurred by the Contractor for vacations, per diem, bonuses, stock options, or discretionary payments to employees are not reimbursable.
- .3 Workers' insurances: Direct contributions to the State of Oregon as industrial insurance; medical aid; and supplemental pension by class and rates established by the Oregon Bureau of Labor and Industries.
- .4 Federal insurances: Direct contributions required by the Federal Insurance Compensation Act (FICA); Federal Unemployment Tax Act (FUTA); and State Unemployment Compensation Act (SUCA).

**7.5.2** Direct material costs: This is an itemization, including material invoice, of the quantity and cost of additional materials reasonable and necessary to perform the change in the Work. The unit cost shall be based upon the net cost after all discounts or rebates, freight costs, express charges, or special delivery costs, when applicable. No lump sum costs will be allowed except when approved in advance by the Consultant. Discounts and rebates based on prompt payment may be included, however, if the Contractor offers but the Owner declines the opportunity.

**7.5.3** Construction equipment usage costs: This is an itemization of the actual length of time that construction equipment appropriate for the Work will be used solely on the change in the Work at the site times the applicable rental cost as established by the lower of the local prevailing rate published in <u>The Rental Rate Blue Book</u> by Data Quest, San Jose, California, or the actual rate paid to an unrelated third party as evidenced by rental receipts. Actual, reasonable mobilization costs are permitted if the equipment is brought to the Site solely for the change in the Work. If equipment is required for which a rental rate is not established by <u>The Rental Rate Blue Book</u>, an agreed rental rate shall be established for the equipment, which rate and use must be approved by the Consultant prior to performing the work. If more than one rate is applicable, the lowest rate will be utilized. The rates in effect at the time of the performance of the changed Work are the maximum rates allowable for equipment of modern design and in good working condition and include full compensation for furnishing all fuel, oil, lubrication, repairs, maintenance, and insurance. Equipment not of modern design and/or not in good working condition will have lower rates. Hourly, weekly, and/or monthly rates, as appropriate, will be applied to yield the lowest



total cost. The rate for equipment necessarily standing by for future use on the changed Work shall be 50% of the rate established above. The total cost of rental allowed shall not exceed the cost of purchasing the equipment outright.

**7.5.4** Cost of change in insurance or bond premium. This is defined as:

- .1 Contractors' liability insurance: The cost (expressed as a percentage) of any changes in the Contractor's liability insurance arising directly from the changed Work; and
- .2 Public works bond: The cost (expressed as a percentage) of the change in the Contractor's premium for the Contractor's bond arising directly from the changed Work.

Upon request, the Contractor shall provide the Owner with supporting documentation from its insurer or surety of any associated cost incurred.

**7.5.5** Subcontractor costs: These are payments the Contractor makes to Subcontractors for changed Work performed by Subcontractors. The Subcontractors' cost of changed Work shall be determined in the same manner as prescribed in this Paragraph 7.5.

**7.5.6** Fee: This is the allowance for all combined overhead, profit and other costs, including all office, home office and site overhead (including project manager, project engineers, project foreman, estimator, superintendent and their vehicles), taxes (except for sales tax), warranty, safety costs, quality control/assurance, purchasing, small or hand tool or expendable charges, preparation of as-built drawings, impact on unchanged Work, Claim preparation, and delay and impact costs of any kind, added to the total cost to the Owner of any Change Order, Construction Change Directive, Claim or any other claim of any kind on this Project. It shall be limited in all cases to the following schedule:

- .1 The Contractor shall receive 15% of the cost of any materials supplied or work properly performed by the Contractor's own forces.
- .2 The Contractor shall receive 8% of the amount owed directly to a Subcontractor or Supplier for materials supplied or work properly performed by that Subcontractor or Supplier.
- .3 Each Subcontractor of any tier shall receive 12% of the cost of any materials properly supplied or work properly performed by its own forces.
- .4 Each Subcontractor of any tier shall receive 8% of the amount it properly incurs for materials supplied or work properly performed by its suppliers or subcontractors of any lower tier.
- **.5** The cost to which this Fee is to be applied shall be determined in accordance with Paragraph 7.5.1-7.5.4.
- .6 The total summed Fee of the Contractor and all Subcontractors of any tier shall not exceed 25%. None of the fee percentages authorized in this Paragraph 7.5.6 may be compounded with any other fee percentage or percentages authorized in this paragraph.

If a change in the Work involves both additive and deductive items, the appropriate Fee allowed will be added to the net difference of the items. If the net difference is negative, no Fee will be added to the negative figure as a further deduction.

## **ARTICLE 8 TIME**

#### 8.1 DEFINITIONS



**8.1.1** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

**8.1.2** The date of commencement of the Work is the date established in the Agreement.

**8.1.3** The date of Substantial Completion is the date certified by the Consultant in accordance with Paragraph 9.8.

**8.1.4** The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined. Time is expressly declared of the essence as it relates to the performance of the Contractor's Work. Without limiting the foregoing, Contractor must complete the Project in the manner required hereby on the date required hereby. The failure to so complete the Project shall cause the Owner to incur substantial costs and expenses, including, but not limited to, those related to staffing, teachers, management, transportation, publication, communication, signage, and rental, all of which costs and expenses the Contractor shall be liable for.

#### 8.2 PROGRESS AND COMPLETION

**8.2.1** Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

**8.2.2** The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article II to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance. The Contractor shall notify the Owner in writing not less than five days or other agreed period before commencing the Work.

**8.2.3** The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion and Final Completion within the Contract Time.

#### 8.3 DELAYS AND EXTENSIONS OF TIME

**8.3.1** If the Contractor is unreasonably delayed at any time .in the commencement or progress of the Work (1) by an act or neglect of the Owner or Consultant, or of an employee of either, or of a separate contractor employed by the Owner, or (2) by changes ordered in the Work only to the extent reflected in approved Change Orders providing for specific extensions of the Contract Time, or (3) b unanticipated, abnormal weather (see Paragraph 4.3.7), or (4) by unexpected industry-wide labor disputes, fire, unusual delay in deliveries, governmental delays (including permit delays not caused by the Owner), unavoidable casualties or other causes beyond the Contractor's control, or (5) by delay authorized by the Owner pending mediation and litigation, or (6) by other causes which the Consultant determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time, limited to the change in the actual critical path of the Contractor's Construction Schedule directly caused thereby, as the Consultant may determine consistent with the provisions of the Contract Documents. In no event, however, shall the Contract Schedule, also as to actually delay the Project completion beyond the date of Substantial Completion, or (2) delay transforming an activity into the critical path of the Contract Schedule, so as to actually delay the Project completion.

**8.3.2** Claims relating to time shall be made in accordance with applicable provisions of Paragraphs 4.3 and 4.4. That the Owner or Consultant may be aware of the occurrence or existence of a delay through means other than the Contractor's written notification shall not constitute a waiver of a timely or written notice or Claim.

**8.3.3** This Paragraph 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.



- .1 If the delay was not caused by the Owner, the Contractor, a Subcontractor of any tier, or the Consultant, or anyone acting on behalf of any of them, the Contractor is entitled only to an increase in the Contract Time in accordance with the Contract Documents, but not a change in the Contract Sum. If the delay was caused by the Contractor, a Subcontractor of any tier, or anyone acting on behalf of any of them, the Contractor is not entitled to an increase in the Contract Time or in the Contract Sum. The Contractor shall not recover damages, an equitable adjustment or an increase in the Contract Time from the Owner where the Contractor could have reasonably avoided the delay by the exercise of due diligence. The Contractor shall be able to recover an increase in the Contract Sum, consistent with the terms of the Contract Documents, only if a delay in the critical path was unreasonable and caused by the Owner. A Subcontractor is not entitled to damages, an equitable adjustment or an increase in the Contract Sum for any delay that does not increase the Contract Time.
- .2 In the event the Contractor (including any Subcontractors of any tier) is held to be entitled to damages from the Owner for delay beyond the payment permitted in Subparagraph 7.5.6, it is agreed that the total combined damages to the Contractor and any Subcontractors of any tier for each day of delay shall be limited to the same daily liquidated damage rate specified in the Contract Documents due the Owner for the Contractor's delay in achieving Substantial Completion. No damages will be allowed for any time prior to 14 days before receipt of written notice of the Claim of the delay pursuant to Subparagraph 4.4.2.
- .3 The Contractor shall not in any event be entitled to damages arising out of actual or alleged loss of efficiency; morale, fatigue, attitude, or labor rhythm; constructive acceleration; home office overhead; expectant under run; trade stacking; reassignment of workers; rescheduling of work, concurrent operations; dilution of supervision; learning curve; beneficial or joint occupancy; logistics; ripple; season change; extended overhead; profit upon damages for delay; impact damages; or similar damages.
- .4 The Contractor shall not be entitled to any adjustment in the Contract Time or in the Contract Sum, or to any additional payment of any sort, by reason of the loss or the use of any float time, including time between the Contractor's anticipated completion date and the end of the Contract Time, whether or not the float time is described as such on the Contractor's Construction Schedule.

## **ARTICLE 9 PAYMENTS AND COMPLETION**

#### 9.1 CONTRACT SUM

**9.1.1** The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

## 9.2 SCHEDULE OF VALUES

**9.2.1** Within seven (7) calendar days of the execution of this the Agreement and with each Application for Payment, the Contractor shall submit to the Consultant a schedule of values in a form satisfactory to the Consultant and Owner allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Consultant may require. This schedule, unless objected to by the Consultant or Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment.

#### 9.3 APPLICATIONS FOR PAYMENT

9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit



to the Consultant an itemized Application for Payment for operations completed in accordance with the schedule of values. Such application shall be notarized and supported by such data substantiating the Contractor's right to payment as the Owner or Consultant may require, such as copies of requisitions from Subcontractors and material suppliers and reflecting Retainage if provided for in the Contract Documents.

**9.3.1.1** As provided in Subparagraph 7.3.8, such applications may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives, or by interim determinations of the Consultant, but not yet included in Change Orders.

**9.3.1.2** Such applications may not include requests for payment for portions of the Work for which the Contractor does not intend to pay to any Subcontractor including any material supplier.

**9.3.2** Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's free and clear title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

**9.3.3** The Contractor warrants 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 Certificates for Payment have been previously issued and payments received from the Owner shall, be free and clear of any and all liens, claims, security interests or encumbrances in favor of the Contractor, and any all Subcontractors, including any material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

## 9.4 CERTIFICATES FOR PAYMENT

**9.4.1** The Consultant may, within seven (7) days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Consultant determines is properly due, or notify the Contractor and Owner in writing of the Consultant's reasons for withholding certification in whole or in part as provided in Subparagraph 9.5.1.

**9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Consultant to the Owner, based on the Consultant's evaluation of the Work and the data comprising the Application for Payment, that the Work has progressed to the point indicated and that, to the best of the Consultant's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Consultant. However, the issuance of a Certificate for Payment will not be a representation that the Consultant has (I) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.



# 9.5 DECISIONS TO WITHHOLD CERTIFICATION

**9.5.1** The Consultant may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if, in the Consultant's opinion the representations to the Owner required by Subparagraph 9.4.2 cannot be made. If the Consultant is unable to certify payment in the amount of the Application, the Consultant may notify the Contractor and Owner as provided in Subparagraph 9.4. I. If the Contractor and Consultant cannot agree on a revised amount, the Consultant may promptly issue a Certificate for Payment for the amount for which the Consultant is able to make such representations to the Owner. The Consultant may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Consultant's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Subparagraph 3.3.2, because of:

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security is acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 Any other failure to comply with the Contract Documents or Contractor's persistent\_failure to carry out the Work in accordance with the Contract Documents.

**9.5.2** When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

#### 9.6 PROGRESS PAYMENTS

**9.6.1** After the Consultant has received all the necessary documents and properly issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents and may so notify the Consultant.

**9.6.2** If not done previously, The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of such Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Subcontractors in a similar manner.

**9.6.3** The Consultant or Owner may on request, furnish to any Subcontractors or any other person or entity, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Consultant and Owner on account of portions of the Work done by such



Subcontractor.

**9.6.4** Neither the Owner nor Consultant shall have an obligation to pay nor to see to the payment of money to a Subcontractor except as may otherwise be required by law.

**9.6.5** Payment to material suppliers shall be treated in a manner similar to that provided for Subcontractors because by the definitions of this Agreement they are a Subcontractor.

**9.6.6** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

**9.6.7** Payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

## 9.7 FAILURE OF PAYMENT

**9.7.1** If the Consultant does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Consultant or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and Consultant, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately, and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

#### 9.8 SUBSTANTIAL COMPLETION

**9.8.1** Substantial Completion is the stage in the progress of the Work, or portion thereof designated and approved by the Consultant and Owner, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can fully occupy and utilize the Work, or designated portion thereof, for its intended use. All Work other than incidental corrective or punchlist work and final cleaning shall have been completed, including but not limited to the following:

- .1 Obtain temporary occupancy permits, pressure vessel permits, elevator permits, and similar approvals or certificates by governing authorities and franchised services, assuring the Owner's full access and use of completed Work.
- .2 Submit the Contractor's punch list of items to be completed or corrected and written request for inspection.
- .3 Complete final start-up, testing, and commence instruction and training sessions on all major building systems, including HVAC and controls, intercom, data communications, fire alarm, telephone, fire sprinkler, security and clocks.
- .4 Make final changeover of locks and transmit new keys to the Owner, and advise the Owner of the changeover in security provisions.



- .5 Discontinue or change over and remove temporary facilities and services from the project site.
- .6 Advise the Owner on coordination of shifting insurance coverages, including proof of extended coverages as required.

The Work is not Substantially Complete unless the Consultant reasonably judges that the Work can achieve Final completion within 60 days, appropriate cleaning has occurred, all systems and parts are commissioned and usable, including balancing of the HVAC system, utilities are connected and operating normally, all required temporary occupancy permits have been issued and the work is accessible by normal vehicular and pedestrian traffic routes. The fact that the owner may occupy the Work or a designated portion thereof does not indicate that the work is Substantially Complete or is acceptable in whole or in part, nor does such occupation toll or change any liquidated damages due the Owner.

9.8.1.2 Date of commissioning of Critical Systems. The following systems of the Work, and any other systems designated in the Contract Documents, are considered "Critical Systems": the HVAC system, the data communication system(s), the intercom system, the life safety system(s) and the security system. When the Contractor considers that the Critical Systems are up and running and ready for normal operation as specified for each phase, the Contractor shall so notify the Consultant in writing a minimum of 14 days prior to the Date of Substantial Completion for that portion or phase as fixed in the contract Documents. The Consultant will then schedule a pre-commissioning inspection of these systems to determine whether the Critical Systems are complete and ready for normal operation. If the Consultant's inspection discloses that the Critical Systems are not Substantially Complete or that any item which is not in accordance with the requirements of the Contract Documents, the Contractor shall expeditiously, and before the Date of Commissioning, complete or correct such item upon notification by the Consultant. The Contractor shall then submit a request for another inspection by the Consultant to determine completion of the Critical Systems and pay the costs associated with the re-inspection, including fees of the Consultant and its consultants. When the Critical Systems are complete, the Consultant will notify the Owner in writing, which shall establish the Date of Commissioning. Warranties on the Critical Systems required by the Contract Documents shall commence on the Date of Commissioning, unless otherwise provided. The Date of Commissioning shall not have an effect on the duties of the parties at Substantial Completion.

**9.8.1.3 Indemnification**. The Contractor shall defend, indemnify, and hold harmless the Owner and the Consultant and their agents, employees, and consultants, successors and assigns from and against all claims, damages, losses and expenses of third parties, direct and indirect, or consequential, including costs, design professional fees, and attorneys' fees incurred by the owner related to such claims and in proving the right to indemnification, arising out of or resulting from the failure of the Contractor to attain the Date of Commissioning less than 30 days prior to the Date of Substantial Completion fixed by the Contract Documents. In particular, the Contractor acknowledges that a 30-day period after the Date of Commissioning and prior to occupancy is specified during which the HVAC system is scheduled to operate under a procedure intended to dissipate out-gassing that may occur from interior and other materials.

**9.8.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Consultant and Owner a comprehensive list of items to be completed or corrected prior to final payment. The Contractor shall proceed promptly to complete and correct all items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**9.8.3** Upon receipt of the Contractor's list, the Consultant and the Owner will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Consultant's



inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy and utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Consultant or Owner. In such case, the Contractor shall then submit a request for another inspection by the Consultant to determine Substantial Completion. If the Owner or Consultant determines that the Work or designated portion is not substantially complete, then the contractor shall expeditiously complete the Work or designated portion, request another inspection and pay all costs associated with any re-inspection.

**9.8.4** When the Work or designated portion thereof is substantially complete, the Consultant may prepare a Certificate of Substantial Completion which, upon approval of the Owner, may establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion. The Contractor shall attach and submit with the executed Certificate or Substantial Completion a written list of each outstanding and unresolved Claim; any Claim not so submitted and identified, other than Retainage and the undisputed balance of the Contract Sum, shall be deemed waived and abandoned. If the Owner or Consultant determines that the Work or designated portion is not substantially complete, the Contractor shall expeditiously complete the Work or designated portion, again request an inspection, and pay the costs associated with the re-inspection, including Consultant and consultant fees.

**9.8.5** The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Any items not included by the Consultant but required or necessary for Final Completion of the Contract shall be supplies and installed by the Contractor as a part of the Contract Sum, notwithstanding their not being recorded by the Consultant. Upon written acceptance of the Certificate of Substantial Completion and upon the Contractor's application, the Owner shall make payment as provided in the Contract Documents. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. No further payment will be due or owing until the payment at Final Completion.

**9.8.6** The Contractor shall prepare, continue to monitor with the Consultant, and cause to be completed, all punch lists with respect to the activity of each Subcontractor and report weekly to the Owner on outstanding punch list items. Beginning 90 days before the scheduled date of Substantial Completion, the Contractor shall prepare reports weekly, identifying items to be competed in order to obtain temporary and permanent certificates of occupancy and make recommendations to the Owner with respect to effectuating the earliest possible completion.

## 9.9 PARTIAL OCCUPANCY OR USE

**9.9.1** The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Clause 11.3.1.5 and authorized 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 accepted in writing the responsibilities assigned to each of them for payments, Retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Consultant and Owner as provided under Subparagraph 9.8.2. Consent of the Contractor to partial occupancy or use shall not be



unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Consultant.

**9.9.2** Immediately prior to such partial occupancy or use, the Owner and Contractor shall, and Consultant may, 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.

**9.9.3** Unless otherwise agreed upon, 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.

#### 9.10 FINAL COMPLETION AND FINAL PAYMENT

#### 9.10.1 FINAL COMPLETION.

**9.10.1.1** If, at sixty (60) days after the Date of Substantial Completion, the Owner considers that the punch list items are unlikely to be completed within sixty (60) days of Substantial Completion, the Owner may, upon seven (7) days' written notice to the contractor, take over and perform some or all of the punch list items. If the Contractor fails to correct the deficiencies within the period required, the Owner may deduct the actual cost of performing this punch list work, including costs, plus 10% to account for the Owner's transaction costs from the Contract Sum.

**9.10.1.2** Upon receipt of written notice from the Contractor that the Work is ready for final inspection and acceptance, the Consultant may promptly make such inspection accompanied by the Contractor and, when the Consultant finds all punch list items fully completed and the Work acceptable under the Contract Documents and the Contract fully performed, the Consultant may promptly notify the Contractor and the Owner in writing that to the best of the Consultant's knowledge, information and belief, and on the basis of the Consultant's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents. If the Consultant determines that some or all of the punch list items are not fully completed, then the Contractor shall be responsible to the Owner for all costs, including reinspection fees, associated with any subsequent Consultant's inspection. The Consultant's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

**9.10.1.3** The Contractor is liable for, and the Owner may deduct from any amounts due the Contractor, all Consultant, architect, engineer or other design consultant fees incurred by the Owner for services

performed more than 60 days after Substantial Completion of all the Work, whether or not those services would have been performed prior to that date had Final Completion been achieved in a timely manner.

**9.10.1.4** When the Consultant finds that the Work has been concluded, a final occupancy permit has been issued, and the Contractor has submitted all the items in Subparagraph 9.10.2.1 to the Consultant, the Contractor may submit a final Application for Payment. The Consultant will then promptly issue a final Certificate for Payment stating that the entire balance found to be due the Contractor and noted in said final Certificate is due and payable. The Consultant's final Certificate for Payment shall establish the date of Final Completion upon its execution by the Owner.

**9.10.1.5** "Final Completion" will be attained when the Contractor has accomplished the following:

- .1 Complete all requirements listed in Paragraph 9.8 for Substantial Completion.
- .2 Complete all remaining punch list items, notify Consultant and Owner that all work is complete.



- .3 Obtain permanent occupancy permits.
- .4 Submit final change order and final Application for Payment.
- .5 Submit recorded documents, final property survey, and operation and maintenance manuals.
- .6 Deliver tools, spare parts, extra stock of material and similar physical items to the Owner.
- .7 Complete final cleaning.
- .8 Complete instruction and train in sessions on all major building systems including HVAC, intercom data communications, fire alarm, telephone, fire sprinkler, security and clocks.

#### 9.10.2 FINAL ACCEPTANCE AND PAYMENT

**9.10.2.1** Final payment shall not become due until after the Owner's Board of Directors has formally accepted the Project "Final Acceptance". To achieve Final Acceptance, the Consultant must have issued a final Certificate of Payment under Subparagraph 9.10.1, Final Completion must have occurred, and the Contractor must have submitted to the Consultant the following:

- .1 an affidavit that any and all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied together with full and final unconditional waivers by the Contractor and all Subcontractors in a form and with content acceptable to the Owner, except for any Subcontractor claims that are specifically identified on the affidavit,
- .2 a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner,
- .3 a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents,
- .4 consent of surety, if any, to final payment,
- .5 other data establishing payment or satisfaction of or protection against 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 shall furnish a bond satisfactory to the Owner to indemnify the Owner against such lien or cash deposit off such lien or claim whichever the Owner may request. Such cash deposit shall be paid with the Contractor's own funds. 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,
- .6 an "Affidavit of Wages" from the Contractor and each Subcontractor of every tier certified by all required governmental authorities.
- .7 a letter from the Consultant indicating that the Work is complete and recommending Final



Acceptance of the Project by the Owner.

- .8 certification that all materials in the Work are "lead-free" and "asbestos-free," and
- .9 all warranties, guarantees, training manuals, operation instructions, certificates, spare parts, maintenance stock, specified excess material, as-built drawings and other documents or items required by the Contract Documents or local governmental entities.

**9.10.3** If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor, and the Consultant so confirms, the Owner shall, upon application by the Contractor and certification by the Consultant, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted to the extent permitted by statute. If the remaining balance for Work not fully completed or corrected is less than Retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Consultant prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

**9.10.4** If a Subcontractor of any tier or supplier refuses to furnish a release or waiver required by the Owner the Owner may (a) retain in the fund, account, or escrow funds in such amount as to defray the cost of foreclosing the liens of such claims and to pay attorneys' fees, the total of which shall be no less than 150% of the claimed amount, or (b) accept a bond from the Contractor, satisfactory to the owner, to indemnify the Owner against such lien. If any such lien remains unsatisfied after all payments from the Retainage are made, the Contractor shall refund to the Owner all moneys that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

**9.10.5 Release of Retainage.** Retainage will be held and applied by the Owner as required by law. Release of Retainage will be processed in the ordinary course of business upon expiration of sixty (60) days following Final Acceptance of the Work by the Owner provided that no notice of lien shall have been given as provided by law, and that no claims have been brought to the attention of the Owner and that the Owner has no claims under this Contract.

## 9.10.6 WAIVER OF CLAIMS

**9.10.6.1 Final Payment by Owner**. The making of final payment shall not constitute a waiver of any Claims by the Owner.

**9.10.6.2 Final Payment to Contractor.** Acceptance of final payment by the Contractor, or any Subcontractors including but not limited to any material supplier shall constitute a waiver of claims by that payee except those previously timely made in writing delivered to the Owner, Consultant and identified by that payee as unsettled and attached to Contractor's final Application for Payment.

**9.10.6.3 Change Orders**. The execution of a Change Order shall constitute a waiver of Claims by the Contractor arising out of the Work to be performed or deleted pursuant to the Change Order, except as specifically described in the Change Order. Reservations of rights will be deemed waived and are void unless the reserved rights are specifically described in detail to the satisfaction of the Owner and are initialed by the Owner.

**9.10.7** The Contractor shall maintain books, ledgers, records, documents, estimates, correspondence, logs, electronic data and other evidence pertaining to the costs incurred by the Contractor in connection with or related to the Contract ("records") to such extent and in such detail as will property reflect and fully support



compliance with requirements of the Contract Documents and with all costs, charges and other amounts of whatever nature under the contract. The Contractor shall preserve such records for a period of three (3) years following the date of Final Acceptance under the contract and for such longer period as may be required by any other provision of the contract. Within seven (7) days of the Owner's requires, the Contractor agrees to make available at the office of the Contractor during normal business hours all records for inspection, audit and reproduction by the Owner or its representatives. These requirements shall be applicable to each Subcontractor of any tier and included in each Subcontract and purchase order issued with respect to the Work, except fixed-price Subcontracts where the price is \$25,000 or less.

# ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

#### 10.1 SAFETY PRECAUTIONS AND PROGRAMS

**10.1.1** The Contractor shall use best efforts and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

#### **10.2 SAFETY OF PERSONS AND PROPERTY**

**10.2.1** The Contractor shall use best efforts to take precautions for safety of, and provide protection to prevent damage, injury or loss to:

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

**10.2.2** The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

**10.2.3** The Contractor shall use best efforts to erect and maintain, as required by existing conditions and performance of the Contract, safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities and to protect adjacent property and improvements from any damage. Any damage to such property or improvements shall be promptly remedied at Contractor's sole cost and expense.

**10.2.4** When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel and notify the Owner and Consultant in advance to such storage. To the extent that Owner's Operations limit the use or storage of explosives or other hazardous materials or equipment they shall not be used or stored at the Project.

**10.2.5** The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Clauses 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any Subcontractors, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which



the Contractor is responsible under Clauses 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Consultant or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 3.18.

**10.2.6** The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Consultant.

**10.2.7** The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

**10.2.8** Contractor shall specifically comply with any and all laws, rules and regulations related to hazardous materials (including without limitation asbestos) and hazardous material abatement including by not limited to those relating to contracting and the performance of such work.

# 10.3 HAZARDOUS MATERIALS

**10.3.1** If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos, encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and promptly report the condition to the Owner and Consultant in writing. By executing this Contract, Contactor represents and warrants that it has no knowledge of any material or substance which would give rise to any obligation of the Owner under any provision of 10.3.

**10.3.2** The Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Consultant the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or

substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Consultant will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Consultant has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Consultant have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. The Contract Time shall be extended appropriately, and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up, which adjustments shall be accomplished as provided in Article 7.

**10.4** The Owner shall not be responsible under Paragraph 10.3 for materials and substances brought to the site by the Contractor.

## **10.5 EMERGENCIES**

**10.5.1** In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractors discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Paragraph 4.3.



## ARTICLE 11 INSURANCE AND BONDS

## 11.1 CONTRACTOR'S LIABILITY INSURANCE

**11.1.1** The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by any Subcontractors, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- .2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 claims for damages insured by usual personal injury liability coverage;
- .5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 claims for bodily injury or property damage arising out of completed operations; and
- .8 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.

**11.1.2** The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverage's, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

**11.1.3** Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.



# 11.2 PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE

**11.2.1** The Owner may also in addition to or in the alternative require the Contractor to purchase and maintain Project Management Protective Liability insurance from the Contractor's usual sources as primary coverage for the Owner's, Contractor's and Consultant's vicarious liability for construction operations under the Contract. Unless otherwise required by the Contract Documents, the Owner shall reimburse the Contractor by increasing the Contract Sum to pay the cost of purchasing and maintaining such optional insurance coverage and the Contractor shall not be responsible for purchasing any other liability insurance on behalf of the Owner. The minimum limits of liability purchased with such coverage shall be equal to the aggregate of the limits required for Contractor's Liability Insurance under Clauses 11.1.1.2 through 11.1.1.5.

**11.2.2** To the extent damages are covered by Project Management Protective Liability insurance, the Owner, Contractor and Consultant waive all rights against each other for damages, except such rights as they may have to the proceeds of such insurance. The policy shall provide for such waivers of subrogation by endorsement or otherwise.

**11.2.3** The Owner may require the Contractor to include the Owner, Owners Representative, Consultant or any other persons or entities as additional insureds on the Contractor's Liability Insurance coverage under Paragraph 11.1 or as set out elsewhere in the Contract Documents.

#### 11.3 PROPERTY INSURANCE

**11.3.1** Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, until final payment has been made as provided in Paragraph 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

**11.3.1.1** Property insurance may be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood,

windstorm, false work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and may cover reasonable compensation for Consultant's and Contractor's services and expenses required as a result of such insured loss.

**11.3.1.2** If the Owner does not intend to purchase such insurance the Owner shall so inform the Contractor. The Contractor may, then following 14 days prior written notice to the Owner by the Contractor effect such insurance which will protect the interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and if approved by the Owner in its discretion and in writing before the purchase thereof the costs thereof may be charged to the Owner.

**11.3.1.3** If the property insurance requires deductibles, the Owner need not pay costs not covered because of such deductibles and they shall be paid by Contractor.

**11.3.1.4** This property insurance, if any may at the Owner's option cover portions of the Work stored off the site, and also portions of the Work in transit.



**11.3.1.5** Partial occupancy or use in accordance with Paragraph 9.9 may commence absent the insurance company or companies providing property insurance having consented to such partial occupancy or use by endorsement or otherwise.

**11.3.2 Loss of Use Insurance.** The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused.

**11.3.3** If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Subparagraph 11.3.5 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

**11.3.4** Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverage's required by this Paragraph 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

**11.3.5 Waivers of Subrogation**. The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Consultant, Consultant's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Paragraph 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Consultant, Consultant's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

**11.3.6** A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Subparagraph 11.3.7. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

**11.3.7** The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Paragraphs 4.5 and 4.6. The Owner as fiduciary shall, in the case of arbitration, make settlement with insurers in accordance with directions of the arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.



## 11.4 PERFORMANCE BOND AND PAYMENT BOND

**11.4.1** The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in any of the Contract Documents.

**11.4.2** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

#### ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

## 12.1 UNCOVERING OF WORK

**12.1.1** If a portion of the Work is covered contrary to the Consultant's or Owner's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Consultant or Owner, be uncovered for the Consultant's or Owner's observation or examination and be replaced at the Contractor's expense without change in the Contract Time.

**12.1.2** If a portion of the Work has been covered which the Consultant or Owner has not specifically requested to examine prior to its being covered, the Consultant or Owner may request to see such Work and it shall be uncovered by the Contractor. If such Work is in full and strict accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in full and strict accordance with the Contract Documents, correction shall be at the Contractor's sole expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

#### **12.2 CORRECTION OF WORK**

## 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

**12.2.1.1** The Contractor shall promptly correct Work rejected by the Consultant or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections and compensation for the Consultant's services and expenses made necessary thereby, shall be at the Contractor's expense. If prior to Substantial Completion the contractor or any Subcontractors or anyone they are responsible for uses or damages any portion of the Work, they shall return it to "like new" condition without any increase in the Contract Time or Sum.

## 12.2.2 AFTER SUBSTANTIAL COMPLETION

**12.2.2.1** In addition to the Contractor's obligations under Paragraph 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Subparagraph 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly (but in no event later than seven days) after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a full and final written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct



nonconforming Work promptly during that period after receipt of notice from the Owner or Consultant, the Owner may correct it in accordance with Paragraph 2.4.

**12.2.2.** The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work.

**12.2.2.3** The one-year period for correction of Work shall be extended by corrective Work performed by the Contractor pursuant to this Paragraph 12.2.

**12.2.3** 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.

**12.2.4** The Contractor shall bear the sole cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

**12.2.5** Nothing contained in this Paragraph 12.2 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 one-year period for correction of Work as described in Subparagraph 12.2.2 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.

## 12.3 ACCEPTANCE OF NONCONFORMING WORK

**12.3.1** 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 Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

## **ARTICLE 13 MISCELLANEOUS PROVISIONS**

## 13.1 GOVERNING LAW

**13.1.1** The Contract shall be governed by the law of the State of Oregon.

## 13.2 SUCCESSORS AND ASSIGNS

**13.2.1** The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents.

**13.2.2** The Owner may, without consent of the Contractor, assign the Contract to any person or entity. In such event, they shall assume the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.



## **13.3 WRITTEN NOTICE**

**13.3.1** Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice. Notice by e-mail or facsimile shall not constitute written notice unless the Owner shall otherwise agree.

## 13.4 RIGHTS AND REMEDIES

**13.4.1** Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

**13.4.2** No action or failure to act by the Owner, Consultant or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

## **13.5 TESTS AND INSPECTIONS**

**13.5.1** Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall timely make all 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. Except as otherwise provided herein, the cost of private-independent tests by third-parties to this Agreement shall be at Owner's expense. The Contractor shall give the Consultant and Owner timely notice of when and where tests and inspections are to be made so that the Consultant and Owner may be present for such procedures. The Owner shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded.

**13.5.2** If the Consultant, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Subparagraph 13.5.1, the Consultant may, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Consultant and Owner of when and where tests and inspections are to be made so that the Consultant and Owner may be present for such procedures. Such costs, except as provided in Subparagraph 13.5.3, or otherwise in the Contract Documents shall be at the Owner's expense.

**13.5.3** If such procedures for testing, inspection or approval under Subparagraphs 13.5.1 and 13.5.2 reveal 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 Consultant's and Owner's services and expenses shall be at the Contractor's sole cost and expense.

**13.5.4** 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 Consultant.

**13.5.5** If the Consultant is to observe tests, inspections or approvals required by the Contract Documents, the Consultant will do so reasonably and, where practicable, at the normal place of testing.

**13.5.6** Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.



## **13.6 INTEREST**

**13.6.1** Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

## 13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

**13.7.1** As between the Owner and Contractor any applicable statute of limitations shall accrue as provided by law in all events before substantial completion, between substantial completion and final certificate for payment, after final certificate for payment and otherwise.

## **ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT**

## 14.1 TERMINATION BY THE CONTRACTOR

**14.1.1** The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or any Subcontractors, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 issuance of an order of a court or other public authority having jurisdiction which requires all Work to be stopped:
- **.2** an act of government, such as a declaration of national emergency which requires all Work to be stopped; or
- .3 because the Consultant has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Subparagraph 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents following 30 prior written notice to the Owner.

**14.1.2** If one of the reasons described in Subparagraph 14.1.1 exists, the Contractor may, upon seven days' written notice to the Owner and Consultant, terminate the Contract and recover from the Owner

payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including agreed reasonable overhead and profit.

## 14.2 TERMINATION BY THE OWNER FOR CAUSE

**14.2.1** The Owner may terminate the Contract if the Contractor:

- .1 persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or



.4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

**14.2.2** When any of the above reasons exist, the Owner, upon certification by the Consultant that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor (but not the construction equipment owned, operated and used by Subcontractors in the performance of their Work);
- .2 accept assignment of subcontracts pursuant to Paragraph 5.4; and
- .3 finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

**14.2.3** When the Owner terminates the Contract for one of the reasons stated in Subparagraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

**14.2.4** If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Consultant's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Consultant, upon application, and this obligation for payment shall survive termination of the Contract. Contractor hereby fully, finally and unconditionally waives any and all other claims, including but not limited to those for lost or anticipated profits or overhead.

## 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

**14.3.1** The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

**14.3.2** The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Subparagraph 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent:

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

## 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

**14.4.1** The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

**14.4.2** Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall:

.1 cease operations as directed by the Owner in the notice;



- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

**14.4.3** In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination as provided in 14.4.4,

**14.4.4.** Upon on such termination Contractor shall recover as its sole remedy payment for Work properly and timely performed and installed prior to the effective date of the termination and for items properly and timely fabricated off the site and delivered and stored in accordance with the Owner's instructions prior to the effective date of termination. Contractor hereby fully, finally and unconditionally waives any and all other claims, including but not limited to those for lost or anticipated profits, or overhead. Owner shall be credited for payments previously made and claims the Owner has.

## END SECTION



# PAYMENT BOND

Bond No. \_\_\_\_\_

The undersigned, \_\_\_\_\_\_\_ as Principal and \_\_\_\_\_\_ as Surety, a corporation organized and existing under the laws of the state of \_\_\_\_\_\_\_, are held and bound unto CENTRAL CURRY SCHOOL DISTRICT and its heirs, executers, administrators, and assigns as Obligee, for the use and benefit of all persons or entities that provide labor, materials, equipment or supplies for use under the Contract described below, in the penal sum of \_\_\_\_\_\_

Dollars (\$\_\_\_\_\_), lawful money of the United States of America, for the payment of which Principal and Surety bind themselves and their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS Principal has entered into a Construction Contract ("Contract") dated \_\_\_\_\_\_, 2024, with Obligee for the District Wide Roofing Project, which Contract is made a part hereof as if fully incorporated herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if Principal shall promptly make payment to all persons or entities that provide labor, material, equipment or supplies for use under said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect. In the event that Principal shall be, and declared by Obligee to be in default under the Contract, the Surety, at the request of the Obligee, shall promptly remedy the default in a manner acceptable to the Owner.

In any event, this obligation shall remain in full force and effect for the applicable period of limitations or repose, whichever is longer.

Surety acknowledges that Obligee does not owe any duty to Surety to advise, notify or consult with Surety on any matters relating to the Principal or the Project, including, but not limited to, Principal's payments to Architect, Subcontractors or Principal's use of Project funds.

Principal and Surety hereby jointly and severally agree that any person or entity that provides labor, material, equipment or supplies for use under said Contract and has not been paid in full, and any other party entitled to make claim on the bond under ORS 279C, if notice is given within the applicable time period set forth in ORS 279C.605 may sue on this bond for the use of such person or entity, prosecute the suit to final judgment for such sums as may be justly due and owing claimant and have execution thereon. Obligee shall not be liable for the payment of any damages, costs or expenses (including attorney fees) awarded in any such suit.

No prepayment or delay in payment and no change, extension, assignment, addition or alteration of any provision of said Contract and no forbearance on the part of Obligee shall operate to relieve Surety from liability on this bond, and Surety hereby consents to any such changes, extensions, additions and alterations without further notice to or consent by Surety.

In the event arbitration, litigation or any other proceeding is brought upon this bond by Obligee and judgment or award is entered in Obligee's favor, Surety shall pay all of Obligee's costs incurred in such arbitration, litigation or other proceeding, including any attorney and expert witness fees.



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

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

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

PRINCIPAL
Title
Address
SURETY
Title
Address
COUNTERSIGNED:
Resident Agent
Address



# PERFORMANCE BOND

Bond No.

The undersigned, \_\_\_\_\_\_as Principal and \_\_\_\_\_\_as Surety, a corporation organized and existing under the laws of the state of \_\_\_\_\_\_\_, are held and bound unto CENTRAL CURRYSCHOOL DISTRICT and its heirs, executers, administrators, and assigns as Obligee, in the penal sum of \_\_\_\_\_\_\_Dollars (\$\_\_\_\_\_\_), lawful money of the United States of America, for the payment of which Principal and Surety bind themselves and their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS Principal has entered into a Construction Contract ("Contract") dated \_\_\_\_\_, 2024, with Obligee for District Wide Roofing Project, which Contract is made a part hereof as if fully incorporated herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if Principal shall faithfully, punctually and completely perform and abide with the covenants, terms, conditions and provisions of said Contract and any extensions thereof in all respects and within the time prescribed therein, including, but not limited to, the terms of any warranty and guarantee required under the said Contract; shall pay all laborers, mechanics, subcontractors, material and equipment suppliers and all persons supplying to Principal or its subcontractors and suppliers at any tier labor, materials, supplies or equipment for the prosecution of the work or any part thereof; shall fully defend, indemnify and hold Obligee harmless from all cost and damage that Obligee may suffer by reason of Principal's failure to do so; and shall in all respects perform said Contract according to applicable law, then this obligation shall be null and void; otherwise, it shall remain in full force and effect. In the event that Principal shall be, and declared by Obligee to be in default under the Contract, the Surety, at the request of the Obligee, shall promptly remedy the default in a manner acceptable to the Owner.

In any event, this obligation shall remain in full force and effect for the applicable period of limitations or repose, whichever is longer.

Surety acknowledges that Obligee does not owe any duty to Surety to advise, notify or consult with Surety on any matters relating to the Principal or the Project, including, but not limited to, Principal's payments to Subcontractors or Contractor's use of Project funds.

No prepayment or delay in payment and no change, extension, assignment, addition or alteration of any provision of said Contract and no forbearance on the part of Obligee shall operate to relieve Surety from liability on this bond, and Surety hereby consents to any such changes, extensions, additions and alterations without further notice to or consent by Surety.

In the event arbitration, litigation or any other proceeding is brought upon this bond by Obligee and judgment or award is entered in Obligee's favor, Surety shall pay all of Obligee's costs incurred in such arbitration, litigation, or other proceeding, including any attorney and expert witness fees.

In the event there is an arbitration clause in said Contract, Surety agrees to participate in and to be bound by any such arbitration to the same extent Principal is bound.



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

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

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

PRINCIPAL	
Title	
Address	
SURETY	
Title	
Address	
COUNTERSIGNED:	
Resident Agent	
Address	



### PART 1 GENERAL

#### 1.01 MINIMUM WAGE RATES

- A. The minimum wage rates to be paid all crafts and labor on this contract shall be the prevailing wage for the individual crafts involved in the Curry County area during the life of the contract and as determined by the Commissioner of the Oregon Bureau of Labor and Industries, or in the case of a Federal-Aid project, the wage determination decision of the Federal Secretary of Labor, along with conformance to ORS 279C, as may be applicable to the supplying of the services and/or materials called for in the bid.
- B. Every contractor and subcontractor shall pay workers not less than the specified minimum hourly rate of wage for each trade or occupation in each locality. When a public works project is subject to Davis-Bacon Act (40 U.S.C. 3141 et seq) that would otherwise be subject to state prevailing wages, if the state prevailing rate of wage is higher than the federal prevailing rate of wage, the contractor and every subcontractor on the project shall pay at least the state prevailing rate of wage.
- C. Each worker in each trade or occupation employed in the performance of the contract either by the contractor, subcontractor or other person doing or contracting to do or contracting for the whole or any part of the work on the contract, must be paid not less than the applicable state prevailing rate of wage in accordance with ORS 279C.383 and 279C.840, or the applicable federal prevailing rate of wage, whichever is higher.

## 1.02 GENERAL REQUIREMENTS

- A. If a dispute arises as to what the prevailing wage rate for any class of worker is, and if the dispute cannot be settled by the parties involved, it may be referred to the Commission of the Bureau of Labor and Industries, State of Oregon, for final determination. The Wage Rates are minimum rates only and the Owner will not consider any claims or additional compensation because of payment made by Contractor or a Sub-Contractor of any wage rate in excess of the prevailing rate.
- B. Prevailing Wage Rates:
  - 1. Pursuant to ORS Ch. 279C.800 279C.870, "Prevailing Wage Rates for Public Works Contracts in Oregon," effective January 5, 2024, and amendments, if any, are bound hereinafter and are included as a part of this Specification.
- C. Other requirements related to Prevailing Wage are listed in Section 00 5000 Agreement for Stipulated Sum.

#### PART 2 PRODUCTS - NOT USED

#### PART 3 EXECUTION - NOT USED

#### END OF SECTION



## **ARTICLE 11 - INSURANCE AND BONDS**

## Revise 11.1.2: Add the following:

The insurance required by 11.1.1 shall be written for not less than the following limits, or greater if required by law and underwritten by an insurance company rated A or A+ by A.M. Best & Co.

- 1. Workers' Compensation: Statutory
- 2. Comprehensive General Liability (including Premises-Operations: Independent Contractor's Protective; Products and Completed Operations; Explosion, Underground & Collapse; Broad-Form Property Damage, Blanket Contractual Liability, Personal Injury with Employment Exclusion Deleted):
  - (a) Bodily Injury \$2,000,000 Each Occurrence \$4,000,000 Annual Aggregate
  - (b) Property Damage \$2,000,000 Each Occurrence \$4,000,000 Annual Aggregate
  - (c) Products and Completed Operations to be maintained for two (2) years after final payment.
  - (d) Property Damage Liability Insurance shall provide X, C and U coverages.

## 3. Comprehensive Automobile Liability:

(a)	Bodily Injury \$1,000,000 \$1,000,000	Each Person Each Occurrence
(b)	Property Damage \$1,000,000	Each Occurrence

- 4. The Owner shall be named as the Certificate Holder.
- **5.** In addition, furnish true umbrella coverage, which provides excess limits over the primary layer and broader scope, in an amount not less than \$2,000,000.
- 6. Insurance shall be written by a firm licensed to do business in the State of Oregon and as approved by the Owner. The Owner's specification or approval of this insurance or of its amount shall not relieve or decrease the liability of the Contractor under the Contract Documents or otherwise.

#### **11.1.3:** Add the following:

The Contractor shall furnish one copy of the General Liability and Automobile Liability policy. The policies shall name the Central Curry School District and its members, partners, officers, directors, agents, and employees, and the successors in interest of the foregoing, as Certificate Holder, using ISO additional insureds endorsement CG 20 10 11 85 or a substitute providing equivalent coverages within ten (10) days after the Owner issues a "Notice of Intent to Award Contract". The Contractor shall furnish to the Owner copies of any subsequently issued endorsements amending, modifying, altering or restricting coverage or limits.

#### END OF SECTION



### PART 1 GENERAL

### 1.01 PROJECT

- A. Project Name: District Wide Roofing Project
- B. Owner's Name: Central Curry School District
- C. Architect/Consultant's Name: Soderstrom Architects
- D. The Project consists of the construction of Comprehensive roofing replacement, repair and renovation of both Gold Beach Junior/Senior High School and Riley Creek Elementary School.

## 1.02 CONTRACT DESCRIPTION

#### 1.03 WORK BY OWNER

- A. Items noted OFOI (Owner-Furnished, Owner-Installed) will be supplied and installed by Owner before Substantial Completion. Some items include:
- B. Items noted OFCI (Owner-Furnished, Contractor-Installed) will be supplied by the Owner for installation by Contractor before Substantial Completion. Some items include:
- C. Items noted OFOICC (Owner Furnished, Owner Install, Contractor Coordinated) will be supplied by the Owner, installed by the Owner's contractor, but the responsibility of the Contractor to coordinate installation before Substantial Completion.

#### 1.04 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

## 1.05 CONTRACTOR USE OF SITE AND PREMISES

- A. Except as otherwise stipulated herein, Contractors will have complete use of the Premises within the boundaries of the project as shown on the Drawings for the execution of the Work.
- B. The possession, use, or distribution of illicit drugs and alcohol on the Owner's premises is prohibited. Prescription medications brought to the project site shall be in the original container bearing the name of the drug, the name of the physician and the prescribed dosage.
- C. TOBACCO FREE INSTITUTION: All bidders shall comply with OAR 581.021.0110 and ORS 326.051 regarding Tobacco Use on Public Grounds. For the purpose of this document "tobacco" is defined to include any lighted or unlighted cigarette, cigar, pipe, clove cigarette, and any other smoking product, spit tobacco, also known as smokeless, dip, chew, snuff, in any form, nicotine or nicotine delivering devices, chemicals or devices that produce the physical effect of nicotine substances or any other tobacco substitute



(e.g., e-cigarettes). This does not include FDA approved nicotine replacement therapy products used for the purpose of cessation. No employee, sub-contractor, material supplier, or project visitor is permitted to smoke, inhale, dip, or chew or sell tobacco at any time, <u>including non-education hours.</u>

- 1. In any building, facility; or
- 2. On education facility grounds, athletic grounds, or parking lots.
- D. Tools and building materials shall never be left out when an unsecured work area is vacated.
- E. Ladders and scaffolding will be taken down when an unsecured work area is vacated.
- F. Open holes and other tripping hazards shall be fenced or barricaded when an unsecured work area is vacated.
- G. "Secured Work Area" is defined as an area having a perimeter cyclone fence at least 6 feet in height, with gates which close and lock so that no casual entrance is possible by unauthorized personnel.
- H. Operations resulting in vapors, emissions or flying objects shall be conducted in such a way as to prevent exposure to any unprotected parties or property.

#### 1.06 WORK SEQUENCE

### 1.07 DUST PROTECTION AND SAFETY BARRIERS

- A. The Contractor shall erect temporary Dust and Safety Barriers around all of the Construction Operations to keep dust and debris within the localized work area, and to protect the owner, staff, and the public from construction activities. Additional requirements may be required if airborne dust is judged by the Owner to be a problem.
- B. The Contractor shall take precautions to protect existing smoke detectors from damage or deterioration from dust caused by work of this contract.

## 1.08 OVERTIME WORK

- A. The Contractor shall notify the Owner in writing, at least 48 hours in advance of any overtime work, including nights, weekends, and holidays. Do no overtime work without Owner's prior approval.
- B. The Contractor shall reimburse the Architect and Owner for any expenses incurred by them because of Contractor's overtime work.

#### 1.09 WORK IN PUBLIC RIGHT-OF-WAY

A. The Contractor shall obtain any required Permits, pay Permit Fees, arrange for inspections by Regulatory Agencies, and comply with governing Regulatory Agency requirements.

## 1.10 **PROTECTING EXISTING UTILITIES**

A. Original Building Drawings and Site Survey Drawings indicate approximate location of any known, concealed Utility Lines. Before starting work, Contractor shall determine exact location of any of these Lines that could be damaged by Contract Work.



- B. Contractor shall assume that other unknown Utility Lines do exist, and Contractor shall proceed with caution when working in areas that could conceal unknown Utilities.
- C. If such Utility Lines are encountered, immediately request disposition instructions from Architect.
- D. If Utility Lines are damaged; remove, repair, or replace Lines as directed. Additional compensation and/or extension of time, if any, caused by removing, repairing, or replacing Lines will be determined in accordance with General Conditions.

#### 1.11 PROTECTING EXISTING LANDSCAPING & TREES

- A. Protect existing Trees, not designated for removal, against damage caused by work of this contract.
- B. Provide necessary Fencing and Barricades. Erect prior to Work, and unless otherwise instructed, remove after Work completion.
- C. Prohibit Earth stockpiling, Material storage, and Vehicle Parking and Traffic within Drip-line of Trees.
- D. Prohibit dumping of Refuse, Chemicals, and other Materials and puddling or running Water which may injure Plant growth including Root systems.
- E. Prohibit Foot and Vehicle Traffic which may compact Soil over Root Systems.
- F. Prohibit any unnecessary cutting, breaking and skinning of Branches and Roots, and prohibit skinning and bruising of Bark. All tree pruning activities shall be conducted by a certified arborist.
- G. Prohibit all cutting, breaking, and skinning of branches and roots, and skinning or bruising of bark of any trees within the street Right of Way. Consult with a certified arborist and the Authority havign jurisdiction prior to starting and construction activities that may threaten to damage street trees.
- H. Prohibit Fires, High-heat and Smoke adjacent to Trees.
- I. Repair or replace with plants of equal size, any material damaged by Construction Operations.
- J. Where damaged Trees cannot realistically be repaired or replaced, pay Owner, as Liquidated Damage, value of Trees as determined by Council of Tree & Landscape Appraisers and as distributed by International Society of Arborculture. Copies can be obtained from Society at Box 71, Urbana, IL 61801.

#### 1.12 PROTECTING EXISTING SUBGRADE

- A. Contractor shall protect against damage, existing Subgrade and Earthwork provided under this Contract.
- B. Where necessary to accomplish required protection, provide additional Temporary Fill or other approved Cover over Work to be protected.



### 1.13 PROTECT EXISTING STRUCTURES

- A. Contractor shall protect against damage, existing building parts not scheduled for repair or remodel under this contract.
- B. Where necessary to accomplish required protection, provide additional Temporary barricades, cushioning, or other approved Cover over material to be protected.

#### 1.14 HAZARDOUS MATERIALS

- A. Building Materials Containing Asbestos and Lead have been found in this building in the past. The Owner has previously removed or encapsulated most of the asbestos. By this notice, the Contractor and the Sub-contractors, and their workers, are asked to be aware of the possible presence of Asbestos Bearing Materials, lead and other hazardous materials and if found, or even suspected, to immediately stop work in the area, and notify the Architect and the Owners Project Mnager of the location and condition. A separate independent contract will be issued by the Owner to have the suspected material tested and if needed removed or encapsulated.
- B. The Contractor and Sub-contractors, and their workers shall be extremely careful when working around any asbestos or encapsulated asbestos materials, and take any necessary precautions to avoid disturbing the asbestos or the encapsulation materials. If the asbestos or the encapsulation is disturbed, immediately stop work in the area, and notify the Engineer and the Owners Facility Manager of the location and condition.

#### 1.15 CRIMINAL HISTORY CHECK / PHOTO ID

- A. The names of all Contractor and all Subcontractor employees who will be on the job site for more than one day must be submitted to the District. These employees shall fill out a criminal history form provided by the District. Criminal history checks will be run through the Oregon State Police as provided for in ORS 326.603. The District shall bear the cost of processing such Criminal history checks.
  - 1. Through the signature on the criminal history form, authorization is also given to HMKCO and its representative to investigate this information. Further, with this signature, consent is given to all governmental agencies, public or private companies and individuals to release information regarding the individual to the HMKCO and to their representative. The District shall bear the cost of processing such Criminal history checks.
- B. In accordance with ORS 326.603(8) the District is required to terminate the employment or contract status of any individual who refuses to consent to a criminal history check of to be fingerprinted or falsely swears to the non-conviction of any crime.
- C. In accordance with ORS 326.603(7)(a) no individual found to have been convicted of any crime listed in ORS 342.143 or of an attempt to commit one of the listed crimes shall be allowed to work on any District site.
  - 1. It is vital that employees are instructed to accurately complete criminal history forms. Crimes listed in ORS 342.143 which automatically bar an individual from employment with or contracting with the District are primarily crimes of violence, crimes against children, and sex related crimes. However, falsely swearing that you have not been convicted of a crime obligates the District to terminate employment or contract status even if the crime is not listed in ORS 342.143.



D. All employees working on site shall wear a Name and Photo Identification Badge. The Contractor shall provide all Photo ID badge. Badge shall state Central Curry School District, name of the project, employee name, and company they represent.

PART 2 PRODUCTS - NOT USED

**PART 3 EXECUTION - NOT USED** 

**END OF SECTION** 



#### PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.
- F. Schedule of Values.
- G. Payments for products stored off site.

## 1.02 RELATED REQUIREMENTS

- A. Section 00 5000 Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Section 00 6000 General Conditions and Document 00 8000 Supplementary Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 00 7343 Prevailing Wage Rates.

#### 1.03 SUBMITTALS

A. Submit a preliminary draft to the Consultant 3 weeks prior to the submittal for the first Application. The purpose preliminary draft is to confirm the level of detail required by the Design Team. The Contractor is to make adjusted requested by the Consultant. The level of detail may include values as separate lines (entities) for each Specification Section. The Consultant will not review any Application submitted until changes requested by the Consultant to the preliminary draft have been incorporated.

## 1.04 SCHEDULE OF VALUES

- A. Form to be used: AIA G703 or equivalent.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Consultant for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
  - 1. The purpose of the preliminary draft is to confirm the level of detail required by the Design Team, and the Contractor is to make adjustments as requested. The Consultant will not review any Application submitted until changes requested by the Consultant to the preliminary draft have been incorporated.



- E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify the following.
  - 1. Each major Work Item.
  - 2. Each subcontracted Work Item. For each major Subcontract (i.e. mechanical, electrical and plumbing), list products and operations of that Subcontract as separate line items. List labor and materials separately for each major subcontractor.
  - 3. Any Products to be stored, for which separate payments will be requested.
- F. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.
- H. Round off values to nearest dollar.
- I. Sum of values listed shall equal total Contract Sum.
- J. Substantiating Data: When requested by Consultant, submit justifying Substantiating Data and Line Item Amounts in question.

#### 1.05 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Monthly.
- B. Form to be used: AIA G702 and G703.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Consultant for approval.
- D. Forms filled out by hand will not be accepted.
- E. Execute certification by signature of authorized officer.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work. Include individual line items for change orders involving multiple items.
- H. Submit one digital copy in PDF format of each Application for Payment.
- I. Include the following with the application:
  - 1. Construction progress schedule, revised and current as specified in Section 01 3216.
  - 2. Payment for materials and equipment stored off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner.



- J. When Consultant requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- K. Submit Applications for Payment to Consultant at times stipulated below.
- L. When Consultant finds Application properly completed and correct, Consultant will transmit 3 copies of Certificate for Payment to Owner for approval of payment, with one copy to Contractor, and one retained for files.

#### 1.06 ALTERNATE CONSTRUCTION PAYMENT MANAGEMENT SYSTEMS:

A. Nothing contained herein would prohibit the Contractor from proposing the use of a Construction Payment Management System that substantially complies with the requirements of this section. The contractor shall pay all additional fees associated with the Owner and Consultant's use of this system.

#### 1.07 PAYMENT FOR PRODUCTS STORED OFF THE PROJECT SITE

- A. When delay or added cost to Owner can be avoided by storing Products off Site, Owner will make payment to Contractor for said Products provided that
- B. Contractor shall:
  - 1. Locate Storage Facilities within 20 miles of the Consultant's Office or the Project Site.
  - 2. Make Storage Facilities available for Consultant's visual inspection.
  - 3. Segregate and label Stored Products for specified Project.
  - 4. Assume all risk for loss.
  - 5. Assume responsibility for exceeding Product "Shelf-Life".
  - 6. Protect Stored Products and provide applicable Insurance against their damage, discoloration, and theft, listing the Owner and any Mortgagee as Additional Named Insured.
  - 7. Submit itemized Inventory and Schedule of Values for Stored Products together with Certificate of Insurance.
  - 8. Submit payment requests to Owner as part of Contractor's regular Progress Payment Request. Payment requests can only be for the actual invoiced amount to the contractor or sub-contractor by their respective material supplier. Provide copies of invoice to justify amount requested.
  - 9. Reimburse Owner for damages sustained if Stored Products are not delivered to Jobsite when needed.
  - 10. Submit to Owner, with copy to Consultant, a written Waiver of Lien insuring Owner against claims for unpaid Storage Costs.



11. Upon receipt of payment from Owner, prepare and issue to Owner, with a copy for Consultant, and any Mortgagee, a Bill of Sale for Stored Products.

## 1.08 PREVAILING WAGE PAYMENT CERTIFICATION

A. Submit Prevailing Wage Payment Certification Forms as required by Section 00 7343.

#### 1.09 APPLICATION PAYMENT SCHEDULE

- A. Within 15 Days, following Owner's approval of payment of in-order Application for Payment, the Owner will:
  - 1. Until Substantial Completion, pay Ninety-Five Percent (95%) as defined in General Conditions during the previous month, as estimated by Consultant.
- B. After execution of Certificate of Substantial Completion, and within 15 days, following Owner's approval of payment of the next in-order Application for Payment, the Owner will pay:
  - 1. Balance due under Contract, excluding a Retainage Amount of at least \$1,000, or double the estimated value of uncompleted and/or unacceptable portions of Work, whichever is the greater amount.
- C. Thirty (30) days after final inspection and acceptance by Owner, and within 15 days following Owner's approval of payment of final in-order Application for Payment, the Owner will pay:
  - 1. Balance due under Contract, provided Work be then fully completed and Contract be then fully performed.

#### 1.10 MODIFICATION PROCEDURES

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to the Contract Documents.
- B. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Consultant will issue instructions directly to Contractor.
- C. For other required changes, Consultant will issue a Construction Change Directive document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
  - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
  - 2. Promptly execute the change.
- D. For changes for which advance pricing is desired, Consultant will issue a Proposal Request document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the



requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 calendar days.

- E. Contractor may propose a change by submitting a request for change to Consultant, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
  - 1. For change requested by Consultant for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
  - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Consultant.
  - 3. For pre-determined unit prices and quantities, the amount will based on the fixed unit prices.
  - 4. For change ordered by Consultant without a quotation from Contractor, the amount will be determined by Consultant based on the Contractor's substantiation of costs as specified for Time and Material work.
- G. Substantiation of Costs: Provide full information required for evaluation.
  - 1. On request, provide the following data:
    - a. Quantities of products, labor, and equipment.
    - b. Taxes, insurance, and bonds.
    - c. Overhead and profit.
    - d. Justification for any change in Contract Time.
    - e. Credit for deletions from Contract, similarly documented.
  - 2. Support each claim for additional costs with additional information:
    - a. Origin and date of claim.
    - b. Dates and times work was performed, and by whom.
    - c. Time records and wage rates paid.
    - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.



- H. Execution of Change Orders: Consultant will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- J. Promptly revise progress schedules to reflect any change in Contract Time, revise subschedules to adjust times for other items of work affected by the change, and resubmit.
- K. Promptly enter changes in Project Record Documents.

### 1.11 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  - 1. All closeout procedures specified in Section 01 7000.
  - 2. Submit final Application for Payment with unconditional lien releases and supporting documentation not previously submitted and accepted in accordance with requirements of General Conditions.

PART 2 PRODUCTS - NOT USED

**PART 3 EXECUTION - NOT USED** 

END OF SECTION



### PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Description of Alternates.
- B. Procedures for pricing Alternates.

#### 1.02 RELATED REQUIREMENTS

- A. Document 00 2113 Instructions to Bidders: Instructions for preparation of pricing for Alternates.
- B. Document 00 4100 Bid Form: List of Alternates.

## 1.03 SUBMISSION REQUIREMENTS

A. Indicate variation of Bid Price for Alternates described below. The Bid Form requests a "difference" in Bid Price by adding to or deducting from the Base Bid Price.

## 1.04 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.
- C. Bids will be evaluated on the Base Bid price plus any or all of the Alternates intended to be exercised by the Owner. The order of the Alternates listed here does not represent the order in which any of these Alternates will be exercised.

#### 1.05 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

## 1.06 SCHEDULE OF ALTERNATES

- A. Gold Beach Junior/Senior High School
  - 1. Alternate No. 1 Grandstand Roofing Overlay
  - 2. Alternate No. 2 Roof 3 Roofing Replacement
  - 3. Alternate No. 3 Roof 4 and 4A Roofing Replacement
  - 4. Alternate No. 4 Roof 10 Roofing Replacement in Lieu of Roofing Replacement



- B. Riley Creek Elementary School
  - 1. Alternate No. 1 Roof 3 Roofing Restoration

PART 2 PRODUCTS - NOT USED

**PART 3 EXECUTION - NOT USED** 

END OF SECTION



## PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Submittals for review, information, and project closeout.
- D. Number of copies of submittals.
- E. Submittal procedures.

## 1.02 RELATED REQUIREMENTS

- A. Section 00 6000 General Conditions.
- B. Section 01 3216 Construction Progress Schedule: Form, content, and administration of schedules.
- C. Section 01 7000 Execution and Closeout Requirements: Additional coordination requirements.
- D. Section 01 7800 Closeout Submittals: Project record documents.

## 1.03 CONSTRUCTION ORGANIZATION & START-UP

- A. Responsible Parties:
  - 1. Immediately following Contract execution, Owner will and Contractor shall identify who, within their respective organizations, will be responsible for Project Coordination.
- B. The Contractor shall establish on-site Lines of Authority and Communications including the following:
  - 1. Schedule attendance at Preconstruction Meeting and schedule and conduct Progress Meetings as specified in Section 01 3000.
  - 2. Establish procedures for Intra-project Communications including:
    - a. Submittals.
    - b. Reports & Records.
    - c. Recommendations.
    - d. Coordination Drawings.
    - e. Schedules.
    - f. Resolution of Conflicts.



- 3. Technical Documents Interpretation:
  - a. Consult with Consultant to obtain interpretation.
  - b. Assist in resolution of questions or conflicts which may arise.
  - c. Transmit written interpretations to Subcontractors and to other concerned parties.
- 4. Permits & Approvals:
  - a. Verify that Subcontractors have obtained required Permits and Inspections for Work and for Temporary Facilities.
- 5. Control use of Site:
  - a. Supervise Field Engineering and Project Layout.
  - b. Allocate Field Office Space and Work and Storage Areas for use of each Subcontractor.

## 1.04 COORDINATING SUBCONTRACTORS' WORK

- A. Coordinate the Work of all Subcontractors and make certain that, where the Work of one Trade is dependent upon the Work of another Trade, the Work first installed is properly placed, installed, aligned, and finished as specified or required to properly receive subsequent Materials applied or attached thereto.
- B. Direct Subcontractors to correct defects in Substrates they install when Subcontractors of subsequent Materials have a reasonable and justifiable objection to such surfaces.
- C. Do not force Subcontractors to apply or install Products to improperly placed or improperly finished Substrates that would result in an unsatisfactory or unacceptable finished Product.

## 1.05 COORDINATING WORK WITH WORK OF OWNER OR OTHER CONTRACTS

- A. Coordinate, and make certain that, where Work of either party is dependent upon the other party, the Work first performed is properly placed, installed, aligned, and finished as required to permit the proper installation of the Work following.
- B. If the Owner's Work in any way interferes with the Contractor's Work, so notify the Owner sufficiently in advance so that the Owner has reasonable time to make necessary adjustments.
- C. If the Contractor's Work in any way interferes with Owner's Work, so notify the Owner as soon as possible. If the Contractor's Work must be modified to accommodate the Owner's Work, except as described elsewhere in this Specification, the Contract Sum and/or the Contract Time will, when necessary be adjusted by a Change Order.
- D. Mechanical & Electrical Equipment start-up:
  - 1. Coordinate check-out of Utilities, Operational Systems, and Equipment.



- 2. Assist in initial start-up and testing.
- 3. Record starting dates of Systems and Equipment operation.
- E. At completion of Work of each Subcontract, conduct inspection to assure that:
  - 1. Work is acceptable.
  - 2. Specified cleaning has been accomplished, and Temporary Facilities and Debris has been removed from Site.
- F. Substantial Completion: See Section 00 2113 1.13

## PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION

## 3.01 PRECONSTRUCTION MEETING

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Consultant.
  - 3. Contractor.
  - 4. Contractor's Superintendent.
  - 5. Major Subcontractors.
- C. Agenda:
  - 1. Introductions.
  - 2. Execution of Owner- Contractor Agreement.
  - 3. Submission of executed bonds, insurance certificates and background checks.
  - 4. Description of Project
  - 5. Distribution of Contract Documents.
  - 6. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
  - 7. Designation of personnel representing the parties to Contract, Owner and Consultant.



- 8. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - a. Written Change Order requests required
  - b. Supporting back-up will be required for all Change Orders
  - c. Describe Contractor's procedure for review and oversight in the preparation of Change Orders
  - d. Mark-up limitations on Change Orders (See General Conditions Article 7.1.4)
  - e. Processing time required
  - f. Applications for Payment
    - 1) Use AIA documents G702 and G703 latest edition
    - 2) Provide 4 signed and notarized copies
    - 3) Wage certifications to be attached
- 9. Scheduling, start date and date of substantial completion.
- 10. Building permit status.
- 11. Prevailing wage requirements.
- 12. Public Agency submittal of RESPONSIBILITY DETERMINATION FORM to Construction Contractor's Board.
- 13. Communications.
- 14. Role of Owner's Project Manager.
- 15. Employee Security Screening and Identification Badging.
- 16. Submittals required per Contract Documents.
- 17. MSDS Information
- 18. Erosion control procedures
- 19. Waste management procedures
- 20. Environmental quality requirements
- 21. Hazardous materials
- 22. Construction activities, working hours, use of site and building.



- 23. Staging and parking areas.
- 24. Temporary facilities and utilities.
- 25. Request for information and clarification of design
- 26. Correction of Defects.
- 27. Weekly on-site progress meetings.
- 28. Safety and Emergency Procedures.
- 29. Verify that Contractor's Mandatory Drug Testing Program is in place.
- 30. Daily Clean-up
- 31. Project Closeout, substantial completion, final completion.
- 32. Record drawings and Operations and Maintenance Manuals
- 33. Tour of Project by Owner's staff and guests (if applicable)
- 34. Additional Comments
- D. Consultant will record minutes and distribute copies within [five] days after meeting to participants, with digital copies to Owner, participants, and those affected by decisions made.

## 3.02 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at weekly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required:
  - 1. Contractor.
  - 2. Owner.
  - 3. Consultant.
  - 4. Contractor's Superintendent.
  - 5. Major Subcontractors.
- D. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.



- 3. Field observations, problems, and decisions.
- 4. Identification of problems that impede, or will impede, planned progress.
- 5. Review of submittals schedule and status of submittals.
- 6. Review of off-site fabrication and delivery schedules.
- 7. Maintenance of progress schedule.
- 8. Corrective measures to regain projected schedules.
- 9. Planned progress during succeeding work period.
- 10. Coordination of projected progress.
- 11. Maintenance of quality and work standards.
- 12. Effect of proposed changes on progress schedule and coordination.
- 13. Other business relating to Work.
- E. The Owner's Project Manager will record minutes and distribute copies within five days after meeting to participants, with digital copies to Contractor, Owner, participants, and those affected by decisions made.

#### 3.03 PRE-INSTALLATION CONFERENCES

- A. When required in individual specification sections, the Contractor shall convene a preinstallation meeting prior to commencing work of that section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Consultant minimum four days in advance of meeting date.
- D. The Contractor shall be responsible to prepare agenda and preside at meeting:
  - 1. Review conditions of installation, preparation and installation procedures.
  - 2. Review coordination with related work.
- E. The Contractor shall be responsible to record minutes and distribute copies within four days after meeting to participants, with copies to Consultant, Owner's Project Manager, participants, and those affected by decisions made.

## 3.04 CONSTRUCTION PROGRESS SCHEDULE - SEE SECTION 01 3216

### 3.05 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
  - 1. Product data.



- 2. Shop drawings.
- 3. Samples for selection.
- 4. Samples for verification.
- 5. Other information required in individual specification sections.
- B. Submit to Consultant for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Product Data:
  - 1. Clearly mark each copy to identify pertinent Products.
  - 2. Show performance characteristics and capacities.
  - 3. Show dimensions, field dimensions, and required clearances.
  - 4. Show wiring and piping diagrams, and controls.
  - 5. Show standard schematic drawings and diagrams:
    - a. Modify to delete information not applicable to Work.
    - b. Supplement standard information to provide information specifically applicable to Work.
    - c. Assure that any photo copied material is clearly legible or provide all original material.
- D. Samples will be reviewed only for aesthetic, color, or finish selection.
- E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 Closeout Submittals.

## 3.06 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
  - 1. Design data.
  - 2. Certificates.
  - 3. Test reports.
  - 4. Inspection reports.
  - 5. Manufacturer's instructions.
  - 6. Manufacturer's field reports.



- 7. Other information required in individual specification sections.
- 8. Other types indicated.
- B. Submit for Consultant's knowledge as contract administrator or for Owner. No action will be taken.

## 3.07 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other information required in individual specification sections.
  - 6. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

#### 3.08 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; two of which will be retained by Consultant.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.
  - 3. Show full range of color, texture & pattern.

#### 3.09 SUBMITTAL PROCEDURES

- A. Shop Drawing Procedures:
  - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
  - 2. Generic, non-project specific information submitted as shop drawings do not meet the requirements for shop drawings.



- B. Transmit each submittal with a copy of approved submittal form.
- C. Transmit each submittal with a transmittal form that clearly describes submittal contents and the quantity of items delivered.
- D. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- E. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- G. Deliver submittals to Consultant at business address.
- H. Schedule submittals to expedite the Project, and coordinate submission of related items.
- I. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- J. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- K. Notify Consultant in writing, at submission time, of any deviations in Submittals from Contract Document requirements.
- L. Provide space for Contractor and Consultant review stamps.
- M. When revised for resubmission, identify all changes made since previous submission.
- N. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- O. Submittals not requested will not be recognized or processed.
- P. Submit Shop Drawings, Product Data, and Samples only for those Items specifically required. The Consultant will not be obligated to review Shop Drawings, Product Data, or Samples other than those required by the Contract Documents.
- Q. Perform no Work or Fabrication requiring Submittal until Consultant approves Submittal.

#### **END OF SECTION**



# PART 1 - GENERAL

## 1.01 REQUIREMENTS INCLUDED

- A. Related Requirements
- B. General Requirements
- C. Definition of Schedule Documents and Submittal Requirements
- D. Contractor's Schedule Management
- E. Coordination
- F. Schedule Format Requirements
- G. Weather Impacts and Delays
- H. Schedule Updates and Schedule (Network) Revisions
- I. Time Impact Analysis for Changed Conditions
- J. Recovery Schedule
- K. Timeliness of Schedule Document Submittals
- L. Owner Review of Schedule Submittals

#### 1.02 RELATED REQUIREMENTS

- A. The General Provisions, and General Requirements of the Specifications apply to the work specified in this Section.
- B. Section 00 0120 Bidder-Designed Items and Deferred Submittals
- C. Section 01 6300 Approval For Substitution and Product Options

## 1.03 GENERAL REQUIREMENTS

- A. The Schedules (and schedule documents) described herein are for the following purposes:
  - 1. To define the Contractor's Baseline Plan (including logic and use of resources) for completing the Work
  - 2. To report progress in completion of the Work
  - 3. To evaluate any changes to the Contractor's Baseline Plan and subsequent updated plans
- B. In addition, the schedule documents shall serve as a communication tool between the Owner and the Contractor, and the Contractor and its subcontractors. The Owner



encourages the Contractor to use the Schedule to establish an understanding with all parties of the assumptions regarding the Work, and the various constraints and opportunities that are possible within the plan. As the work progresses, the Contractor and the Owner's Representative will use the Schedule to assess impacts and to formulate the best methods to complete the Work on, or ahead of the contractual completion dates. The schedule documents will also be used by the Contract Administrator to evaluate the Contractor's monthly progress payment requests.

- C. The Work shall be scheduled and performed pursuant to the provisions of the Contract including any specific dates for Contract completion milestones, phase completion and the like or requirements included in the General Conditions, the Owner-Contractor Agreement, or elsewhere in the Contract documents. All Contract milestone and completion dates listed in these specifications, or elsewhere in the Contract documents, represent only interface dates or major items of the Work. The Contractor is responsible for completion of all aspects of the Work in accordance with the Contract.
- D. At any time throughout the course of the Work, the Owner reserves the right to require additional activities to be added to the Schedule to further define the Contractor's plan and intentions regarding the execution of the Work. In each instance, such activities or changes shall be made by the Contractor at no cost or delay to the Owner. The Owner's Representative suggestions would not waive the contractor's right to establish its means and method or its obligation to execute the project in a timely and efficient manner.
- E. Should the Contractor desire or intend to complete the Work, or any portion of the Work, earlier than the specified Contract milestone, phase, or similar dates or the overall Contract completion date, the Owner will not be liable to the Contractor for any costs or other damages should the Contractor be unable to complete the Work before Contractor's earlier milestone or completion dates. The duties and obligations of Owner to the Contractor shall be consistent with and applicable only to the completion of the Work on the specified Contract milestone dates or the Contract completion dates unless the Owner and the Contractor otherwise agree in writing, formalized by a change order. The Contractor may finish early but shall not make any claims for additional time-related costs before the expiration of the specified Contract milestone, phase, or similar dates or the overall Contract completion date.
- F. The services provided by the Owner's Representative, the existence of schedules, networks or any other charts or services prepared or performed by the Owner's Representative, shall in no way relieve the Contractor of the responsibility for complying with all of the requirements of the Contract documents, including, but not limited to, the responsibility for completing the Work within the Contract Time and the responsibility of planning, scheduling, and coordinating the Work.
- G. It is understood that during the prosecution of certain aspects of the work, i.e., phasing; commissioning; work with possible impacts to facilities and/or tenant operations; or utility shutdowns, a separate detailed scheduled will be required. The Contractor shall prepare these schedules in a timely manner as required for distribution by the Owner's Representative to all affected parties. The Contractor shall provide these schedules at no additional cost.
- H. In addition to requirements specified herein, schedules shall include the following activities specific to Owner:
  - 1. Delivery of Operational and Maintenance Training Manuals.



- 2. Submittal and expected approval of manufacturer's recommended spare parts list.
- 3. System inspection and punch list preparation.
- I. The Contractor, including his Project Manager and Superintendent shall hold an orientation meeting with Owner, wherein the Contractor presents his approach to planning the work, developing the schedules, and meeting the requirements of this Section. This orientation meeting shall be held prior to submittal of the Baseline Schedule. The Contractor shall not delay preparation of the required schedules and schedule documents prior to this meeting; however, the Contractor shall be responsible for any changes or corrections to his scheduling as a result of this meeting.

# 1.04 DEFINITION OF SCHEDULE DOCUMENTS AND SUBMITTAL REQUIREMENTS

- A. The following outlines the schedules and schedule documents required by this section to be submitted by the Contractor. Details on each item (and all items) to be submitted are provided in further paragraphs in this Section and in referenced sections.
  - 1. Preliminary (4-Month) Schedule: This schedule is to detail all Contractor work, including procurement activities, mobilization, submittals, and construction activities for the first four months following the date of Notice to Proceed, and be used while the Contractor is developing his baseline schedule. All critical or completion dates required in the contract shall be incorporated into this schedule. The following submittal requirements apply to the preliminary schedule:
    - a. The Preliminary Schedule shall be submitted in a format and with content acceptable to the Owner's Representative and shall be submitted to the Contract Administrator no later than 10 calendar days after Notice to Proceed.
    - b. For purposes of this Preliminary Schedule, the Contractor is to assume that construction activities will occur within 30 calendar days after Notice to Proceed.
    - c. Allow five (5) working days for initial review and five (5) working days for resubmittal reviews by the Contract Administrator.
  - 2. Baseline Schedule: This is a detailed schedule including a narrative of schedule status developed using the Critical Path Method (CPM). It represents the Contractor's plan for the Work from the date of award of the Contract and will be used to make the first Progress Schedule.
    - a. Submittal requirements: The Baseline Schedule shall be submitted in Primavera P6 format and with content acceptable to the Owner's Representative. The Contractor shall obtain (1) perpetual license of Primavera P6 EPPM for use by the District PM and (1) license for use by the contractor during the contract duration.
    - b. Narrative of Schedule Status: This is a narrative that describes the key aspects of the submitted schedules. The Baseline Schedule narrative shall define the key aspects of the Contractor's plan for the Work that



includes the following key sections. The narratives submitted with the Baseline Schedules are required to be stand-alone documents that do not require Baseline Schedules to be attached in order to be comprehensible:

- (1) The layout and logic used in the Schedule
- (2) Critical submittals
- (3) Long-lead equipment and material procurement.
- (4) The critical path
- (5) An overall float analysis
- (6) Any interface concerns with Owner
- (7) Costs to date
- c. Activities: The schedule shall be grouped by the following work activities:
  - (1) Mobilization Activities
  - (2) Procurement Activities
  - (3) Manufacturing Activities
  - (4) Quality Control Activities
  - (5) Installation Activities
  - (6) Testing Activities
  - (7) Commissioning Activities
  - (8) Demobilization Activities
- 3. Master Summary Schedule: The cost-loaded Master Summary Schedule shall be developed by the Contractor and submitted to the Contract Administrator with the Baseline Schedule and each monthly Progress Schedule.
  - a. The Master Summary Schedule shall show the sequence in which Contractor proposes to perform the Work, all completion dates and critical dates indicated in the Contract Documents, and the dates on which Contractor plans to start and finish major portions of the Work. The Contractor shall include enough activities in the Master Summary Schedule, so that all significant portions of the Work, critical interfaces, coordination with Owner and milestone and completion dates are addressed.
  - b. The Summary Schedule shall be cost-loaded, at a high level, to develop a cash flow curve.



- 4. Critical Path Schedule: This schedule shall show the critical path derived first from the Baseline Schedule and subsequently from the current Progress Schedule. This is a time-scaled network logic diagram, showing only the current critical path of the Work along with its current progress. In the event of near critical path work (less than 10 days of float), the Owner's Representative may request the near critical paths also be shown. The following submittal requirements apply to the Critical Path Schedule:
  - a. Submittal Requirements:
    - (1) Submit with Baseline Schedule.
    - (2) Update and submit with the Progress Schedule.
    - (3) Export Primavera P6 schedule data to the client in live file format for all submissions.
- 5. Progress Schedule: This is a detailed schedule, developed using the Critical Path Method (CPM), which is derived from the Baseline Schedule. The first Progress Schedule is the initial monthly progress update of the Baseline Schedule. Subsequent Progress Schedules will be submitted on a monthly basis that updates the previously issued Progress Schedule. The Progress Schedule will also be used to compare percent complete requested by the Contractor in the monthly progress payment applications, to analyze delays and impacts in all Time Impact Analyses (TIA), and to determine whether a Recovery Schedule is needed from the Contractor.
  - a. Submittal requirements: Progress schedules are due monthly to coincide with the progress payment requests. The updated progress schedule will be targeted against the approved baseline and will include baseline start, finish, float, and original duration.
  - b. Narrative of Schedule Status: This is a narrative that describes the key aspects of the submitted schedules. The Progress Schedule narrative shall define the key aspects of the Contractor's plan for the Work that includes the following key sections. The narratives submitted with the Progress Schedules are required to be stand-alone documents that do not require Progress Schedules to be attached in order to be comprehensible:
    - (1) Progress in Last Period
    - (2) Critical Path Progress and Concerns
    - (3) Potential Delays and Time Impact Analyses
    - (4) Submittal Status (focus on critical submittals and concerns)
    - (5) Equipment and Material Delivery Status
    - (6) Quality Control Status
    - (7) Manufacturing Status



- (8) Costs to Date
- 6. Weekly Short Interval Schedule: This is a three-week Look-Ahead Schedule for use in the weekly schedule review meetings. The weekly interval schedules shall include the current activities from the Progress Schedule and all other schedule information deemed necessary.
  - a. Submittal requirements:
    - (1) Provide the schedule in a format acceptable to the Owner's Representative.
    - (2) Submitted no later than 24 hours before the weekly schedule review meeting.
    - (3) Distribute the final weekly interval schedule to all field supervision no later than the next workday following the weekly schedule review meeting.
- 7. Recovery Schedule: This schedule will be required from the Contractor in the event that certain conditions exist such that critical or milestone dates are in jeopardy of being delayed. Recovery Schedule requirements are defined in later paragraphs of this section.
  - a. Submittal requirements: Submit five (5) working days after notice from the Contract Administrator that a Recovery Schedule is required.
- 8. Time Impact Analysis: This schedule analysis shall be part of the back-up data required from the Contractor in the event the Contractor claims that Contract changes delayed or impacted the Work and shall be included in any change proposal claiming increase in time. The Time Impact Analysis requirements are defined in later paragraphs of this section.
  - a. Submittal requirements: Formal submittal of the Time Impact Analysis shall be within 15 calendar days of occurrence of the delay. Failure to submit within the 15 calendar days waives the Contractor's right to claim additional costs or time as a result of such delay.
- 9. Schedule of Submittals: Submit per the following table:



Deliverable	Hard Copies	Electronic Copies	Submittal Due	Remarks
Preliminary (Four-Month) Schedule	2 color copies of each sort	1	10 calendar days after the Notice to Proceed	One-time submittal. Submit using same format requirements as the Baseline Schedule
Baseline Schedule	2 color copies of each sort	1	30 calendar days after the Notice to Proceed	Acceptance is prerequisite to issuance of NTP. Critical Path Schedule is integral to Baseline Schedule. <b>Also, see Note (1).</b>
Progress Schedule		1	Monthly	Critical Path Schedule is integral to Progress Schedule. Also, see Note (1).
Master Summary Schedule		1	With the Baseline Schedule, then Monthly	One-time submittal. Submit with the Baseline Schedule and each Progress Schedule
As-Built Schedule	Include color copy in project O&M	1	Within 30 days of substantial completion	Project schedule shall be considered as-built for work completed and updated with each progress billing. Final document shall be included in O&M
Weekly Look- Ahead Schedule	Sufficient copies for weekly meeting attendees	1	1 Electronic copy 24 hours before weekly schedule review meeting, harmonize with sufficient copies for attendee's color copies presented at OAC Meeting	
Recovery Schedule	2 color copies	1	Within 5 days of notice to submit	
Time Impact Analysis	2 color copies	1	Within 15 days of date of delay claimed	Submit with all changes requesting time extensions

Note (1) Includes Master Summary Schedule, Narrative of Schedule Status, Manpower Loading Curve, and Subcontractor Log.



# 1.05 CONTRACTOR'S SCHEDULE MANAGEMENT

- A. Scheduling Organization: The Contractor shall provide a Contractor's Scheduling Manager (CSM) to the implementation and management of the scheduling requirements of the Contract documents. The CSM (who may be the Contractor's Project Manager, Superintendent, or other qualified staff person) shall be on site at all times during the progress of the work, or as otherwise authorized in writing by the Contract Administrator.
- B. Qualifications of Contractor's Scheduling Manager:
  - 1. The CSM shall demonstrate acceptable professional familiarity with P6 software, hardware, and/or other scheduling systems and experience necessary to implement all scheduling requirements of the Contract in a timely and expeditious manner.
  - 2. The Owner's Representative will monitor the performance of the CSM. The CSM's performance will be judged on the timeliness and completeness of Contractor's compliance with the scheduling requirements of the Contract documents. If the CSM fails to perform in accordance with the scheduling requirements of the Contract documents, the CSM shall, at the direction of the Contract Administrator, be replaced at no cost to Owner or delay allowable to the project.

# 1.06 COORDINATION

- A. The Contractor shall coordinate the Work with that of Owner contractors, Owner Operations, and Owner tenants, and shall cooperate fully with the Owner's Representative in maintaining an orderly progress toward completion of the Work as scheduled.
- B. A Time Impact Analysis (TIA) shall be required to support any claim by the Contractor for delay caused by failure of Owner-furnished equipment and materials to arrive as scheduled, or failure of other Owner interface work or tenants to meet their schedules. The TIA shall be based on Owner activities having the same level of predecessor and successor logic to display delay impacts as the Contractor's Work.
- C. The Contractor shall inform its subcontractors of the delivery status of Owner-furnished equipment and material, and of the progress of other interfacing Owner construction work while the Work is underway.

# 1.07 SCHEDULE FORMAT REQUIREMENTS

- A. Unless otherwise specified, the Baseline and Progress Schedules shall be produced utilizing the Microsoft Windows based Primavera P6 Project Management of the most current version.
- B. The Baseline and Progress Schedules shall employ the Critical Path Method (CPM) using retained logic for the planning, scheduling and reporting of the work to be performed under this Contract. The type of schedule shall be Precedence Diagramming Method (PDM).
- C. The Baseline and Progress Schedules shall include but not be limited to:



- 1. All Critical, Milestone, and Completion dates defined in the Contract, as well as Owner-provided equipment delivery dates.
- 2. Date of Contract Award, Notice To Proceed, Mobilization, Substantial Completion, and Overall Beneficial Occupancy, Completion of each Phase, Prefinal Inspections, Final Inspections, and Final Acceptance.
- 3. Critical procurement and submittal activities including: shop drawings and sample submittals, Owner review of submittals, re-submittals and Owner review of re-submittals, fabrication and delivery for all key, critical path, near critical path and long-lead equipment and material. Owner reserves the right to require the Contractor to add procurement activities to the schedule for any key or long-lead equipment, materials or submittals it deems necessary to monitor the Contractor's schedule for this work.
- 4. Quality Control Activities, Testing, Pre-Installation Activities, Commissioning, training and closeout activities.
- 5. Offsite activities that interface with the Contractor's Work, including work by Owner and Owner contractors, delivery of Owner-furnished materials, utilities, agencies, critical Owner operations, Owner tenants, and other similar activities.
- D. Activity Descriptions and Setup
  - 1. The description of work by activity and activity coding shall contain the specific type of work to be done and the physical area of the work to which the activity pertains.
  - 2. Activity boundaries shall be easily measurable, and descriptions shall be clear and concise. Activity descriptions should not be prefaced with "Begin" or "Complete." The beginning and end of each activity shall be readily verifiable, and physical progress shall be quantifiable.
  - 3. In general, each critical path and key activity shall be associated with a single performing organization (subcontractor). For other activities, where there is similar type work in an area, organizations (subcontractors) may be grouped for a single activity. Where deemed necessary to define critical, key or unusual work, Owner reserves the right to require additional activities be added to the Contractor's schedule to provide that an activity be associated with each organization (subcontractor). The organization related to the activity shall be identified in a background sort code, such that reports sorted by organization can be made using the scheduling software. Construction Specifications Institute (CSI) codes relating to the division of the work shall be assigned to activities in the same manner described above for organizations. CSI codes are also to be assigned to background sort codes that allow reports by CSI code to be made using the scheduling software.
  - 4. Activity durations over fifteen (15) working days shall be kept to a minimum and shall be used only for non-construction activities, such as shop drawing and sample submittals, fabrication and delivery of materials and equipment, concrete curing, and General Conditions activities. Exceptions to this shall be accepted in writing by the Contract Administrator. The duration of activities shall be in workdays.



- 5. Activity costs shall be limited to a maximum of Two-Hundred-Fifty-Thousand Dollars (\$250,000.00), excluding major equipment and materials. Exceptions to this shall be accepted in writing by the Contract Administrator.
- 6. For critical path and near critical path activities, Contractor shall use Finish-to-Start relationships to the extent possible. Contractor shall use more activities if necessary, to use Finish-to-Start relationships in preference to use of Start-to-Start relationships. The Owner reserves the right to require the addition of activities to further define critical path and near critical path work in the Schedule.
- 7. Activities that constitute the controlling operations or critical path will be identified by use of color (red). The critical path is defined as activities with total float less than one day. Near critical is defined as total float in the range of one to ten days. The critical path and near critical activities shall be less than 25 percent of the total activities in the Baseline Schedule.
- 8. Imposed completion dates for events other than the Milestone Dates or Completion Dates are generally not permitted. Artificial constraints (imposed start dates) are generally not permitted, except possibly for use in Owner- furnished materials, Owner interface dates and the like. <u>Upon creating a new project</u> schedule in the software, the option planned start and planned completion dates should be appropriately inserted. This will allow the schedule calculations to identify negative float when projected dates slip past the planned completion date. All Owner-furnished materials and Owner interface dates shall have an early start/finish and late start/finish range. All Owner dates shall be related to the Contractor's Work with predecessor and successor logic such that float is correctly calculated on Owner-furnished materials and Owner interface dates.
- 9. Activity numbering shall be spaced (or gapped) to allow inclusion of new activities between existing activities while still maintaining a similarity of numbering for like activities. Numbering by area, level, etc. is encouraged to assist in analysis. The numbering may be alphanumeric to allow easier identification of areas, etc. At a minimum, the following code fields should be included:
  - a. RESP Responsibility (Owner, Owner's Representative, Sub Consultants, Jurisdictions, Key Third Parties, Contractors, Sub Contractor and, Vendors)
  - b. PHAS Phases
  - c. AREA Locations
  - d. STEP Steps or Sub AREAs
  - e. ITEM Specification Section Numbers
  - f. CONO Change Order Numbers
- 10. Activities that have started and are in progress shall be "scheduled" on each submitted schedule. Planned durations for remaining work and planned completions of remaining work on activities shall be used. Activities shall not "ride" the data date line, with scheduled completions being the remaining durations, unless the Contractor actually plans to complete work within the



remaining duration. Schedules submitted with activities "riding" the data date line will not be accepted by Owner.

- 11. The work breakdown and coding structure (WBS) should, at a minimum, incorporate the following:
  - a. Milestones/Hammocks
  - b. Deferred Approvals (by CSI, including Agency Approvals)
  - c. Submittals (by CSI)
  - d. Quality Control Activities, Pre-Installation Activities, Commissioning, Designer of Record Observations, Mock-ups
  - e. Work
    - i. mobilization
    - ii. Grading/Underground Utilities
    - iii. Foundations
    - iv. Structures
    - v. Exterior Skin and Roof
    - vi. Interior Construction:
      - a. By Floor
      - b. By Major Unique Functional Area
      - c. Electrical and MEP Equipment
      - d. Unique Elements
      - e. Equipment, including OFCI, OFOI and OFOICC
      - f. Start-Up, Commissioning and Test & Balance (by system and element)
      - g. Fire and Life-Safety and Systems Pre-Tests (by system and element)
      - h. Fire and Life-Safety Jurisdictional Tests and Inspections (by system and element)
      - i. Final Sign Offs by the Design Team and Jurisdictions
- E. Schedule Layout and Sequence of Activities
  - 1. The schedule layout shall be consistent with the Project Conditions and



milestones set forth in the Contract documents. Work to complete each milestone shall be easily identifiable in the Contractor's overall schedule.

- 2. The layout shall be consistent with the Work required to meet the Contract milestone dates. In general, it is desired to have the Work needed to meet the Contract milestones be detailed activities that summarize, or roll-up to provide plan and status information reported for the milestone. The summarized overall schedule shall allow reporting of physical progress, cost, and manpower loading for the entire work. Owner intent will be to use the Contractor's schedule for milestones to summarize activities in Owner Master Schedule for all projects.
- 3. The Schedule layout shall be arranged to allow easy physical progress monitoring of physical areas. Essentially, each level and area within level or area and level within area or the like shall be broken down within the Schedule. These areas and levels shall summarize (or rollup) for reporting purposes. The Contractor shall establish the layout that is needed to meet his Contract responsibilities. The Contractor shall use his selected layout to coordinate with the Contractor's submitted progress payment applications, such that the Schedule, physical progress, the progress payment application and physical progress can be compared to determine the actual progress payments to be made to the Contractor.
- 4. The calendar is established including agreed working times and holidays. The calendar should not be altered during the project unless the Owner's Representative expressly agrees.
- 5. Only activity types such "Start Milestone," "Finish Milestone," and "Task" will be allowed with prior authorization by the Owner's Representative. Level of effort (LOE) activities may be used to summarize work as needed to produce summary level schedules for presentation purposes.
- 6. All activities should have both predecessor and successor logic ties that accurately represent the sequence and interdependence of all related activities except Project Start (which would not have any predecessors) and the last Contract Milestone (which would not have any successors).
- 7. Negative lags may not be used (there will be no exceptions to this requirement). FS – Finish-to-Start with zero (0) duration logic ties are preferable.
- 8. SF Start-to-Finish logic ties are not acceptable.
- F. Formats of Schedules Submitted to Owner's Representative
  - 1. The formats of schedules (and schedule documents) shall be submitted to the Owner's Representative are described below. The formats described are solely for reporting information and analysis use with Owner and are not intended to direct the Contractor in his own methods of scheduling. The Contractor may use any schedule format needed for his own use in performing his responsibilities in the Contract.
  - 2. All schedules (and schedule documents) shall be submitted with clear identification of Owner and Contractor's job numbers, schedule names, descriptions, plot dates, data dates, file numbers, issue numbers and the like.



- 3. All Baseline, Progress and Summary Schedules submitted shall be formatted in a fixed sequence of summary and detail activities for the Contract duration for ease of reference in progress updates. This sequence shall be established by the Contractor and acceptable to the Owner's Representative. The sequence shall be set up in the software such that re-sequencing or reorganizing of the Schedules is not required to generate Owner required schedules and reports. This allows a one to one comparison of each Schedule issued with previous Schedules for analysis purposes, including the As-built Schedule.
- 4. All Baseline, Progress, and Summary Schedules shall be submitted with the activity description data listed from left to right, as follows: Activity ID, Activity Description, Original Duration, Remaining Duration, Total Float, Percent Complete, Early Start, and Early Finish. The early start and finish dates shall display an "A" after the dates if started (and finished). The Baseline Schedule shall also have the late start and late finish dates to the right of the early finish dates. The Owner reserves the right, at no cost, to require the Contractor to add the late start and late Finish dates to the Progress and Summary Schedules at any time.
- 5. The status bars on all schedules shall display the physical percent complete of progress. This same physical percent complete shall also be used in the data field. The percent complete of activity duration to show progress shall not be used.
- 6. The Baseline and Progress Schedules shall be submitted as color plotted timescaled logic diagrams, with sufficient calendar and spacing to allow activity description information, bars and logic to be easily read. For each submitted schedule, a color plotted time-scaled logic diagram of just critical path activities shall be submitted. The fixed format, as described above, shall be used for all time-scaled logic diagram submittals throughout the duration of the project.
- 7. The Baseline, Progress, and Summary Schedules shall be submitted in bar chart format with activity data on the left side and bars on the right side. Logic shall not be displayed. Activity descriptions shall be displayed in the bar area. These bar chart schedules shall be 11" x 17" in size, and readable.
- 8. The Progress Schedule shall be submitted in an additional bar chart format that displays the previous month's Progress Schedule as a "Target" schedule for comparison use. The first Progress Schedule shall use the Baseline Schedule as the "Target" schedule. The "Target" bars shall be of smaller size, of different color, and below the current schedule's bars. Two color copies shall be submitted. The size shall be 11" x 17".
- 9. The Baseline and Progress Schedules shall be submitted in a bar chart format, as described above, but shall contain only the critical path activities. In the event that the Contractor's schedule has more than 25 percent of the activities as critical path or near critical path, the Contractor shall submit an additional bar chart schedule containing both the critical path and near critical path (as previously defined) activities.
- 10. The Baseline and Progress Schedules shall be submitted with a tabular report that displays the activity data previously listed in this subsection, sorted by Activity Number. Owner reserves the right to request up to two additional tabular



reports, in a format requested by the Owner's Representative, with any schedule submittal, Time Impact Analysis, or Recovery Schedule, at no additional cost to Owner.

- 11. The Baseline and Progress Schedules shall be submitted with a predecessor and successor report in 8-1/2" x 11", black and white format, displaying the activity data previously listed in this subsection and the predecessors and successors for each activity. This shall be in the fixed activity format.
- 12. All schedules and schedule documents submitted to the Owner's Representative shall be in hard copy, as described above, and in the submitted format via electronic transmission that contains the schedule data files.

# 1.08 WEATHER IMPACTS AND DELAY

- A. The Contractor agrees that he shall not be entitled to a time extension due to normal inclement weather, which can be expected at the project locale due to precipitation, snow, temperature, or other weather conditions. Normal inclement weather shall be defined as the most recent five-year average of accumulated record mean values from climatological data compiled by the US Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) monitoring station nearest to the project site. The Contractor shall include in its Baseline Schedule and all Progress Schedules, allowances for normal inclement weather. Agreed rain days will be tied to specific activity sequences in specific seasons.
- B. The Contractor shall only be entitled to an extension of Contract time, if the Contractor can substantiate that the severity of the weather was in excess of the normal inclement weather, and such weather conditions actually delayed the critical path of the Work. Time extensions will not be allowed for weather delays to non-critical path portions of the Work. Approved time extensions for abnormal weather conditions shall be deemed excusable and non-compensable.
- C. No extension of time will be made for abnormal inclement weather after the portions of the Work in progress at the time are enclosed, except for site work. Site work delays at that time will be allowed only if the abnormal weather causes a critical path delay to the Contract Time or milestone date related to that site work. For the purpose of this paragraph, the term enclosed is defined to mean when the Work in an area of a structure or building is sufficiently closed in (portions of exterior walls up and portions of roof in place), so as to permit adequate conditioning of the air to allow the various trades to perform the Work.
- D. The Contractor is responsible for providing any temporary weather enclosures necessary for Work to proceed without weather delays.

### 1.09 SCHEDULE UPDATES AND SCHEDULE (NETWORK) REVISIONS

A. During the course of the Work and issuance of the Progress Schedules, updating to reflect actual progress shall not be considered revisions to the Schedule. Such updating shall include revisions to activity durations and certain sequences on a monthly basis. Included in the Progress Schedule updates shall be activities and changes that have already been reviewed and accepted by Owner such as the effect of accepted Owner changes, the agreed duration of delays caused by acts of God or other conditions or events which have affected the progress of the Work. The Progress Schedules, when formally submitted,



shall display current progress, as well as displaying the forecast or projected Work to the end of the Project.

- B. On all Progress Schedule submittals, the Contractor shall submit a printed list of all schedule logic changes along with the reason for each change. This list is an integral part of the Schedule submittal. This list shall be generated from the scheduling software and be the same logic included electronic transmission. Owner shall accept this list as part of its overall Progress Schedule submittal review and acceptance process.
- C. Should the Contractor, after Owner acceptance of the Baseline Schedule and any Progress Schedules, desire to change the logic of its plan of construction, the Contractor shall submit in writing its requested revisions to the Owner's Representative. The request shall include a written narrative of the reasons for the activity and logic changes, a description of the logic for rescheduling the work, and the methods of maintaining adherence to critical and milestone dates. In addition, for changes affecting sequences of the Work, the Contractor shall provide a time-scaled logic diagram that compares the original sequence of work to the requested revised sequence of work. The Contractor shall submit the requested revision in a timely manner such that Owner may review the request submittal the same time frame and manner as required for other schedule submittals. Upon Owner acceptance of the request, the Contractor shall include the revision in the next upcoming Progress Schedule.
- D. Neither the updating or revision of the Contractor's Progress Schedule, nor the submittal, updating, change or revision of any schedule (or schedule document) for the Owner's review and acceptance shall have the effect of amending or modifying, in any way, the Contract Time, any Contract completion date, or Contract milestone dates or of modifying or limiting in any way Contractor's obligations under this Contract.

# 1.10 TIME IMPACT ANALYSIS FOR CHANGED CONDITIONS

- A. If delays are experienced that the Contractor believes are caused by Owner, the Contractor shall submit a formal written Time Impact Analysis (TIA). The TIA shall define the impact of each change or delay to the current accepted Progress Schedule. The TIA shall include a written narrative of the impact of such delays, and a schedule in time-scaled logic diagram format that depicts how the changed or delayed work affects other activities in the current accepted Progress Schedule.
- B. In addition to the Contractor's presentation of the impact in the TIA, the Contractor shall include in the TIA, a mitigation plan that reduces or eliminates the claimed delay. The mitigation plan shall include specific Owner and Contractor actions as well as the cost to the Contractor to proceed with the mitigation.
- C. In the event that the Contractor requests a Contract time extension, the time impacts to critical path activities in the current accepted Progress Schedule shall be clearly shown on a schedule in time-scaled logic diagram format. Extensions of time will be granted only to the extent that such changes or delays cause the time for the changed activity and related activities to exceed the total float along the affected path of activities at the time of Owner directive to proceed with the change or the actual commencement of the delay included in the TIA.
- D. Schedule float is not for the exclusive use or benefit of either the Contractor or Owner. Neither Owner nor the Contractor "owns" the float. The project or Work "owns" the float. Liability for delay to Contract or milestone dates rests with the party whose action (or



inaction) caused the delay beyond the float that was available at the time of the delaying action (or inaction).

- E. Each formal TIA shall be submitted as an integral element of the Contractor's change order proposal.
- F. A copy of Owner accepted TIA will be incorporated in the change order signed by Owner and the Contract Administrator for such change. Any changes to the Schedule will be incorporated into the next update of the Progress Schedule following the Owner's acceptance of the TIA.
- G. The Contractor shall be responsible for all costs associated with the preparation of the TIA and the incorporation of accepted TIA's, or portion of TIA's, in the Progress Schedule.
- H. If agreement is not reached on a TIA, or a portion of a TIA, the Progress Schedule, including any time extensions, shall be revised only to the extent accepted by Owner. For any TIA, or portion of a TIA, that is not accepted by Owner, the Contractor may submit a claim in accordance with the Conditions of the Contract.

# 1.11 RECOVERY SCHEDULE

- A. Should any conditions exist, such that certain activities shown on the Contractor's Progress Schedule fall behind schedule to the extent that any of the mandatory critical dates or milestone completion dates are at risk of being delayed, the Contractor shall be required, at no cost to Owner, to prepare and submit to the Owner's Representative a supplementary Recovery Schedule. The Recovery Schedule shall be in a form and detail appropriate to the need, to explain and display to the Owner's Representative how the Contractor intends to re-schedule those activities to regain compliance with the last previously accepted Progress Schedule.
- B. After determination by the Owner's Representative of the requirement for a Recovery Schedule, the Contractor shall, within five (5) calendar days, submit to Owner's Representative, the Recovery Schedule. The Recovery Schedule shall represent the Contractor's best judgment as to how the Contractor's work shall be reorganized such that the work may return to the accepted Progress Schedule within the maximum one-month period. The Recovery Schedule shall be prepared at a similar level of detail as the Progress Schedule and shall be based on the accepted Progress Schedule.
- C. The Owner's Representative will have seven (7) calendar days to review the Recovery Schedule submittal. Any revisions that result from the Owners Representative's review shall be resubmitted within three (3) workdays by the Contractor for acceptance by the Contract Administrator. The accepted Recovery Schedule shall then be the Schedule that the Contractor shall use in planning, organizing, directing, coordinating, performing and executing the Work (including all activities of subcontractors, equipment vendors and suppliers) that is included on the Recovery Schedule. All other Work shall proceed per the accepted Progress Schedule.
- D. No later than five (5) calendar days prior to the expiration of the Recovery Schedule, the Owner's Representative and Contractor will meet to determine whether the Contractor has regained compliance with the accepted Progress Schedule. At the direction of the Owner's Representative, one of the following will occur:
  - 1. If, in the opinion of the Owner's Representative, the Contractor is still behind



schedule, the Contractor shall prepare another Recovery Schedule, at the Contractor's expense, to take effect for a maximum of one additional month from the start of the new Recovery Schedule.

2. If, in the opinion of the Owner's Representative, the Contractor has sufficiently regained compliance with the Progress Schedule, the use of the Progress Schedule shall be resumed.

# 1.12 TIMELINESS OF SCHEDULE DOCUMENT SUBMITTALS

A. The Schedule (and schedule documents) shall be submitted in a timely manner, as required by this Section. Failure to submit the Schedule and schedule documents on time and in an acceptable format shall result in withholding of payments and other remedies.

### 1.13 OWNER REVIEW OF SCHEDULE SUBMITTALS

- A. All schedule documents shall be formally submitted and will be reviewed by Owner and returned to the Contractor with the required acceptance or action noted.
- B. In providing review comments on schedule (and schedule document) submittals, and in this section, Contract Administrator may use the word "accepted", "not accepted" or variations thereof in conveying its review comments to the Contractor. At any time, the "accepted" or similar wording is used, such wording shall have no different meaning than similar wording, such as "no exceptions taken."

**END OF SECTION** 



#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Submittals.
- B. References and standards.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Mock-ups.
- F. Tolerances.
- G. Manufacturers' field services.
- H. Defect Assessment.

# 1.02 RELATED REQUIREMENTS

- A. Section 00 6000 General Conditions: Inspections and approvals required by public authorities.
- B. Section 01 3000 Administrative Requirements: Submittal procedures.
- C. Section 01 6000 Product Requirements: Requirements for material and product quality.

#### 1.03 REFERENCE STANDARDS

- A. ASTM C1021 Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2014).
- B. ASTM C1077 Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2014.
- C. ASTM C1093 Standard Practice for Accreditation of Testing Agencies for Masonry; 2013.
- D. ASTM D3740 Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2012a.
- E. ASTM E329 Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2014a.
- F. ASTM E543 Standard Specification for Agencies Performing Nondestructive Testing; 2013.
- G. OSSC Oregon Structural Specialty Code, latest edition.

### 1.04 SUBMITTALS



- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Design Data: Submit for Consultant's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
- C. Test Reports: After each test/inspection, promptly submit two copies of report to Consultant and to Contractor.
  - 1. Include:
    - a. Date issued.
    - b. Project title and number.
    - c. Name of inspector.
    - d. Date and time of sampling or inspection.
    - e. Identification of product and specifications section.
    - f. Location in the Project.
    - g. Type of test/inspection.
    - h. Date of test/inspection.
    - i. Results of test/inspection.
    - j. Conformance with Contract Documents.
    - k. When requested by Consultant, provide interpretation of results.
  - 2. Test report submittals are for Consultant's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
- D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Consultant, in quantities specified for Product Data.
  - 1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
  - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Consultant.
- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.



- F. Manufacturer's Field Reports: Submit reports for Consultant's benefit as contract administrator or for Owner.
  - 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- G. Erection Drawings: Submit drawings for Consultant's benefit as contract administrator or for Owner.
  - 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
  - 2. Data indicating inappropriate or unacceptable Work may be subject to action by Consultant or Owner.

# 1.05 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Consultant before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Consultant shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

# 1.06 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

### PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION

# 3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.



- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Consultant before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

# 3.02 MOCK-UPS

- A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.
- B. Accepted mock-ups establish the standard of quality the Consultant will use to judge the Work.
- C. Integrated Exterior Mock-ups: construct integrated exterior mock-up as indicated on Drawings. Coordinate installation of exterior envelope materials and products as required in individual Specification Sections. Provide adequate supporting structure for mock-up materials as necessary.
- D. Notify Consultant fifteen (15) working days in advance of dates and times when mockups will be constructed.
- E. Provide supervisory personnel who will oversee mock-up construction. Provide workers that will be employed during the construction at Project.
- F. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.
- G. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- H. Obtain Consultant's approval of mock-ups before starting work, fabrication, or construction.
- I. Accepted mock-ups shall be a comparison standard for the remaining Work.
- J. Where mock-up has been accepted by Consultant and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Consultant.
- K. Where possible salvage and recycle the demolished mock-up materials.



### 3.03 TOLERANCES

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

# 3.04 TESTING AND INSPECTION

- A. See individual specification sections and the current building code for testing and inspection required.
- B. Testing Agency Duties:
  - 1. Provide qualified personnel at site. Cooperate with Consultant and Contractor in performance of services.
  - 2. Perform specified sampling and testing of products in accordance with specified standards.
  - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
  - 4. Promptly notify Consultant and Contractor of observed irregularities or nonconformance of Work or products.
  - 5. Perform additional tests and inspections required by Consultant.
  - 6. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
  - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
  - 2. Agency may not approve or accept any portion of the Work.
  - 3. Agency may not assume any duties of Contractor.
  - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
  - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
  - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
  - 3. Provide incidental labor and facilities:
    - a. To provide access to Work to be tested/inspected.



- b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
- c. To facilitate tests/inspections.
- d. To provide storage and curing of test samples.
- 4. Notify Consultant and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
- 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Consultant.
- F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor. Payment for re testing will be charged to the Contractor by deducting testing charges from the Contract Price.

# 3.05 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Consultant 30 days in advance of required observations.
  - 1. Observer subject to approval of Consultant.
  - 2. Observer subject to approval of Owner.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

### 3.06 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not conforming to specified requirements.

# END OF SECTION



### PART 1 GENERAL

# 1.01 SECTION INCLUDES

- A. Temporary telecommunications services.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Project identification sign.
- H. Field offices.

# 1.02 RELATED REQUIREMENTS

A. Section 01 5100 - Temporary Utilities.

## 1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.

### 1.04 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:
  - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
  - 2. Telephone Land Lines: One line, minimum; one handset per line.
    - a. Cell phone service with voice mail for the project superintendent is an acceptable alternative to a fixed telephone device for this project.
  - 3. Internet Connections: Minimum of one; DSL modem or faster.
  - 4. Email: Account/address reserved for project use.
  - 5. Facsimile Service: Minimum of one dedicated fax machine/printer, with dedicated phone line.
    - a. This service may reside at the Contractor's office for this project if someone in the office can regularly check the device for messages.



C. Provide a digital camera at the site capable of taking pictures of job conditions and sending.jpg images via e-mail to Owner and Architect.

# 1.05 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

### 1.06 BARRIERS

- A. Provide barriers to protect workers on the site and the public against injury.
- B. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- C. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- D. Provide protection for plants designated to remain. Replace damaged plants.
- E. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- F. Traffic Controls: Provide as required to maintain safe working environment for Owner and Contractor personnel using the site.

### 1.07 TEMPORARY FIRE PROTECTION

A. Provide and maintain necessary facilities and equipment to safeguard Project against Fire Damage.

# 1.08 FENCING

A. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

### 1.09 EXTERIOR ENCLOSURES

A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

## 1.10 INTERIOR ENCLOSURES

A. Provide temporary partitions and ceilings as indicated to separate work areas from Owneroccupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.



- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:
  - 1. Maximum flame spread rating of 75 in accordance with ASTM E84.

## 1.11 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

## 1.12 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Designated existing on-site roads may be used for construction traffic.
- F. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
- G. Existing parking areas may be used for construction parking.
- H. Do not allow vehicle parking on existing pavement.
- I. Use designated drop off and delivery areas for short term parking only.
- J. Do not use Owner's Parking Lots for overnight vehicle storage.
- K. Designate one parking space for Owner and Architect use.
- L. Repair existing facilities damaged by use, to original condition.
- M. Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

#### 1.13 MATERIAL STORAGE SPACE

A. Maintain within Project Limits in accordance with Architect's and Owner's instructions. Do not block exitways or overload structure.

## 1.14 WASTE REMOVAL

A. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.



- B. Encourage the separation of waste materials and sorting and disposal at a local recycling center.
- C. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- D. Provide containers with lids. Remove trash from site periodically.
- E. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- F. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

# 1.15 PROJECT IDENTIFICATION

- A. A project sign is not required for this project.
- B. No other signs are allowed without Owner permission except those required by law.

### 1.16 FIELD OFFICES

- A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture and storage space for drawings and all project documents.
- B. Provide space for Project meetings, with table and chairs to accommodate 8 persons.
- C. Provide office within 15 days from Notice to Proceed, maintain, and remove prior to Substantial Completion or as agreed by Owner.
- D. Contractor shall provide a field office, minimum 8'x20' for Owners Rep: Weathertight, with lighting, electrical outlets, internet, heating, cooling equipment, and equipped with sturdy furniture and storage space for drawings and all project documents. Provide separate keyed lock.
  - 1. Provide space for Project meetings, with table and chairs to accommodate 8 persons.
  - 2. Provide office within 15 days from Notice to Proceed, maintain, and remove prior to Substantial Completion or as agreed by Owner.
  - 3. Provide Utilities: power and internet.

# 1.17 VISITOR PERSONAL PROTECTION EQUIPMENT

A. Provide six sets of Personal Protection Equipment (PPE) for use by official visitors to the project site during construction. Visitor PPE shall include as a minimum, hard hat and protective eye goggles. Provide high visibility garments when moving vehicles are in use on the construction site. Store in Field Office and reserve for use by visitors to the project site.



B. Maintain in good condition through the course of the project and replace equipment that does not meet personal safety requirements.

# 1.18 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

### PART 2 PRODUCTS - NOT USED

### **PART 3 EXECUTION - NOT USED**

**END OF SECTION** 



# PART 1 GENERAL

# 1.01 SECTION INCLUDES

A. Temporary Utilities: Electricity, lighting, heat, ventilation, and water.

## 1.02 RELATED REQUIREMENTS

- A. Section 01 5000 Temporary Facilities and Controls:
  - 1. Temporary telecommunications services for administrative purposes.
  - 2. Temporary sanitary facilities required by law.

### 1.03 CONSERVATION

A. It is the Owner's practice to utilize natural resources responsibly. Exercise appropriate energy and water conservation measures at all times.

### 1.04 TEMPORARY ELECTRICITY

- A. Cost of Labor, Material and Energy: By Contractor.
- B. Provide power service required from utility source.
- C. Provide power outlets for construction operations, with branch wiring and distribution boxes located at each floor. Provide flexible power cords as required.
- D. Provide main service disconnect and over-current protection at convenient location and meter.
- E. Permanent convenience receptacles may be utilized during construction.
- F. Provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.

### 1.05 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain incandescent lighting for construction operations to achieve a minimum lighting level of 2 watt/sq ft.
- B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas after dark for security purposes.
- C. Provide and maintain 0.25 watt/sq ft H.I.D. lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be utilized during construction.



# 1.06 TEMPORARY HEATING

- A. Cost of of Labor, Material and Energy: By Contractor.
- B. Provide heating devices and heat as needed to maintain specified conditions for construction operations.
- C. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

# 1.07 TEMPORARY COOLING

- A. Provide cooling devices and cooling as needed to maintain specified conditions for construction operations.
- B. Maintain maximum ambient temperature of 80 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

## 1.08 TEMPORARY VENTILATION

A. Existing ventilation equipment may not be used.

#### 1.09 TEMPORARY WATER SERVICE

- A. Cost of Labor, Materials, and Water Used: By Contractor.
- B. Provide and maintain suitable quality water service for construction operations at time of project mobilization.
- C. Connect to existing water source.
  - 1. Exercise measures to conserve water.
- D. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

# PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION - NOT USED

END OF SECTION



### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Construction procedures to promote adequate indoor air quality after construction.
- B. Building flush-out after construction and before occupancy.
- C. Testing indoor air quality after completion of construction.

#### 1.02 PROJECT GOALS

- A. Dust and Airborne Particulates: Prevent deposition of dust and other particulates in HVAC ducts and equipment.
  - 1. Cleaning of ductwork is not contemplated under this Contract.
  - 2. Contractor shall bear the cost of cleaning required due to failure to protect ducts and equipment from construction dust.
- B. Airborne Contaminants: Procedures and products have been specified to minimize indoor air pollutants.
  - 1. Furnish products meeting the specifications.
  - 2. Avoid construction practices that could result in contamination of installed products leading to indoor air pollution.

#### 1.03 RELATED REQUIREMENTS

- A. Section 01 4000 Quality Requirements: Testing and inspection services.
- B. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions.

#### 1.04 REFERENCE STANDARDS

- A. ASTM D5197 Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology); 2009.
- B. CAL (CDPH SM) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; California Department of Public Health; v1.1, 2010.
- C. EPA 600/4-90/010 Compendium of Methods for the Determination of Air Pollutants in Indoor Air; April 1990.
- D. EPA 625/R-96/010b Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air; January 1999.
- E. SMACNA (OCC) IAQ Guidelines for Occupied Buildings Under Construction; 2007.

### 1.05 **DEFINITIONS**

A. Adsorptive Materials: Gypsum board, acoustical ceiling tile and panels, carpet and carpet tile, fabrics, fibrous insulation, and other similar products.



- B. Contaminants: Gases, vapors, regulated pollutants, airborne mold and mildew, and the like, as specified.
- C. Particulates: Dust, dirt, and other airborne solid matter.
- D. Wet Work: Concrete, plaster, coatings, and other products that emit water vapor or volatile organic compounds during installation, drying, or curing.

### 1.06 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Indoor Air Quality Management Plan: Describe in detail measures to be taken to promote adequate indoor air quality upon completion; use SMACNA (OCC) as a guide.
  - 1. Submit not less than 60 days before enclosure of building.
  - 2. Identify potential sources of odor and dust.
  - 3. Identify construction activities likely to produce odor or dust.
  - 4. Identify areas of project potentially affected, especially occupied areas.
  - 5. Evaluate potential problems by severity and describe methods of control.
  - 6. Describe construction ventilation to be provided, including type and duration of ventilation, use of permanent HVAC systems, types of filters and schedule for replacement of filters.
  - 7. Describe cleaning and dust control procedures.
- C. Air Contaminant Test Plan: Identify:
  - 1. Testing agency qualifications.
  - 2. Locations and scheduling of air sampling.
  - 3. Test procedures, in detail.
  - 4. Test instruments and apparatus.
  - 5. Sampling methods.
- D. Air Contaminant Test Reports: Show:
  - 1. Location where each sample was taken, and time.
  - 2. Test values for each air sample; average the values of each set of 3.
  - 3. HVAC operating conditions.
  - 4. Certification of test equipment calibration.
  - 5. Other conditions or discrepancies that might have influenced results.



## PART 2 PRODUCTS

### 2.01 MATERIALS

- A. Low VOC Materials: See Section 01 6116.
- B. Low VOC Materials: See individual sections for specific requirements for materials with low VOC content.

# **PART 3 EXECUTION**

# 3.01 CONSTRUCTION PROCEDURES

- A. Prevent the absorption of moisture and humidity by adsorptive materials by:
  - 1. Sequencing the delivery of such materials so that they are not present in the building until wet work is completed and dry.
  - 2. Delivery and storage of such materials in fully sealed moisture-impermeable packaging.
  - 3. Provide sufficient ventilation for drying within reasonable time frame.
- B. Begin construction ventilation when building is substantially enclosed.
- C. If extremely dusty or dirty work must be conducted inside the building, shut down HVAC systems for the duration; remove dust and dirt completely before restarting systems.
- D. HVAC equipment and ductwork may NOT be used for ventilation during construction:
  - 1. Provide temporary ventilation equivalent to 1.5 air changes per hour, minimum.
  - 2. Exhaust directly to outside.
  - 3. Seal HVAC air inlets and outlets immediately after duct installation.
- E. Do not store construction materials or waste in mechanical or electrical rooms.
- F. Prior to use of return air ductwork without intake filters clean up and remove dust and debris generated by construction activities.
  - 1. Inspect duct intakes, return air grilles, and terminal units for dust.
  - 2. Clean plenum spaces, including top sides of lay-in ceilings, outsides of ducts, tops of pipes and conduit.
  - 3. Clean tops of doors and frames.
  - 4. Clean mechanical and electrical rooms, including tops of pipes, ducts, and conduit, equipment, and supports.
  - 5. Clean return plenums of air handling units.
  - 6. Remove intake filters last, after cleaning is complete.



- G. Do not perform dusty or dirty work after starting use of return air ducts without intake filters.
- H. Use other relevant recommendations of SMACNA (OCC) for avoiding unnecessary contamination due to construction procedures.

### 3.02 BUILDING FLUSH-OUT

- A. Contractor's Option: Either full continuous flush-out OR satisfactory air contaminant testing is required, not both.
- B. Perform building flush-out before occupancy.
- C. Do not start flush-out until:
  - 1. All construction is complete.
  - 2. HVAC systems have been tested, adjusted, and balanced for proper operation.
  - 3. Inspection of inside of return air ducts and terminal units confirms that cleaning is not necessary.
  - 4. New HVAC filtration media have been installed.
- D. Building Flush-Out: Operate all ventilation systems at normal flow rates with 100 percent outside air until a total air volume of 14,000 cubic feet per square foot of floor area has been supplied.
  - 1. Obtain Owner's concurrence that construction is complete enough before beginning flush-out.
  - 2. Maintain interior temperature of at least 60 degrees F and interior relative humidity no higher than 60 percent.
  - 3. If additional construction involving materials that produce particulates or any of the specified contaminants is conducted during flush-out, start flush-out over.
  - 4. If interior spaces must be occupied prior to completion of the flush-out, supply a minimum of 25 percent of the total air volume prior to occupancy, and:
    - a. Begin ventilation at least three hours prior to daily occupancy.
    - b. Continue ventilation during all occupied periods.
    - c. Provide minimum outside air volume of 0.30 cfm per square foot or design minimum outside air rate, whichever is greater.
- E. Install new HVAC filtration media after completion of flush-out and before occupancy or further testing.

#### 3.03 AIR CONTAMINANT TESTING

- A. Contractor's Option: Either full continuous flush-out OR satisfactory air contaminant testing is required, not both.
- B. Perform air contaminant testing before occupancy.



- C. Do not start air contaminant testing until:
  - 1. All construction is complete, including interior finishes.
  - 2. HVAC systems have been tested, adjusted, and balanced for proper operation.
  - 3. New HVAC filtration media have been installed.
- D. Indoor Air Samples: Collect from spaces representative of occupied areas:
  - 1. Collect samples while operable windows and exterior doors are closed, HVAC system is running normally as if occupied, with design minimum outdoor air, but with the building unoccupied.
  - 2. Collect samples from spaces in each contiguous floor area in each air handler zone, but not less than one sample per 25,000 square feet; take samples from areas having the least ventilation and those having the greatest presumed source strength.
  - 3. Collect samples from height from 36 inches to 72 inches above floor.
  - 4. Collect samples from same locations on 3 consecutive days during normal business hours; average the results of each set of 3 samples.
  - 5. Exception: Areas with normal very high outside air ventilation rates, such as laboratories, do not need to be tested.
  - 6. When retesting the same building areas, take samples from at least the same locations as in first test.
- E. Outdoor Air Samples: Collect samples at outside air intake of each air handler at the same time as indoor samples are taken.
- F. Analyze air samples and submit report.
- G. Air Contaminant Concentration Limits:
  - 1. Formaldehyde: Not more than 27 parts per billion.
  - 2. PM10 Particulates: Not more than 50 micrograms per cubic meter.
  - 3. Total Volatile Organic Compounds (TVOCs): Not more than 500 micrograms per cubic meter.
  - 4. Chemicals Listed in CAL (CDPH SM) Table 4-1, except Formaldehyde: Allowable concentrations listed in Table 4-1.
  - 5. Carbon Monoxide: Not more than 9 parts per million and not more than 2 parts per million higher than outdoor air.
- H. Air Contaminant Concentration Test Methods:
  - 1. Formaldehyde: ASTM D5197, EPA 625 Method TO-11A, or EPA 600 Method IP-6.



- 2. Particulates: EPA 600 Method IP-10.
- 3. Total Volatile Organic Compounds (TVOC): EPA 625 Method TO-1, TO-15, or TO-17; or EPA 600 Method IP-1.
- 4. Chemicals Listed in CAL (CDPH SM) Table 4-1, except Formaldehyde: ASTM D5197, or EPA 625 Method TO-1, TO-15, or TO-17.
- 5. Carbon Monoxide: EPA 600 Method IP-3, plus measure outdoor air; measure in ppm; report both indoor and outdoor measurements.
- I. Air Contaminant Concentration Determination and Limits:
  - 1. Carbon Monoxide: Not more than 9 parts per million and not more than 2 parts per million higher than outdoor air.
  - 2. Airborne Mold and Mildew: Measure in relation to outside air; not higher than outside air.
  - 3. Formaldehyde: Not more than 50 parts per billion.
  - 4. Formaldehyde: Measure in micrograms per cubic meter, in relation to outside air; not more than 20 micrograms per cubic meter higher than outside air.
  - 5. Total Volatile Organic Compounds (TVOC): Not more than 500 micrograms per cubic meter.
  - 6. Total Volatile Organic Compounds (TVOC): Measure in micrograms per cubic meter, in relation to outside air; not more than 200 micrograms per cubic meter higher than outside air.
  - 7. Particulates (PM10): Not more than 50 micrograms per cubic meter.
  - 8. Total Particulates (PM): Measure in micrograms per cubic meter, in relation to outside air; not more than 20 micrograms per cubic meter higher than outside air.

END OF SECTION



### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations and procedures.
- F. Procedures for Owner-supplied products.
- G. Maintenance materials, including extra materials, spare parts, tools, and software.

### 1.02 RELATED REQUIREMENTS

- A. Document 00 2113 Instructions to Bidders: Product options and substitution procedures prior to bid date.
- B. Section 01 4000 Quality Requirements: Product quality monitoring.
- C. Section 01 6023 Substitution Request Form
- D. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.
- E. Section 01 7419 Construction Waste Management and Disposal: Waste disposal requirements potentially affecting packaging and substitutions.

### 1.03 REFERENCE STANDARDS

- A. GEI (SCH) GREENGUARD "Children and Schools" Certified Products; GREENGUARD Environmental Institute; current listings at www.greenguard.org.
- B. GreenSeal GS-36 Commercial Adhesives; Green Seal, Inc.; 2000.
- C. SCAQMD 1168 South Coast Air Quality Management District Rule No.1168; current edition; <u>www.aqmd.gov</u>

### 1.04 SUBMITTALS

- A. Proposed Products List: Submit list of major products that comply with the specifications and are proposed for use, with name of manufacturer, trade name, and model number of each product.
  - 1. Submit within 15 days after date of Subcontract Award Notice.
  - 2. For products specified only by reference standards, list applicable reference standards.



- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

### PART 2 PRODUCTS

# 2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Reused Products: Reused products include materials and equipment previously used in this or other construction, salvaged and refurbished as specified.

### 2.02 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by the Contract Documents.

### 2.03 PRODUCT OPTIONS

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

# 2.04 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.

### PART 3 EXECUTION

### 3.01 SUBSTITUTION PROCEDURES



- A. Instructions to Bidders specifies process and time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in that section.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Document each request on Form 01-6023 with complete data substantiating compliance of proposed substitution with Contract Documents. <u>Include a point by point comparative analysis in matrix form.</u>
- D. Substitutions
  - 1. Notify Architect when Contractor is aware of materials, equipment, or products that meet the aesthetic and programmatic intent of Contract Documents, but which are more environmentally responsible than materials, equipment, or products specified or indicated in the Contract Documents.
- E. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- F. Substitutions will not be allowed post bid.
- G. Each request for substitution approval shall include:
  - 1. Identity of Product for which substitution is requested; include Specification Section.
  - 2. Identity of substitution; include complete Product description, drawings, photographs, performance and test data, and any other information necessary for evaluation.
  - 3. Identify compliance with any described LEED product requirements.
  - 4. Quality comparison of proposed substitution with specified product.
  - 5. Changes in other Work required because of substitution.
  - 6. Effect on construction progress schedule.
  - 7. Cost of proposed substitution compared with specified product.
  - 8. Any required license fees or royalties.
  - 9. Availability of maintenance service.



- 10. Source of replacement materials.
- H. Architect will be sole judge of acceptability of any proposed substitution.

# 3.02 SUBSTITUTIONS AFTER CONTRACT AWARD

- A. Approval will be granted only when:
  - 1. Specified Product cannot be delivered without Project delay, or
  - 2. Specified Product has been discontinued, or
  - 3. Specified Product has been replaced by superior Product, or
  - 4. Specified Product cannot be guaranteed as specified, or
  - 5. Specified Product will not perform properly, or
  - 6. Specified Product will not fit within designated space, or
  - 7. Specified Product does not comply with governing codes, or
  - 8. Substitution will be clearly in Owner's interest.
- B. Architect will issue Change Order authorizing approved substitutions and revising Contract Sum where appropriate.

# 3.03 CONTRACT COMPLIANCE

A. Substitution approval does not relieve Contractor from responsibility for proper execution of the Work and for compliance with other Contract requirements.

# 3.04 OWNER-SUPPLIED PRODUCTS

- A. See Section 01 1000 for identification of Owner-supplied products.
- B. Owner's Responsibilities:
  - 1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
  - 2. Arrange and pay for product delivery to site.
  - 3. On delivery, inspect products jointly with Contractor.
  - 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
  - 5. Arrange for manufacturers' warranties, inspections, and service.
- C. Contractor's Responsibilities:
  - 1. Review Owner reviewed shop drawings, product data, and samples.



- 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
- 3. Handle, store, install and finish products.
- 4. Repair or replace items damaged after receipt.

# 3.05 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

# 3.06 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.



- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

# END OF SECTION



# SUBSTITUTION REQUEST: DATE SUBMITTED \_\_\_\_\_

- 1.01 SUBMIT TO: Mike Freeman, Program Manager, HMK Company, mike.freeman@hmkco.org
- 1.02 **PROJECT:** District Wide Roofing Project

## 1.03 SPECIFIED ITEM:

- A. SECTION NAME AND NUMBER: \_\_\_\_\_
- B. PRODUCT TYPE AND NAME AND MODEL: \_\_\_\_\_
- C. PARAGRAPH AND PRODUCT DESCRIPTION: \_\_\_\_\_

#### 1.04 **PROPOSED SUBSTITUTION:**

- A. MANUFACTURER AND MODEL NUMBER(S): \_\_\_\_\_
- B. PRODUCT DESCRIPTION:
- C. Attached data includes product description, specifications, drawings, photographs, performance, test data and **point by point comparative matrix** adequate for evaluation of request including identification of applicable data portions. Attached data also includes description of changes to Contract Documents the proposed substitution requires for proper installation.
- D. It is the responsibility of the requestee to assemble a comparative matrix outlining key elements of proposed substitution.

# 1.05 UNDERSIGNED CERTIFIES FOLLOWING ITEMS, UNLESS MODIFIED BY ATTACHMENTS, ARE CORRECT:

- A. Proposed substitution does not affect dimensions shown on the drawings.
- B. Undersigned pays for changes to building design, including engineering design, detailing, and construction costs caused by proposed substitution.
- C. Proposed substitution has no adverse effect on other trades, construction schedule, or specified warranty requirements.
- D. Maintenance and service parts are available locally or readily obtainable for proposed substitution.

# 1.06 UNDERSIGNED FURTHER CERTIFIES FUNCTION, APPEARANCE, AND QUALITY OF PROPOSED SUBSTITUTION ARE EQUIVALENT OR SUPERIOR TO SPECIFIED ITEM.

- 1.07 UNDERSIGNED FURTHER CERTIFIES THAT THE MANUFACTURER OF THE PROPOSED SUBSTITUTION IS AWARE OF THIS SUBSTITUTION REQUEST AND AGREES TO THE STATEMENTS NOTED ABOVE.
- 1.08 UNDERSIGNED AGREES THAT THE TERMS AND CONDITIONS FOR SUBSTITUTIONS FOUND IN BIDDING DOCUMENTS APPLY TO THIS PROPOSED SUBSTITUTION.



1.09	SUBMITTED BY:				
	A.	PRINT NAME:			-
		SIGNATURE:			
	В.	FIRM NAME:			-
	C.	FULL MAILING ADDRESS:			
		City:		State:	Zip:
	D.	PHONE: E	-MAIL:	· · · · · · · · · · · · · · · · · · ·	
1.10	FOR USE BY ARCHITECT OR ENGINEER				
	A.	APPROVED OR APPROVED AS NOTED BY: NOT APPROVED BY: RECEIVED TOO LATE:			
	В.				
	C.				
	D.	REMARKS:			
	E.	DATE OF RESPONSE:			

# **END OF SECTION**



# PART 1 GENERAL

# 1.01 SECTION INCLUDES

- A. Requirement for installer certification that they did not use any non-compliant products.
- B. VOC restrictions for product categories listed below under "DEFINITIONS."
- C. All products of each category that are installed in the project must comply; Owner's project goals do not allow for partial compliance.

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 3000 Administrative Requirements: Submittal procedures.
- C. Section 01 4000 Quality Requirements: Procedures for testing and certifications.
- D. Section 01 5721 Indoor Air Quality Controls: Procedures and testing.
- E. Section 01 6000 Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.

## 1.03 DEFINITIONS

- A. VOC-Restricted Products: All products of each of the following categories when installed or applied on-site in the building interior:
  - 1. Adhesives, sealants, and sealer coatings.
  - 2. Carpet.
  - 3. Carpet tile.
  - 4. Resilient floor coverings.
  - 5. Paints and coatings.
  - 6. Insulation.
  - 7. Gypsum board.
  - 8. Acoustical ceilings and panels.
  - 9. Cabinet work.
  - 10. Wall coverings.
  - 11. Composite wood and agrifiber products used either alone or as part of another product.
  - 12. Other products when specifically stated in the specifications.
- B. Interior of Building: Anywhere inside the exterior weather barrier.



- C. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- D. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

# 1.04 **REFERENCE STANDARDS**

- A. CRI (GLP) Green Label Plus Testing Program Certified Products; Carpet and Rug Institute; Current Edition.
- B. GreenSeal GC-03 Anti-Corrosive Paints; Green Seal, Inc.; 2007
- C. GreenSeal GS-11 Paints; Green Seal, Inc.; 1993.
- D. GreenSeal GS-36 Commercial Adhesives; Green Seal, Inc.; 2011.
- E. SCAQMD 1113 South Coast Air Quality Management District Rule No.1113; current edition; <u>http://www.aqmd.gov/.</u>
- F. SCAQMD 1168 South Coast Air Quality Management District Rule No.1168; current edition; <u>www.aqmd.gov.</u>
- G. SCS (CPD) SCS Certified Products; Scientific Certification Systems; current listings at <u>www.scscertified.com.</u>

# 1.05 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Evidence of Compliance: Submit for each different product in each applicable category.
- C. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.
- D. Installer Certifications Regarding Prohibited Content: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of his products, or 2) that such products used comply with these requirements.

#### **PART 2 PRODUCTS**

#### 2.01 MATERIALS

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. Adhesives and Joint Sealants: Provide only products having volatile organic compound (VOC) content not greater than required by South Coast Air Quality Management District Rule No.1168.



- 1. Definition: This provision applies to gunnable, trowelable, and liquid-applied adhesives, sealants, and sealant primers used anywhere on the interior of the building inside the weather barrier, including duct sealers and fire stopping.
- 2. LEED: Not Used
- 3. Certification: Require each installer to certify compliance and submit product data showing product content.
  - a. Evidence of Compliance: Acceptable types of evidence are:
    - 1) Report of laboratory testing performed in accordance with requirements.
    - 2) Published product data showing compliance with requirements.
    - 3) Certification by manufacturer that product complies with requirements.
    - 4) SCAQMD limits for specific product categories:
      - a) Architectural ApplicationsVOC Limit g/L less water
        - 1. Indoor Carpet Adhesives 50
        - 2. Carpet Pad Adhesives 50
        - 3. Outdoor Carpet Adhesives 150
        - 4. Wood Flooring Adhesive 100
        - 5. Rubber Floor Adhesives 60
        - 6. Subfloor Adhesives 50
        - 7. Ceramic Tile Adhesives 65
        - 8. VCT and Asphalt Tile Adhesives 50
        - 9. Dry Wall and Panel Adhesives 50
        - 10. Cove Base Adhesives 50
        - 11. Multipurpose Construction Adhesives 70
        - 12. Structural Glazing Adhesives 100
        - 13. Single Ply Roof Membrane Adhesives 250
      - b) Specialty Applications VOC Limits g/L less water
        - 1. PVC Welding 510
        - 2. CPVC Welding 490
        - 3. ABS Welding 325



- 4. Plastic Cement Welding 250
- 5. Adhesive Primer for Plastic 550
- 6. Computer Diskette Manufacturing 350
- 7. Contact Adhesive 80
- 8. Special Purpose Contact Adhesive 250
- 9. Tire Retread 100
- 10. Adhesive Primer for Traffic Marking Tape 150
- 11. Structural Wood Member Adhesive 140
- 12. Sheet Applied Rubber Lining Operations 850
- 13. Top and Trim Adhesive 250
- c) Substrate Specific ApplicationsVOC Limit g/L less water
  - 1. Metal to Metal 30
  - 2. Plastic Foams 50
  - 3. Porous Material (except wood) 50
  - 4. Wood 30
  - 5. Fiberglass 80
- d) Sealants VOC Limit g/L less water
  - 1. Architectural 250
  - 2. Marine Deck 760
  - 3. Nonmembrane Roof 300
  - 4. Roadway 250
  - 5. Single-Ply Roof Membrane 450
  - 6. Other 420
- e) Sealant Primers VOC Limit g/L less water
  - 1. Architectural Non Porous 250
  - 2. Architectural Porous 775
  - 3. Modified Bituminous 500
  - 4. Marine Deck 760
  - 5. Other 750



- C. Aerosol Adhesives: Provide only products having volatile organic compound (VOC) content not greater than required by GreenSeal GS-36.
  - 1. LEED: Not Used
  - 2. Certification: Require each installer to certify compliance and submit product data showing product content.
    - a. Evidence of Compliance: Acceptable types of evidence are:
      - 1) Current GreenSeal Certification.
      - 2) Report of laboratory testing performed in accordance with GreenSeal GS-36 requirements.
      - 3) Published product data showing compliance with requirements.
  - 3. GreenSeal limits for specific product categories:
    - a. Aerosol AdhesivesVOC Weight g/L minus water
      - 1) General purpose mist spray 65% VOCs by weight
      - 2) General purpose web spray 55% VOCs by weight
      - 3) Special purpose aerosol adhesives (all types) 70% VOCs by weight
- D. Paints and Coatings:
  - 1. Definition: This provision applies to paints and coatings used anywhere on the interior of the building inside the weather barrier, including all primers and sealers.
  - 2. Provide coatings that comply with the most stringent requirements specified in the following:
    - a. Architectural Paints and Coatings: Do not exceed VOC content limits established in GreenSeal GS-11.
    - b. Anti-Corrosive and Anti-Rust Paints: Do not exceed VOC content limits established in GreenSeal GS-03.
    - c. Clear Wood Finishes, Floor Coatings, Stains, Primers and Shellacs: Do not exceed the VOC content limits established in SCAQMD Rule No. 1113.
  - Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
  - 4. This provision is applicable to LEED Credit EQ 4.1; submit LEED Prohibited Content Installer Certification Forms and all support material per section 01 35 16.07.



- 5. Certification: Require each installer to certify compliance and submit product data showing product content.
  - a. Evidence of Compliance: Acceptable types of evidence are:
    - 1) Report of laboratory testing performed in accordance with requirements.
    - 2) Published product data showing compliance with requirements.
- 6. Limits for specific product categories:
  - a. Architectural paints, coatings and primers applied to interior walls and ceilings per GreenSeal GS-11
    - 1) Flats: 50 g/L
    - 2) Non-Flats: 150 g/L
    - 3) Primers: 50 g/L
  - b. Interior Anti-Corrosive and Anti-rust paints, coatings and primers per GreenSeal GS-03, Anti-Corrosive Paints
    - 1) 250 g/L
  - c. All other coatings, paints and sealers per SCAQMD Rule #1113, Architectural Coatings
    - 1) Coating CategoryVOC Limit g/L
      - (a) Bond Breakers 350
      - (b) Clear Wood Finishes 275
      - (c) Varnish 275
      - (d) Sanding Sealers 275
      - (e) Lacquer 275
      - (f) Clear Brushing Lacquer 275
      - (g) Concrete-Curing Compounds 100
      - (h) Concrete-Curing Compounds For Roadways and Bridges 350
      - (i) Dry-Fog Coatings 150
      - (j) Fire-Proofing Exterior Coatings 350
      - (k) Fire-Retardant Coatings Clear 650
      - (I) Fire-Retardant Coatings Pigmented 350



- (m) Flats 50
- (n) Floor Coatings 50
- (o) Graphic Arts (Sign) Coatings 500
- (p) Industrial Maintenance (IM) Coatings 100
- (q) High Temperature IM Coatings 420
- (r) Zinc-Rich IM Primers100
- (s) Japans/Faux Finishing Coatings 350
- (t) Magnesite Cement Coatings 450
- (u) Mastic Coatings 300
- (v) Metallic Pigmented Coatings 500
- (w) Multi-Color Coatings 250
- (x) Nonflat Coatings 50
- (y) Nonflat High Gloss 50
- (z) Pigmented Lacquer 275
- (aa) Pre-Treatment Wash Primers 420
- (ab) Primers, Sealers, and Undercoaters 100
- (ac) Quick-Dry Enamels 50
- (ad) Quick-Dry Primers, Sealers, and Undercoaters 100
- (ae) Recycled Coatings 250
- (af) Roof Coatings 50
- (ag) Roof Coatings, Aluminum 100
- (ah) Roof Primers, Bituminous 350
- (ai) Rust Preventative Coatings 100
- (aj) Shellac Clear 730
- (ak) Shellac Pigmented 550
- (al) Specialty Primers 100
- (am) Stains 100
- (an) Stains, Interior 250



- (ao) Swimming Pool Coatings Repair 340
- (ap) Swimming Pool Coatings Other 340
- (aq) Traffic Coatings 100
- (ar) Waterproofing Sealers 100
- (as) Waterproofing Concrete/Masonry Sealers 100
- (at) Wood Preservatives Below-Ground 350
- (au) Wood Preservatives- Other 350
- (av) Low-Solids Coating 120
- E. Carpet and Adhesive: Provide products having VOC content not greater than that required for CRI Green Label Plus certification.
  - 1. Evidence of Compliance: Acceptable types of evidence are:
    - a. Current Green Label Plus Certification.
    - b. Report of laboratory testing performed in accordance with requirements.
- F. Carpet Tile and Adhesive: Provide products having VOC content not greater than that required for CRI Green Label Plus certification.
  - 1. Evidence of Compliance: Acceptable types of evidence are:
    - a. Current Green Label Plus Certification.
    - b. Report of laboratory testing performed in accordance with requirements.
- G. Composite Wood and Agrifiber Products and Adhesives Used for Laminating Them: Provide products having no added urea-formaldehyde resins.
  - 1. Evidence of Compliance: Acceptable types of evidence are:
    - a. Current SCS "No Added Urea Formaldehyde" certification; <u>www.scscertified.com</u>.
    - b. Published product data showing compliance with requirements.
- H. Other Product Categories: Comply with limitations specified elsewhere.

# PART 3 EXECUTION

# 3.01 FIELD QUALITY CONTROL

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

# END OF SECTION



### PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Requirements for forming openings in existing construction for all work including mechanical and electrical work.
- D. Pre-installation meetings.
- E. Cutting and patching.
- F. Surveying for laying out the work.
- G. Cleaning and protection.
- H. Starting of systems and equipment.
- I. Demonstration and instruction of Owner personnel.
- J. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- K. General requirements for maintenance service.
- L. Substantial completion
- M. Final Completion
- N. Additional fees for delays in completing work

# 1.02 RELATED REQUIREMENTS

- A. Section 01 1000 Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 3000 Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 01 4000 Quality Requirements: Testing and inspection procedures.
- D. Section 01 5000 Temporary Facilities and Controls: Temporary exterior enclosures.
- E. Section 01 5000 Temporary Facilities and Controls: Temporary interior partitions.
- F. Section 01 5100 Temporary Utilities: Temporary heating, cooling, and ventilating facilities.
- G. Section 01 7419 Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
- H. Section 01 7800 Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.



# 1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

# 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
  - 1. On request, submit documentation verifying accuracy of survey work.
  - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
  - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate Contractor.
  - 6. Include in request:
    - a. Identification of Project.
    - b. Location and description of affected work.
    - c. Necessity for cutting or alteration.
    - d. Description of proposed work and products to be used.
    - e. Effect on work of Owner or separate Contractor.
    - f. Written permission of affected separate Contractor.
    - g. Date and time work will be executed.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

# 1.05 QUALIFICATIONS

A. For survey work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.



## 1.06 PROJECT CONDITIONS

- A. Use of explosives is not permitted.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- E. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
  - 1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.
- F. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
  - 1. Minimize amount of bare soil exposed at one time.
  - 2. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
  - 3. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
  - 4. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- G. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
  - 1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
  - 2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
  - 3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.
- H. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- I. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

# 1.07 COORDINATION



- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate occupancy requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- H. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

# 1.08 CONTRACTOR'S FULL TIME SUPERVISION OF THE WORK

- A. Contractor shall provide an on-site project superintendent to be present full time whenever work is occurring on site.
- B. Contractor's Superintendent shall maintain a Daily Log of work activities at the site during construction.
  - 1. Submit copies of the Daliy Logs to the Owner on a weekly basis.

# PART 2 PRODUCTS

# 2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 Product Requirements.



# PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

#### 3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

## 3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect seven days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of examination, preparation and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

#### 3.04 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.



- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
  - 2. Grid or axis for structures.
  - 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

# 3.05 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

# 3.06 ALTERATIONS

- A. The stability and integrity of the existing structure during demolition and selective demolition shall be maintained at levels generally acceptable within the construction industry by the use of temporary bracing, shoring, and underpinning until the proposed structure modifications are completed. In no case shall the existing structure be allowed to become unsafe during construction.
- B. The design, installation, and removal of shoring and bracing systems required to provide temporary support of the existing structure during construction shall be the responsibility of the Contractor and shall be designed to support the dead, live, soil, earthquake, and wind loads that may be imposed on the structure during construction in accordance with industry standards and generally accepted engineering principals. Provide the services of a registered professional engineer to design these systems when required by Oregon State Statute and the building code.



- C. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as shown.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- D. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
  - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
  - 2. Provide appropriate temporary signage including signage for exit or building egress.
- E. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
  - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
  - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- F. Comply with regulatory requirements for Alteration Work:
  - 1. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.
  - 2. Obtain required permits from authorities.
  - 3. Do not close or obstruct egress from any building exit or site exit.
  - 4. Do not disable or disrupt building fire or life safety systems without 3 days' prior written notice to Owner.
  - 5. Conform to applicable regulatory procedures when hazardous or contaminated materials are discovered. Stop all work in the area and notify the Owner's representative.
    - a. Owner will provide verification, abatement, and removal as required to complete the Work.
- G. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove items indicated on drawings.
  - 2. Relocate items indicated on drawings.



- 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
- 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible
- H. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
  - 1. Notify affected utility companies before starting work and comply with their requirements.
  - 2. Mark location and termination of utilities.
  - 3. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
  - 4. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by the Owner. Provide temporary services during interruption of existing utilities, as acceptable to the Owner
  - 5. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
  - 6. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
    - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
    - b. Provide temporary connections as required to maintain existing systems in service.
  - 7. Verify that abandoned services serve only abandoned facilities.
  - 8. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- I. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
  - 4. Cover finish floors to remain.



- 5. Use only rubber tired vehicles for conveying materials in building.
- J. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
  - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
  - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
  - 3. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
  - 4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.
- K. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- L. Refinish existing surfaces as indicated:
  - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
  - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- M. Clean existing systems and equipment.
- N. Remove demolition debris and abandoned items from alterations areas and dispose of offsite; do not burn or bury.
- O. Clean remaining structure, equipment and facilities of all dirt, dust, and debris caused by demolition work. Return areas to conditions existing prior to the start of the work.
- P. Do not begin new construction in alterations areas before demolition is complete.
- Q. Comply with all other applicable requirements of this section.

# 3.07 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.



- 3. Provide openings for penetration of mechanical, electrical, and other services.
- 4. Match work that has been cut to adjacent work.
- 5. Repair areas adjacent to cuts to required condition.
- 6. Repair new work damaged by subsequent work.
- 7. Remove samples of installed work for testing when requested.
- 8. Remove and replace defective and non-conforming work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- J. Sawcutting:
  - 1. Employ experienced sawcutting contractor to make all holes, or slab and pavement cutting shown in drawings for architectural, structural, mechanical and electrical work.
  - 2. Do not use water saws in occupied areas, unless otherwise approved.
  - 3. Cut openings square and plumb with sharp edges. Minimize overcutting at corners.
  - 4. Verify location of existing utilities in work area and make proper precautions to protect, disconnect and relocate, or terminate services as directed.
- K. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.
  - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.



- L. Maintain adequate Temporary Support necessary to assure structural integrity of affected Work.
- M. Protect other portions of Project Work against damage and discoloration.
- N. Protect Work exposed by cutting against damage and discoloration.
- O. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- P. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.
- Q. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

# 3.08 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

# 3.09 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Prohibit traffic from landscaped areas.
- H. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.



#### 3.10 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and owner seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

# 3.11 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.
- E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

## 3.12 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.



B. Testing, adjusting, and balancing HVAC systems: See Section 23 0593 - Testing, Adjusting, and Balancing for HVAC.

# 3.13 FINAL CLEANING

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean interior floors in accordance with flooring manufacturer instructions.
- F. Clean filters of operating equipment.
- G. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- H. Clean site; sweep paved areas, rake clean landscaped surfaces.
- I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

# 3.14 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.

# 3.15 SUBSTANTIAL COMPLETION

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
- B. Complete all required maintenance work prior to the date of substantial completion.
- C. When Contractor considers Work substantially complete, as defined in General Conditions, submit to the Architect:



- 1. Written notice that Work, or designated portion thereof, is substantially complete.
- 2. List of Items to be completed or corrected.
- 3. Copy of Final or Temporary Occupancy Permit.
- D. Architect will, as soon as possible thereafter, make an observation visit to the site to determine completion status.
- E. Should Architect determine that Work is not substantially complete:
  - 1. Architect will promptly notify Contractor in writing, giving reasons therefore.
  - 2. Contractor shall remedy Work deficiencies, and send second notice of substantial completion to Architect.
  - 3. Architect will review the corrected work.
- F. When Architect concurs that Work is substantially complete, Architect will:
  - 1. Prepare Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by Architect.
  - 2. Submit Certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.
- G. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- H. Notify Architect when work is considered finally complete.
- I. Complete items of work determined by Architect's final inspection.
- J. See: General Conditions of the Contract for Construction for additonal requirements.

# 3.16 FINAL ACCEPTANCE

- A. When Contractor considers Work complete, submit written certification that:
  - 1. Contract Documents have been reviewed.
  - 2. Contractor has inspected Work for compliance with Contract Documents.
  - 3. Work has been completed in accordance with Contract Documents.
  - 4. Equipment and Systems have been tested in presence of Owner's Representative and are operational.
  - 5. Work is complete and ready for final inspection.
- B. Architect will, as soon as possible thereafter, make an observation visit to the site to determine completion status.
- C. Should Architect consider Work incomplete or defective:



- 1. Architect will promptly notify Contractor in writing, listing incomplete or defective Work.
- 2. Contractor shall immediately remedy deficiencies, and send second written certification to Architect that Work is complete.
- 3. Architect will review the corrected Work.
- D. When Architect finds Work acceptable under Contract Documents, Architect will request Contractor to make closeout submittals.
- E. See: *General Conditions of the Contract for Construction* for additonal requirements.

# 3.17 ADDITIONAL FEES FOR DELAYS IN COMPLETING THE WORK

- A. Architect will make 2 visits to the project site, one at Substantial Completion and one at Final Completion.
- B. Should Architect be required to make more than the stated 2 final site visits due to Contractor's failure to correct specified deficiencies:
  - 1. Owner will compensate Architect for additional services.
  - 2. Owner will deduct Architect's compensation amount from Contractor's final payment as follows:
    - a. Principal's time at their contracted hourly rate.
    - b. Employees' time at their contracted hourly rate.
    - c. Consultant employees and Others at 1.1 times the direct cost incurred.
    - d. Charges will be made for necessary travel time, commercial air fare, auto expense computed at current allowable IRS mileage rate, room and board, and all other expenses incurred in making inspections.

END OF SECTION



## PART 1 GENERAL

# 1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- D. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration:
  - 1. Aluminum and plastic beverage containers.
  - 2. Corrugated cardboard.
  - 3. Wood pallets.
  - 4. Clean dimensional wood: May be used as blocking or furring.
  - 5. Land clearing debris, including brush, branches, logs, and stumps; see Section 31 1000 Site Clearing for use options.
  - 6. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
  - 7. Fluorescent lamps (light bulbs).
- E. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.
- F. Contractor shall develop and follow a Waste Management Plan designed to implement these requirements.
- G. Methods of trash/waste disposal that are not acceptable are:
  - 1. Burning on the project site.
  - 2. Burying on the project site.
  - 3. Dumping or burying on other property, public or private.
  - 4. Other illegal dumping or burying.
  - 5. Incineration, either on- or off-site.
  - 6. Use of Owner's trash receptacles.
- H. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local



requirements, pertaining to legal disposal of all construction and demolition waste materials.

# 1.02 RELATED REQUIREMENTS

- A. Section 01 3000 Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.
- B. Section 01 5000 Temporary Facilities and Controls: Additional requirements related to trash/waste collection and removal facilities and services.
- C. Section 01 6000 Product Requirements: Waste prevention requirements related to delivery, storage, and handling.
- D. Section 01 7000 Execution and Closeout Requirements: Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

# 1.03 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the project site.
- K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.



- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

# 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Submit Waste Management Plan within 10 calendar days after receipt of Notice of Award of Bid, or prior to any trash or waste removal, whichever occurs sooner; submit projection of all trash and waste that will require disposal and alternatives to landfilling.
- C. Waste Management Plan: Include the following information:
  - 1. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.
  - 2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
  - 3. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
- D. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
  - 1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
  - 2. Submit Report on a form acceptable to Owner.
  - 3. Landfill Disposal: Include the following information:
    - a. Identification of material.
    - b. Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.
    - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
    - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
  - 4. Recycled and Salvaged Materials: Include the following information for each:



- a. Identification of material, including those retrieved by installer for use on other projects.
- b. Amount, in tons or cubic yards, date removed from the project site, and receiving party.
- c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
- d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
- e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
- 5. Material Reused on Project: Include the following information for each:
  - a. Identification of material and how it was used in the project.
  - b. Amount, in tons or cubic yards.
  - c. Include weight tickets as evidence of quantity.
- 6. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

#### **PART 2 PRODUCTS - NOT USED**

# PART 3 EXECUTION

#### 3.01 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Spill Response Planning Establish spill prevention and cleanup procedures. Identify all potential spill areas and develop procedures for avoiding and responding to spills should they occur.
- C. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Architect.
- D. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- E. Meetings: Discuss trash/waste management goals and issues at project meetings.
  - 1. Pre-bid meeting.
  - 2. Pre-construction meeting.
  - 3. Regular job-site meetings.



- F. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
  1. Provide containers as required.
  - 2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
  - 3. If an enclosed area is not provided, clearly lay out and label a specific area on-site.
  - 4. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- G. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- H. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- I. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- J. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

# END OF SECTION



## PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

#### 1.02 RELATED REQUIREMENTS

- A. Section 00 6000 General Conditions of Construction Contract for additonal requirements.
- B. Section 01 3000 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

#### 1.03 SUBMITTALS

- A. Substantial Completion will not commence before the Operations and Maintenance Manuals, Warranties, and the Record Drawings are submitted in accordance with Section 01 7000.
- B. Project Record Documents: Submit documents to Consultant Prior to Substantial Completion.
- C. Operation and Maintenance Data:
  - 1. Submit one paper copy of preliminary draft or proposed formats and outlines of contents before start of Work. Consultant will review draft and return the one copy with comments.
  - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
  - 3. Submit one copy of completed documents 30 days prior to scheduled date of substantial completion.. This copy will be reviewed and returned, with Consultant comments. Revise content of all document sets as required prior to final submission.
  - 4. Submit three digital copy in PDF file format on CD or DVD discs, and three paper sets of revised final documents in final form prior to date of Substantial Completion.
  - 5. Either the draft copy or the final copy of the O&M manuals must be on the project site during any of the operator training scheduled for the project.
- D. Warranties and Bonds:



- 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
- 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
- 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.
- 4. Submit three digital copies in PDF file format on CD or DVD discs, and [three] paper sets of final documents prior to date of Substantial Completion.

# PART 2 PRODUCTS - NOT USED

# **PART 3 EXECUTION**

# 3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
- B. Maintenance of documents and samples.
  - 1. Store in Contractor's Field Office apart from Documents used for Construction.
  - 2. Provide Files, Shelving and Cabinets necessary to safely and securely store Documents and Samples.
  - 3. Maintain Documents in a clean, dry, legible, and good order.
  - 4. Do not use Record Documents for Construction Purposes.
  - 5. Make Documents available at all time for Consultant's inspection
- C. Ensure entries are complete and accurate, enabling future reference by Owner.
- D. Store record documents separate from documents used for construction.
- E. Record information concurrent with construction progress.
- F. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.



- 2. Product substitutions or alternates utilized.
- 3. Changes made by Addenda and modifications.
- G. Record Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish first floor datum.
  - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 4. Field changes of dimension and detail.
  - 5. Details not on original Contract drawings.

#### 3.02 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

#### 3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
  - 1. Product data, with catalog number, size, composition, and color and texture designations.
  - 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.



F. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

#### 3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. In addition to requirements called for in other sections of this manual, provide the following:
- B. For Each Item of Equipment and Each System:
  - 1. Description of unit or system, and component parts.
  - 2. Identify function, normal operating characteristics, and limiting conditions.
  - 3. Include performance curves, with engineering data and tests.
  - 4. Complete nomenclature and model number of replaceable parts.
- C. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- D. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- E. Include color coded wiring diagrams as installed.
- F. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- G. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- H. Provide servicing and lubrication schedule, and list of lubricants required.
- I. Include manufacturer's printed operation and maintenance instructions.
- J. Include sequence of operation by controls manufacturer.
- K. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- L. Provide control diagrams by controls manufacturer as installed.
- M. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- N. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- O. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- P. Include test and balancing reports.



#### 3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Prepare data in the form of an instructional manual.
- E. Digital O&M Manuals: In addition to binders described below, prepare manuals as PDF documents organized similar to the printed manuals. Copy to one or more properly labeled CD or DVD discs.
  - 1. Searchable PDF files are preferred when possible. Table of Contents and any divider pages in these PDF files must be searchable.
  - 2. Digital copies of O&M Manuals must be organized by section.
- F. Paper & 3 Ring Binder O&M Manuals: Binders to be BINDERTEK Heavy-Duty Round 3-Ring Archival Binder, 3" Spine of equivalent, as approved by the Owner. Minimum ring size 1". When multiple binders are used, correlate data into related consistent groupings. Do not overfill binders.
- G. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- H. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Consultant, Consultants, Contractor and subcontractors, with names of responsible parties.
- I. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- J. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- K. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- L. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- M. Arrangement of Contents: Organize each volume in parts as follows:
  - 1. Project Directory.
  - 2. Table of Contents, of all volumes, and of this volume.
  - 3. Operation and Maintenance Data: Arranged by system, then by product category.



- a. Source data.
- b. Operation and maintenance data.
- c. Field quality control data.
- d. Original warranties and bonds.

#### 3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and when required have been are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Binders to be Wilson Jones #344 Series of equivalent, as approved by the Owner. Minimum ring size 1". Do not overfill binders.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

#### 3.07 EVIDENCE OF PAYMENTS & RELEASE OF LIENS

- A. Contractor shall submit the following:
  - 1. Contractor's Affidavit of Payment of Debts and Claims, AIA Document G-706 or equivilant form.
  - 2. Contractor's Affidavit of Release of Liens, AIA Document G-706A or equivilant form, including the following:
    - a. Consent of Contractor's Surety to Final Payment, AIA Document G-707, or equivilant form.
    - b. Contractor's Release or Waiver of Liens.
    - c. Separate releases or waivers of lien for Subcontractors, Suppliers, and others with lien rights against Owner's Property, together with list of those parties.



3. Duly sign and execute all Submittals, before delivery to Consultant.

#### 3.08 CONTRACTOR'S CLOSEOUT SUBMITTALS TO CONSULTANT

- A. Wage Certification: Section 00 7343 and 01 2000.
- B. Building Official's Certificate of Mechanical & Electrical Inspections.
- C. Building Official's Certificate of Occupancy.

#### 3.09 SPARE PART & MAINTENANCE MATERIAL SUBMITTALS TO OWNER

- A. All spare parts and extra material are to be delivered to the owner prior to the date of substantial completion. Provide written confirmation of delivery, noting quantity and description as well as storage location. Obtain written acceptance from Owner for receipt of stored items.
- B. Specific Requirements: See Specifications Sections.
- C. Products: Identical to those included in Project Work.
- D. Storage Location: Where directed by Owner.
- E. Required Submittals: See Specification Sections.

#### 3.10 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit final statement of accounting to Consultant, including the following:
  - 1. Original Contract Sum.
  - 2. Additions and deductions resulting from:
    - a. Previous Change Orders.
    - b. Adjustments to Cash Allowances
    - c. Other adjustments.
    - d. Deductions for uncompleted Work.
    - e. Deductions for Reinspection Payments.
  - 3. Total Contract Sum, as adjusted.
  - 4. Previous Payments.
  - 5. Sum remaining due.
- B. Consultant will prepare and issue final Change Order, reflecting approved adjustments to Contract Sum not previously made by Change Orders.

#### 3.11 FINAL APPLICATION FOR PAYMENT

A. Follow procedures specified in Section 01 2000.



#### PART 1 GENERAL

#### 1.01 SUMMARY

- A. Demonstration of products and systems to be commissioned and where indicated in specific specification sections.
- B. Training of Owner personnel in operation and maintenance is required for:
  - 1. All software-operated systems
  - 2. HVAC systems and equipment
  - 3. Plumbing equipment
  - 4. Electrical systems and equipment
  - 5. Conveying systems
  - 6. Landscape irrigation
  - 7. Items specified in individual product Sections

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 7800 Closeout Submittals: Operation and maintenance manuals
- B. Section 01 9113 General Commissioning Requirements: Additional requirements applicable to demonstration and training
- C. Other Specification Sections: Additional requirements for demonstration and training

#### 1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures; except:
  - 1. Make all submittals specified in this section, and elsewhere where indicated for commissioning purposes, directly to the Commissioning Authority
  - 2. Submit one copy to the Commissioning Authority, not to be returned
  - 3. Make commissioning submittals on time schedule specified by Commissioning Authority
  - 4. Submittals indicated as "Draft" are intended for the use of the Commissioning Authority in preparation of overall Training Plan; submit in editable electronic format
- B. Draft Training Plans: Owner will designate personnel to be trained; tailor training to needs and skilllevel of attendees.
  - 1. Submit to Commissioning Authority for review and inclusion in overall training plan.
  - 2. Submit not less than four weeks prior to start of training.
  - 3. Revise and resubmit until acceptable.
  - 4. Provide an overall schedule showing all training sessions.
  - 5. Include at least the following for each training session:



- a. Identification, date, time, and duration.
- b. Description of products and/or systems to be covered.
- c. Name of firm and person conducting training; include qualifications.
- d. Intended audience, such as job description.
- e. Objectives of training and suggested methods of ensuring adequate training.
- f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
- g. Media to be used, such a slides, hand-outs, etc.
- h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.
- C. Training Manuals: Provide training manual for each attendee; allow for minimum of two attendees per training session.
  - 1. Include applicable portion of O&M manuals.
  - 2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
  - 3. Provide one extra copy of each training manual to be included with operation and maintenance data.
- D. Training Reports:
  - 1. Identification of each training session, date, time, and duration.
  - 2. Sign-in sheet showing names and job titles of attendees.
  - 3. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.
  - 4. Include Commissioning Authority's formal acceptance of training session.
- E. Video Recordings: Submit digital video recording of each demonstration and training session for Owner's subsequent use.
  - 1. Format: DVD Disc.
  - 2. Label each disc and container with session identification and date.

#### 1.04 QUALITY ASSURANCE

- A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
  - 1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
  - 2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.



#### PART 2 PRODUCTS - NOT USED

#### PART 3 EXECUTION

#### 3.01 DEMONSTRATION - GENERAL

- A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.
- B. Demonstrations conducted during Functional Testing need not be repeated unless Owner personnel training is specified.
- C. Demonstration may be combined with Owner personnel training if applicable.
- D. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
  - 1. Perform demonstrations not less than two weeks prior to Substantial Completion.
  - 2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- E. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
  - 1. Perform demonstrations not less than two weeks prior to Substantial Completion.

#### 3.02 TRAINING - GENERAL

- A. Commissioning Authority will prepare the Training Plan based on draft plans submitted.
- B. Conduct training on-site unless otherwise indicated.
- C. Owner will provide classroom and seating at no cost to Contractor.
- D. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Commissioning Authority.
- E. Provide training in minimum two hour segments.
- F. The Commissioning Authority is responsible for determining that the training was satisfactorily completed and will provide approval forms.
- G. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.
- H. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
  - 1. The location of the O&M manuals and procedures for use and preservation; backup copies.
  - 2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.



I.

- 3. Typical uses of the O&M manuals.
- Product- and System-Specific Training:
  - 1. Review the applicable O&M manuals.
  - 2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
  - 3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
  - 4. Provide hands-on training on all operational modes possible and preventive maintenance.
  - 5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
  - 6. Discuss common troubleshooting problems and solutions.
  - 7. Discuss any peculiarities of equipment installation or operation.
  - 8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
  - 9. Review recommended tools and spare parts inventory suggestions of manufacturers.
  - 10. Review spare parts and tools required to be furnished by Contractor.
  - 11. Review spare parts suppliers and sources and procurement procedures.
- J. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.



# **Roofing Package** Gold Beach High School and Riley Creek Elementary School

# Central Curry School District

29516 Ellensburg Ave, Gold Beach, OR 97444

# **TECHNICAL SPECIFICATIONS**

ISSUE STATUS: Issue for Permit / Bid ISSUE DATE: February 9, 2024



1331 NW Lovejoy St, #775 Portland, OR 97209

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## SECTION 00 0110

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00 0110 - Table of Contents

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# SECTION 02 4100

#### DEMOLITION

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Selective demolition of built site elements.
- B. Selective demolition of building elements for alteration purposes.
- C. Abandonment and removal of existing utilities and utility structures.
- 1.02 RELATED REQUIREMENTS
  - A. Section 00 3100 Available Project Information: Existing building survey conducted by Owner; information about known hazardous materials.
  - B. Section 01 1000 Summary: Limitations on Contractor's use of site and premises.
  - C. Section 01 5000 Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
  - D. Section 01 5713 Temporary Erosion and Sediment Control.
  - E. Section 01 6000 Product Requirements: Handling and storage of items removed for salvage and relocation.
  - F. Section 01 7000 Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
  - G. Section 01 7419 Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- 1.03 REFERENCE STANDARDS
  - A. 29 CFR 1926 Safety and Health Regulations for Construction; Current Edition.
- 1.04 SUBMITTALS
  - A. See Section 01 3000 Administrative Requirements for submittal procedures.
  - B. Site Plan: Indicate:
    - 1. Areas for temporary construction and field offices.
  - C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
    - 1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
    - 2. Demolition firm qualifications.
  - D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.
- PART 2 PRODUCTS -- NOT USED

#### PART 3 EXECUTION

- 3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS
  - A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
    - 1. Obtain required permits.
    - Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
    - 3. Provide, erect, and maintain temporary barriers and security devices.
    - 4. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.

- 5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
- 6. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
- 7. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
- 8. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Do not begin removal until built elements to be salvaged or relocated have been removed.
- D. Protect existing structures and other elements to remain in place and not removed.
  - 1. Provide bracing and shoring.
  - 2. Prevent movement or settlement of adjacent structures.
  - 3. Stop work immediately if adjacent structures appear to be in danger.
- E. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.
  - 1. Comply with requirements of Section 01 7419 Construction Waste Management and Disposal.
  - 2. Dismantle existing construction and separate materials.
  - 3. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

# 3.02 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone. Identify and mark, in same manner as other utilities to remain, utilities to be reconnected.

# 3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
  - 1. Verify construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Maintain weatherproof exterior building enclosure, except for interruptions required for replacement or modifications; prevent water and humidity damage.
- C. Remove existing work as indicated and required to accomplish new work.

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- 1. Remove items indicated on drawings.
- D. Protect existing work to remain.
  - 1. Prevent movement of structure. Provide shoring and bracing as required.
  - 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
  - 4. Patch to match new work.
- 3.04 DEBRIS AND WASTE REMOVAL
  - A. Remove materials not to be reused on site; comply with requirements of Section 01 7419 Waste Management.
  - B. Leave site in clean condition, ready for subsequent work.
  - C. Clean up spillage and wind-blown debris from public and private lands.

# SECTION 06 1000

#### ROUGH CARPENTRY

#### PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural dimension lumber framing.
- B. Nonstructural dimension lumber framing.
- C. Rough opening framing for doors, windows, and roof openings.
- D. Sheathing.
- E. Subflooring.
- F. Underlayment.
- G. Preservative treated wood materials.
- H. Fire retardant treated wood materials.
- I. Miscellaneous framing and sheathing.
- J. Communications and electrical room mounting boards.
- K. Concealed wood blocking, nailers, and supports.
- L. Miscellaneous wood nailers, furring, and grounds.

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 03 3000 Cast-in-Place Concrete: Setting anchors in concrete.
- C. Section 03 5400 Cast Underlayment.
- D. Section 05 1200 Structural Steel Framing: Prefabricated beams and columns for support of wood framing.
- E. Section 05 5000 Metal Fabrications: Miscellaneous steel connectors and support angles for wood framing.
- F. Section 06 1733 Wood I-Joists.
- G. Section 06 1736 Metal-Web Wood Joists.
- H. Section 07 2500 Weather Barriers: Water-resistive barrier over sheathing.
- I. Section 07 2500 Weather Barriers: Water-resistive barrier over sheathing.
- J. Section 07 6200 Sheet Metal Flashing and Trim: Sill flashings.
- K. Section 09 2116 Gypsum Board Assemblies: Gypsum-based sheathing.

#### 1.03 REFERENCE STANDARDS

- A. ANSI A208.1 American National Standard for Particleboard; 2022.
- B. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- C. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- D. ASTM C208 Standard Specification for Cellulosic Fiber Insulating Board; 2022.
- E. ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2023.
- F. ASTM C1177/C1177M Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2017.
- G. ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
- H. ASTM C1396/C1396M Standard Specification for Gypsum Board; 2017.
- I. ASTM D2898 Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing; 2010 (Reapproved 2017).
- J. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2021.

- K. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.
- L. AWC (WFCM) Wood Frame Construction Manual for One- and Two-Family Dwellings; 2018, with Errata (2019).
- M. AWPA U1 Use Category System: User Specification for Treated Wood; 2023.
- N. CARB (ATCM) Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products; Current Edition.
- O. PS 1 Structural Plywood; 2023.
- P. PS 2 Performance Standard for Wood Structural Panels; 2018.
- Q. PS 20 American Softwood Lumber Standard; 2021.
- R. WWPA G-5 Western Lumber Grading Rules; 2021.

# 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements for submittal procedures.
- B. Product Data: Provide technical data on wood preservative materials and data on compliance with urea formaldehyde requirements.
- C. Structural Composite Lumber: Submit manufacturer's published structural data including span tables, marked to indicate which sizes and grades are being used; if structural composite lumber is being substituted for dimension lumber or timbers, submit grading agency structural tables marked for comparison.
- 1.05 DELIVERY, STORAGE, AND HANDLING
  - A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- 1.06 WARRANTY
  - A. See Section 01 7800 Closeout Submittals for additional warranty requirements.
  - B. Correct defective work within a two-year period commencing on Date of Substantial Completion.
- PART 2 PRODUCTS

# 2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. Species: Douglas Fir-Larch, unless otherwise indicated.
  - 2. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
  - 3. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
  - 4. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.
- B. Construction panels:
  - 1. Provide only material with no added urea formaldehyde, meeting CARB-2 requirements or having a 'No added urea formaldehyde' (NAUF) exemption from CARB.

# 2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Western Wood Products Association; WWPA G-5.
- B. Sizes and Grades: as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- 2.03 STRUCTURAL COMPOSITE LUMBER
  - A. Structural Composite Lumber: Factory fabricated beams, headers, and columns, of sizes and types indicated on drawings; structural capacity as published by manufacturer.

# 2.04 CONSTRUCTION PANELS

- A. Subfloor/Underlayment Combination: PS 1 or PS 2 type, rated Single Floor.
  - 1. Bond Classification: Exposure 1.
  - 2. Span Rating: 48/24.
- B. Roof Sheathing: PS 2 type, rated Structural I Sheathing.
  - 1. Bond Classification: Exterior.
  - 2. Span Rating: 48/24.
  - 3. Performance Category: 3/4 PERF CAT.
- C. Wall Sheathing: PS 2 type.
  - 1. Bond Classification: Exterior.
  - 2. Grade: Structural I Sheathing.
  - 3. Span Rating: 24/0.
  - 4. Performance Category: 5/16 PERF CAT.
  - 5. Edge Profile: Square edge.
- D. Communications and Electrical Room Mounting Boards: PS 1 A-D plywood, or medium density fiberboard; 3/4 inch thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

#### 2.05 ACCESSORIES

- A. Fasteners and Anchors:
  - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
- B. Sill Gasket: 1/4 inch thick, plate width, closed cell plastic foam from continuous rolls. Provide \_\_\_\_\_\_ manufactured by \_\_\_\_\_\_.
- C. Subfloor Glue: Waterproof, air cure type, cartridge dispensed. Comply with VOC requirement of 70 g/L max in SCAQMD Rule 1168.
- D. Construction Adhesives: Comply with VOC requirement of 70 g/L max in SCAQMD Rule 1168.

#### 2.06 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
  - 1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
  - 2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSCaccredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
- B. Fire Retardant Treatment:
- C. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
  - 1. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
  - 2. Treat lumber in contact with roofing, flashing, or waterproofing.
  - 3. Treat lumber in contact with masonry or concrete.

# PART 3 EXECUTION

- 3.01 PREPARATION
  - A. Where wood framing bears on cementitious foundations, install full width sill flashing continuous over top of foundation, lap ends of flashing minimum of 4 inches and seal.
  - B. Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.
  - C. Coordinate installation of rough carpentry members specified in other sections.

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## 3.02 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

#### 3.03 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes, AWC (WFCM) Wood Frame Construction Manual, and
- E. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- F. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.
- G. Set sill sealer or gasket under all sole plates.
- 3.04 BLOCKING, NAILERS, AND SUPPORTS
  - A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
  - B. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
  - C. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
  - D. Provide the following specific nonstructural framing and blocking:
    - 1. Cabinets and shelf supports.
    - 2. Wall brackets.
    - 3. Handrails.
    - 4. Grab bars.
    - 5. Towel and bath accessories.
    - 6. Wall-mounted door stops.
    - 7. Chalkboards and marker boards.
    - 8. Wall paneling and trim.
    - 9. Joints of rigid wall coverings that occur between studs.

# 3.05 ROOF-RELATED CARPENTRY

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

#### 3.06 INSTALLATION OF CONSTRUCTION PANELS

- A. Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
  - 1. Nail panels to framing; staples are not permitted.
- B. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails, screws, or staples.
- C. Communications and Electrical Room Mounting Boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches on center on all edges and into studs

in field of board.

- 1. At fire-rated walls, install board over wall board indicated as part of the fire-rated assembly.
- 2. Where boards are indicated as full floor-to-ceiling height, install with long edge of board parallel to studs.
- 3. Install adjacent boards without gaps.
- 3.07 TOLERANCES
  - A. Framing Members: 1/4 inch from true position, maximum.
  - B. Surface Flatness of Floor: 1/8 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.
  - C. Variation from Plane, Other than Floors: 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

# SECTION 07 0150.61

## ROOF RE-COATING

#### PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Roof membrane coating preparation.
  - B. Application of reinforced fluid-applied roof membrane and flashings over existing fully adhered TPO membrane roof.
- 1.02 REFERENCE STANDARDS
  - A. SSPC-SP 2 Hand Tool Cleaning; 2018.
  - B. SSPC-SP 3 Power Tool Cleaning; 2018.
- 1.03 ADMINSTRATIVE REQUIREMENTS
  - A. Pre-Installation Conference: Conduct conference at Project site to review methods and procedures related to roofing system minimum one week prior to commencing work.
    - 1. Meet with Owner; roofing coating materials manufacturer's representative; roofing rehabilitation Installer including project manager and foreman; and installers whose work interfaces with or affects rehabilitation including installers of roof accessories and roof-mounted equipment requiring removal and replacement as part of the Work.
    - 2. Review temporary protection requirements for existing roofing system that is to remain uncoated, during and after installation.
    - 3. Review methods and procedures related to re-coating preparation, including coating manufacturer's written instructions.
    - 4. Review roof drainage during each stage of coating and review roof drain plugging and plug removal procedures.
    - 5. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
    - 6. Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect coating.
    - 7. Review HVAC shutdown and sealing of air intakes.
    - 8. Review procedures for asbestos removal or unexpected discovery of asbestos-containing materials.
    - 9. Review governing regulations and requirements for insurance and certificates if applicable.

10. Review existing conditions that may require notification of Owner before proceeding.

#### 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating coating materials and associated flashing.
- C. Shop Drawings: Submit drawings that indicate joint or termination detail conditions, conditions of interface with other materials.
- D. Samples: Submit two samples \_\_\_\_ by \_\_\_\_ inch in size illustrating colors available for selection.
- E. Contractor's Product Certificate: Submit notarized certificate, indicating products intended for Work of this Section, including product names and numbers and manufacturers' names, with statement indicating that products to be provided meet the requirements of the Contract Documents.
  - 1. Provide manufacturer's UL listing certificate for roofing system.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing rehabilitation system.
- G. Qualification Data: For Installer, Manufacturer, and Roofing Inspector.

- Letter written for this Project indicating manufacturer approval of Installer to apply specified 1. products and provide specified warranty.
- H. Photographs or Video Recordings: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, which might be misconstrued as having been damaged by rehabilitation operations. Submit before Work begins.
- Ι. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, and for dust control. Indicate proposed locations and construction of barriers.
- J. Inspection Reports: Reports of Roofing Inspector. Include weather conditions, description of work performed, tests performed, defective work observed, and corrective actions required and carried out.
  - 1. Submit report within 48 hours after inspection.
- K. Warranties: Unexecuted sample copies of special warranties.

# 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with at least five years documented experience.
- Installer Qualifications: An employer of workers trained and certified by manufacturer, including a Β. full-time on-site supervisor with a minimum of three years' experience installing products similar to those specified, able to communicate verbally with Contractor, Architect, and employees, and the following:
  - 1. Qualified by the manufacturer to install manufacturer's product and furnish warranty of type specified.

# 1.06 FIELD CONDITIONS

- A. Only install materials when temperature is within manufacturer's acceptable range and as otherwise indicated per installations instructions.
- B. Restrict traffic from area where coating is being applied or is curing.
- C. Protect building to be rehabilitated, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from rehabilitation operations.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Daily Protection: Coordinate installation of roofing so insulation and other components of roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.
- F. Owner will occupy portions of building immediately below re-coating area. Conduct re-coating so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.

# 1.07 WARRANTY

- A. See Section 01 7800 Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide 20-year manufacturer warranty for bond to substrate and degradation of chemical resistance. Complete forms in Owner's name and register with manufacturer.
- C. Manufacturer Inspection Services: By manufacturer's technical representative, to report maintenance responsibilities to Owner necessary for preservation of Owner's warranty rights. The cost of manufacturer's inspections is included in the Contract Sum.
  - Inspections to occur in following years: 2, 5, 10 and 15 following completion. 1.
- D. Installer Warranty: Installer's warranty signed by Installer, as follows.
  - 1. Form of Warranty: Form acceptable to Roofing Manufacturer and Owner.
  - 2. Scope of Warranty: Work of this Section.
  - 3. Warranty Period: 2 years from date of completion.

# PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Roof Re-Coatings:
  - 1. Basis of Design: The roof system specified in this Section is based upon products of Tremco, Inc., Beachwood, OH, (800) 562-2728, www.tremcoroofing.com that are named in other Part 2 articles. Provide specified products.
  - 2. Substitutions: Section 01 6000 Product Requirements.

#### 2.02 ROOF RE-COATINGS

- A. General Performance: Rehabilitated roofing shall withstand exposure to weather without failure or leaks due to defective manufacture or installation.
  - 1. Accelerated Weathering: Roofing system shall withstand 5000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Exterior Fire-Test Exposure: Roofing system exterior fire-test exposure performance following application of rehabilitation coating shall be not be less than that of the prerehabilitated roof performance when tested in accordance with ASTM E108, based upon manufacturer's tests of identical applications.

#### 2.03 MATERIALS, GENERAL

- A. General: Rehabilitation materials recommended by roofing system manufacturer for intended use and compatible with components of existing membrane roofing system.
- B. Infill Materials: Where required to replace test cores and to patch existing roofing, use infill materials matching existing membrane roofing system materials, unless otherwise indicated.
- C. Temporary Roof Drainage: Design and selection of materials for temporary roof drainage are responsibilities of the Contractor.

#### 2.04 FLUID-APPLIED ROOFING MEMBRANE COATING

- A. Polyurethane Elastomeric Fluid-Applied System: Two-coat fluid-applied roofing membrane formulated for application over prepared existing roofing substrate.
  - 1. Polyurethane Roof Coating System Base Coat: Bio-based, low-odor low-VOC two-part, for use with a compatible top coat.
    - a. Basis of design product: Tremco, AlphaGuard BIO Base Coat.
    - b. Combustion Characteristics, UL 790: Maintains combustion characteristics of existing roof system.
    - c. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 1 g/L.
    - d. Accelerated Weathering, 5000 hours, ASTM G154: Pass.
    - e. Hardness, Shore A, minimum, ASTM D2240: 80.
    - f. Solids, by volume, ASTM D2697: 100 percent.
    - g. Bio-Based Content, Minimum: 70 percent.
    - h. Minimum Thickness, Base Coat reinforced over Single-Ply: 48 mils (1.22 mm) wet.
  - 2. Polyurethane roof coating system top coat, bio-based low-odor low-VOC two-part, for application over compatible base coat.
    - a. Basis of design product: Tremco, AlphaGuard BIO Top Coat.
    - b. Combustion Characteristics, UL790: Maintains combustion characteristics of existing roof system.
    - c. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 6 g/L.
    - d. Solar Reflectance Index (SRI), ASTM E1980: For white, not less than 103.
    - e. Accelerated Weathering, 5000 hours, ASTM G 154: Pass.

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- f. Hardness, Shore A, minimum, ASTM D2240: 81.
- g. Solids, by volume, ASTM D2697: 100 percent.
- h. Bio-Based Content, Minimum: 60 percent.
- i. Minimum Thickness, reinforced system: 32 mils (0.81 mm) wet.
- j. Minimum Thickness, Slip-Resistant Coat: 24 mils (0.60 mm) wet.
- k. Color: White.
- 3. Primers:
  - a. Basis of design product: Tremco, AlphaGuard M-Prime.
  - b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 22 g/L.
  - c. Nonvolatile Content, minimum, ASTM D2369: 5 percent.
  - d. Density at 77 deg F (25 deg C): 8.3 lb/gal (1kg/L).
- 4. Primer for Intercoat and Substrate Adhesion: Single-part, quick-drying primer to promote adhesion of urethane products to previous urethane coats and to other approved surfaces.
  - a. Basis of design product: Tremco, Geogard Primer.
  - b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 100 g/L.
  - c. Coverage Rate, 400 sq. ft/ gal. (10 m2/ L): 4 mils (0.10 mm) wet.
- 5. Fluid-Applied Roofing Reinforcing Fabric:
  - a. Polyester Reinforcing and Protection Fabric: 100 percent stitch-bonded mildewresistant polyester fabric intended for reinforcement of compatible fluid-applied membranes and flashings and as a protection layer under pavers or stone aggregates.
    - 1) Basis of design product: Tremco, Permafab.
    - 2) Tensile Strength, Minimum, ASTM D1682: 50 lbf (23 kg) avg..
    - 3) Elongation, Minimum, ASTM D1682: 60 percent.
    - 4) Tear Strength, Minimum, ASTM D1117: 16 lbf (7.3 kg) avg..
    - 5) Weight: 3 oz./sq. yd (102 g/sq. m).

# 2.05 AUXILIARY ROOFING REHABILITATION MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with existing roofing system and roofing coating system.
- B. Joint Sealant: Elastomeric joint sealant compatible with applied coating, with movement capability appropriate for application.
  - 1. Joint Sealant, Polyurethane: ASTM C920, Type S, Grade NS, Class 50 single-component moisture curing sealant, formulated for compatibility and use in dynamic and static joints; paintable.
    - a. Basis of design product: Tremco, TremSEAL Pro.
    - b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 40 g/L.
    - c. Hardness, Shore A, ASTM C661: 40.
    - d. Adhesion to Concrete, ASTM C794: 35 pli.
    - e. Tensile Strength, ASTM D412: 350 psi (2410 kPa).
    - f. Color: Closest match to substrate.
- C. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

# PART 3 EXECUTION

- 3.01 EXAMINATION
  - A. Verify existing conditions before starting work.
  - B. Verify that substrate surfaces are ready to receive work as instructed by the coating manufacturer. Obtain and follow manufacturer's instructions for examination and testing of substrates.

# 3.02 PREPARATION

- A. Protect existing roofing system that is indicated not to be rehabilitated, and adjacent portions of building and building equipment.
  - 1. Mask surfaces to be protected. Seal joints subject to infiltration by coating materials.
  - 2. Limit traffic and material storage to areas of existing roofing membrane that have been protected.
  - 3. Maintain temporary protection and leave in place until replacement roofing has been completed.
- B. Shut down air intake equipment in the vicinity of the Work in coordination with the Owner. Cover air intake louvers before proceeding with coating work that could affect indoor air quality or activate smoke detectors in the ductwork.
  - 1. Verify that rooftop utilities and service piping affected by the Work have been shut off before commencing Work.
- C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
  - 1. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

# 3.03 ROOFING COATING PREPARATION

- A. Removal of Wet Insulation: Remove portions of roofing membrane with underlying wet insulation. Remove wet insulation, fill in tear-off areas to match existing insulation and membrane, and prepare patched membrane for application of roof coating as specified below.
- B. Membrane Surface Preparation:
  - 1. Remove blisters, ridges, buckles, roofing membrane fastener buttons projecting above the membrane, and other substrate irregularities from existing roofing membrane that would inhibit application of uniform, waterproof coating.
  - 2. Broom clean existing substrate.
  - 3. Substrate Cleaning: Clean substrate in accordance with requirements of Division 07 Section "Maintenance Cleaning of Membrane Roofing."
  - 4. Verify that existing substrate is dry before proceeding with application of coating. Spot check substrates with an electrical capacitance moisture-detection meter.
  - 5. Verify adhesion of new products.
- C. Existing Flashing and Detail Preparation: Repair flashings, gravel stops, copings, and other roofrelated sheet metal and trim elements. Reseal joints, replace loose or missing fasteners, and replace components where required to leave in a watertight condition.
  - 1. Roof Drains: Remove drain strainer and clamping ring. Grind metal surfaces down to clean, bare, metal.
- D. Surface Priming: Prime surfaces to receive fluid-applied coating using coating manufacturer's recommended product for surface material. Apply at application rate recommended by manufacturer.
  - 1. Ensure primer does not puddle and substrate has complete coverage.
  - 2. Allow to cure completely prior to application of coating.
- 3.04 FLUID-APPLIED FLASHING APPLICATION
  - A. Fluid-Applied Flashing and Detail Base Coat Application: Complete base coat and fabric reinforcement at parapets, curbs, penetrations, and drains prior to application of field of fluid-applied membrane. Apply base coat in accordance with manufacturer's written instructions.
    - 1. Apply base coat on prepared and primed surfaces and spread coating evenly. Extend coating minimum of 8 inches (200 mm) up vertical surfaces and 4 inches (100 mm) onto

horizontal surfaces.

- Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.
- 3. Reinforcing Fabric: Embed fabric reinforcement into wet base coat. Lap adjacent flashing pieces of fabric minimum 3 inches (75 mm) along edges and 6 inches (150 mm) at end laps.
  - a. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.
- 4. Roof Drains: Install base coat onto surrounding membrane surface and metal drain bowl flange. Install target piece of fabric reinforcement immediately into wet base coat and roll to fully embed and saturate fabric. Reinstall clamping ring and strainer following application of top coat. Replace broken drain ring clamping bolts.

# 3.05 FLUID-APPLIED MEMBRANE APPLICATION

- A. Fluid-Applied Membrane Base Coat: Apply base coat to field of membrane in accordance with manufacturer's written instructions.
  - 1. Apply base coat on prepared and primed surfaces and spread coating evenly.
  - 2. Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.
  - 3. Fabric Reinforcement: Embed fabric reinforcement into wet base coat. Lap adjacent pieces of fabric minimum 3 inches (75 mm) along edges and 6 inches (150 mm) at end laps.
- B. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.
  - 1. Allow base coat to cure prior to application of top coat.
  - 2. Following curing of base coat and prior to application of top coat, sand raised or exposed edges of fabric reinforcement.
  - 3. Prime base coat prior to application of top coat if top coat is not applied within 72 hours of the base coat application, using manufacturer's recommended primer.
  - 4. Apply top coat extending coating up vertical surfaces and out onto horizontal surfaces. Install top coat over field base coat and spread coating evenly.
  - 5. Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.
  - 6. Avoid foot traffic on new fluid-applied membrane for a minimum of 24 hours.

# 3.06 FIELD QUALITY CONTROL

- A. Roof Inspection: Contractor shall engage roofing system manufacturer's technical personnel to inspect roofing installation, and submit report. Notify Owner 48 hours in advance of dates and times of inspections. Inspect work as follows:
  - 1. Upon completion of preparation of first component of work, prior to application of re- coating materials.
  - 2. Following application of re-coating to flashings and application of base coat to field of roof.
  - 3. Upon completion of re-coating but prior to re-installation of other roofing components.
- B. Repair fluid-applied membrane where test inspections indicate that they do not comply with specified requirements.
- C. Arrange for additional inspections, at Contractor's expense, to verify compliance of replaced or additional work with specified requirements.
- 3.07 CLEANING
  - A. See Section 01 7000 Execution and Closeout Requirements for additional requirements.

- B. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.
- C. Correct deficiencies in or remove coating that does not comply with requirements, repair substrates, and reapply coating.
- D. Clean surfaces immediately of overspray, splatter, and excess material.
- E. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

# 3.08 PROTECTION

A. Protect finished work from damage and wear throughout the full construction period.

# SECTION 07 2100

#### THERMAL INSULATION

#### PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Board insulation and integral vapor retarder at perimeter foundation wall and underside of floor slabs.
  - B. Batt insulationand vapor retarder in exterior wall construction.
  - C. Batt insulation for filling crevices in exterior wall and roof.

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 06 1000 Rough Carpentry: Supporting construction for batt insulation.
- C. Section 06 1000 Rough Carpentry: Installation requirements for board insulation over steep slope roof sheathing or roof structure.
- D. Section 07 2500 Weather Barriers: Separate air barrier and vapor retarder materials.
- E. Section 07 8400 Firestopping: Insulation as part of fire-rated through-penetration assemblies.
- F. Section 09 2116 Gypsum Board Assemblies: Acoustic insulation inside walls and partitions.

#### 1.03 REFERENCE STANDARDS

- A. ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2023.
- B. ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2023.
- C. ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
- D. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.
- E. ASTM E136 Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 °C; 2022.

#### 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
- C. ABAA Field Quality Control Submittals: Submit third-party reports of testing and inspection required by ABAA QAP.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Manufacturer's Installation Instructions: Include information on special environmental conditions required for installation and installation techniques.
- F. ABAA Manufacturer Qualification: Submit documentation of current evaluation of proposed manufacturer and materials.

#### 1.05 QUALITY ASSURANCE

A. Air Barrier Association of America (ABAA) Evaluated Materials Program (EAP); www.airbarrier.org/#sle: Use evaluated materials from a single manufacturer regularly engaged in air barrier material manufacture. Use secondary materials approved in writing by primary material manufacturer.

#### 1.06 FIELD CONDITIONS

A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

# Central Curry School District Gold Beach HS & Riley Creek ES Roofing Package

# PART 2 PRODUCTS

# 2.01 APPLICATIONS

- A. Insulation Under Concrete Slabs: Extruded polystyrene (XPS) board.
- B. Insulation at Perimeter of Foundation: Extruded polystyrene (XPS) board.
- C. Insulation in Wood Framed Walls: Batt insulation with separate vapor retarder.
- 2.02 FOAM BOARD INSULATION MATERIALS
  - A. Extruded Polystyrene (XPS) Board Insulation: Comply with ASTM C578 with either natural skin or cut cell surfaces.
    - 1. Type and Compressive Resistance: Type IV, 25 psi (173 kPa), minimum.
    - 2. Flame Spread Index (FSI): Class A 0 to 25, when tested in accordance with ASTM E84.
    - 3. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
    - 4. Type and Thermal Resistance, R-value: Type IV, 5.0 (0.88), minimum, per 1 inch thickness at 75 degrees F mean temperature.
      - a. Required total R-Value as indicated on Drawings.
    - 5. Board Edges: Tongue-and-groove or shiplap.
    - 6. Products:
      - a. Kingspan Insulation LLC; GreenGuard XPS Type IV, 25 psi: www.kingspan.com/#sle.
      - b. Owens Corning Corporation; FOAMULAR Type \_\_\_\_ Extruded Polystyrene (XPS) Insulation: www.ocbuildingspec.com/#sle.
    - c. Substitutions: See Section 01 6000 Product Requirements.
- 2.03 MINERAL FIBER BLANKET INSULATION MATERIALS
  - A. Flexible Glass Fiber Blanket Thermal Insulation: Preformed insulation, complying with ASTM C665; friction fit.
    - 1. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
    - 2. Formaldehyde Content: Zero.
    - 3. Recycled material content: 50% minimum.
    - 4. Thermal Resistance: R-value of 25 at 2x8 framing..
    - 5. Facing: Unfaced.
    - 6. Products:
      - a. Knauf Insulation; EcoBatt Insulation: www.knaufinsulation.com.
      - b. Owens Corning Corporation; EcoTouch PINK FIBERGLAS Insulation: www.ocbuildingspec.com/#sle.
      - c. Substitutions: See Section 01 6000 Product Requirements.
- 2.04 ACCESSORIES
  - A. Interior Vapor Retarder: Modified polyethylene/polyacrylate (PE/PA) film reinforced with polyethylene terephthalate (PET) fibers, 12 mil, 0.012 inch thick.
    - 1. Width: 4.9 feet.
    - 2. Products:
      - a. SIGA Cover Inc; SIGA-Majrex 200: www.siga.swiss/global\_en/#sle.
      - b. Substitutions: See Section 01 6000 Product Requirements.
  - B. Tape: Reinforced polyethylene film with acrylic pressure sensitive adhesive.
    - 1. Application: Sealing of interior circular penetrations, such as pipes or cables.
    - 2. Width: Are required for application.
  - C. Spray Foam Insulation: For use at cracks Dow 'Great Stuff Pro Window and Door' or approved.
  - D. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
    - 1. Length as required for thickness of insulation material and penetration of deck substrate.

# PART 3 EXECUTION

## 3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.
- 3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER
  - A. Install boards horizontally on foundation perimeter.
    - 1. Install in running bond pattern.
    - 2. Butt edges and ends tightly to adjacent boards and to protrusions.
  - B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

#### 3.03 BOARD INSTALLATION UNDER CONCRETE SLABS

- A. Place insulation under slabs on grade after base for slab has been compacted.
- B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
- C. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.

#### 3.04 BATT INSTALLATION

- A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
- B. Install in exterior wall spaces without gaps or voids. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
- E. At wood framing, place vapor retarder on warm side of insulation by stapling at 6 inches on center. Lap and seal sheet retarder joints over face of member.
- F. Tape seal tears or cuts in vapor retarder.
- G. Extend vapor retarder tightly to full perimeter of adjacent window and door frames and other items interrupting the plane of the membrane; tape seal in place.
  - 1. Install vapor retarder in accordance with manufacturers instructions.
  - 2. Install vapor retarder with product name facing interior.
- H. Coordinate work of this section with requirements for vapor retarder, see Section 07 2600.
- 3.05 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements for additional requirements.

3.06 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

# SECTION 07 2119

#### FOAMED-IN-PLACE INSULATION

#### PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Foamed-in-place insulation.
    - 1. In underside of roof.
- 1.02 REFERENCE STANDARDS
  - A. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus; 2021.
  - B. ASTM D1621 Standard Test Method for Compressive Properties of Rigid Cellular Plastics; 2016 (Reapproved 2023).
  - C. ASTM D1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics; 2020.
  - D. ASTM D1623 Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics; 2017 (Reapproved 2023).
  - E. ASTM D2842 Standard Test Method for Water Absorption of Rigid Cellular Plastics; 2019.
  - F. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.
  - G. ASTM E96/E96M Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2022a, with Editorial Revision (2023).
  - H. ASTM E2178 Standard Test Method for Determining Air Leakage Rate and Calculation of Air Permeance of Building Materials; 2021a.
- 1.03 ADMINISTRATIVE REQUIREMENTS
  - A. Preinstallation Meeting: Convene one week prior to commencing work of this section.

# 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide product description, insulation properties, overcoat properties, and preparation requirements.
- C. Certificates: Certify that products of this section meet or exceed specified requirements.
- D. ABAA Field Quality Control Submittals: Submit third-party reports of testing and inspection as required by ABAA QAP.
- E. Manufacturer's Installation Instructions: Indicate special procedures, and perimeter conditions requiring special attention.
- F. ABAA Manufacturer Qualification: Submit documentation of current evaluation of proposed manufacturer and materials.
- G. ABAA Installer Qualification: Submit documentation of current contractor accreditation and current installer certification. Keep copies of all contractor accreditation and installer certification on site during and after installation. Present on-site documentation upon request.

# 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified, with minimum three years documented experience, and approved by manufacturer.
- C. Air Barrier Association of America (ABAA) Quality Assurance Program (QAP); www.airbarrier.org/#sle:
  - 1. Installer Qualification: Use accredited contractor, certified installers, evaluated materials, and third-party field quality control audit.

2. Manufacturer Qualification: Use evaluated materials from a single manufacturer regularly engaged in air barrier material manufacture. Use secondary materials approved in writing by primary material manufacturer.

# PART 2 PRODUCTS

# 2.01 MATERIALS

- A. Foamed-In-Place Insulation: Medium-density, rigid or semi-rigid, open or closed cell polyurethane foam; foamed on-site, using blowing agent of water or non-ozone-depleting gas.
  - 1. Regulatory Requirements: Comply with applicable code for flame and smoke, concealment, and overcoat limitations.
  - 2. Thermal Resistance: R-value of 5.0, minimum, per 1 inch thickness at 75 degrees F mean temperature when tested in accordance with ASTM C518.
  - 3. Water Vapor Permeance: Vapor retarder; 2 perms, maximum, when tested at intended thickness in accordance with ASTM E96/E96M, desiccant method.
  - 4. Water Absorption: Less than 2 percent by volume, maximum, when tested in accordance with ASTM D2842.
  - 5. Air Permeance: 0.04 cfm per square foot, maximum, when tested at intended thickness in accordance with ASTM E2178 at 1.57 psf.
  - 6. Closed Cell Content: At least 90 percent.
  - 7. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/450, maximum, when tested in accordance with ASTM E84.
  - 8. Manufacturers:
    - a. BASF Corporation; WALLTITE US: www.spf.basf.com/#sle.
    - b. Icynene-Lapolla; Icynene ProSeal: www.icynene.com/#sle.
    - c. Johns Manville; JM Corbond III Closed Cell Spray Polyurethane Foam: www.jm.com/#sle.
  - 9. Substitutions: See Section 01 6000 Product Requirements.

# 2.02 ACCESSORIES

A. Primer: As required by insulation manufacturer.

# PART 3 EXECUTION

- 3.01 EXAMINATION
  - A. Verify work within construction spaces or crevices is complete prior to insulation application.
  - B. Verify that surfaces are clean, dry, and free of matter that may inhibit insulation or overcoat adhesion.

#### 3.02 PREPARATION

- A. Mask and protect adjacent surfaces from over spray or dusting.
- B. Apply primer in accordance with manufacturer's instructions.
- 3.03 APPLICATION
  - A. Apply insulation in accordance with manufacturer's instructions.
  - B. Apply insulation by spray method, to a uniform monolithic density without voids.
  - C. Apply to achieve a thermal resistance R-value of 21.
  - D. Patch damaged areas.
  - E. Trim excess away for applied trim or remove as required for continuous sealant bead.

# 3.04 PROTECTION

- A. Do not permit subsequent construction work to disturb applied insulation.
- END OF SECTION

# SECTION 07 4113

## METAL ROOF PANELS

#### PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Architectural roofing system of preformed aluminum panels.
  - B. Vapor Barrier Underlayment Membrane.
  - C. Attachment System, Flashing, and Accessories.
- 1.02 RELATED REQUIREMENTS
  - A. Section 06 1000 Rough Carpentry: Roof sheathing.
  - B. Section 07 9200 Joint Sealants: Sealing joints between metal roof panel system and adjacent construction.

#### 1.03 REFERENCE STANDARDS

- A. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASCE 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- C. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- D. ASTM D1970/D1970M Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021.
- E. ASTM E96/E96M Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2022a, with Editorial Revision (2023).
- F. ASTM E1592 Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; 2005 (Reapproved 2017).
- G. IAS AC472 Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2018.
- H. ICC-ES AC188 Acceptance Criteria for Roof Underlayments; 2023.
- I. UL 580 Standard for Tests for Uplift Resistance of Roof Assemblies; Current Edition, Including All Revisions.

#### 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Storage and handling requirements and recommendations.
  - 2. Installation methods.
  - 3. Specimen warranty.
- C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
  1. Show work to be field-fabricated or field-assembled.
- D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each roofing system specified, submit samples of minimum size 12 inches square, representing actual roofing metal, thickness, profile, color, and texture.
  - 1. Include typical panel joint in sample.
  - 2. Include typical fastening detail.
- F. Manufacturer Qualification Statement: Provide documentation showing metal roof panel fabricator is accredited under IAS AC472.
- G. Test Reports: Indicate compliance of metal roofing system to specified requirements.

H. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

# 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- 1.06 DELIVERY, STORAGE, AND HANDLING
  - A. See Section 01 7419 Construction Waste Management and Disposal for packaging waste requirements.
  - B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

# 1.07 WARRANTY

- A. See Section 01 7800 Closeout Submittals, for additional warranty requirements.
- B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of 30 years from Date of Substantial Completion.
- C. Waterproofing Warranty: Provide Installer's warranty for weathertightness of roofing system, including agreement to repair or replace roofing that fails to keep out water within specified warranty period of two years from Date of Substantial Completion.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Architectural Standing Seam Metal Roof Panels:
  - 1. Taylor Metal Products; www.taylormetal.com.
  - 2. Substitutions: See Section 01 6000 Product Requirements.

# 2.02 PERFORMANCE REQUIREMENTS

- A. Metal Roof Panels: Provide complete roofing assemblies, including roof panels, clips, fasteners, connectors, and miscellaneous accessories, tested for compliance with the following minimum standards:
  - Structural Design Criteria: Provide panel assemblies designed to safely support design loads at support spacing indicated, with deflection not to exceed L/180 of span length(L) when tested in accordance with ASTM E1592.
  - 2. Overall: Complete weathertight system tested and approved in accordance with ASTM E1592.
  - 3. Wind Uplift: Class 90 wind uplift resistance of UL 580.
  - 4. Air Infiltration: Maximum 0.06 cfm/sq ft at air pressure differential of 6.24 lbf/sq ft, when tested according to ASTM E1680.
  - 5. Water Penetration: No water penetration when tested according to procedures and recommended test pressures of ASTM E1646. Perform test immediately following air infiltration test.
  - 6. Thermal Movement: Design system to accommodate without deformation anticipated thermal movement over ambient temperature range of 120 degrees F and material surface 180 degrees F.

# 2.03 METAL ROOF PANELS

- A. Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
- B. Metal Panels: Factory-formed panels with factory-applied finish.

- C. Architectural Standing Seam Metal Roof Panels
  - 1. Basis of Design: Taylor Metal Products; MS-150, 1 1/2" Mechanical Seam
  - 2. Panel Material: Aluminum.
    - a. Alloy and Temper: Aluminum complying with ASTM B209 (ASTM B209M); temper as required for forming.
    - b. Thickness: Minimum 20 gage (0.032 inch).
  - 3. Profile: Standing seam, mechanically seamed, with minimum 1.5 inch seam height; concealed fastener system for field seaming with special tool.
  - 4. Seam Detail: 180-degree with factory injected butyl sealant.
  - 5. Panel Type Option: Accent Ribs
  - 6. Texture: Smooth.
  - 7. Length: Full length of roof slope, without lapped horizontal joints.
  - 8. Width: Maximum panel coverage of 12 inches.
- 2.04 ATTACHMENT SYSTEM
  - A. Concealed System: Provide manufacturer's standard nylon-coated aluminum concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.
- 2.05 FINISHES
  - A. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss as selected by Architect from manufacturer's standard line.
- 2.06 ACCESSORIES
  - A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
    - 1. Downspouts: Open face, rectangular profile.
  - B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
  - C. Clips and Fasteners: As provided by Manufacturer's compete warranted system according to installation guidelines ; accomodate for proper panel/system movement and corrosion compatibility of fasteners.
  - D. Sealants:
    - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
    - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
  - E. Underlayment: Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil total thickness minimum; with strippable release film and woven polypropylene sheet top surface.
    - 1. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-self-adhesive sheet.
    - 2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
    - 3. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
    - 4. Water Vapor Permeance: 0.1 perm, maximum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
    - 5. Manufacturers:
      - a. Basis of Design: Taylor Metal Products; TMP Protect HT; www.taylormetal.com

# PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 3.02 PREPARATION

- A. Prepare and clean existing wood sheathing according to metal roofing and underlayment manufacturer's instructions.
- B. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- C. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.
- D. Protect surrounding areas and adjacent surfaces from damage during execution of this work.
- E. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

#### 3.03 INSTALLATION

- A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
  - 1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
  - 2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
- B. Accessories: Install all components required for a complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
- C. Install self-adhered underlayment sheet according to manufacturer's installation instructions prior to installing metal roof panels.
- D. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.

#### 3.04 CLEANING

A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

# 3.05 PROTECTION

- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

# SECTION 07 5400

#### THERMOPLASTIC MEMBRANE ROOFING

#### PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Adhered system with thermoplastic roofing membrane.
  - B. Insulation, flat and tapered.
  - C. Cover boards.
  - D. Roofing
  - E. Cants and Edge Strips
- 1.02 RELATED REQUIREMENTS
  - A. Section 06 1000 Rough Carpentry: Wood nailers and curbs.
  - B. Section 07 6200 Sheet Metal Flashing and Trim: Counterflashings, reglets, edge and trim flashings.
- 1.03 REFERENCE STANDARDS
  - A. ASTM C1177/C1177M Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2017.
  - B. ASTM C1278/C1278M Standard Specification for Fiber-Reinforced Gypsum Panel; 2017.
  - C. ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
  - D. ASTM C1396/C1396M Standard Specification for Gypsum Board; 2017.
  - E. ASTM D4434/D4434M Standard Specification for Poly(Vinyl Chloride) Sheet Roofing; 2021.
  - F. ASTM D7877 Standard Guide for Electronic Methods for Detecting and Locating Leaks in Waterproof Membranes; 2014.
  - G. ASTM D8231 Standard Practice for the Use of a Low Voltage Electronic Scanning System for Detecting and Locating Breaches in Roofing and Waterproofing Membranes; 2019.
  - H. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.
  - I. ASTM E1980 Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces; 2011 (Reapproved 2019).
  - J. FM (AG) FM Approval Guide; Current Edition.
  - K. FM DS 1-28 Wind Design; 2015, with Editorial Revision (2022).
  - L. NRCA (RM) The NRCA Roofing Manual; 2024.
  - M. NRCA (WM) The NRCA Waterproofing Manual; 2021.
- 1.04 ADMINISTRATIVE REQUIREMENTS
  - A. Preinstallation Meeting: Convene minimum two weeks before starting work of this section.
    - 1. Meet with Owner, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
    - 2. Review drawings & specifications.
    - 3. Review preparation and installation procedures, including manucturer's written instructions, and coordinating and scheduling required with related work.
    - 4. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
    - 5. Examine substrate conditions and finishes for compliance with requirements, including flatness and fastening.
    - 6. Review structural loading limitations of roof deck during and after roofing.

- 7. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
- 8. Review governing regulations and requirements for insurance and certificates if applicable.
- 9. Review temporary protection requirements for roofing system during and after installation.
- 10. Review roof observation and repair procedures after roofing installation.
- B. Final Inspection (Post-Installation Meeting): A meeting will be held at the completion of the project and attendance will be required of all parties that were present at the pre-roofing conference. A punch list of items required for completion will be compiled by all parties present. The Contractor shall complete, sign, and mail the punch list form to the Manufacturer's headquarters.

# 1.05 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop Drawings: Submit drawings that indicate joint or termination detail conditions, conditions of interface with other materials, and paver layout.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- F. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.
- G. Warranty Documentation:
  - 1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

# 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
  - 1. Roofing system manufacturer shall employ a factory representative to make periodic inspections during the installation of the roof system. Periodic inspection reports shall be submitted to the Owner, Architect, Project Manager and Contractor.
  - 2. The technical representative shall attend the pre-roofing conference.
  - 3. Technical representative, at a minimum, shall be present to observe general installation procedures, and final completion. Submit documentation of manufacturer's final acceptance.
  - 4.
  - 5. The technical representative shall accompany the Owner, Architect, Project Managers, and Contractor at the final inspection.
- B. Installer Qualifications: Company specializing in performing the work of this section with at least three years of documented experience.
  - 1. A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.
  - 2. Applicator shall have been in continuous business under same name business license and contractor's license for 10 years.
  - 3. Applicator shall have competed at least 3 successful installations of specified materials and systems on projects of similar scope.
  - 4. Contractor shall provide all personnel trained in application of materials and systems and shall maintain supervision as specified.
  - 5. Installer Field Supervision: The installer is to maintain a full-time supervisor / foreman on the job site during times that modified bituminous roofing systems installation is in progress,

and who has been in charge of the installation of a minimum of 5 similar roofing projects while employed with this roofing company.

- 6. The roofing foreman cannot be changed after the pre-roofing conference has been held without the written approval from the Architect and Project Managers.
- C. Project Acceptance: The Contractor shall submit a completed manufacturer's application for roof guarantee form along with shop drawings of the roofs showing all dimensions, penetrations, and details. The form shall contain all the technical information applicable to the project including deck types, roof slopes, base sheet, insulation assemblies (with method of attachment, and fastener type), and manufacturer's membrane assembly proposed for installation. The form shall also contain accurate and complete information requested including proper names, addresses, zip codes and telephone numbers. The project must receive approval, through this process, prior to shipment of materials to the project site.
- D. Source Limitations: Obtain components including roof insulation fasteners for membrane roofing system from same manufacturer as membrane roofing or approved by membrane roofing manufacturer.
- 1.07 DELIVERY, STORAGE, AND HANDLING
  - A. See Section 01 7419 Construction Waste Management and Disposal for packaging waste requirements.
  - B. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact.
  - C. Store materials at all times in weather protected environment, clear of ground, moisture, and freezing temperatures. Remove improperly stored and moisture damaged material from the premises.
  - D. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.
  - E. Protect foam insulation from direct exposure to sunlight.
  - F. Damaged Material: Any materials that are found to be damaged or stored in any manner other than stated above shall be automatically rejected and shall be removed and replaced at the Contractor's expense.
- 1.08 FIELD CONDITIONS
  - A. Do not apply roofing membrane during unsuitable weather or when precipitation is expected or occurring.
  - B. Only apply roofing membrane when ambient temperature range is within Manufa
  - C. Do not apply roofing membrane to damp or frozen deck surface .
  - D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
  - E. Adhesive applied roofing materials shall not be applied when dirt, dust, debris, oil, etc.is present on the deck.
  - F. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.
  - G. Site Condition: Complete all job site clean-up including building interior and exterior, where affected by the construction, to the Owner's satisfaction.

# 1.09 SEQUENCING AND SCHEDULING

A. Do not remove and apply more roofing materials in any one day than can be fully protected that same day. Leave project in a weathertight condition whenever ceasing work, including sealing work with proper tie-off as determined by the roofing manufacturer.

# 1.10 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

- B. Special Installer's Warranty: Submit roofing Installer's warranty, signed by Installer, covering Work of this Section.
  - 1. Include all components of roofing system such as roofing membrane, base flashing, fasteners, overlay boards, walkway products, and other components of the roofing systems.
  - 2. Warranty Period: Two (2) years from date of Final Acceptance.
- C. Special Manufacturer's Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
  - 1. Special warranty includes roofing membrane, base flashings, roofing membrane accessories, roof level rigid insulation, overlay boards, walkway products, and other components of roofing system.
  - 2. Warranty Period: 20 years from date of Substantial Completion.
  - 3. The warranty shall be written to allow for minor roofing repairs by the Owner and shall contain no disclaimer for ponded water conditions.
- D. Recommended Maintenance: In addition to the warranties, furnish to the Owner the Manufacturer's printed recommendations for proper maintenance of the specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Thermoplastic Polyvinyl Chloride (PVC/TPA) Membrane Roofing Materials:
  - 1. Tremco CPG Inc, Beachwood, OH, (800) 562-2728, www.tremcoroofing.com
  - 2. Substitutions: See Section 01 6000 Product Requirements.
- 2.02 MEMBRANE ROOFING AND ASSOCIATED MATERIALS
  - A. Membrane Roofing Materials (Unballasted):
    - 1. Basis of Design: Tremco, TPA FB Single Ply Roof Membrane
    - Thermoplastic PVC/TPA sheet, internally fabric reinforced and fleece backed, Energy Star qualified, CRRC listed, and California Title 24 Energy Code compliant, ASTM D4434 Type IV.
      - a. Thickness: 60 mil, 0.060 inch, minimum.
    - 3. Solar Reflectance Index (SRI), ASTM E1980: 108 (White, initial); 84 (White, 3-yr aged).
      - a. Calculate SRI in accordance with ASTM E1980 .
      - b. Field applied coating may not be used to achieve specified SRI.
    - 4. Color: White.
    - B. Seaming Materials: As recommended by membrane manufacturer.
    - C. Membrane Flashing / Flexible Flashing Material:
      - 1. Manufacturer's standard, smooth-backed, sheet flashing of same material, type,
      - reinforcement, thickness, and color as sheet membrane.

# 2.03 COVER BOARDS

- A. Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M.
  - 1. Thickness: 1/2 inch, fire-resistant.
  - 2. Manufacturers:
    - a. Basis of Design: Georgia-Pacific; DensDeck Prime: www.densdeck.com/#sle.
    - b. Substitutions: See Section 01 6000 Product Requirements.

# 2.04 INSULATION

- A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.
  - 1. Classifications:
    - a. Type II:

- 1) Class 1 Faced with glass fiber reinforced cellulosic felt facers on both major surfaces of core foam; CFC- and HCFC- free, with recycled content.
- 2) Compressive Strength: Grade 2: Nominal 20 psi per ASTM D1621
- 3) Thermal Resistance at 75 degrees F: 14.4 at 2.5 inches thick.
- 2. Board Size: as selected from manufacturer's standard sizes, suitable for appplication
- 3. Board Thickness: as indicated by Roof Types per drawings.
- 4. Tapered Board: Slope as indicated; minimum thickness 1" inch; fabricate of fewest layers possible.
- 5. Manufacturers:
  - a. Basis of Design: Tremco, Trisotech Insulation
  - b. Substitutions: See Section 01 6000 Product Requirements.
- 6. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated, not less than two times the roof slope.

# 2.05 ACCESSORIES

- A. Insulation Cant Strips: ASTM C208, Type II, Grade 1, cellulosic-fiber insulation board.
- B. Tapered Edge Strips: ASTM C208, Type II, Grade 1, cellulosic-fiber insulation board.
- C. Substrate Joint Tape: 6- or 8-inch- (150- or 200-mm-) wide, coated, glass fiber.
- D. Insulation Fasteners: Factory-coated steel fasteners adn metal or plastic plates, complying with corrosion-resistance provisions in FM Approvals 4470, appropriate for purpose intended and approved by roofing manufacturer.
- E. Flashing Membrane Adhesive: Bonding adhesive, contact-type solvent-based low VOC, as recommended by membrane manufacturer.
  - 1. VOC, maximum, ASTM D3960: 200 g/L, or as otherwise required per AHJ.
- F. Insulation Adhesive: As recommended by insulation manufacturer.
- G. Sealants: As recommended by membrane manufacturer.
- H. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 mm by 3 mm) thick; with anchors.
- I. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- J. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

# PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, drain bodies are securely clamped in place, and cant strips are in place.
- F. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- 3.02 PREPARATION WOOD DECK
  - A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
  - B. Verify that deck is sound and dry and securely fastened with no projecting fasteners and with no adjacent units in excess of 1/16 inch (1.6 mm) out of plane relative to adjoining deck.

- C. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- 3.03 INSTALLATION GENERAL
  - A. Perform work in accordance with manufacturer's instructions, NRCA (RM), and NRCA (WM) applicable requirements.
  - B. Install wood blocking, curbs, and nailers in accordance with requirements of Section 06 1000 Rough Carpentry.
  - C. All membrane installation is to comply with the Construction Documents or the Manufacturer's 30-year detailing, whichever is most stringent.
  - D. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
  - E. Do not apply roofing membrane during cold or wet weather conditions.
  - F. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
  - G. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

# 3.04 INSTALLATION - INSULATION

b.

- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Tapered Insulation and Crickets: Install tapered insulation under area of roofing to conform to slopes indicated.
  - 1. Where crickets are indicated or required to provide positive slope to drain, make slope of crickets minimum of two times the roof slope.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches (70 mm) or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
  - 1. Flat Insulation System on Sloped Roof Deck: Install insulation at minimum thickness as follows:
    - a. Minimum total thickness of Continuous Insulation: 5.2 inches.
      - 1) Minimum thickness of base layer: 2.6 inches.
      - 2) Minimum thickness of each subsequent layer: 2.6 inches.
      - Minimum Continuous Insulation R-value: Not less than 30.
- E. Insulation Drain Sumps: Tapered insulation sumps, not less than 2 by 2 ft. (600 by 600 mm), sloped to roof drain; sump to maximum depth of not more than 1 inch (25 mm) less than the Project-stipulated continuous insulation thickness based upon code requirements.
- F. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- G. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
  - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- H. Mechanically Fastened Insulation: Install each layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.

- 1. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.
- I. Cover Boards: Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction. Loosely butt cover boards together.
  - 1. Adhere cover boards by setting in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining cover board in place.

# 3.05 INSTALLATION - MEMBRANE

- A. Fully Adhered Application.
- B. Adhere membrane roofing over area to receive roofing and install according to membrane roofing system manufacturer's written instructions.
- C. Start installation of membrane roofing in presence of membrane roofing system manufacturer's technical personnel.
- D. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- E. Water-Based Bonding Adhesive: Apply to substrate at rate required by manufacturer. Install membrane immediately into adhesive, avoiding any air entrapment; do not allow adhesive to dry. Roll membrane into wet adhesive. Do not apply adhesive to splice area of membrane.
- F. Apply membrane roofing with side laps shingled with slope of roof deck where possible.
- G. Welded Seams: Clean seam areas, overlap membrane roofing, and hot-air weld side and end laps of membrane roofing and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet membrane.
  - 2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
  - 3. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
- H. Spread sealant bed over deck drain flange at roof drains and securely seal membrane roofing in place with clamping ring.

# 3.06 INSTALLATION - BASE FLASHING

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Seal top termination of base flashing with a metal termination bar and a continuous bead of joint sealant.

# 3.07 PIPE AND CONDUIT SUPPORTS

A. Conduit Supports: Install conduit supports in conjunction with any conduit running over the surface of the roof membrane in accordance with the support manufacturer's written instructions.

# 3.08 FIELD QUALITY CONTROL

- A. See Section 01 4000 Quality Requirements for additional requirements.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- C. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, shall be performed to determine if replaced or additional work complies with specified requirements.

# 3.09 PROTECTION AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to the Port.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION

# SECTION 07 6200

# SHEET METAL FLASHING AND TRIM

# PART 1 GENERAL

- 1.01 SECTION INCLUDES
  - A. Fabricated sheet metal items, including flashings, counterflashings, gutters, and downspouts.
  - B. Sealants for joints within sheet metal fabrications.
- 1.02 RELATED REQUIREMENTS
  - A. Section 06 1000 Rough Carpentry: Wood nailers for sheet metal work.
  - B. Section 07 9200 Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.
  - C. Division 23 Heating, Ventilating, and Air-Conditioning (HVAC): Flashing sleeves and collars for mechanical items protruding through roofing membrane.
  - D. Division 26 Electrical: Flashing sleeves and collars for electrical items protruding through roofing membrane.

# 1.03 REFERENCE STANDARDS

- A. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- C. ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2023.
- D. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2018.
- E. SMACNA (ASMM) Architectural Sheet Metal Manual; 2012.
- 1.04 SUBMITTALS
  - A. See Section 01 3000 Administrative Requirements, for submittal procedures.
  - B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
  - C. Samples: Submit two samples 3 by 3 inch in size illustrating metal finish color.

# 1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.
- 1.06 DELIVERY, STORAGE, AND HANDLING
  - A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
  - B. Prevent contact with materials that could cause discoloration or staining.

# PART 2 PRODUCTS

# 2.01 SHEET MATERIALS

- A. General: All materials and finishes are to be marine-grade.
- B. Pre-Finished Aluminum: ASTM B209/B209M; 20 gauge, 0.032 inch thick; plain finish shop precoated with silicone modified polyester coating.
  - 1. Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; pretreated metal with two-coat system including primer and color coat with at least 70 percent PVDF coating.
  - 2. Color: As selected by Architect from manufacturer's standard colors.

C. Stainless Steel: ASTM A666, Type 316 alloy, soft temper, 28 gage, (0.0156 inch) thick; smooth No. 4 - Brushed finish.

# 2.02 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- G. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges. 2.03 GUTTER AND DOWNSPOUT FABRICATION
- 2.03 GUTTER AND DOWNSPOUT FADRICATION A Gutters: SMACNA (ASMM) E-Style or L-Style Where on
  - A. Gutters: SMACNA (ASMM) F-Style or I-Style. Where only partial lengths or segments are being replaced, match existing style.
  - B. Downspouts: Rectangular profile.
  - C. Gutters & Downspouts Size: Match existing.
  - D. Accessories: Profiled to suit gutters and downspouts.
    - 1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
    - 2. Gutter Supports: Brackets, Heavy-duty.
    - 3. Downspout Supports: Straps.
  - E. Downspout Boots: Cast iron.
  - F. Downspout Extenders: Same material and finish as downspouts.
  - G. Seal metal joints.
- 2.04 EXTERIOR PENETRATION FLASHING PANELS
  - A. Flashing Panels for Exterior Wall Penetrations: Premanufactured components and accessories as required to preserve integrity of building envelope; suitable for conduits and facade materials to be installed.

# 2.05 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.
- B. Primer: Zinc chromate type.
- C. Protective Backing Paint: Zinc molybdate alkyd.
- D. Concealed Sealants: Non-curing butyl sealant.
- E. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- F. Plastic Cement: ASTM D4586/D4586M, Type I.
- G. Reglets: Surface mounted type, galvanized steel; face and ends covered with plastic tape.
  - 1. Verify & coordinate corrosion compatibility with any flashings / fasteners having direct contact.

# PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

# 3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels, and seal top of reglets with sealant.
- C. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

# 3.03 INSTALLATION

- A. Comply with drawing details.
- B. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..
- C. Apply plastic cement compound between metal flashings and felt flashings.
- D. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- E. Seal metal joints watertight.
- F. Connect downspouts to downspout boots, and grout connection watertight.

# 3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 Quality Requirements, for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION

# SECTION 07 9200

# JOINT SEALANTS

## PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.
- 1.02 RELATED REQUIREMENTS
  - A. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.
  - B. Section 07 2500 Weather Barriers: Sealants required in conjunction with air barriers and vapor retarders.
  - C. Section 07 8400 Firestopping: Firestopping sealants.
  - D. Section 08 8000 Glazing: Glazing sealants and accessories.
- 1.03 REFERENCE STANDARDS
  - A. ASTM C834 Standard Specification for Latex Sealants; 2017 (Reapproved 2023).
  - B. ASTM C919 Standard Practice for Use of Sealants in Acoustical Applications; 2022.
  - C. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2018.
  - D. ASTM C1193 Standard Guide for Use of Joint Sealants; 2016 (Reapproved 2023).
  - E. ASTM C1248 Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2022.
  - F. ASTM C1311 Standard Specification for Solvent Release Sealants; 2022.
  - G. ASTM D2240 Standard Test Method for Rubber Property--Durometer Hardness; 2015 (Reapproved 2021).
  - H. SCAQMD 1168 Adhesive and Sealant Applications; 1989, with Amendment (2022).

# 1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 4. Substrates the product should not be used on.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

# 1.05 WARRANTY

- A. See Section 01 7800 Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

# PART 2 PRODUCTS

- 2.01 JOINT SEALANT APPLICATIONS
  - A. Scope:

- 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
  - a. Wall expansion and control joints.
  - b. Joints between door, window, and other frames and adjacent construction.
  - c. Joints between different exposed materials.
  - d. Other joints indicated below.
- 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
  - a. Joints between door, window, and other frames and adjacent construction.
  - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
  - c. Other joints indicated below.
- 3. Do not seal the following types of joints.
  - a. Intentional weepholes in masonry.
    - b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
    - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
    - d. Joints where installation of sealant is specified in another section.
    - e. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
  - 1. Lap Joints in Sheet Metal Fabrications: Butyl rubber, non-curing.
  - 2. Lap Joints between Manufactured Metal Panels: Butyl rubber, non-curing.
  - 3. Control and Expansion Joints in Concrete Paving: Self-leveling polyurethane "traffic-grade" sealant.
- C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
  - 1. Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant.
  - 2. Wall and Ceiling Joints in Wet Areas: Non-sag polyurethane sealant for continuous liquid immersion.
  - 3. Floor Joints in Wet Areas: Non-sag polyurethane "non-traffic-grade" sealant suitable for continuous liquid immersion.
  - 4. In Sound-Rated Assemblies: Acrylic emulsion latex sealant.
  - 5. Narrow Control Joints in Interior Concrete Slabs: Self-leveling epoxy sealant.
  - 6. Other Floor Joints: Self-leveling polyurethane "traffic-grade" sealant.
- D. Interior Wet Areas: Bathrooms, restrooms, kitchens, food service areas, and food processing areas; fixtures in wet areas include plumbing fixtures, food service equipment, countertops, cabinets, and other similar items.
- E. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-rated", or "acoustical".
- 2.02 JOINT SEALANTS GENERAL
  - A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.
- 2.03 NONSAG JOINT SEALANTS
  - A. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
    - 1. Color: White.
    - 2. Manufacturers:

23042

- a. Pecora Corporation; Pecora 898 NST (Non-Staining Technology): www.pecora.com/#sle.
- b. Sika Corporation; Sikasil GP: www.usa-sika.com/#sle.
- B. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
  - 1. Movement Capability: Plus and minus 35 percent, minimum.
  - 2. Color: Match adjacent finished surfaces.
  - 3. Manufacturers:
    - a. Pecora Corporation; DynaTrol II: www.pecora.com/#sle.
    - b. Sika Corporation; Sikaflex-2c NS: www.usa-sika.com/#sle.
    - c. Substitutions: See Section 01 6000 Product Requirements.
- C. Polyurethane Sealant for Continuous Water Immersion: ASTM C920, Grade NS, Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion; suitable for traffic exposure when recessed below traffic surface.
  - 1. Movement Capability: Plus and minus 35 percent, minimum.
  - 2. Color: Match adjacent finished surfaces.
  - 3. Manufacturers:
    - a. Sika Corporation; Sikaflex-2c NS: www.usa-sika.com/#sle.
    - b. Substitutions: See Section 01 6000 Product Requirements.
- D. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, nonbleeding, non-sagging; not intended for exterior use.
  - 1. Color: Standard colors matching finished surfaces, Type OP (opaque).
  - 2. Grade: ASTM C834; Grade NF.
  - 3. Manufacturers:
    - a. Pecora Corporation; AC-20 +Silicone: www.pecora.com/#sle.
    - b. Substitutions: See Section 01 6000 Product Requirements.
- E. Non-Curing Butyl Sealant: Solvent-based, single component, non-sag, non-skinning, nonhardening, non-bleeding; non-vapor-permeable; intended for fully concealed applications.
  - 1. Manufacturers:
    - a. Pecora Corporation; Pecora BA-98 Non-Skinning Butyl Sealant: www.pecora.com/#sle.
    - b. Substitutions: See Section 01 6000 Product Requirements.

# 2.04 SELF-LEVELING SEALANTS

- A. Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multicomponent; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
  - 1. Movement Capability: Plus and minus 25 percent, minimum.
- B. Self-Leveling Polyurethane Sealant for Continuous Water Immersion: Polyurethane; ASTM C920, Grade P, Uses M and A; single or multi-component; explicitly approved by manufacturer for traffic exposure and continuous water immersion.
  - 1. Movement Capability: Plus and minus 25 percent, minimum.
  - 2. Color: To be selected by Architect from manufacturer's standard range.
  - 3. Manufacturers:
    - a. Sika Corporation; Sikaflex-2c SL: www.usa-sika.com/#sle.
    - b. Substitutions: See Section 01 6000 Product Requirements.
- C. Semi-Rigid Self-Leveling Epoxy Joint Filler: Epoxy or epoxy/polyurethane copolymer; intended for filling cracks and control joints not subject to significant movement; rigid enough to support concrete edges under traffic.
  - 1. Composition: Multi-component, 100 percent solids by weight.

- 2. Durometer Hardness: Minimum of 85 for Type A or 35 for Type D, after seven days when tested in accordance with ASTM D2240.
- 3. Color: To be selected by Architect from manufacturer's standard colors.
- 4. Joint Width, Minimum: 1/8 inch.
- 5. Joint Depth: Provide product suitable for joints from 1/8 inch to 2 inches in depth including space for backer rod.

# 2.05 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
  - 1. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

# PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.
- D. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
  - 1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
  - 2. Notify Architect of date and time that tests will be performed, at least seven days in advance.
  - 3. Record each test on Preinstallation Adhesion Test Log as indicated.
  - 4. If any sample fails, review products and installation procedures, consult manufacturer, or take whatever other measures are necessary to ensure adhesion; re-test in a different location; if unable to obtain satisfactory adhesion, report to Architect.
  - 5. After completion of tests, remove remaining sample material and prepare joint for new sealant installation.

# 3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.
- E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

# 3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Perform acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- E. Install bond breaker backing tape where backer rod cannot be used.

- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- H. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- I. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.
- 3.04 FIELD QUALITY CONTROL
  - A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.
  - B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

END OF SECTION

# SECTION 09 9113

# EXTERIOR PAINTING

## PART 1 GENERAL

2.

## 1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Mechanical and Electrical:
    - a. On the roof and outdoors, paint equipment that is exposed to weather or to view, including factory-finished materials.
    - Exposed concrete to receive high visibility marking paint.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factoryapplied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Stainless steel, anodized aluminum, bronze, terne coated stainless steel, zinc, and lead.
  - 6. Floors, unless specifically indicated.
  - 7. Glass.
  - 8. Concrete masonry units in utility, mechanical, and electrical spaces.
  - 9. Concealed pipes, ducts, and conduits.

# 1.02 RELATED REQUIREMENTS

- A. Section 01 6116 Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 09 9123 Interior Painting.
- C. Section 09 9300 Staining and Transparent Finishing. Wood substrates.

# 1.03 DEFINITIONS

- A. Comply with ASTM D16 for interpretation of terms used in this section.
- B. Specular Gloss: Ranges determined per Master Painters Institute (MPI). Sheen is specified to establish required gloss range.

	Sheen	Geome	try/Deg.		Gloss Range	MPI Gloss Level
1.	Flat		60	Below 51	-	
2.	Flat, light sheen	60	Max 10	2		
3.	Eggshell	60	10 to 25	; 3	3	
4.	Satin	60	20 to 35	i 4	1	
5.	Semi-Gloss	60	35 to 70	) 5	5	
6.	Gloss	60	70 to 85	6 6	3	
<b>—</b>	L /					<b>6</b>

C. Finish (i.e. gloss level) of all painted surfaces shall be as specified herein or as noted on Finish Schedule.

# 1.04 REFERENCE STANDARDS

- A. ASTM D16 Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2023.
- B. MPI (APL) Master Painters Institute Approved Products List; Master Painters and Decorators Association; Current Edition.

- C. MPI (APSM) Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- D. SSPC-SP 2 Hand Tool Cleaning; 2018.

# 1.05 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
  - 2. MPI product number (e.g. MPI #47).
  - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
  - 2. Where sheen is not specified, discuss sheen options with Architect before preparing samples, to eliminate sheens definitely not required.
  - 3. Allow a minimum of 10 business days for approval process, after receipt of complete samples by Architect.
- D. Maintenance Data: Submit data including product technical data sheets, care and cleaning instructions, touch-up procedures, and repair of painted and finished surfaces.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 Product Requirements, for additional provisions.
  - 2. Extra Paint and Finish Materials: Two gallons of each color; from the same product run, store where directed.
  - 3. CLEARLY label each container with color in addition to the manufacturer's label.

# 1.06 QUALITY ASSURANCE

A. Coats: Number of coats specified is minimum number acceptable, if full coverage is not obtained with specified number of coats, apply such additional coats necessary to produce required finish.

# 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.
- 1.08 FIELD CONDITIONS
  - A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
  - B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
  - C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
  - D. Minimum Application Temperatures for Latex Paints: 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
  - E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

# PART 2 PRODUCTS

- 2.01 MANUFACTURERS
  - A. Paints:

- 1. Sherwin-Williams Company: www.sherwin-williams.com/#sle.
- B. Primer Sealers: Same manufacturer as top coats.
- C. Substitutions: See Section 01 6000 Product Requirements.
- 2.02 PAINTS AND FINISHES GENERAL
  - A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
    - 1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at www.paintinfo.com, for specified MPI categories, except as otherwise indicated.
    - 2. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
    - 3. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
    - 4. Supply each paint material in quantity required to complete entire project's work from a single production run.
    - 5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
  - B. Volatile Organic Compound (VOC) Content: Comply with Section 01 6116.
  - C. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- 2.03 PAINT SYSTEMS EXTERIOR
  - A. Paint E-OP Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including concrete and primed metal.
    - 1. Two top coats and one coat primer.
    - 2. Top Coat(s): Exterior Alkyd Enamel; MPI #94 or 96.
    - 3. Top Coat Sheen:
      - a. Semi-Gloss: MPI gloss level 5; use this sheen at all locations.
    - 4. Primer: As specified under "PRIMERS" below.
  - B. Paint E-OP-HVHigh Visibility Marking Paint: Including concrete.
    - 1. Two top coats and one coat primer.
    - 2. Top Coat(s): Exterior Light Industrial Coating, Water Based; MPI #163.
      - a. Color: Safety yellow.
    - 3. Top Coat Sheen:
      - a. Semi-Gloss: MPI gloss level 5.
    - 4. Primer: As recommended by top coat manufacturer for specific substrate.
- 2.04 PRIMERS
  - A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats and compliant with VOC requirements.
    - 1. Anti-Corrosive Alkyd Primer for Metal; MPI #79.
    - 2. Water Based Primer for Galvanized Metal; MPI #134.

# 2.05 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.
- PART 3 EXECUTION

# 3.01 EXAMINATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  - 1. Masonry, Concrete, and Concrete Masonry Units: 12 percent.

# 3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Concrete:
  - 1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
  - 2. Clean surfaces with pressurized water. Use pressure range of 1,500 to 4,000 psi at 6 to 12 inches. Allow to dry.
- G. Galvanized Surfaces:
  - 1. Prepare surface according to SSPC-SP 2.
- H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

# 3.03 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- E. Apply each coat to uniform appearance.
- F. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.
- G. Sand metal surfaces lightly between coats to achieve required finish.
- H. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- I. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

# 3.04 CLEANING

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

# 3.05 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.
- END OF SECTION

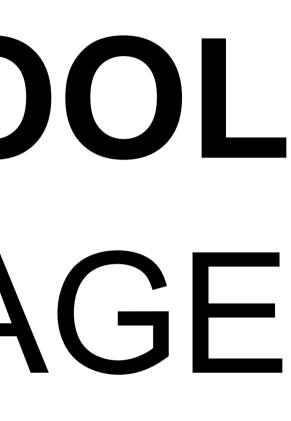
# **GOLD BEACH JUNIOR/SENIOR HIGH SCHOOL** ROOFING PACKAGE

29516 Ellensburg Ave, Gold Beach, Oregon 97444

**ISSUE FOR PERMIT/BID 2/9/2024** 

Soderstrom



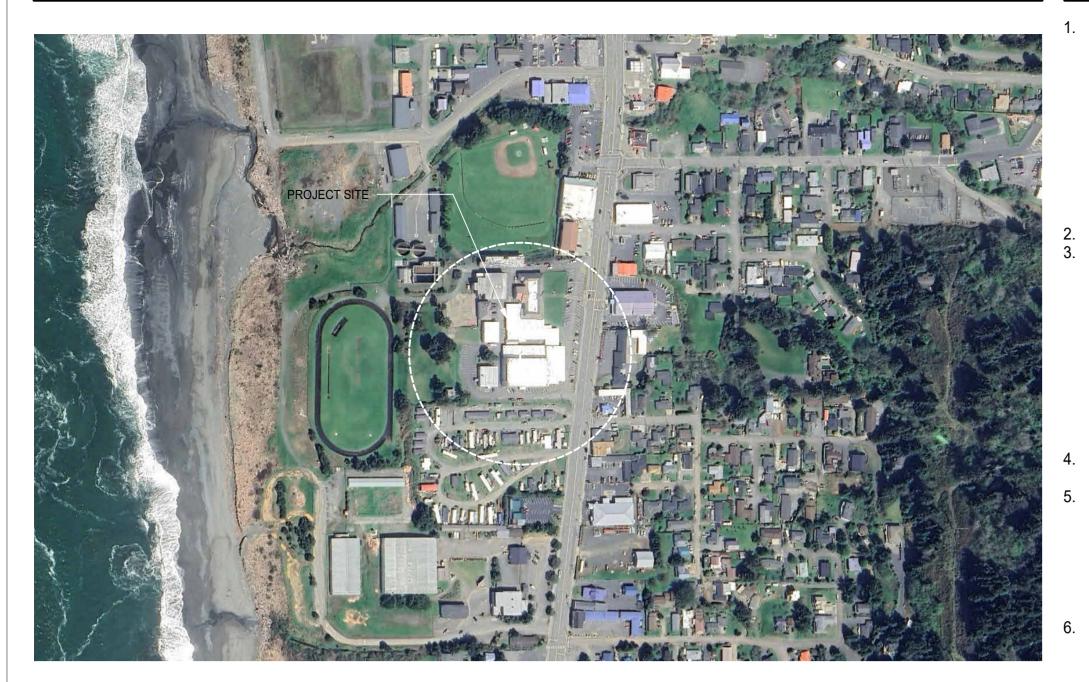








# VICINITY MAP:



# **GOLD BEACH JUNIOR/SENIOR HIGH SCHOOL**

# PROJECT ADDRESS:

29516 Ellensburg Ave, Gold Beach, Oregon 97444

# **PROJECT SUMMARY:**

REQUIRED MAINTENANCE OF SELECT EXISTING ROOF AREAS; ROOF REPLACEMENT OR RESTORATION, INCLUDING GUTTERS & DOWNSPOUT REPLACEMENT.

# **BUILDING TYPE: VB** OCCUPANCY: E NON-SPRINKLERED

APPLICABLE CODES: 2022 OSSC (ADOPTED W/ AMENDMENTS UNDER IBC 2021) 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE [CLIMATE ZONE 4C] (ASHRAE STANDARD 90.1-2019)

# **PROJECT TEAM**

OWNER **CENTRAL CURRY SCHOOL DISTRICT** www.ccsd.k12.or.us 29516 Ellensburg Avenue Gold Beach, OR 97444 (541) 247-2003 **Eric Milburn**, Superintendent

ARCHITECT SODERSTROM ARCHITECTS, LTD. www.sdra.com 1331 NW Lovejoy St, Suite 775 Portland, OR 97209 (503) 228-5617 Fax. (503) 273-8584 Marlene Gillis, President

PROJECT MANAGER HMK COMPANY www.hmkco.org 46 N Front St, Suite 201 Medford, OR 97501 (541) 499-7996 Mike Freeman, Regional Director, Southern Oregon

2024 5:58: DATE 2/9/20 PRINTED: FILE PATH:C:\Users\fe copyright © 2018

# **PROJECT NOTES**

THE CONSTRUCTION CONTRACT IS FOR THE CONSTRUCTION OF A COMPLETE AND FULLY FUNCTIONING INSTALLATION. THESE DOCUMENTS DESCRIBE THE DESIGN INTENT AND SPECIFIC REQUIREMENTS OF THE INSTALLATION. THESE DOCUMENTS DO NOT INTEND TO SHOW EVERY ITEM REQUIRED TO CONSTRUCT THE WORK ITEMS SUCH AS FASTENERS, CONNECTORS, FILLERS, MISCELLANEOUS CLOSURE ELEMENTS, ANCILLARY CONTROL WIRING AND POWER WHERE REQUIRED FOR THE CONTROL OR OPERATION OF THE PROVIDED EQUIPMENT ARE NOT ALWAYS SHOWN BUT ARE CONSIDERED INCLUDED IN THE SCOPE OF THE WORK. IT IS THI RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A FULLY FUNCTIONING INSTALLATION WHICH MEETS THE DESIGN INTENT. INCLUDING THE SPECIFIC REQUIREMENTS INCLUDED IN THESE DOCUMENTS

ALL ITEMS IN THESE DOCUMENTS ARE NEW UNLESS OTHERWISE NOTED THESE DOCUMENTS DESCRIBE A SINGLE CONSTRUCTION CONTRACT. THE USE OF SUBCONTRACTORS IS THE ELECTION OF THE CONTRACTOR. THESE DOCUMENTS DO NOT INTEND TO DIVIDE THE WORK AMONG THE CONTRACTOR'S SUBCONTRACTORS WHERE THE DOCUMENTS IDENTIFY WORK WHICH IS "NOT IN MECHANICAL WORK" O "NOT IN ELECTRICAL WORK" IT MEANS THAT WORK IS NOT FURTHER DESCRIBED OF SPECIFIED IN THE MECHANICAL OR ELECTRICAL DRAWINGS OR SPECIFICATIONS. DOES NOT PRECLUDE THE CONTRACTOR FROM DELEGATING THE WORK TO THE ENTITIES OF HIS ELECTION. IN ADDITION THE DIVISION OF THE CONTRACT DOCUMENTS INTO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER DESIGN DISCIPLINES NEITHER DIVIDES THE WORK FOR THOSE DISCIPLINES AS SHOWN ONLY IN THOSE DRAWINGS OR SPECIFICATIONS ITEMS INDICATED IN THIS SET NOTED "BY OWNER" ARE NOT IN THE CONTRACT (N.I.C.)

UNLESS OTHERWISE NOTED. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS TO REVIEW ALL DRAWINGS, PROJECT MANUAL, ADDENDA, ETC. IN ORDER TO ASSURE THE COORDINATION OF ALL WORK AFFECTING EACH TRADE. FAILURE TO REVIEW AND COORDINATE ALL CONTRACT DOCUMENTS BY THE GENERAL CONTRACTOR WITH ALL THE SUBCONTRACTORS FOR APPLICABLE ITEMS OF THE WORK SHALL NOT RELIVE THE RESPONSIBLE PARTY FROM PERFORMING ALL WORK SO REQUIRED AS PART OF THE CONTRACT UNLESS OTHERWISE NOTED, THE PROJECT MANUAL, WHICH INCLUDES THE GENERAL CONDITIONS, SUPPLEMENTAL CONDITIONS, AND TECHNICAL SPECIFICATIONS, AND THE DRAWINGS ARE COMPLEMENTARY AND TOGETHER DESCRIBE THE PROJECT REQUIREMENTS. WHERE THERE ARE DISCREPANCIES BETWEEN THE PROJECT MANUAL AND THE DRAWINGS, THE CONTRACTOR SHALL ADVISE THE ARCHITECT AND REQUEST A CLARIFICATION. THE ORDER OF PRECEDENCE BETWEEN THE DRAWINGS AND THE PROJECT MANUAL IS AS DEFINED IN THE PROJECT MANUAL

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL LAYOUT AND SEQUENCE THE INSTALLATION OF THE WORK SO THAT THE DIFFERENT SYSTEMS DO NOT OBSTRUCT THE INSTALLATION OF SUCCESSIVE WORK. IN GENERAL, SYSTEMS INSTALLED FIRST SHOULD BE KEPT AS HIGH AND TIGHT TO STRUCTURE AS POSSIBLE TO LEAVE SPACE AVAILABLE FOR SYSTEMS WHICH FOLLOW

REFER TO THE PROJECT MANUAL FOR SPECIFICATIONS, GENERAL INFORMATION, PRODUCTS AND EXECUTION REQUIREMENTS. REQUIREMENTS OF THE SPECIFICATIONS APPLY TO ALL ASPECTS OF THE WORK AND ARE INCLUDED AS ADDITIONAL INFORMATION FOR EACH ITEM SPECIFIED. IF DISCREPANCIES EXISTS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL. THE GENERAL CONTRACTOR SHALL NOTIFY THE

OWNER'S REPRESENTATIVES OF ANY DISCREPANCIES 9. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS WILL VISIT THE SITE PRIOR TO BIDDING IN ORDER TO FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE IMPACT OF THE PROPOSED NEW WORK, INDICATED ON THE DRAWINGS AND SPECIFICATIONS, ON THESE CONDITIONS. ANY QUESTIONS REGARDING THE COORDINATION OF NEW WORK OR EXISTING CONDITIONS MUST BE SUBMITTED TO THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO BID SUBMISSION AND WITH ADEQUATE TIME FOR RESPONSE TO ALL BIDDERS. THE OWNER'S REPRESENTATIVE WILL RESPOND TO QUESTIONS, SUBMITTED IN A TIMELY MANNER, WITH WRITTEN CLARIFICATIONS FORWARDED TO ALL BIDDERS. 10. THE EXISTING DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS ARE ASSUMED TO BE ACCURATE BASED ON AVAILABLE INFORMATION. THE CONTRACTOR SHALL, PRIOR TO THE START OF CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS, PROVIDE A COMPLETE FIELD LAYOUT ON THE JOB SITE, AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEVIATIONS OR CONFLICTS WITH THESE DRAWINGS. 11. THE DRAWINGS SHALL NOT BE SCALED. THE GENERAL CONTRACTOR SHALL REFER TO THE DIMENSIONS INDICATED OR THE ACTUAL SIZES OF CONSTRUCTION ITEMS. WHERE NO DIMENSIONS OR METHOD OF DETERMINING A LOCATION IS GIVEN, VERIFY CORRECT DIMENSIONS OR LOCATION WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

12. THE DRAWINGS AND REFERENCED DETAILS HAVE BEEN DIMENSIONED IN ORDER TO ESTABLISH THE CONTROL AND GUIDELINES FOR FIELD LAYOUT. WHERE A DISCREPANCY EXISTS BETWEEN THE DRAWING AND THE DETAIL THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR CLARIFICATION PRIOR TO INSTALLATION.

13. DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED. 14. WHERE DIMENSIONS ARE NOTED TO BE VERIFIED IN THE FIELD (VIF) THE DIMENSION SHOWN IS THE DESIGN BASIS, BUT MAY DIFFER FROM ACTUAL CONDITIONS. CONTRACTOR SHALL VERIFY THESE DIMENSIONS WHILE LAYING OUT THE WORK AND REPORT ANY DISCREPANCIES BETWEEN THE DESIGN BASIS AND ACTUAL DIMENSIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK. WHERE DIMENSIONS ARE NOTED "+/-" FIELD DIMENSIONS MAY VARY FROM THE NOTED DIMENSIONS BY MINOR AMOUNTS. IF THE CONTRACTOR IDENTIFIES DIMENSIONS IN THE FIELD THAT DIFFER BY MORE THAN 1" FROM THE +/- DIMENSIONS INDICTED IN THE DRAWINGS. THE CONTRACTOR SHOULD CONFIRM DIFFERENTIAL WITH ARCHITECTS.

15. ABBREVIATIONS ON THIS SHEET APPLY TO THE ENTIRE SET UNLESS OTHERWISE NOTED.

16. WALL FIRE RATING INDICATIONS ON THE FLOOR PLANS SHOW EXTENT OF FIRE RATED PARTITION. FIRE RATING IN A PARTITION SHALL CONTINUE OVER DOOR OR WINDOW OPENING WHETHER OR NOT THEY APPEAR IN PLAN. 17. ELEVATIONS ARE TO TOP OF CONCRETE OR OTHER HARD SURFACE MATERIAL. DO

NOT SCALE DRAWINGS. USE DIMENSIONS INDICATED. 18. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING THE WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR

CONDITIONS AND SHALL BE INCLUDED AS PART OF THE WORK. 19. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO START OF THE WORK. IN CASE OF CONFLICT BETWEEN ARCHITECTURAL AND CONSULTANTS DRAWINGS, THE

ARCHITECT WILL DETERMINE THE CORRECT INTENTION OF THE WORK. 20. PROVIDE PEDESTRIAN PROTECTION AS NECESSARY AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

21. ALL CONSTRUCTION RELATING TO BUILDING, PARKING OR SITE DEVELOPMENT SHALL CONFORM TO STATE OF OREGON AND JURISDICTIONAL ACCESSIBILITY REQUIREMENTS.

22. THE CONTRACTOR SHALL COORDINATE ANY AND ALL REQUIREMENTS FOR OFF-SITE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS, UTILITIES, ETC. OFF SITE IMPROVEMENTS SHALL MEET THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ).

23. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, SYMBOLS, AND TYPICAL DETAILS. SPECIFIC NOTES ON DETAILS APPLY TO SIMILAR CONDITIONS UNLESS NOTED OTHERWISE (UNO / UON).

## **ABBREVIATIONS** HOR(IZ) HORIZONTAL POUND OR NUMBER AIR CONDITIONING HR A/C A/V AUDIO VISUAL ANCHOR BOLT ASPHALTIC CONCRETE

ALUMINUM COMPOSITE METAL

ACM

ACT ACOUSTICAL CEILING TILE AREA DRAIN ADD ADDENDUM ADH ADHESIVE ADJUSTABLE, ADJACENT ADJ ABOVE FINISH FLOOR AFF AGG AGGREGATE AUTHORITY HAVING AHJ JURISDICTION AL(UM) ALUMINUM ALT ALTERNATE ANOD ANODIZED AP ACCESS / ACOUSTIC PANEL APPROX APPROXIMATE ARCH ARCHITECT(URAL) AUTO AUTOMATIC BATT BATT INSULATION BD BOARD BIT BITUMINOUS BLDG BUILDING BLKG BLOCKING BM BENCH MAR BO BOTTOM OF BOL BOLLARD BOT BOTTOM BR(N)Z BRONZE **BSM1** BASEMENT CAB CABINET CB CATCH BASIN CCTV CLOSED CIRCUIT TV CEM CEMENT CUBIC FOOT CF CORNER GUARD CG CONTINUOUS INSULATION CONTROL JOINT CJ(T) CL CENTERLINE CEILING CLG CLR CLEAR(ANCE) CMU CONCRETE MASONRY UNIT COL COLUMN CONC CONCRETE CONST CONSTRUCTION CONT CONTINUE, CONTINUOUS COORD COORDINATE CPT CARPET CRS COURSE CS COUNTERSIN CSMT CASEMENT CT CERAMIC TILE CTR CENTER CUST CUSTODIAL CX CONNECTION CUBIC YARD CY DEMOLISH, DEMOLITION DEM(O) DEP DEPRESSED DRINKING FOUNTAIN DF DIA DIAMETER DIAG DIAGONAL DIM DIMENSION DISP DISPENSER DIV DIVISION DEAD LOAD DL DMT DEMOUNTABLE DN DOWN DR DOOR DS DOWNSPOU DTL DETAIL DWG(S) DRAWING(S) DWR DRAWER EAST E EACH EA EXPANSION BOLT EB EJ EXPANSION JOINT EL, ELEV ELEVATION ELEC ELECTRIC(AL) EMER(G) EMERGENCY ENCL ENCLOSE(URE) EOS EDGE OF SLAB FP ELECTRICAL PANEL BOARD ETHYLENE PROPYLENE EPDM DIENEMONOMER EQ EQUAL EQUIP EQUIPMENT EST ESTIMATE EXH EXHAUST EXIST/(E) EXISTING EXP EXPOSED, EXPANSION EXT EXTERIOR FA FIRE ALARM FLUID APPLIED FLOORING FAF FLOOR DRAIN, FIRE DAMPER FD FIRE EXTINGUISHER (CABINET) FE(C) FINISH FLOOR FF FFE FURNISHINGS FIXTURES AND EQUIPMENT FGL FIBERGLASS FHC FIRE HOSE CABINET FHMS FLATHEAD MACHINE SCREW FLATHEAD WOOD SCREW FHWS FIN FINISH(ED) FL FLOOR FLASHG FLASHING FLCO FLOOR CLEANOUT FLR FLOOR(ING) FLS FIRE LIFE SAFETY FLUOR FLUORESCENT FND(N) FOUNDATION FOC FACE OF CONCRETE FOF FACE OF FINISH FOS FACE OF STEEL/STUD FIREPROOFING FP FRAME(D), FRAMING FR FULL SIZE, FLAME SPREAD FS FT FIRE TREATED FTG FOOTING GA GAUGE GALV GALVANIZED GB GRAB BAR, GYPSUM BOARD GLASS, GLAZING, GRIDLINE GL GWB GYPSUM WALL BOARD GYP (BD) GYPSUM (BOARD) HOSE BIB HARDBOARD HOLLOW CORE HC HEAVY DUTY HD HDR HEADER

HDW(R) HARDWARE

HM HOLLOW METAL

DETAIL SECTION HEIGHT HT 1=SECTION NO. HEATING HTG A101= SHEET NC HVAC HEATING, VENTILLATION, AND AIR CONDITIONING HWD HARDWOOD DETAIL CALLOUT (1) (A101) HWH HOT WATER HEATER 1=DETAIL NO. INSIDE DIAMETER A101= SHEET NO. INCLUDE(D), INCLUDING INCL INSULATE(D), INSULATION NS(UL) INT INTERIOR KEYNOTE JANITOR JAN(T) JC JANITOR'S CLOSET JOINT **REVISION CLOUD AND MARK** KNOCK-OUT KO LAMINATE(D) LAM LAVATORY LAV LEFT HAND LH LIGHTWEIGH LW MAX MAXIMUM **GENERAL NOTES** MB MACHINE BOLT, MARKER BOARD MECH MECHANICA DIMENSIONS ARE TO FACE OF STRUCTURE UNLESS OTHERWISE NOTED MEM MEMBRANE 2. ALL 'MINIMUM" OR "CLEAR" DIMENSIONS SHALL BE MAINTAINED. MEZZ MEZZANINE MFR MANUFACTURE(R) OR "CLEAR" DIMENSIONS MAY BE ASSUMED TO HAVE A TOLERANCE OF ±1/4". MGF MANAGER 4. WALL LOCATIONS NOT SPECIFICALLY DIMENSIONED BUT IN CLOSE RELATIVE MH MANHOLE LOCATION TO DIMENSIONED WALLS ARE TO BE ALIGNED FLUSH. ARCHITECT T PROVIDE CLARIFICATION AT AREAS OF CONCERN. MIN MINIMUM MISCELLANEOU MISC MASONRY OPENING MO MOD MODULAF METAL PANEL MP MRGB MOISTURE RESISTANT GYPSUN WALL BOARD METAL MTL MULL MULLION MWP MEMBRANE WATERPROOFING NORTH NAT NATURAL NIC NOT IN CONTRAC NOM NOMINA NTS NOT TO SCAL OA OVERALL ON CENTER OC OUTSIDE DIAMET OD OVERHEAD OH OPG OPENING OPP OPPOSITE **OVERHEAD** OVHD PAR PARAPET PERF PERFORATE(D PJT PANEL JOINT PLASTIC LAMINAT PLAM PLAT PLATFORM PNL PANEL PNT PAINT PSF POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PSI PRESSURE TREATED, POINT PT PAINTED, PAPER TOWEL PTD DISPENSER PTL PARTIAL PTN PARTION PVC POLYVINYL CHLORIDE PWD PLYWOOD QUARRY TILE DΤ RETURN AIR RA RAD RADIUS RESILIENT BASE RB RCP REFLECTED CEILING PLAN RD ROOF DRAIN REF(R) REFER(ENCE), REFRIGERATOR REINF REINFORCE(D), REINFORCING REQ(D) REQUIRED REV REVISION(S), REVISED RIGHT HAND RH RM ROOM ROUND RND ROUGH OPENING RO SOUTH SUPPLY AIR SA SAM SELF-ADHERED MEMBRANE SC SOLID CORE SCHED SCHEDULE SEC(T) SECTION SHTG SHEATHING SIM SIMILAR SLEEVE SI SPEC(S) SPECIFICATION(S) SQ SQUARE STAINLESS STEEL SS STD STANDARD STL STEEL STRUCT STRUCTURAL SUPP SUPPLEMENT, SUPPLY SUSP SUSPENDED SV SHEET VINYL TACKBOARD TB. TCKBD TEL TELEPHONE TEMP TEMPERED, TEMPERATURE TG, T&G TONGUE AND GROOVE то TOP OF TOC TOP OF CURB, TOP OF CONCRETE TOF TOP OF FRAMING TOP TOP OF PARAPE TOPL TOP OF PLATE TOR TOP OF ROOF TOS TOP OF STEEL TOW TOP OF WALL TUBE STEEL TS TYP TYPICAL UNDERCOUNTER U/C UON, UNO UNLESS NOTED OTHERWISE VARS VARIES VAPOR BARRIER VB VCT VINYL COMPOSITION TILE VERT VERTICAL VEST VESTIBULE VFY VERIFY VIF VERIFY IN FIELD WEST W WITH W/ WITHOUT W/O WC WATER CLOSET WOOD WD WP WATERPROOF(ING) WS WATERSTOP WWF WELDED WIRE FABRIC XPS EXTRUDED POLYSTYRENE YD YARD PLUS OR MINUS + ø DIAMETER

# **ABBREVIATIONS**

# SYMBOLS LEGEND

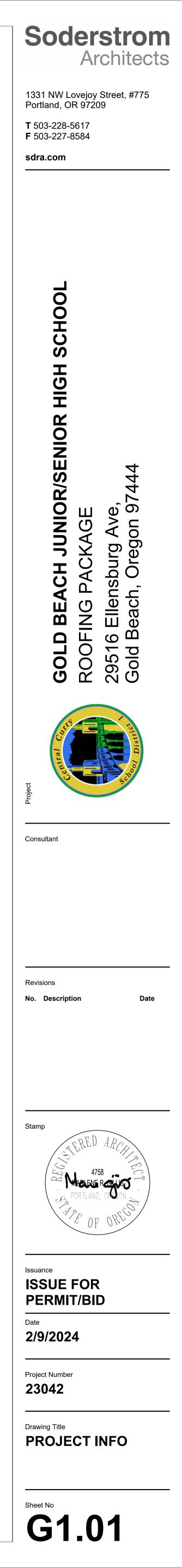


HOUR

# SHEET INDEX

G0.01 COVER SHEET G1.01 PROJECT INFO AD2.02 DEMOLITION ROOF PLAN A2.02 ROOF PLAN A8.11 EXTERIOR DETAILS EXTERIOR DETAILS A8.12

- FIXED DIMENSIONS NOTED OUTSIDE THESE AREAS AND NOT NOTED AS "MINIMUM"





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# SHEET NOTES

1. ALL DIMENSIONS AND AREAS SHOWN ARE TO BE VIF PROPERLY DISPOSE OF OR RECYCLE ALL COMPONENTS INDICATED FOR DEMO DEMO ALL (E) GUTTERS, DRIP EDGE, AND DOWNSPOUTS AT ROOFS INDICATED TO RECEIVE ROOFING REPLACEMENT OR RESTORATION TYPES IN-FULL; DEMO OTHER SELECT LOCATIONS AS INDICATED

# LEGEND

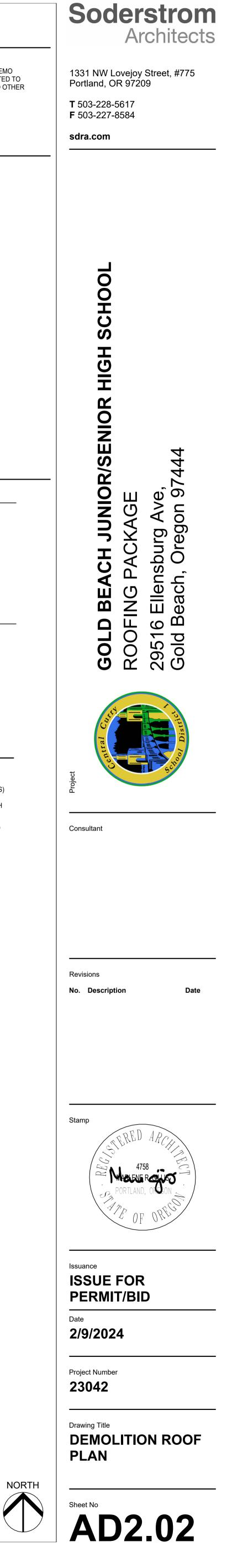
X" / 12"	DIRECTION OF ROOF SLOPE
DS	DOWNSPOUT
∑ © ∑ (≷ ∞	ROOF VENTS AND EQUIPMENT
$\mathbf{v}$	ROOF HATCH
1/1	SKYLIGHT
	NEW GUTTERS
	NOROOFING WORK SCOPE
	ROOFING TO BE DEMOLISHED
Q. <u>77</u> 77777	DEMO (E) GUTTERS, DRIP EDGE, & DOWNSPOUTS

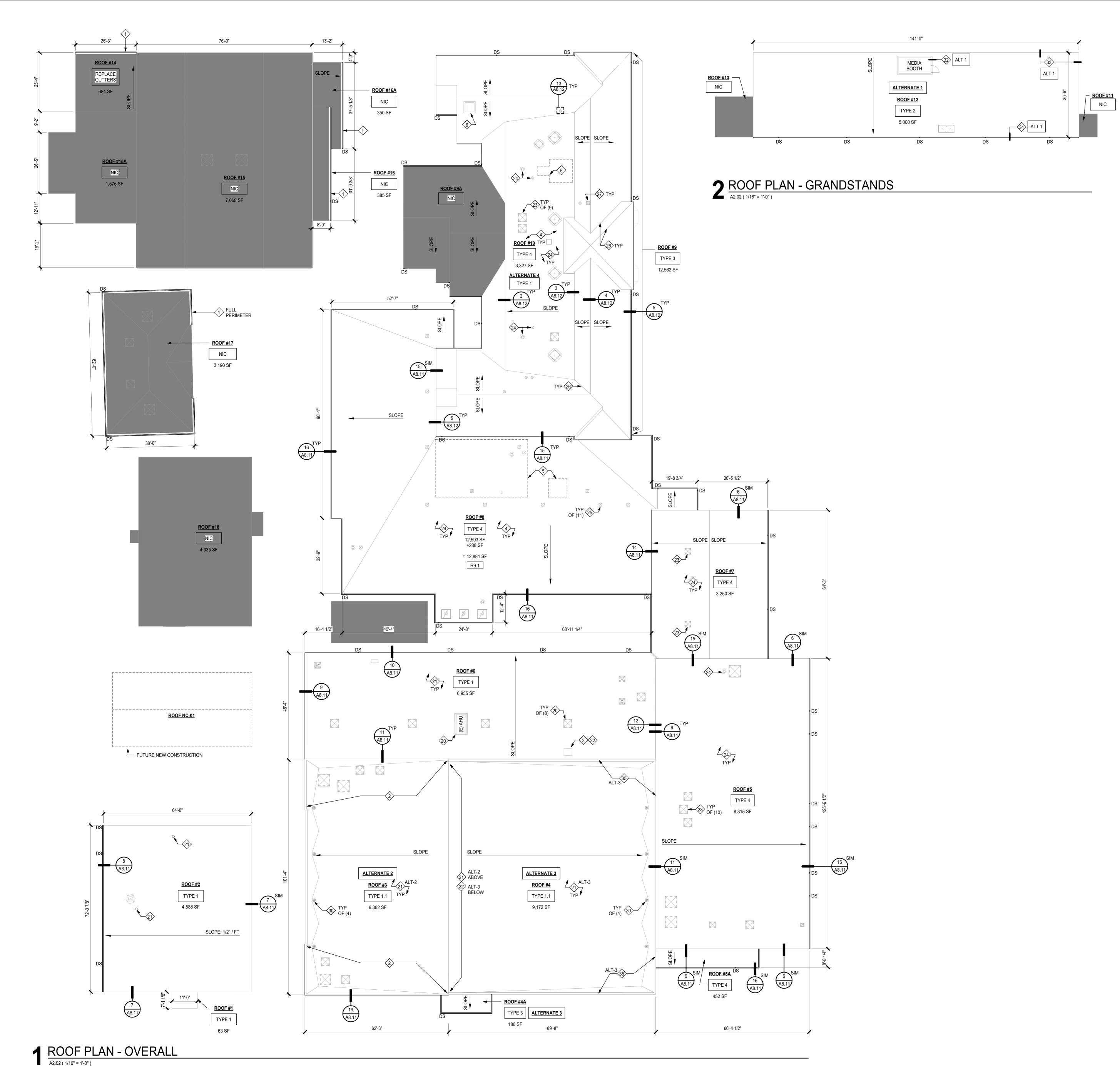
# **ROOF TYPES - EXISTING**

- ROOF TYPES EXISTING ROOFING / COVER BD:
- 1 SINGLE-PLY, MECH. FASTN. / 1/2" WD FIBER 2 SINGLE-PLY, MECH. FASTN. / 1/4" GYPSUM
- 3 SINGLE-PLY, MECH. FASTN. / NONE
- 4 MTL STANDING-SEAM / N/A
- 5 B.U.R. 3-PLY ALUM. SURFACING / NONE
- 6 2-3 PLY GRANULATED CAP SHEET / NONE
- ROOF TYPES EXISTING INSUL / DECK: A 2" POLYISO / WD
- B 11/2" FIBERGLASS / WD
- C 1"-10" TAPERED POLYISO / WD
- D 3" POLYISO / WD
- E NONE / WD

# **KEYNOTES**

- DEMO EXISTING GUTTERS, DRIP EDGE, AND DOWNSPOUTS, ALONG FULL LENGTH UNO REMOVE & DISPOSE OF (E) ROOFING, INSULATION, COVER BD (AS OCCURS) DOWN TO WD DECK; INSPECT (E) WD DECK AND ADVISE OWNER & ARCHITECT IF ANY ROTTING OF STRUCTURE OR MOLD IS FOUND BENEATH DECK BEFORE PROCEEDING W/ NEW INSTALL WORK.
- DEMO ABANDONED PENETRATIONS WHERE OCCURS AND INSTALL PLYWD FLUSH W/ (E) DECK
- 4 DEMO GRAVEL STOP / EDGE MTL
- (5) DEMO COUNTERFLASHG / TERM BAR, AS OCCURS
- 6 REMOVE & DISPOSE OF ALL (E) FLASHG AROUND ALL SIDES OF CHIMNEY
- (30) DEMO (E) DRAIN COLLAR AND LEAD, REPAIR WD DECKING AS REQ'D TO FLUSH W/ (E) SURFACE
- (31) DEMO WD SIDING AND ANY NAILERS ON PORTION OF WALL BETWEEN ROOFS 3 & 4





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# SHEET NOTES

- 1. ALL DIMS AND AREAS SHOWN ARE TO BE VIF 2. ALL ROOF TOP EQUIPMENT WILL REQUIRE COLLATERAL PENETRATION FLASHING FOR CONDUIT AND/ OR PIPING. NOT ALL PENETRATIONS ARE INDICATED ON THIS PLAN, REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS AND THE SPECIFICATIONS MANUAL LOCATIONS AND QUANTITES OF OTHER PENETRATIONS NOT INDICATED ON
- THIS PLAN ALL CRICKETS ARE ACHIEVED W/ TAPERED RIGID INSULATION W/ A 1/4" PER FOOT RETURN SLOPE TYPICAL AT FLAT ROOF AREA, UNO
- 4. ROOF ELEVATIONS SHOWN TO TOP OF THE ROOF SYSTEM (T.O.R.), TOP OF PARAPET (T.O.P.), OR TOP OF WALL (T.O.W.). ALL ROOF ELEVATIONS ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED
- 5. REFER TO TYPICAL ROOF DETAILS FOR FURTHER INFORMATION, SEE SHEETS A8.11 AND A8.12 6. REPLACE ALL MTL GUTTERS AND DOWNSPOUTS, MARINE-GRADE PREFINISHED,
- THROUGHOUT AT ALL ROOF AREAS RECEIVING FULL REPLACEMENT OR RESTORATION. OTHER SELECT LOCATIONS SHOWN AS INDICATED 7. ALL DOWNSPOUTS ARE TO MATCH (E) SIZE AND SHAPE, OR 6" DIA, UNO
- 8. PROVIDE SITE-SPECIFIC SAFETY PLAN FOR ALL AREAS OF ROOFING WORK 9. CLEAN AND PREPARE AREAS OF WORK ACCORDING TO ROOFING MFG'S INSTALLATION INSTRUCTIONS
- INSPECT (E) WD DECK FOR ROT OR EXCESSIVE MOLD AND REPAIR OR REPLACE AS NECESSARY W/ IN LIKE KIND FLUSH W/ EXISTING TOP SURFACE

# LEGEND

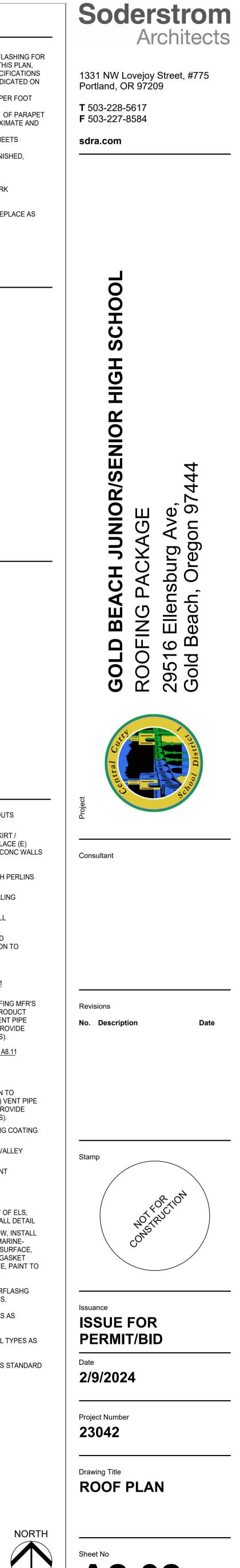
X" / 12"	DIRECTION OF ROOF SLOPE
DS	DOWNSPOUT
⊠ © ∑ (≷) ⊗	ROOF VENTS AND EQUIPMENT
	ROOF HATCH
-1/11	SKYLIGHT
	NEW GUTTERS
	NONE - N.I.C. NO ROOFING WORK SCOPE
ROOF	TYPES
TYPE 1         FL           1/A8.11         IN	ULL REPLACEMENT: SINGLE-PLY MEM ISUL MECHANICALLY ATTACHED

TYPE 1	FULL REPLACEMENT: SINGLE-PLY MEM
1/A8.11	INSUL MECHANICALLY ATTACHED
TYPE 1.1 2/A8.11	ALT #2 AND #3 FULL REPLACEMENT: SINGLE-PLY MEM INSUL ADHERED
TYPE 2 3/A8.11	ALT #1 REPLACEMENT OVERLAY: SINGLE-PLY MEM INSUL: NONE
TYPE 3	FULL REPLACEMENT: STANDING SEAM MTL ROOF PANELS
1/A8.12	INSUL: NONE (EXIST AT ATTIC)
TYPE 4	RESTORATION: APPLIED COATING
4/A8.11	(E) INSUL, VARS

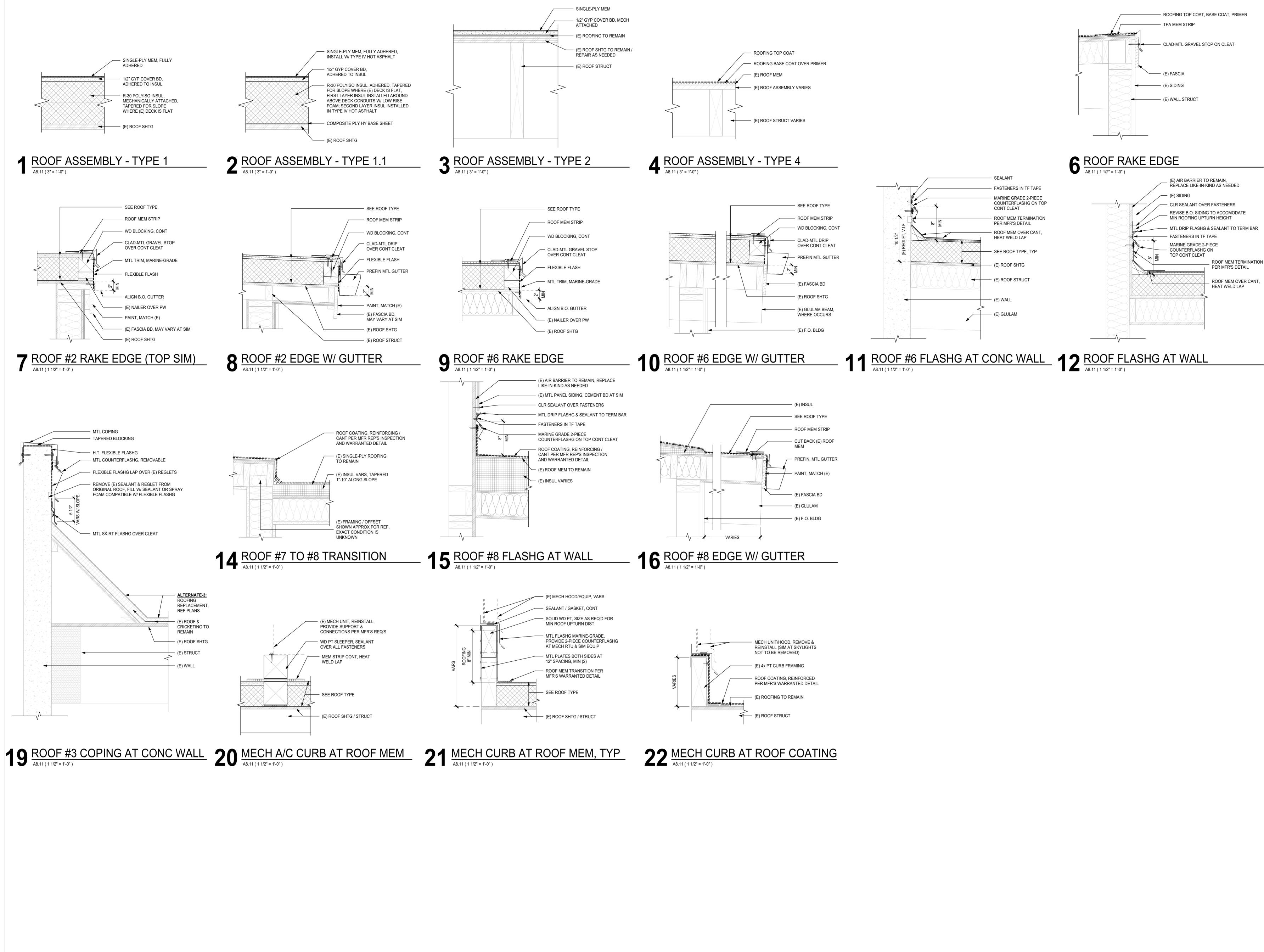
# **KEYNOTES**

•	
	INSTALL MARINE-GRADE PREFINISHED MTL GUTTERS AND DOWNSPOUT INCLUDING DRIP/EDGE MTLS AND TIE-IN TO EXISTING ROOFING
2	MARINE-GRADE MTL COPING OVER CONC WALLS W/ REMOVEABLE SKIR COUNTERFLASHG TO LAP OVER (E) REGLET TERM BAR; REPAIR/REPLAC TERM BAR / SEALANT WHERE NEEDED; PRESSURE WASH OR BRUSH CO TO REMOVE MOSS AND DEBRIS BUILD-UP
3>	PROVIDE 4X SOLID WD SLEEPERS PARALLEL W/ ROOF SLOPE, ATTACH F OR DECK/PLATFORM PER MECH EQUIP REQ'S
$\langle 4 \rangle$	INSPECT FOR PUNCTURES IN MEM TO BE PATCHED PRIOR TO INSTALLIN RESTORATION COATING
$\langle 5 \rangle$	REMOVE WET INSULATION AREA(S), REPLACE W/ IN LIKE KIND, INSTALL

- ROOF MEM TO PATCH AREA, SINGLE-PLY STRIPPING INTO FIELD  $\sim$ (E) MASONRY CHIMNEY ALL (4) SIDES: REPAIR CRACKED MORTAR AND INSTALL MARINE-GRADE SADDLE / COUNTERFLASHG AT INTERSECTION TO MTL ROOFING AND (E) STEP FLASHG; INSPECT ADJ INSUL/DECK FOR ADDITIONAL WATER/MOLD REMEDIATION AND/OR REPLACEMENT
- PROVIDE FLASHG TIE-IN AT (E) MECH CURB, REF TYP DETAIL <u>21/A8.11</u> REMOVE AND REINSTALL MECH EQUIP.
- (21) PROVIDE MEM FLASHG TIE-IN TO (E) VENT PIPE TO REMAIN PER ROOFING MFR'S REQ'S AND INSTALL DETAIL; UTILIZE MFR'S FLUID APPLIED FLASHG PRODUCT WHERE A BOOT OR 2-PIECE COLLAR IS NOT FEASIBLE; EXTEND (E) VENT PIPE HEIGHT WHERE NEEDED TO ALLOW MIN 8" FLASH HEIGHT; AT "TYP" PROVIDE ALLOWANCE FOR UP TO (10) PER ROOF AREA (NOT SHOWN ON PLANS).
- 22 PROVIDE MEM FLASHG TIE-IN TO EQUIP SLEEPER(S), REF DETAIL 20/A8.11 23 PROVIDE COATING FLASHG TIE-IN TO (E) MECH VENT/CURB, REF TYP DETAIL 22/A8.11
- PROVIDE COATING FLASHG TIE-IN TO (E) VENT OR PIPE PENETRATION TO REMAIN, PREP AND INSTALL PER ROOFING MFR'S DETAIL; EXTEND (E) VENT PIPE HEIGHT WHERE NEEDED TO ALLOW MIN 8" FLASH HEIGHT; AT "TYP" PROVIDE ALLOWANCE FOR UP TO (10) PER ROOF AREA (NOT SHOWN ON PLANS).
- PROVIDE AND INSTALL SS MTL VENT BASE REPLACEMENT W/ ROOFING COATING TIE-IN PER MFR'S DETAIL AND SIM <u>22/A8.11</u> (26) UTILIZE MTL ROOFING MFR'S WARRANTED DETAIL FOR TYP HIP AND VALLEY
- CONDITIONS 27 UTILIZE MTL ROOFING MFR'S WARRANTED DETAIL FOR TYP PIPE / VENT PENETRATION ON PANEL BETWEEN RIBS
- ALTERNATES:
- (30) INSTALL DRAIN RING/COLLAR AND 4 LBS. DRAIN LEAD IN EMBEDMENT OF ELS, TRANSITION TIE-IN TO ROOFING SYSTEM PER MFR'S REQ'S AND INSTALL DETAIL
- INSTALL MEM UP AND OVER ROOF EDGE DOWN WALL TO ROOF BELOW, INSTALL 4X WD BLOCKING ALONG ROOF EDGE TO CREATE SMALL PARAPET; MARINE-GRADE MTL COPING CAP AND MTL SKIRT FLASHG TO RE-CLAD WALL SURFACE, INSTALLED OVER WD NAILER OR Z-CLEAT OVER SELF-HEALING MEM/GASKET STRIPPING PER MFR'S APPROVED DETAIL TO RE-CLAD WALL SURFACE, PAINT TO MATCH EXIST COLOR.
- 32 UTILIZE ROOFING MFR'S STANDARD WALL TRANSITION AND COUNTERFLASHG DETAIL, MTL TYPES AS INDICATED PER TYP/SIM PROJECT CONDITIONS.
- 33 UTILIZE ROOFING MFR'S STANDARD GRAVEL STOP DETAIL, MTL TYPES AS INDICATED PER TYP/SIM PROJECT CONDITIONS.
- (34) UTILIZE ROOFING MFR'S STANDARD GUTTER TRANSITION DETAIL, MTL TYPES AS ✓ INDICATED PER TYP/SIM PROJECT CONDITIONS.
- (35) INSTALL NEW MARINE-GRADE MTL COPING CAP OVER ROOFING MFR'S STANDARD EDGE TRANSITION WARRANTED DETAIL



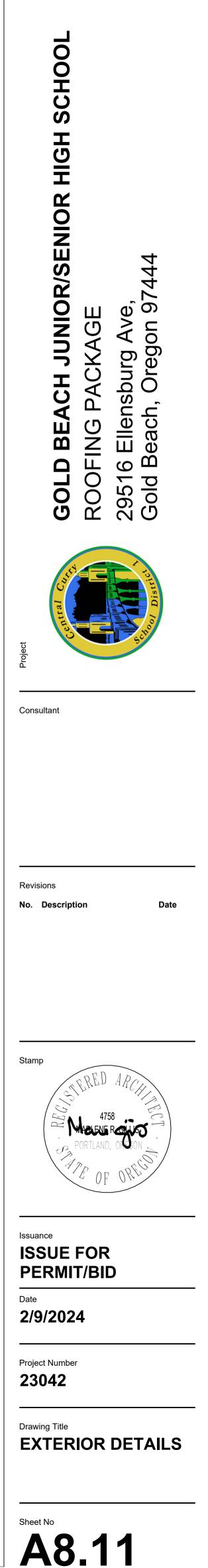


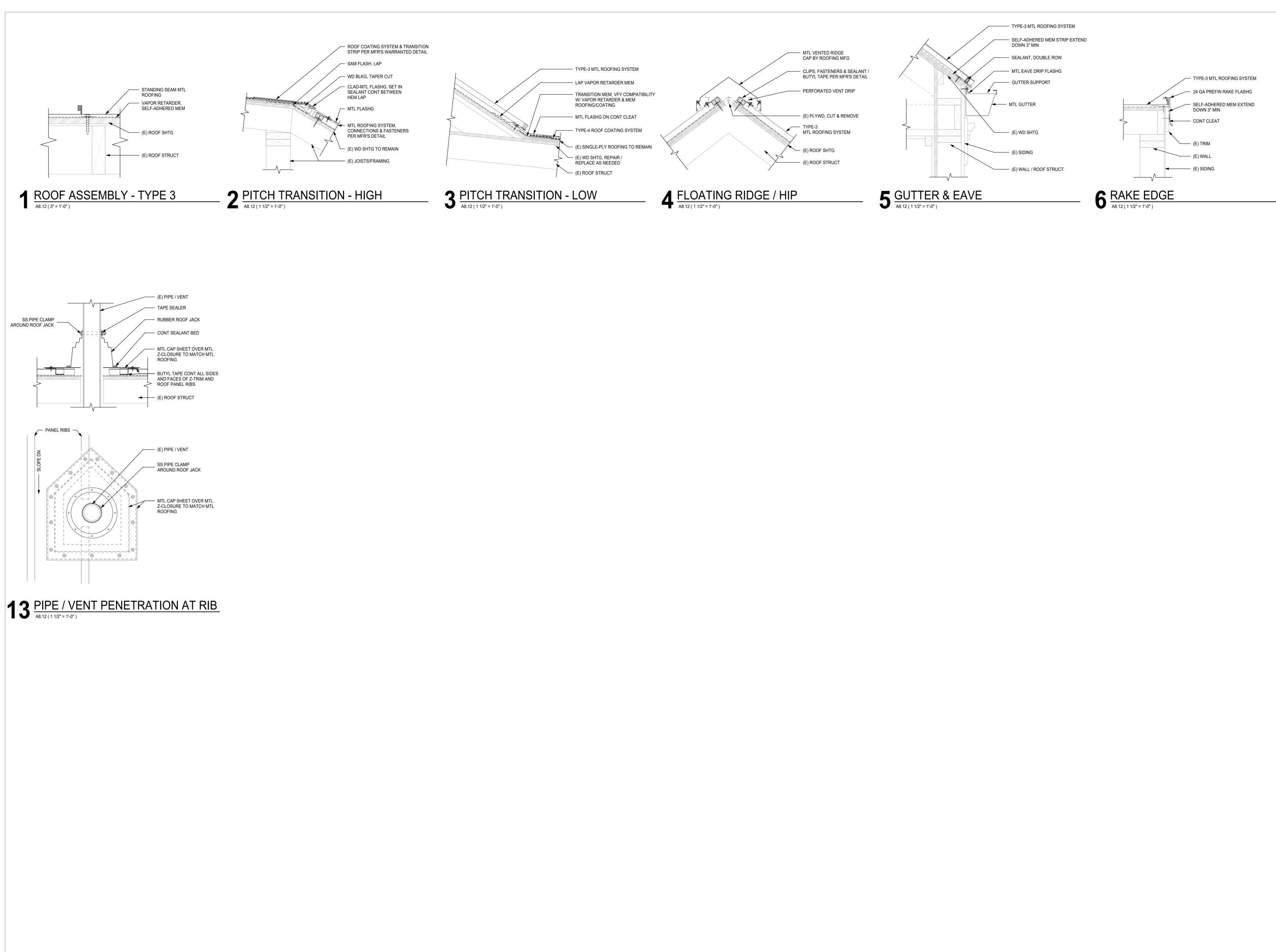




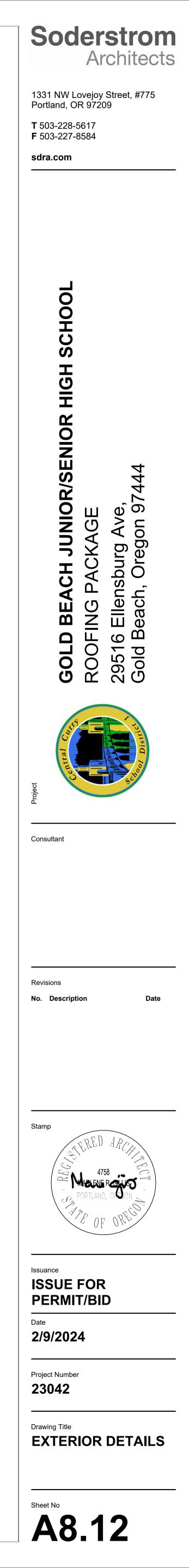
1331 NW Lovejoy Street, #775 Portland, OR 97209 **T** 503-228-5617 **F** 503-227-8584

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# Limited Regulated Building Materials Survey

Purpose: Pre-Renovation

Client: Central Curry School District 29516 Ellensburg Avenue Gold Beach, Oregon 97444

Project: Gold Beach High School 29516 Ellensburg Avenue Gold Beach, Oregon 97444

G2 Project #: 23-7143

December 1, 2023

Prepared By:

G2 Consultants, a DBA of DKI Consultants, LLC 16869 SW 65th Avenue, #15 Lake Oswego, Oregon 97035 888-998-4224 www.g2ci.com CCB #223539

# Limited Regulated Building Materials Survey

# G2 Consultants Project #: 23-7143

Purpose of Inspection:	Pre-Renovation
Scope of Inspection:	Limited Regulated Building Materials Survey
Project Description:	Gold Beach High School
Project Address:	29516 Ellensburg Avenue Gold Beach, Oregon 97444
Owner or Facility Operator:	Central Curry School District 29516 Ellensburg Avenue Gold Beach, Oregon 97444
Owner or Facility Operator Phone #:	541-247-2003

Technical Certifications					
Consultant	Discipline	Certification # Regulatory Agency		Phone Number	
Sean Friend	Asbestos Building Inspector	IR-23-0000	EPA	(503) 863-0860	
	Lead Risk Assessor	LRA-R-41A035-8998B-22-00019	OHA		
	A6666601	9152743-RA	ССВ		

# **Table of Contents**

- Executive Summary
- Description of Structure(s)
- Scope of Inspection
- Inspection Findings
- Recommended Response Actions
- Methodology
- Limitations

# Appendices

Appendix A: Sample & Asbestos-Containing Material Location Drawings

Appendix B: Laboratory Analysis Results & Chain of Custody

Appendix C: XRF Readings Table

Appendix D: Performance Characteristics Sheet

Appendix E: Certifications & Accreditation

# **Executive Summary**

G2 Consultants, a DBA of DKI Consultants, LLC (G2) was retained by HMK Company (HMK), on behalf of Central Curry School District (CCSD) to conduct a limited regulated building materials survey (RBMS). The survey consisted of a building inspection for asbestos-containing materials (ACM), lead-based paint (LBP), universal waste, and items suspected of containing mercury or polycarbonate biphenyls (PCBs). The RBMS was conducted at the Gold Beach High School located at 29516 Ellensburg Avenue in Gold Beach, Oregon. The scope of the inspection included all accessible suspect interior, exterior and roofing materials in areas of the school building expected to be impacted as part of renovation activities, as specified by HMK. Authorization was provided by Mike Freeman with HMK.

Date(s) of Inspection: November 1-3, & 27, 2023

Purpose of Inspection: Pre-Renovation

**Scope of Inspection:** Limited to all accessible interior, exterior and roofing materials associated with the Administration Area, North Restrooms, Classroom 13, Cafeteria, South Restrooms, Weight Room, Locker Rooms, Old Gym Restrooms, Metal Shop Restrooms, and Wood Shop Restrooms.

# Asbestos

Results of the inspection have determined that asbestos is present in the following suspect materials presumed or sampled as part of this survey:

Asbestos-Containing Mate	rials Identified or Presumed - Overvie	w		
Material Description	Material Location*	Approx. Quantity	Condition	Friable Y/N
Transite Board	Main Building Exterior - Throughout	11,380 sq. ft.	Good	Ν
Transite Board	Metal Shop Exterior - Throughout	2,675 sq. ft.	Good	Ν
Mastic, Black	Weight Room, Cafeteria, South Corridors, Quiet Room, South Restrooms, Classroom 13	7,955 sq. ft.	Good	N
Floor Tile, 9" x 9" Brown w/ Off- White Streaks	Cafeteria	4,432 sq. ft.	Good	N
Floor Tile, 9" x 9" Red w/ Beige Streaks	South Corridors	1,670 sq. ft.	Good	N
2nd Layer Floor Tile, Gray,	Quiet Room	220 sq. ft.	Good	Ν
Floor Tile, 9" x 9" Olive w/ Beige Streaks	Classroom 13, South Restrooms	1,121 sq. ft.	Good	N
Joint Compound on Drywall (Older)	Cafeteria, South Restrooms, Weight Room, Classroom 13, South Corridor	9,600 sq. ft.	Good	Y

NOTE: Friability listed is based on conditions at the time of G2's survey. Materials may become friable if disturbed.

\* The material locations and quantities provided, represents the areas within the scope of work only. It does not represent the potential location/quantity of materials throughout the site.

# Lead-Based Paint

Results of the inspection have determined that LBP is present on the interior and exterior of the building that is equal to or above the concentration of 1.0 milligram per centimeter squared (mg/ cm<sup>2</sup>). Lead above the 1.0 mg/cm<sup>2</sup> threshold was also identified in the enamel glazing of various components within the building.

Potential lead-containing paint (LCP), below the threshold concentration of 1.0 mg/cm<sup>2</sup> may be present on other painted surfaces, as X-Ray Fluorescence (XRF) devices used to detect LBP cannot definitively confirm the presence or absence of LCP below 1.0 mg/cm<sup>2</sup>.

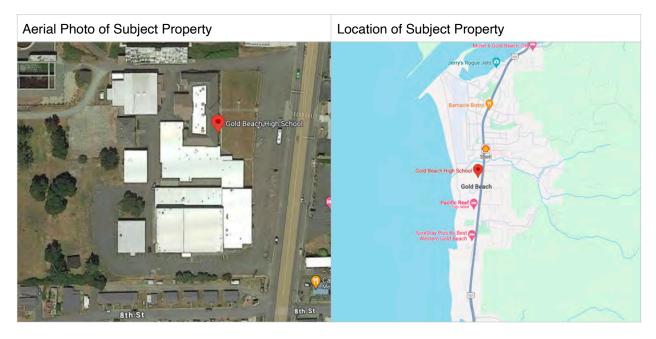
# Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as, fluorescent light tubes, ballasts, smoke detectors, exit signs, compact fluorescent light bulbs, high energy discharge (HID) light bulbs and HID ballasts were present on the interior and exterior of the building.

Details of the survey, descriptions, and locations of materials, quantities and friability can be found in the following sections of this report.

Description of Structure(s)			
Type of facility:	School		
Past uses:	School		
Age of construction:	Unknown		
Approximate square footage:	14,571 (Surveyed Areas Only)		
Number of floors:	1		
Outbuildings included in inspection:	3		
Inaccessible rooms/areas:	None		

# Description of Structure(s)



# **Scope of Inspection**

G2 was contracted by HMK on behalf of CCSD to perform a limited RBMS inspection. The RBMS consisted of a building inspection for ACM, LBP, universal waste and items suspected of containing mercury or PCBs. The survey was conducted at the Gold Beach High School located at 29516 Ellensburg Avenue in Gold Beach, Oregon. The scope of the survey was limited, including all accessible interior, exterior and roofing materials in areas expected to be impacted as part of renovation activities as specified by HMK. Authorization was provided by Mike Freeman with HMK.

# Asbestos

The scope of services was to perform a visual and tactile inspection, and identify the presence, quantity and location of the accessible ACM, within the area(s) of the scope of work. All identified accessible suspect materials were sampled. The building was occupied at the time of the survey, therefore, destructive sampling techniques were not utilized to gain access to potentially hidden materials such as within wall cavities or other interstitial spaces.

Other suspect ACMs may be present in the building that were outside this limited scope of work, or in areas that were not accessible at the time of the survey. Furthermore, the material locations and quantities provided in this report represents the areas within the scope of work only. ACMs identified during this limited survey may potentially be located in additional rooms of the building, and at greater quantities than those stated in this report.

# Lead-Based Paint

Readings of the lead content of painted surfaces throughout the buildings were collected using an X-Ray Fluorescence (XRF) device. The readings were taken from the predominant interior and exterior paint films to provide a general indication of the distribution of lead for Pre-Renovation purposes.

# Universal Waste, Mercury and PCBs

A visual inspection of the buildings was conducted for the presence of universal waste and items suspect for containing PCBs and mercury.

# **Inspection Findings**

# Asbestos

Results of the inspection have determined that asbestos is present in the following suspect materials sampled as part of this survey:

Asb	sbestos-Containing Materials Identified						
HM No.†	Material Description	Material Location*	No. of Samples	Approx. Quantity	Asb. Type & %	Condition	Friable Y/N
7	Transite Board	Main Building Exterior - Throughout	2	11,380 sq. ft.	Chrysotile 15%	Good	Ν
13	Transite Board	Metal Shop Exterior - Throughout	2	2,675 sq. ft.	Chrysotile 15%	Good	Ν
23	Mastic, Black	Weight Room, Cafeteria, South Corridors, Quiet Room, South Restrooms, Classroom 13	14	7,955 sq. ft.	Chrysotile 2% - 5%	Good	Ν
30	Floor Tile, 9" x 9" Brown w/ Off-White Streaks	Cafeteria	2	4,432 sq. ft.	Chrysotile 2%	Good	N
32	Floor Tile, 9" x 9" Red w/ Beige Streaks	South Corridors	2	1,670 sq. ft.	Chrysotile 5%	Good	Ν
41	2nd Layer Floor Tile, Gray	Quiet Room	2	220 sq. ft.	Chrysotile 3%	Good	Ν
49	Floor Tile, 9" x 9" Olive w/ Beige Streaks	Classroom 13, South Restrooms	2	1,121 sq. ft.	Chrysotile 3%	Good	Ν
64	Joint Compound on Drywall (Older)	Cafeteria, South Restrooms, Weight Room, Classroom 13, South Corridor	3	9,600 sq. ft.	Chrysotile 2% - 3%	Good	Ν

† - Homogeneous material number

NOTE: Friability listed is based on conditions at the time of G2's survey. Materials may become friable if disturbed.

\* The material locations and quantities provided, represents the areas within the scope of work only. It does not represent the potential location/quantity of materials throughout the site.

Results of the inspection have determined that asbestos is not present in the following materials sampled:

HM No.†	Material Description	Material Location	No. of Samples
1	Roof Patch and Repair, Black	Main Roof - PVC Vents & Vent Hoods	2
2	Roof Patch and Repair, White	Main Roof - Metal Flashing Seams	2
3	Seam Compound, Gray	Main Roof - Vent Seams	2
4	Built-Up Roofing	Main Roof - North	3
5	Built-Up Roofing	Main Roof - Central	3
6	Built-Up Roofing	Main Roof - South	3
8	Seam Compound, Off-White	Main Roof South - PVC Vents	2
9	Seam Compound, Dark Gray	Main Roof Central - Metal Flashing Seams	2
10	Seam Compound, Black	Main Roof South - Gymnasium Wall Seams	2
11	Seam Compound, Black	Old Gymnasium Roof - Above Restrooms	2
12	Window Glazing, White	Old Gymnasium - Restroom Exterior Windows	2
14	Caulking, White Chalky	Metal Shop - Exterior Siding Seams	2
15	Caulking, Light Gray	Main Building - Exterior Wall Trim Seams	2
16	Exterior Wall Texture, Knockdown	Main Building - Exterior Administration Area Walls	3
17	Window Glazing, Off-White	Main Building - Exterior Administration Area Windows	2
18	Stucco	Main Building - Newer Gymnasium Walls	3
19	Caulking , Dark Gray	Main Building - Exterior Door Casing Seams	2
20	Caulking, Offf-White	Wood Shop - Restroom Water Fixtures	2
21	Wall Texture, Orange Peel	Wood Shop - Restrooms	3
22	Drywall and Joint Compound	Wood Shop - Restrooms	3
24	Residual Cove Base Adhesive, Dark Brown	Main Building - Gymnasium, Boys Workout Room	2
25	Fiberglass Reinforced Plastic Adhesive, Off-White	Metal Shop - Restrooms	2
26	Caulking, White	Metal Shop - Restroom Door Casings	2
27	Drywall and Joint Compound	Metal Shop - Restrooms	3
28	Cove Base, 4" Dark Green	Metal Shop - Restrooms	2
29	Adhesive, Gray, under Dark Green 4" Cove Base	Metal Shop - Restrooms	2
31	Floor Tile, 9" x 9" Beige w/ Brown Streaks	Main Building - Cafeteria	2
33	Floor Tile, 9" x 9" Green w/ Multi-color Streaks	Main Building - Corridors	2

Non	Asbestos-Containing Materials Identified		
HM No.†	Material Description	Material Location	No. of Samples
34	Cove Base, 4" Black	Main Building - Throughout	2
35	Adhesive, Beige, under 4" Black Cove Base	Main Building - Throughout	2
36	Drywall and Joint Compound (Newer)	Main Building - Administration Area, YTP Center, North Restrooms	3
37	Plaster and Skim Coat	Main Building - YTP Center, Administration Area, Student Store, Quiet Room, Boys Locker Room, Girls Locker Room	3
38	Carpet Glue, Tan	Main Building - YTP Center, Administration Area, Student Store, Quiet Room	2
39	Ceiling Tile, 12" x 30" Smooth	Main Building - YTP Center, Administration Area, Student Store, Quiet Room	2
40	Plaster and Skim Coat	Main Building - YTP Center, Administration Area, Student Store, Quiet Room, Boys Locker Room, Girls Locker Room	3
42	Ceiling Tile, 12" x 12" Gouged w/ Pinholes	Old Gymnasium - Restrooms	2
43	Sheet Vinyl, Green, Pebble Pattern	Old Gymnasium - Restrooms	2
44	Glue, White, under Green Pebble Pattern Sheet Vinyl	Old Gymnasium - Restrooms	2
45	Fiberglass Reinforced Plastic Adhesive, Gray	Old Gymnasium - Restrooms	2
46	Caulking, White	Old Gymnasium - Restroom Water Fixtures	2
47	Grout from 6" x 6" Ceramic Wall Tile, White	Main Building - South Restrooms, Boys Showers, Girls Showers	2
48	Mortar from 6" x 6" Ceramic Wall Tile, Gray	Main Building - South Restrooms, Boys Showers, Girls Showers	2
50	Grout from 1" x 1" Ceramic Floor Tile, Gray	Main Building - South Restrooms, Girls Locker Room	2
51	Adhesive from 1" x 1" Ceramic Floor Tile, Tan	Main Building - South Restrooms, Girls Locker Room	2
52	Caulking, White	Main Building - South Restrooms	2
53	Ceiling Tile, 12" x 12" Pinhole	Main Building - South Restrooms	2
54	Ceiling Tiles, 12" x 12" Pegholes w/ Pinholes	Main Building - Classroom 13, Cafeteria, Weight Room, Administration Area Office	2
55	Fiberglass Reinforced Plastic, Adhesive, Tan	Main Building - North Boys Restroom	2
56	CMU Mortar, Gray	Main Building - Boys Locker Room, Girls Locker Room	2
57	Grout from 2" x 2" Ceramic Floor Tile, Dark Gray	Main Building - Boys Showers, Girls Showers	3
58	Mortar from 2" x 2" Ceramic Floor Tile, Light Gray	Main Building - Boys Showers, Girls Showers	2
59	Pipe Insulation Hard Fittings, 4"	Main Building - Throughout	3

Non Asbestos-Containing Materials Identified							
HM No.†	Material Description	Material Location					
60	Cove Base, 4" Light Brown	Main Building - Boys Locker Room Entry	2				
61	Built-Up Roofing	Metal Shop - Roof	3				
62	Roof Patch and Repair, Gray	Metal Shop - Roof	2				
63	Built-Up Roofing	Wood Shop - Roof	3				

<sup>†</sup> - Homogeneous material number

Details of the samples collected, including locations of individual samples can be found in Appendix B: Laboratory Analysis Results & Chain of Custody.

## Lead-Based Paint

The types of components listed in the table below indicate the presence of lead at or above the U.S. EPA Renovation, Repair and Painting Rule (EPA RRP) and the U.S. Department of the Housing and Urban Development (HUD) Guidelines threshold for LBP. The EPA and HUD definition of "positive" LBP via XRF analysis is lead concentrations equal to or greater than 1.0 mg/cm<sup>2</sup>. Additional details including reading number, floor, substrate, side, color and lead content details are located in the XRF Readings Table found in Appendix C.

Identified Components with Lead Equal to or Greater than 1.0 mg/cm <sup>2</sup>										
Structure	Location	Component	Substrate	Condition	Result					
Gold Beach High	Exterior	Wall	Concrete	Intact	LBP					
School - Main Building		Wall	Concrete	Intact	LBP					
		Wall Trim	Wood	Intact	LBP					
		Handrail	Metal	Poor	LBP					
		Window Sill	Wood	Intact	LBP					
		Window	Wood	Intact	LBP					
Gold Beach High School - Wood Shop	Restroom	Sink	Ceramic	Intact	Positive					
Gold Beach High School - Old Gym	Exterior	Window Trim	Wood	Poor	LBP					
Gold Beach High School - Main	SW Girls Restroom	Wall Tile	Ceramic	Intact	Positive					
Building	SW Boys Restroom	Wall Tile	Ceramic	Intact	Positive					
	N Girls Restroom	Door Jamb	Wood	Intact	LBP					
		Door Trim	Wood	Intact	LBP					
	N Boys Restroom	Wall	Drywall	Intact	LBP					
	N Girls Restroom	Door Trim	Wood	Intact	LBP					

Identified Components with Lead Equal to or Greater than 1.0 mg/cm <sup>2</sup>										
Structure	Location	Component	Substrate	Condition	Result					
Gold Beach High	Quite Room	Window Trim	Wood	Intact	LBP					
School - Main Building		Door Trim	Wood	Intact	LBP					
		Toilet	Ceramic	Intact	Positive					
	Admin Office	Door	Metal	Intact	LBP					
	Boys Locker Room	Wall	Brick	Intact	LBP					
		Baseboard	Ceramic	Intact	Positive					
		Sink	Ceramic	Intact	Positive					
		Wall Tile	Ceramic	Intact	Positive					
	Girls Locker Room	Sink	Ceramic	Intact	Positive					

Readings in the table noted as LBP, are paint films with lead concentrations at or above 1.0 mg/cm<sup>2</sup>. Readings in the table noted as Positive, are non-painted surfaces, such as enamel or ceramic tile, with lead concentrations at or above 1.0 mg/cm<sup>2</sup>.

# Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as, fluorescent light tubes, ballasts, smoke detectors, exit signs, compact fluorescent light bulbs, HID light bulbs and HID ballasts were present on the interior and exterior of the building. The following is a list of items observed:

- 4' Fluorescent Light Tubes 692
- Ballasts 250
- Smoke Detectors 38
- Exit Signs 4
- CFL Bulbs 5
- Flood Lights 2
- Thermostats 7

# **Recommended Response Actions**

# Asbestos

# Asbestos-Containing Materials (ACM)

Any building material which contains asbestos in an amount greater than 1% is considered ACM by the United States Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA), and by the State of Oregon Department of Environmental Quality (DEQ) and the Oregon Occupational Safety and Health Division (OR-OSHA).

Results of the survey have determined that multiple materials identified are ACMs, including all Transite Board, 9" x 9" Brown w/ Off-White Streaks Floor Tile, 9" x 9" Red w/ Beige Streaks Floor Tile, 9" x 9" Olive w/ Beige Streaks Floor Tile, 2nd Layer Floor Tile in the Quiet Room, Joint Compound on Drywall, and Black Mastic.

If any untested suspect materials are encountered during renovation/demolition activities, they should be assumed to be ACM and not disturbed, unless sampling and analysis of the materials proves otherwise.

Friability is determined by whether a material can be crumbled, pulverized or reduced to a powder by pressure of an ordinary human hand. The friability of materials listed in this report are based on the present state and actual conditions of the materials observed at the time of G2's survey. Materials listed as non-friable can become friable through impact or damage.

# All identified and presumed ACM must be removed by a licensed asbestos abatement contractor, or other certified individual, prior to impact if they are to be disturbed during renovation activities. ACM remaining in the building should be managed in good condition, under an Asbestos Management Plan, and checked regularly for damage.

OR-OSHA requires a variety of actions when ACM is present in a structure. These include labelling, warning signs, hazard communication and periodic inspections. All of the requirements of a building owner/operator with regard to asbestos can be found in Oregon Administrative Rules (OAR) 437, Division 2.

Any ACM likely to be disturbed during renovation or demolition activities, other than by incidental contact with no generation of debris related to other construction activities, should be abated by a licensed asbestos-abatement contractor. Any activities conducted where the primary object of the activity is the removal of ACM must be conducted by a licensed asbestos abatement contractor or other properly trained individuals.

The National Emissions Standards for Hazardous Air Pollutants (NESHAPs) requires that all Regulated Asbestos-Containing Materials (RACMs) be removed from a building prior to demolition.

# Asbestos-Containing Materials - 1% Asbestos or Less

Any building material which contains asbestos in an amount of 1% or less is considered asbestoscontaining by OSHA and OR-OSHA. Although these materials are not considered ACMs, workers must be protected from exposure to asbestos, regardless of the percentage.

### No materials were identified during this survey that contained 1% or less asbestos.

Many of the engineering controls and work practices required by the EPA and OSHA are applicable only to materials that contain greater than 1% asbestos. However, OSHA has established work practice requirements and prohibitions that apply when asbestos in any quantity is present, and/or whenever worker exposure exceeds the PEL regardless of the amount of asbestos in the materials involved. Applicable requirements for materials that contain 1% or less asbestos can be found in the OSHA Asbestos Construction Standard 29 CFR 1926.1101.

# Lead-Based Paint

G2 has determined that LBP is present on multiple interior and exterior painted components that is equal to or above the concentration of 1.0 mg/cm<sup>2</sup>. Lead above the 1.0 mg/cm<sup>2</sup> threshold was also identified in glazing of the ceramic wall tile and enamel sinks, urinals, and drinking fountains. The paint film on the Exterior Handrails and Old Gym Windows was observed to be in poor condition at the time of the inspection.

Lead-containing surfaces could create lead dust or lead contaminated soil hazards if the paint/glazing is turned to dust by abrasion, scraping or sanding. If conditions of intact paint surfaces become destabilized, these conditions will need to be addressed. All paint films in poor condition must be stabilized if the structure is to be demolished. If any construction or modernization work is done on the premises, this report should be given to the contractor(s). OSHA/OR-OSHA have requirements for employees working with or around LCP.

Contractors and other personnel who may impact these materials should be informed of the results of this inspection. LBP is a common cause of lead poisoning in children and represents a threat to the health and welfare of the occupants. Where economically feasible, it is our recommendation that all components that tested positive, and any similar untested components, be considered lead-laden, and lead-safe procedures are incorporated into any overall renovation and maintenance strategy in order to reduce the potential for contamination and/or exposure. Safe methods include: containing any work area to prevent dispersal of lead dust and chips, wet sanding and scraping at a minimum; collecting all paint chips and debris, and properly disposing of them.

Details of the locations and lead content for all of the readings can be found in Appendix C: XRF Readings Table. If additional painted surfaces are discovered that were not tested as part of this inspection, or that are expected to be impacted as part of any renovation or demolition work, they should be presumed LBP until tested to show otherwise.

A risk assessment has not been conducted to evaluate potential lead hazards present at the building and surrounding soil as part of this scope of work.

# Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as fluorescent light tubes, ballasts, smoke detectors, exit signs, compact fluorescent light bulbs, HID light bulbs and HID ballasts were present on the interior and exterior of the building.

If any universal waste or items suspect for containing mercury and PCBs are identified and expected to be impacted during renovation/demolition work, these items must be disposed of properly according to local, state and federal guidelines.

### Methodology

### Asbestos

The field work was conducted using industry best practices. Samples of representative accessible suspect materials within the scope of work were collected during the course of the inspection. Materials were sampled according to homogeneous groupings using the Asbestos Hazard Emergency Response Act (AHERA) sampling guidelines.

Asbestos samples were collected in such a manner as to minimize release of the material into the surroundings. Sample number, material description, sample location and material location were recorded at the time of sampling. Each sample was placed in a sample container labeled with a unique sample number and submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, for analysis under chain of custody documentation. Samples were analyzed in accordance with EPA Method 600/R-93-116, using PLM with dispersion staining and using visual area estimation to determine percent asbestos content. This method allows for the identification of the primary types of asbestos used in building materials. The lower limit of detection for this method is one percent. Samples containing one percent or less asbestos by PLM with visual area estimation are reported as "Trace".

### Lead-Based Paint

All testing of suspect LBP was conducted utilizing a SciAps X-ray fluorescence LBP analyzer, Model X550Pb (Rh) bearing Serial #01583. The device uses a rhodium X-ray fluorescence tube as opposed to a radioactive source. G2 followed the Performance Characteristics Sheets (PCS) for the specific X-Ray fluorescence instrument used during the LBP evaluation of the property. The XRF PCS is presented in Appendix D. The instrument was calibrated to the manufacturer's specifications and was also periodically verified against the National Institute of Standards and Testing (NIST) Standard Reference Material (SRM) 2579 lead film (1.0 mg/cm<sup>2</sup>).

The calibration of the instrument is conducted in accordance with the PCS for this instrument. These instruments are calibrated using a calibration standard block of known lead content. If for any reason the instruments do not maintain a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

Wall "A" in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall "A," Wall "B" will always be to your right, Wall "C" directly to the rear and Wall "D" to the left. Doors, windows and closets may be designated as left, center or right depending on their location on the wall. Doors, windows, and closets are designated as left, center or right depending on their location on the wall.

All individuals who performed this XRF testing and visual assessment have EPA and/or state licenses as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for states and Native American tribal groups.

# Universal Waste, Mercury and PCBs

As part of this survey, a visual inspection for universal waste or items suspect for containing PCBs and mercury-was conducted. Items classified as universal waste or suspect for containing PCBs and mercury, if identified, were quantified and catalogued.

# Limitations

G2 has performed this inspection in accordance with best industry methods and practices of the profession, and consistent with the level of care and skill ordinarily exercised by reputable environmental consultants under similar circumstances and conditions. The observations contained within this assessment are based upon site conditions readily accessible at the time of the site inspection. No other representation, guarantee or warranty, express or implied, is included or intended in this hazardous materials survey report. If any untested suspect materials are encountered during demolition activities, they should be assumed to be ACM and not disturbed, unless sampling and analysis of the materials proves otherwise.

The LBP portion of the inspection was planned, developed, and implemented based on G2's professional experience in performing LBP inspections. G2 performed a limited inspection for lead-containing paint of the predominant painted surfaces in order to provide a general indication of the distribution of lead for demolition purposes. G2 utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. A copy of personnel and company certifications has been provided in Appendix E. G2's evaluation of the inspection. G2 cannot be responsible for changing conditions that may alter the relative exposure risk for future changes in accepted methodology.

The owner is responsible to convey information regarding identified lead content to inhabitants, contractors, etc. expected to potentially be exposed. G2 recommends that both the contractor and the owner keep the records for three years.

This report consists of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date(s) of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation.

As with all environmental investigations, this inspection is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Respectfully submitted and reviewed by:

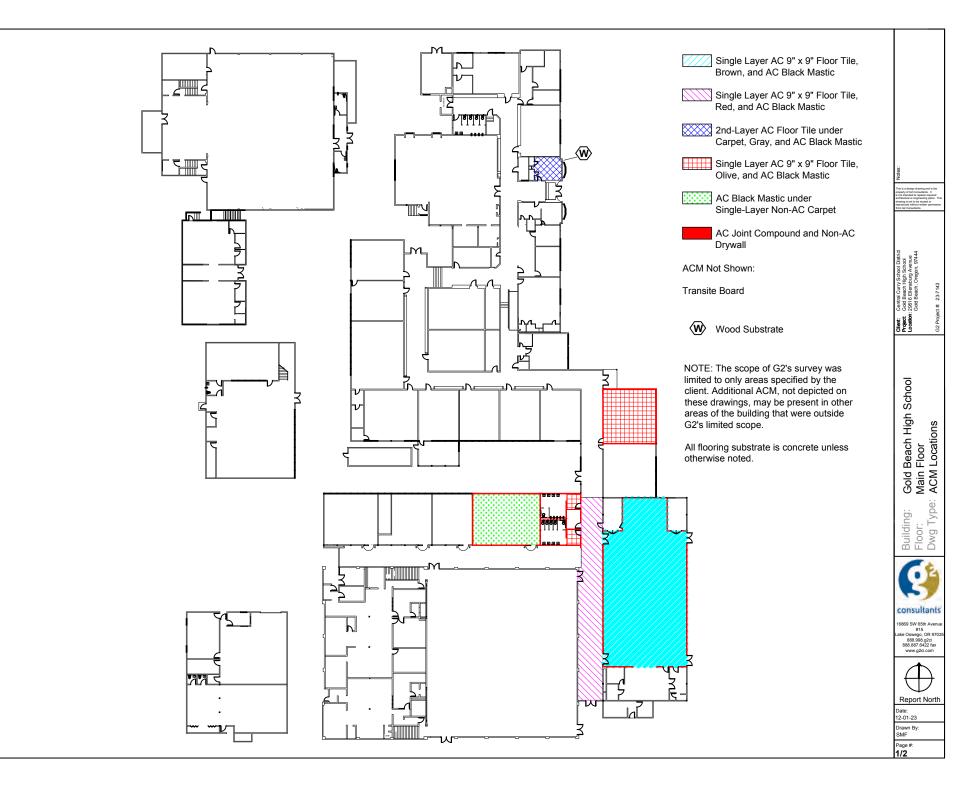
Sean Stewart Project Specialist G2 Consultants

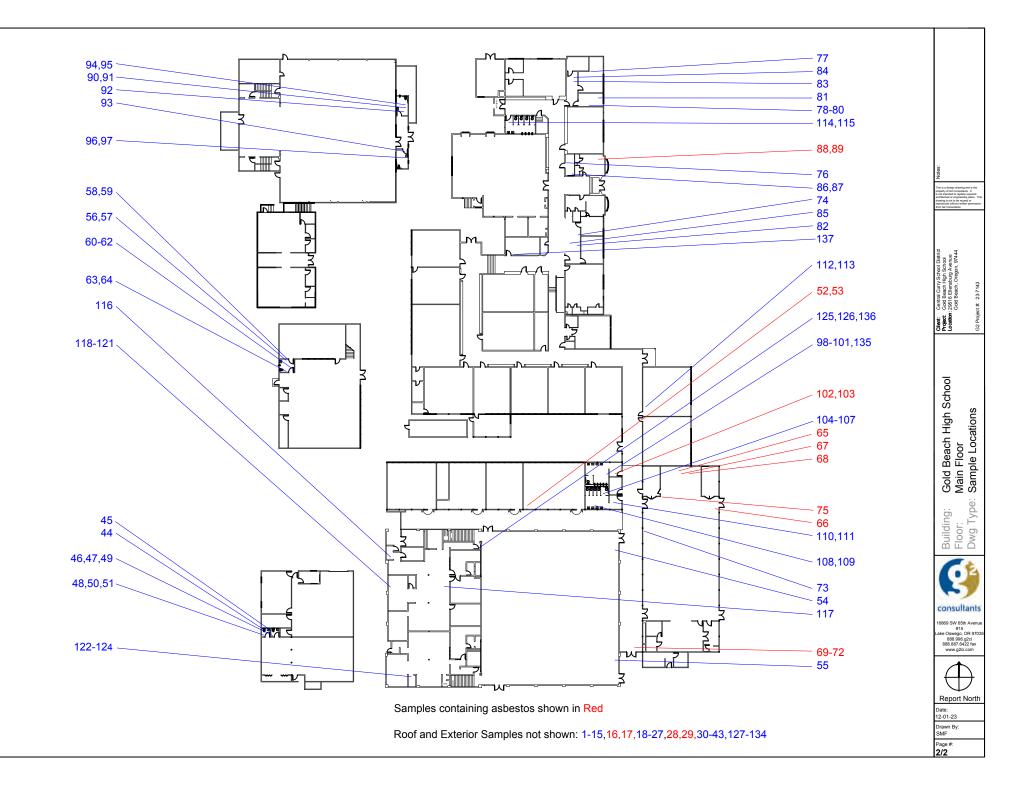
11-

Sean Friend Project Manager G2 Consultants

# Appendix A:

# Sample & Asbestos-Containing Materials Drawings





# Appendix B:

# Laboratory Analysis Results & Chain of Custody

SEEML Reference Number: G-231107099 Date Issued: 11/10/2023



# Southeast Environmental Microbiology Laboratories

102 Edinburgh Court Greenville, SC 29607 Phone: (864) 233-3770 Fax: (864) 233-6589

# Asbestos Analytical Report By: Polarized Light Microscopy

This report has been prepared for **G2 Consultants** the information and data has been checked for thoroughness and accuracy. The results reported apply only to the materials as received. The documents(s) contained herein are confidential and privileged information intended for the exclusive use of the individual or entity named above. This report shall not be reproduced except in full without SEEML's approval.

Client Project Name: 23-7143

The Following report was prepared using this test method(s) contained within this document.

# Approved By : <u>Andrea Berrios</u>

Thank you for choosing SEEML Labs. We strive to provide superior quality testing, analytical data and customer service. SEEML is accredited through the National Institute of Standards and Technology (NIST) National Voluntary Accreditation Program (NVLAP) for bulk asbestos analysis NVLAP # 201031-0 and licensed by the Texas Department of State Health Services (License Number: 300474). This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US government.



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

					Γ
Client:		G2 Consultants		Date Sampled:	
		16869 SW65th		Date Received:	11/07/2023
		-	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	I	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzed by.		Liii		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/ 4	ah aataa Tuma	% Fibrous Non-	0/ Non Fibrous Material	Description // cention
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
588A	None Detected		None Detected	100% Organic Matrix	(Black) Tar/Main Roof-PVC Vents +
23-7143-1	NO	ne Detected	None Detetted		Vent Hoods
589A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Tar/Main Roof-PVC Vents + Vent Hoods
23-7143-2				5	
590A	No	ne Detected	None Detected	100% Organic Matrix	(White) Resinous Material/Main Roof- Metal Seams
23-7143-3				-	
591A	No	ne Detected	None Detected	100% Organic Matrix	(White) Resinous Material/Main Roof-
23-7143-4				_	Metal Seams
592A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Seam Compound/Main Roof-
23-7143-5				<b>J</b>	Vents
593A	No	ne Detected	None Detected	100% Organic Matrix	(Gold) Seam Compound/Main Roof-
23-7143-6					Vents
594A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Vinyl Covering/Main Roof-North
23-7143-7				_	
594B	No	ne Detected	30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-North
23-7143-7			Cellulose		
595A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Vinyl Covering/Main Roof-North
23-7143-8			None Detected		

#### **Approved By: Andrea Berrios**

Disclaimer

The results in this report only apply to the samples as received.

NOB samples are tested as a preliminary analysis. We highly recommend for Negative NOB samples resulting in less than 1% Asbestos to be verified by TEM or Point Analysis.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. NAD means no asbestos fibers were detected. When detected the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				1	
Client:		G2 Consultants		Date Sampled:	
		16869 SW65th		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/- A	shostes Ture	% Fibrous Non-	0/ Non Eibroug Material	Description /Leastion
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
595B	None Detected		30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-North
23-7143-8	NO	ne Detected	Cellulose	05 % Gypsum	
596A	No	ne Detected	None Detected 100% Organic M	100% Organic Matrix	(Gray) Vinyl Covering/Main Roof-North
23-7143-9	_				
596B	No	ne Detected	30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-North
23-7143-9			Cellulose		
597A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Vinyl Covering/Main Roof-
23-7143-10				5	Central
597B	No	ne Detected	30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-Central
23-7143-10			Cellulose	<i>,</i> ,	
597C	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Main Roof-Central
23-7143-10				5	
598A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Vinyfl Covering/Main Roof-
23-7143-11				5	Central
598B	No	ne Detected	30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-Central
23-7143-11			Cellulose		
598C	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Main Roof-Central
23-7143-11			None Delected	100 /0 Organic Machix	

#### **Approved By: Andrea Berrios**

Disclaimer

The results in this report only apply to the samples as received.

NOB samples are tested as a preliminary analysis. We highly recommend for Negative NOB samples resulting in less than 1% Asbestos to be verified by TEM or Point Analysis.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. NAD means no asbestos fibers were detected. When detected the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		G2 Consultants		11/01/2023
16		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	Jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/ 4	ahaataa Tuma	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention
Client No.:	%0 A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
599A	None Detected		None Detected	100% Organic Matrix	(Gray) Vinyl Covering/Main Roof-
23-7143-12	NU	ne Detected	None Delected	100 /0 Organic Matrix	Central
599B	No	ne Detected	30% Fiberglass,5%	65% Gypsum	(White) Insulation/Main Roof-Central
23-7143-12	_		Cellulose		
599C	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Main Roof-Central
23-7143-12					
600A	No	ne Detected	None Detected	100% Organic Matrix	(Silver) Paint/Main Roof-South
23-7143-13					
600B	No	ne Detected	None Detected	100% Organic Matrix	(Black) Tar/Main Roof-South
23-7143-13				-	
601A	No	ne Detected	None Detected	100% Organic Matrix	(Silver) Paint/Main Roof-South
23-7143-14					
601B	No	ne Detected	None Detected	100% Organic Matrix	(Black) Tar/Main Roof-South
23-7143-14					
602A	No	ne Detected	None Detected	100% Organic Matrix	(Silver) Paint/Main Roof-South
23-7143-15					
602B	No	ne Detected	None Detected	100% Organic Matrix	(Black) Tar/Main Roof-South
23-7143-15					I

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		G2 Consultants		11/01/2023
168		16869 SW65th	n Avenue #15	Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Apply and by		Гm	ih MaEhroon	Project Address:	29516 Ellensburg Ave
Analyzed by:		Em	ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/ 4	ahaataa Tuma	% Fibrous Non-	0/ Non Fibrous Material	Description // cention
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
603A				85% Carbon/Quartz	(Gray) Siding/Cafeteria-Exterior(Around
23-7143-16	19,	% Chrysotile	None Detected		Main Bldg)
604A	159	% Chrysotile	None Detected 8	85% Carbon/Quartz	(Gray) Siding/Cafeteria-Exterior(Around Main Bldg)
23-7143-17		,o em joenie			
605A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Seam Compound/Main Roo South-On PVC Vents
23-7143-18					
606A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Seam Compound/Main Roof
23-7143-19					South-On PVC Vents
607A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Seam Compound/Main Roof- Central-On Metal Seams
23-7143-20					
608A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Seam Compound/Main Roof-
23-7143-21				5	Central-On Metal Seams
609A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Seam Compound/Main Roof-
23-7143-22				-	South-On Gym Wall Seams
610A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Seam Compound/Main Roof-
23-7143-23				-	South-On Gym Wall Seams
611A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Seam Compound/Gym
23-7143-24				Leeve ergunier hunk	Restroom Roof (Old Gym)

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		sultants	Date Sampled:	11/01/2023
16		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzad by u		E	ih. Mathaan	Project Address:	29516 Ellensburg Ave
Analyzed by:		Em	ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-		
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
612A	No	no Dotostad	None Detected	100% Organic Matrix	(Black) Seam Compound/Gym
23-7143-25	NO	ne Detected			Restroom Roof (Old Gym)
613A	No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Gym Building (Old Gym)- Exterior Windows
23-7143-26 <b>614A</b>					
23-7143-27	No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Gym Building (Old Gym) Exterior Windows
615A					
23-7143-28	159	% Chrysotile	None Detected	85% Carbon/Quartz	(Purple) Siding/Metal Shop Exterior
616A					
23-7143-29	159	% Chrysotile	None Detected	85% Carbon/Quartz	(Purple) Siding/Metal Shop Exterior
617A					(White) Caulk/Metal Shop Exterior-
23-7143-30	No	ne Detected	None Detected	100% Organic Matrix	Transite Seams
618A	NI	na Datastad	Nene Detected	100% Organia Matrice	(White) Caulk/Metal Shop Exterior-
23-7143-31	NO	ne Detected	None Detected	100% Organic Matrix	Transite Seams
619A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Caulk/Main Bldg Exterior-Wall
23-7143-32	INO			100% Organic Matrix	Trim Seams
620A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Caulk/Main Bldg Exterior-Wall
23-7143-33					Trim Seams

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		G2 Consultants		11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Applyzed by		Em		Project Address:	29516 Ellensburg Ave
Analyzed by:			ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	0/ Non Filmens Material	Description (Leasting
Client No.:	% #	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
621A	Na	no Dobostad	5% Cellulose	95% Binder/Filler	(Tan) Texture/Main Bldg-Front Exterior
23-7143-34		ne Detected			
622A	No	ne Detected	5% Cellulose	95% Binder/Filler	(Tan) Texture/Main Bldg-Front Exterior
23-7143-35					
623A	No	ne Detected	ed 5% Cellulose	95% Binder/Filler	(Tan) Texture/Main Bldg-Front Exterior
23-7143-36					
624A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Window Glazing/Main Bldg-
23-7143-37					Exterior Windows
625A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Window Glazing/Main Bldg- Exterior Windows
23-7143-38			None Delected		
626A	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Block Filler/Exterior-Newer
23-7143-39					Gym Walls
626B	No	ne Detected	None Detected	100% Carbon/Quartz	(Gold) Cementitious Material/Exterior-
23-7143-39				, , , ,	Newer Gym Walls
627A	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Block Filler/Exterior-Newer
23-7143-40					Gym Walls
627B	No	ne Detected	None Detected	100% Carbon/Quartz	(Gold) Cementitious Material/Exterior-
23-7143-40					Newer Gym Walls

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		G2 Consultants		11/01/2023
1680		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzed by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/- A	sbestos Type	% Fibrous Non-	0/ Non Eibroug Material	Description // ception
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
628A	None Detected		None Detected	100% Organic Matrix	(Yellow) Block Filler/Exterior-Newer
23-7143-41					Gym Walls
628B 23-7143-41	None Detected		None Detected	100% Carbon/Quartz	(Gold) Cementitious Material/Exterior- Newer Gym Walls
629A					
23-7143-42	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Caulk/Exterior Door Casing Seams
630A					(Gray) Caulk/Exterior Door Casing
23-7143-43	No	ne Detected	None Detected	100% Organic Matrix	Seams
631A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Caulk/Wood Shop- Restroom Water Fixtures
23-7143-44	NO	ne Delected	None Delected		
632A	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Caulk/Wood Shop-
23-7143-45	10				Restroom Water Fixtures
633A	No	ne Detected	None Detected	100% Binder/Filler	(White) Texture/Wood Shop-Restrooms
23-7143-46					
634A	No	ne Detected	None Detected	100% Binder/Filler	(White) Texture/Wood Shop-Restrooms
23-7143-47					
635A	No	ne Detected	None Detected	100% Binder/Filler	(White) Texture/Wood Shop-Restrooms
23-7143-48			None Delected		

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				•	
Client:	Client:		G2 Consultants		11/01/2023
1		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	06.4	shoetes Turo	% Fibrous Non-	% Non-Fibrous Material	Description // ception
Client No.:	] %*	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
636A	No	ne Detected	d None Detected	100% Binder/Filler	(White) Joint Compound 1/Wood Shop-
23-7143-49		ne Detected			Restrooms
636B	No	ne Detected	d None Detected	100% Binder/Filler	(White) Joint Compound 2/Wood Shop- Restrooms
23-7143-49					
636C	No	ne Detected	60% Cellulose	40% Gypsum	(Tan) Drywall/Wood Shop-Restrooms
23-7143-49					
<b>637A</b> 23-7143-50	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound 1/Wood Shop- Restrooms
637B					
23-7143-50	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound 2/Wood Shop- Restrooms
637C					
23-7143-50	No	ne Detected	65% Cellulose	35% Gypsum	(Tan) Drywall/Wood Shop-Restrooms
638A					(White) Joint Compound 1/Wood Shop-
23-7143-51	No	ne Detected	None Detected	100% Binder/Filler	Restrooms
638B					(White) Joint Compound 2/Wood Shop-
23-7143-51	No	ne Detected	None Detected	100% Binder/Filler	Restrooms
638C	No	ne Detected	50% Cellulose		(Tan) Drywall/Wood Shop-Restrooms
23-7143-51			50% Cellulose	50% Gypsum	

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Guidelines for Interpretation:



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Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client:		G2 Consultants		11/01/2023
1		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Applyzed by		Em		Project Address:	29516 Ellensburg Ave
Analyzed by:			ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	0/ Nov Filmers Material	Description (Leasting
Client No.:	- %A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
639A	<b>F</b> 0	/ Chrysotile	None Detected	95% Organic Matrix	(Black) Mastic/Weight Room-Under
23-7143-52	- 5%	6 Chrysotile			Carpet
640A	- 5%	% Chrysotile	e None Detected	95% Organic Matrix	(Black) Mastic/Weight Room-Under
23-7143-53					Carpet
641A	No	ne Detected	None Detected 100%	100% Organic Matrix	(Brown) Mastic/New Gym-East Wall + Boy's Workout Room
23-7143-54	_				
642A	- No	ne Detected	None Detected	100% Organic Matrix	(Black) Mastic/New Gym-East Wall +
23-7143-55					Boy's Workout Room
643A	- No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Mastic/Metal Shop
23-7143-56	_				Restroom
644A	- No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Mastic/Metal Shop
23-7143-57					Restroom
645A	- No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Metal Shop Restroom-
23-7143-58					Door Casings
646A	- No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Metal Shop Restroom-
23-7143-59					Door Casings
647A	- No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound/Metal Shop
23-7143-60			None Delected		Restrooms

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				1	
Client	Client:		G2 Consultants		11/01/2023
		16869 SW65th	n Avenue #15	Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/- /	Asbestos Type	% Fibrous Non-	% Non-Fibrous Material	Description/Location
Client No.:	704	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
647B	No	ne Detected	45% Cellulose	55% Gypsum	(White) Drywall/Metal Shop Restrooms
23-7143-60		ne Delected			
<b>648A</b> 23-7143-61	- No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound/Metal Shop Restrooms
648B	+				
23-7143-61	- No	ne Detected	50% Cellulose	50% Gypsum	(White) Drywall/Metal Shop Restrooms
649A					(White) Joint Compound/Metal Shop Restrooms
23-7143-62	- No	ne Detected	None Detected	100% Binder/Filler	
649B	Na	ne Detected	400/ Collulaça	60% Gypsum	(White) Drywall/Metal Shop Restrooms
23-7143-62		ne Delecteu	40% Cellulose		
650A	No	ne Detected	None Detected	100% Organic Matrix	(Green) Cove Based/Metal Shop
23-7143-63	140				Restrooms
650B	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Mastic/Metal Shop Restrooms
23-7143-63		ine Delected			
651A	No	ne Detected	None Detected	100% Organic Matrix	(Green) Cove Base/Metal Shop
23-7143-64					Restrooms
651B	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Mastic/Metal Shop Restrooms
23-7143-64					(Gray) Mastic/Metal Shop Restrooms

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-	
Client:		G2 Consultants		Date Sampled:	11/01/2023
		16869 SW65t	h Avenue #15	Date Received:	11/07/2023
		Lake Oswe	go,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	/debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
nalyzed by:		Em	nily McElveen	Project Address:	29516 Ellensburg Ave
inalyzeu by.		LII		City, State. ZIP:	Gold Beach, OR
lethodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	0/ Non Elhando Matavial	Description (Lesstian
Client No.:	% <i>^</i>	Asbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
652A	20	Nore Detected 000/ Oversie Matrix	000/ Organia Matrix		
23-7143-65	7 2%	% Chrysotile	None Detected	98% Organic Matrix	(Brown) Floor Tile/Cafeteria
652B	10	% Chrysotile	None Detected	cted 96% Organic Matrix	(Brown) Mastic/Cafeteria
23-7143-65		o chi ysothe	None Delected		
653A	20	2% Chrysotile None Detected	None Detected	98% Organic Matrix	(Brown) Floor Tile/Cafeteria
23-7143-66	27	o chi ysothe	None Detected		
653B	40	∕₀ Chrysotile	None Detected	96% Organic Matrix	(Black) Mastic/Cafeteria
23-7143-66		vi em ysoene	None Detected	50% Organic Matrix	
654A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Floor Tile/Cafeteria-Accent
23-7143-67			None Detected		
654B	30	∕₀ Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Cafeteria-Accent
23-7143-67		- 5 ,000.10			
655A	- No	ne Detected	None Detected	100% Organic Matrix	(Tan) Floor Tile/Cafeteria-Accent
23-7143-68				20070 Ci gunici Fiacilit	
655B	30	∕₀ Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Cafeteria-Accent
23-7143-68				St. to C. guille Flad A	
656A	5%	⁄₀ Chrysotile	None Detected	95% Organic Matrix	(Red) Floor Tile/Corridors
23-7143-69				2010 enganier laant	

#### **Approved By: Andrea Berrios**

Disclaimer

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-	
Client:	Client:		sultants	Date Sampled:	11/01/2023
	1		16869 SW65th Avenue #15		11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Applyzed by		Em		Project Address:	29516 Ellensburg Ave
Analyzed by:			ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	0/ Non Filmen Material	Description (Leasting
Client No.:	%A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
656B	20	/ Chrysostile	Nene Detected	070/ Orannia Matrix	(Black) Mastic/Corridors
23-7143-69	3%	% Chrysotile	None Detected	97% Organic Matrix	
657A	50/	% Chrysotile	None Detected 95%	95% Organic Matrix	(Red) Floor Tile/Corridors
23-7143-70		o em ysoene			
657B	3%	% Chrysotile	None Detected	None Detected 97% Organic Matrix	(Black) Mastic/Corridors
23-7143-70		o em yooune			
658A	No	ne Detected	None Detected	100% Organic Matrix	(Green) Floor Tile/Corridors
23-7143-71				20070 0. game r aa m	(0.00.)
658B	2%	% Chrysotile	None Detected	98% Organic Matrix	(Black) Mastic/Corridors
23-7143-71				5070 organic riadix	
659A	No	ne Detected	None Detected	100% Organic Matrix	(Green) Floor Tile/Corridors
23-7143-72				<b>J</b>	
659B	2%	% Chrysotile	None Detected	98% Organic Matrix	(Black) Mastic/Corridors
23-7143-72					
660A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Cove Base/Cafeteria
23-7143-73				<b>_</b>	
660B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Cafeteria
23-7143-73			None Detected		

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

			-	1	
Client:	Client:		nsultants	Date Sampled:	
		16869 SW65th		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzed by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/ 4	-	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
661A	Na	no Dotostad	None Detected	100% Organic Matrix	(Black) Cove Base/Admin Office
23-7143-74	NO	ne Detected			
661B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Admin Office
23-7143-74					
661C	No	ne Detected	None Detected	100% Binder/Filler	(White) Texture/Admin Office
23-7143-74					
662A	3%	∕₀ Chrysotile	None Detected	97% Binder/Filler	(White) Joint Compound/Cafeteria
23-7143-75					
662B	No	ne Detected	10% Cellulose,2%	88% Binder/Filler	(White) Drywall/Cafeteria
23-7143-75			Fiberglass		
662C	2%	6 Chrysotile	1% Fiberglass,5% Cellulose	40% Gypsum,52% Binder/Filler	(White) Composite/Cafeteria
23-7143-75					
663A	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound/Student Store
23-7143-76					
<b>663B</b> 23-7143-76	None Detected		10% Cellulose,5% Fiberglass	85% Gypsum	(White) Drywall/Student Store
664A					
23-7143-77	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound/YTP Center

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client:		G2 Consultants		11/01/2023
		16869 SW65th	n Avenue #15	Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/ 4	ahaataa Tuma	% Fibrous Non-	0/ Non Fibrous Motorial	Description // contion
Client No.:	<b>~~</b>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
664B	Na	no Dotostad	10% Cellulose,5% Fiberglass 85% Gypsum	9E0/ Currentin	(White) Drywall/YTP Center
23-7143-77		ne Detected		05 /0 Gypsum	
665A	No	ne Detected	1% Talc 99% (	99% Organic Matrix	(Tan) CMU/YTP Center
23-7143-78	No				
666A	No	ne Detected	1% Talc 99% Organic Matrix	99% Organic Matrix	(Tan) CMU/YTP Center
23-7143-79					
666B	No	ne Detected	None Detected	100% Gypsum	(Gray) Plaster/YTP Center
23-7143-79					
667A	No	ne Detected	1% Talc	99% Organic Matrix	(Tan) CMU/YTP Center
23-7143-80	_				
667B	No	ne Detected	None Detected	100% Gypsum	(Gray) Plaster/YTP Center
23-7143-80				- / [	
668A	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Mastic/YTP Center
23-7143-81					· · · ·
669A	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Mastic/Admin Office
23-7143-82					
670A	No	ne Detected	95% Cellulose	5% Binder/Filler	(White) Ceiling Tile/YTP Center
23-7143-83				,	

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#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Consultants		Date Sampled:	11/01/2023
		16869 SW65tł	n Avenue #15	Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzed by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	0/ Non Filmens Material	Decemination (I continue
Client No.:	<b>_</b> % #	Asbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
671A	Na	ne Detected	ed 95% Cellulose	5% Binder/Filler	(White) Ceiling Tile/YTP Center
23-7143-84		one Delected			
672A	No	ne Detected	None Detected	100% Binder/Filler	(Green) Texture/Admin Office
23-7143-85					
672B	- No	ne Detected	1% Talc	99% Organic Matrix	(Tan) CMU/Admin Office
23-7143-85			170 Tuic		
672C	- No	ne Detected	None Detected	100% Gypsum	(Gray) Plaster/Admin Office
23-7143-85				,,	
673A	- No	ne Detected	None Detected	100% Binder/Filler	(Tan) Texture/Student Store
23-7143-86					()
673B	- No	ne Detected	1% Talc	99% Organic Matrix	(Tan) CMU/Student Store
23-7143-86	<b>_</b>				
673C	- No	ne Detected	None Detected	100% Gypsum	(Gray) Plaster/Student Store
23-7143-86					· · · ·
674A	- No	ne Detected	None Detected	100% Binder/Filler	(Green) Texture/Student Store
23-7143-87	<b>_</b>				
674B	- No	ne Detected	1% Talc	99% Organic Matrix	(Tan) CMU/Student Store
23-7143-87				-	

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client		G2 Consultants		Date Sampled:	11/01/2023
Cilent	•		h Avenue #15	Date Sampled: Date Received:	
			go,OR,97035	Date Analyzed:	
			/debra@g2ci.com	Date Reported:	
		(000)000,		Date Revised:	
				Project Name:	23-7143
				Project No:	
				-	29516 Ellensburg Ave
Analyzed by:		Em	nily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.: Client No.:	- % #	Asbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
674C	No	ne Detected	None Detected	100% Gypsum	(Gray) Plaster/Student Store
23-7143-87		ne Delected			
675A	3%	% Chrysotile	ile None Detected 97%	97% Organic Matrix	(Tan) Floor Tile/Quiet Room
23-7143-88					
675B	29	% Chrysotile	None Detected	98% Organic Matrix	(Black) Mastic/Quiet Room
23-7143-88		-			
676A	3%	∕₀ Chrysotile	None Detected	97% Organic Matrix	(Tan) Floor Tile/Quiet Room
23-7143-89					
676B	- 2%	% Chrysotile	None Detected	98% Organic Matrix	(Black) Mastic/Quiet Room
23-7143-89					
<b>677A</b> 23-7143-90	- No	ne Detected	10% Cellulose,20% Cellulose,60% Fiberglass	10% Perlite	(White) Ceiling Tile/Old Gym Restroom
678A					
23-7143-91	- No	ne Detected	10% Cellulose,20% Min Wool,60% Fiberglass	10% Perlite	(White) Ceiling Tile/Old Gym Restroom
679A	1		, , , , , , , , , , , , , , , , , , , ,		(Green) Sheet Vinul Electring/Old Cum
23-7143-92	No	ne Detected	25% Cellulose	75% Organic Matrix	(Green) Sheet Vinyl Flooring/Old Gym Restrooms
679B				1000/ 0	
23-7143-92	<b>│</b> <sup>№</sup>	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Old Gym Restrooms

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client:		nsultants	Date Sampled:	11/01/2023
		16869 SW65t	h Avenue #15	Date Received:	11/07/2023
		Lake Oswe	go,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	/debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by u		E	ih MaThana	Project Address:	29516 Ellensburg Ave
Analyzed by:		Err	nily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.: Client No.:	- % A	sbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
680A				75% Organic Matrix	(Green) Sheet Vinyl Flooring/Old Gym Restrooms
23-7143-93	- No	ne Detected	25% Cellulose		
680B				100% Organic Matrix	(Tan) Mastic/Old Gym Restrooms
23-7143-93	- No	ne Detected	None Detected		
681A			None Detected	100% Organic Matrix	(Tan) Mastic/Old Gym Restrooms
23-7143-94	- No	ne Detected			
681B				F0/ Organia Matrix	(Brown) Fibrous Material/Old Gym
23-7143-94	- NO	ne Detected	95% Cellulose	5% Organic Matrix	Restrooms
682A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Old Gym Restrooms
23-7143-95		ne Delecteu	None Delected	100% Organic Matrix	
682B	No	ne Detected	95% Cellulose	5% Organic Matrix	(Brown) Fibrous Material/Old Gym
23-7143-95		The Detected	55 % Cellulose	5 % Organic Matrix	Restrooms
683A	No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Old Gym Restrooms
23-7143-96					
684A	No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Old Gym Restrooms
23-7143-97					(white) Cauk/Old Gylli Kesti Joms
685A		ne Detected	None Detected	100% Binder/Filler	(White) Compound/Main Bldg
23-7143-98					Restrooms SW

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:	Client:		G2 Consultants		11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Applyzed by		Em		Project Address:	29516 Ellensburg Ave
Analyzed by:			ily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:			% Fibrous Non-	Of New Filmers Metanial	Description (Leasting
Client No.:	₩ % #	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
685B	Na	no Dobostad	ected None Detected	100% Organic Matrix	(Yellow) Mastic/Main Bldg Restrooms SW
23-7143-98		ne Detected			
686A	No	ne Detected	None Detected	100% Binder/Filler	(White) Compound/Main Bldg Restrooms SW
23-7143-99					Restrooms Sw
687A	No	ne Detected	None Detected 100	100% Carbon/Quartz	(Gray) Mortar/Main Bldg Restrooms SW
23-7143-100					
687B	No	ne Detected	None Detected	100% Binder/Filler	(White) Compound/Main Bldg Restrooms SW
23-7143-100					Resti donis Sw
688A	No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Main Bldg Restrooms SW
23-7143-101					
688B	No	ne Detected	None Detected	100% Binder/Filler	(White) Compound/Main Bldg Restrooms SW
23-7143-101					
689A	3%	% Chrysotile	None Detected	97% Organic Matrix	(Green) Floor TIle/Main Bldg Restrooms SW
23-7143-102	-				
689B	None Detected		None Detected	100% Organic Matrix	(Yellow) Mastic/Main Bldg Restrooms SW
23-7143-102					577
689C	4%	6 Chrysotile	None Detected	96% Organic Matrix	(Black) Mastic/Main Bldg Restrooms SW
23-7143-102					

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				1	
Client:		G2 Consultants 16869 SW65th Avenue #15		Date Sampled:	11/01/2023
				Date Received:	11/07/2023
		Lake Oswe	go,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	/debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em		Project Address:	29516 Ellensburg Ave
Analyzeu by.			nily McElveen	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.: Client No.:	- % #	Asbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
689D			d None Detected 100% Gypsum	1000/ 0	(Gray) Plaster/Main Bldg Restrooms SW
23-7143-102	- <sup>NO</sup>	one Detected		100% Gypsum	
<b>690A</b> 23-7143-103	- 3%	% Chrysotile	None Detected	97% Organic Matrix	(Green) Floor Tile/Main Bldg Restrooms SW
690B				(Yellow) Mastic/Main Bldg Restrooms	
23-7143-103	- No	ne Detected	None Detected	100% Organic Matrix	(Tellow) Mastic/Main Blug Restrooms SW
690C				96% Organic Matrix (E	-
23-7143-103	- 4%	% Chrysotile	None Detected		(Black) Mastic/Main Bldg Restrooms SW
690D	Na	na Datastad	Nene Detected	1000/ Сыланыла	
23-7143-103		ne Detected	None Detected	100% Gypsum	(Gray) Plaster/Main Bldg Restrooms SV
691A	Na	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Main Bldg Restrooms SW
23-7143-104		one Delected	None Delected		(Gray) Grout/Main Blug Restrooms SW
692A	No	one Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Main Bldg Restrooms SW
23-7143-105	110				
693A	No	ne Detected	None Detected	100% Organic Matrix	(Clear) Mastic/Main Bldg Restrooms SW
23-7143-106		ine Delected	None Detected		(Clear) Mastic/Main Blog Restrooms SW
693B	No	ne Detected	95% Cellulose	5% Organic Matrix	(Yellow) Fibrous Material/Main Bldg
23-7143-106				o /o organic riadix	Restrooms SW

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				1	
Client	Client:		G2 Consultants		11/01/2023
		16869 SW65t	h Avenue #15	Date Received:	11/07/2023
		Lake Oswe	go,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	/debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	nily McElveen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		LII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.: Client No.:		Asbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
694A				100% Organic Matrix	(Clear) Mastic/Main Bldg Restrooms SV
23-7143-107		one Detected	None Detected		
<b>694B</b> 23-7143-107	No	ne Detected	95% Cellulose	5% Organic Matrix	(Yellow) Fibrous Material/Main Bldg Restrooms SW
695A					
23-7143-108	- No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Main Bldg Restrooms SV
696A	No	ne Detected	None Detected	100% Organic Matrix	(White) Caulk/Main Bldg Restrooms SV
23-7143-109		ne Delected	None Delected		
697A	No	ne Detected	35% Min Wool,5%	5% Binder/Filler	(White) Ceiling Tile/Main Bldg
23-7143-110		me Detected	Cellulose,55% Fiberglass	5 % binder/1 liter	Restrooms SW
698A	No	ne Detected	35% Min Wool,5%	5% Binder/Filler	(White) Ceiling Tile/Main Bldg
23-7143-111		me Detected	Cellulose,55% Fiberglass	5 % binder/1 liter	Restrooms SW
699A	No	ne Detected	95% Cellulose	5% Binder/Filler	(White) Ceiling Tile/Classroom 13
23-7143-112				570 Binder/Tiller	
700A	No	ne Detected	95% Cellulose	5% Binder/Filler	(White) Ceiling Tile/Classroom 13
23-7143-113				570 Brider/Tiller	
701A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Main Bldg Boy's Restroon
23-7143-114					North

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client:		G2 Consultants		11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave
Analyzed by.		LIII		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.: Client No.:	- % A	Asbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
<b>702A</b> 23-7143-115	- No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Main Bldg Boy's Restroom North
<b>703A</b> 23-7143-116	No	ne Detected	None Detected	100% Binder/Filler	(Black) CMU/Boy's Locker Room
703B					
23-7143-116	- No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Mortar/Boy's Locker Room
704A	No	ne Detected	None Detected	100% Binder/Filler	(Black) CMU/Boy's Locker Room
23-7143-117		ne Detected	None Detected		
704B	No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Mortar/Boy's Locker Room
23-7143-117			None Detected		(Gray) Mortal/Boy's Locker Room
705A	No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Boy's Locker Room
23-7143-118					Shower
706A	No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Boy's Locker Room
23-7143-119					Shower
707A	No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Mortar/Boy's Locker Room
23-7143-120				(uuu	Shower
708A	No	ne Detected	None Detected	100% Carbon/Quartz	(White) Ceramic Tile/Boy's Locker
23-7143-121					Room Shower

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

		C2 Car	lta a ta		11/01/2022
Client:			nsultants	Date Sampled:	
		16869 SW65t		Date Received:	
			go,OR,97035	Date Analyzed:	
		(888)998-4224/	/debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7143
				Project No:	23-7143
Analyzed by:		- Fm	nily McElveen	Project Address:	29516 Ellensburg Ave
				City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099
Lab No.:	0/- 4		% Fibrous Non-	0/ Non Eibroug Material	Description (Leastion
Client No.:	<b>70</b>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
708B	No	ne Detected	ed None Detected	100% Carbon/Quartz	(White) Mortar/Boy's Locker Room Shower
23-7143-121		ne Delecteu			
709A	No	ne Detected	cted 15% Fiberglass	85% Organic Matrix	(White) Insulation Wrap/Girl's Locker Room Closet
23-7143-122					
709B	No	ne Detected	15% Min Wool,20%	65% Binder/Filler	(White) Insulation/Girl's Locker Room Closet
23-7143-122			Fiberglass	,	
710A	No	ne Detected	40% Cellulose	60% Organic Matrix	(White) Insulation Wrap/Girl's Locker
23-7143-123				5	Room Closet
710B	No	ne Detected	15% Synthetic,20%	65% Binder/Filler	(White) Insulation/Girl's Locker Room
23-7143-123			Fiberglass		Closet
711A	No	ne Detected	20% Cellulose	80% Organic Matrix	(White) Insulation Wrap/Girl's Locker
23-7143-124				5	Room Closet
711B	No	ne Detected	15% Min Wool,20%	65% Binder/Filler	(White) Insulation/Girl's Locker Room
23-7143-124			Fiberglass	, -	Closet
712A	No	ne Detected	None Detected	100% Organic Matrix	(Brown) Cove Base/Boy's Locker Room
23-7143-125				-	Entry
712B	- No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Boy's Locker Room Entry
23-7143-125			None Deletter		

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Consultants		Date Sampled:	11/01/2023	
		16869 SW65th Avenue #15		Date Received:	11/07/2023	
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/10/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7143	
				Project No:	23-7143	
Analyzed by:		Em	ily McElveen	Project Address:	29516 Ellensburg Ave	
Analyzed by.		LIII		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107099	
Lab No.: Client No.:	% A	Asbestos Type	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location	
713A				100% Organic Matrix	(Brown) Cove Base/Boy's Locker Room Entry	
23-7143-126	No	one Detected	None Detected			
713B				100% Organic Matrix	(Tan) Mastic/Boy's Locker Room Entry	
23-7143-126	No	ne Detected	None Detected			
	1					
	4					
	4					
	4					

#### **Approved By: Andrea Berrios**

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#### Guidelines for Interpretation:

SEEML Reference Number: G-231129031 Date Issued: 12/01/2023



# Southeast Environmental Microbiology Laboratories

102 Edinburgh Court Greenville, SC 29607 Phone: (864) 233-3770 Fax: (864) 233-6589

# Asbestos Analytical Report By: Polarized Light Microscopy

This report has been prepared for **G2 Consultants** the information and data has been checked for thoroughness and accuracy. The results reported apply only to the materials as received. The documents(s) contained herein are confidential and privileged information intended for the exclusive use of the individual or entity named above. This report shall not be reproduced except in full without SEEML's approval.

Client Project Name: Central Curry School District The Following report was prepared using this test method(s) contained within this document.

✓ PLM Bulk Asbestos Fiber Analysis: EPA 600/R-93/116
PLM 400 Point Count (<0.25%) EPA 600/R-93/116
PLM 1000 Point Count (<0.1%) EPA 600/R-93/116
PLM Carb 435 Level A Reporting Limit (<0.25%)
PLM Carb 435 Level B (Reporting limit <0.1%)
PLM by EPA/600/R-93/116 with Milling Prep 400 Point Count
PLM Vermiculite Initial Screening EPA 600R-93/116
PLM Cincinnati Method 600/R-04/004 (Amphibole Only)
PLM Vermiculite Method SOF-V 198.8 (Step 1 Chrysotile & Prep)
PLM Vermiculite Method SOF-V 198.8 (Step 2 (Amphibole)

# Approved By : <u>Andrea Berrios</u>

Thank you for choosing SEEML Labs. We strive to provide superior quality testing, analytical data and customer service. SEEML is accredited through the National Institute of Standards and Technology (NIST) National Voluntary Accreditation Program (NVLAP) for bulk asbestos analysis NVLAP # 201031-0 and licensed by the Texas Department of State Health Services (License Number: 300474). This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US government.



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

					<b>F</b>
Client:		G2 Consultants 16869 SW65th Avenue #15		Date Sampled:	
				Date Received:	11/29/2023
		Lake Oswego,OR,97035		Date Analyzed:	12/01/2023
		(888)998-4224/debra@g2ci.com		Date Reported:	12/01/2023
			Date Revised:		
			Project Name:	Central Curry School District	
			Project No:	23-7143	
Analyzed by:		Linh Nguyen		Project Address:	29516 Ellensburg Ave
				City, State. ZIP:	Gold Beach, OR
Methodology:	EPA/600/R-93		/116 Without Gravimetry	SEEML Ref#:	G-231129031
Lab No.:	06.0		% Fibrous Non-	% Non Eihrous Matorial	Description/Location
Client No.:	<b>70</b>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	
167A	No	ne Detected	10% Synthetic	90% Organic Matrix	(White) Roof Cover/Metal Shop Roof
23-7143-127	None Detected		10% Synthetic	90% Organic Matrix	
168A	No	ne Detected	d 10% Synthetic	90% Organic Matrix	(White) Roof Cover/Metal Shop Roof
23-7143-128					
168B	None Detected		15% Fiberglass,85% Min	None Detected	(White) Fibrous Material/Metal Shop Roof
23-7143-128			Wool		
168C	None Detected		3% Cellulose,7% Fiberglass	90%,90% Gypsum	(White) Drywall/Metal Shop Roof
23-7143-128					
169A	No	ne Detected	10% Synthetic	90% Organic Matrix	(White) Roof Cover/Metal Shop Roof
23-7143-129			,	-	
169B	- None Defected	15% Fiberglass,85% Min	None Detected	(White) Fibrous Material/Metal Shop Roof	
23-7143-129					Wool
169C	No	ne Detected	3% Cellulose,7% Fiberglass	90% Gypsum	(White) Drywall/Metal Shop Roof
23-7143-129				/	
170A	No	ne Detected	None Detected	100% Organic Matrix	(Silver) Paint/Metal Shop Roof-Post Seams
23-7143-130					
170B	None Detected		None Detected	100% Organic Matrix	(Gray) Seam/Metal Shop Roof-Post Seams
23-7143-130					

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				Data Comulada	11/20/2022
Client:		G2 Consultants		Date Sampled:	
		16869 SW65th Avenue #15		Date Received:	
		Lake Oswego,OR,97035		Date Analyzed:	
		(888)998-4224/	· · ·	12/01/2023	
			Date Revised:		
				Central Curry School District	
		1	Project No:		
Analyzed by:		Linh Nguyen			29516 Ellensburg Ave
				City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231129031
Lab No.:		chostos Turna	% Fibrous Non- Asbestos Material Type	% Non-Fibrous Material	Description/Location
Client No.:	<b>₩</b>	Asbestos Type			
171A	Na	ne Detected	None Detected	100% Organic Matrix	(Gray) Seam/Metal Shop Roof-Post Seams
23-7143-131					
172A	No	ne Detected	ed 10% Synthetic	90% Organic Matrix	(Gray) Roof Cover/Wood Shop Roof
23-7143-132		ne Detected			
172B	No	one Detected 95% Cellulose	5% Perlite	(Tan) Ceiling Tile/Wood Shop Roof	
23-7143-132		ine Detected	55 % Centriose	5701 Child	
173A	None Detected 10% Synthetic	10% Synthetic	90% Organic Matrix	(Gray) Roof Cover/Metal Shop Roof	
23-7143-133			10% Synthetic		
173B	No	ne Detected	95% Cellulose	5% Perlite	(Tan) Ceiling Tile/Metal Shop Roof
23-7143-133				5701761116	
174A	None Detected 10% Synthetic 90% Organ	90% Organic Matrix	(Gray) Roof Cover/Metal Shop Roof		
23-7143-134		ine Detected	1070 Synthetic	90% Organic Matrix	
174B	No	ne Detected	95% Cellulose	5% Binder/Filler	(Tan) Ceiling Tile/Metal Shop Roof
23-7143-134					
175A	No	ne Detected	10% Cellulose	90% Gypsum	(White) Drywall/SE Boys Restroom
23-7143-135	140				
176A	No	ne Detected	2% Cellulose	98% Gypsum	(White) Granular Plaster/Boy's Locker Room
23-7143-136					

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Guidelines for Interpretation:



Southeast Environmental Microbiology Laboratories - Asbestos Division

102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Cor	nsultants	Date Sampled:	11/28/2023
		16869 SW65t	h Avenue #15	Date Received:	11/29/2023
			go,OR,97035	Date Analyzed:	12/01/2023
		(888)998-4224/	/debra@g2ci.com	Date Reported:	12/01/2023
				Date Revised:	
				Project Name:	Central Curry School District
				Project No:	23-7143
Analyzed by:			inh Nguyen	Project Address:	29516 Ellensburg Ave
Analyzeu by.		L		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231129031
Lab No.:	0/- 4		% Fibrous Non-	% Non-Fibrous Material	Description/Location
Client No.:	<b>70</b> <i>P</i>	Asbestos Type	Asbestos Material Type	% NON-FIDFOUS Material	Description/Location
176B	No	ne Detected	10% Cellulose	90% Gypsum	(White) Drywall/Boy's Locker Room
23-7143-136	23-7143-136 No		1070 Celidiose	90 % Gypsum	(White) Drywail/boy's Locker Room
177A	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound/N Girl's
23-7143-137			Hole Beteled		Restroom
177B	No	ne Detected	10% Cellulose,5%	85% Gypsum	(White) Drywall/N Girl's Restroom
23-7143-137			Fiberglass		
	-				
	-				
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#### Guidelines for Interpretation:

Any opinions/interpretations expressed in this report are outside the scope of this laboratory's accreditation. Interpretation of the data and information within this document is left to the company, consultant, and/or persons who conducted the fieldwork. A material is considered regulated asbestos containing material (ACM) where the asbestos content is determined to be one percent or greater. Several organizations, including the American Conference of Government Industrial Hygienists (ACGIH); the American Industrial Hygiene Association (AIHA); the Indoor Air Quality Association (IAQA); the United States Environmental Protection Agency (USEPA); the Centers for Disease Control (CDC) as well as the California Department of Health Services (CADHS) have published guidelines for assessment and interpretation of analytical data indicating a tested material is ACM.

	CHAIN OF CUSTODY RECORD	Page #:	1 of 6	1
Ci consultants		G2 Job #:	23-7143	11/2/2
· )		Sample Date: Submit Date:	11/1-	1 2/6
Jobsite Address:	G2 Client: Central Curry School District Address: 29516 Ellensburg Ave	Sampled By:	CF	5-07
29516 Ellensburg Ave )	Address. 233 to Literabuly Ave			
	G2 Contact: Sean Friend Phone #: (503) 863-0860 588 - 713			
DR CFQSIIU+01-1	Phone #: (503) 863-0860 300 713			
Asbestos:				
PLM         PLM/Point Count 400         Wipe           TEM         PLM/Point Count 1000         Vac	Other: Notes: GBAS			
Turn-Around Time: □ Same Day □ Next Day □ 2 Day 3 D Results to: labresults@g2ci.com		1	-	
HM# Material Description	Sample # Sample Location	Condition		Quantity
	23-7143	I/P	Y/N	
1 ROOF P+R, Black	-1 main Roof - PVC VENTS + VENT hopeds			
hour IFR, viant	-2 4		-	
				0
HM# Material Description	Sample # Sample Location	Condition	Y/N	Quantity
Z Roof P+R, white		I/P	17/14	
Z Roof Ith, white	-3 Main Roof - metal seams		-	
	-4			
		Condition	Friable	Quantity
HM# Material Description	Sample # Sample Location	I/P	Y/N	Guanary
3 Sean compound, Gray	-S Annie Roof - Ments			
3 Sean compound, Gray	-5 Main Roof - Vents		-	1
/ san company or g			1	
	Sample # Sample Location	Condition	Friable	Quantity
HM# Material Description	Sample # Sample Location	I/P	Y/N	
4 BUD	-7 main ROOF-North			
4 BUR				
U	-8			· · · · · · · · · · · · · · · · · · ·
Maturial Departmention	Sample # Sample Location	Condition	Friable	Quantity
HM# Material Description		I/P	Y/N	
CDUR	-10 main Roof - Central			
5 BUR	-//		1	
	-12		-	
HM# Material Description	Sample # Sample Location	Condition	Friable	Quantity
10		I/P	Y/N	
6 BUR	-13 Main Roof - South		_	
6 DUK	-14			+
		Oradition	Frickle	Quantity
HM# Material Description	Sample # Sample Location	Condition	Y/N	Quantity
7 Transite Board	-11 Constant Contaction ( ) all			
Tractite board	-16 Careteria - Exterior (Around main Blog)			
1 1 100311			-	-
	Sample # Sample Location	Condition	Friable	Quantity
HM# Material Description	Sample # Sample Location	I/P	Y/N	
0	e -18 main Roof-South-on puc vents		-	1
8 Sean Compound, OFF-White	-18 main Koor-South-on puc vents			
8 Sean compound, OFF-White				
Samples Relinquished by: Sean Frien Date and Time: 1-6-2023 5:00	Samples Relinquished by:			
Date and Time: 11-6-2023 15:00	Date and Time:			
Samples Received by:	Samples Received by.			
Date and Time:	Date and Time: 11-7-33			
	11 1000			

Jobsite Address: 29516 Ellensburg Ave

0 Gold Beach G2 Job #: 23-7143

Page #: 2 of 6

Friable Quantity

Friable Quantity

Friable Quantity

Friable Quantity

Quantity

Quantity

Quantity

Quantity

Quantity

Y/N

Friable

Y/N

Y/N

Y/N

Y/N

Friable

Friable

Y/N

Y/N

Condition

Condition

Condition

Condition

Condition

Condition

Condition

I/P

I/P

I/P

I/P

I/P

I/P

I/P

97444 Material Description HM# 9 Scan compound, Dark Gray Material Description HM# Scan Compound, Black 10 HM# Material Description Scan Compound, Black )1

HM# Material Description 12 Window Glazing, White

HM# Material Description 13 Transite Board

HM# Material Description Caulking, White chaulky 14 HM# Material Description

Caulking, Light Gray 15 HM# 16 Exterior wall Texture, Knock-Down

HM# Material Description Window Glazing, OFF-white 17 HM# Material Description

18 Stucco HM# Material Description

19

Caulking, Dark Gray

Sample Location Sample # 23-7/43 Main Roof - Central - On motal Seems Sample Location Sample # Main Roof - South - On Gymusg/ Seans -12 Sample Location Sample # FUM RESTROOM ROOF (CH Gym -24 Sample # Sample Location Gym Building (old Gym) - Exterior Windows -26 Sample Location Sample # Metal Shop Exterior -28 Sample # Sample Location Mctal Shop Exterior - Transite Seans

-33 Condition Friable Quantity Sample Location Sample # I/P Y/N Front Exterior Main Blog --Condition Friable Sample # Sample Location I/P Y/N -37 Moin Blog - Exterior Window Condition Friable Sample # Sample Location I/P Y/N Exterior - Newer Gym Walls -40

Exterior - Wall Trin Seans

Sample Location

-32 Main Bldg

Sample #

Jobsite Address:

29516 Ellensburg Ave 0 Gold Beach

Page #: 3 of 6

97444		Sample #	Sample Location	Condition	Friable	Quantity
HM#	Material Description	Sample # 73-7/43 -44 -45		I/P	Y/N	
20	Callin OFF-White	-44	wood shop- Restroom Water Fixtures			
20	Caulking, OFF-White	-45	1.4			
HM#	Material Description	Sample #	Sample Location	Condition	Friable	Quantity
				I/P	Y/N	
21	Wall Texture, orange peel	-46	wood shop - Restrooms			
- 1		-48			-	
HM#	Material Description	Sample #	Sample Location	Condition	Friable	Quantity
	1	69		I/P	Y/N	-
22	Prywall + Joint compound	-11			-	
00	riguelli i suri (composito	-50				
HM#	Material Description	Sample #	Sample Location	Condition		Quantity
20			weight Room-under courpet	I/P	Y/N	
123	Mastic, Black	-01	Weight home www cuper		10	
		22	- 4			
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
24	Residual CB mostin, Pask Brown	-~4	New Gym-east wall + Boys workcut Room	1/P	1/1	-
61	Kesidual CO MASSIEL Vark Once	->-2	Joew organ - each will i wijs white i the			
	1		¥			-
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
20	Prop 11 IT 1/10	-56	Matal CLAD RESTRAM	1/1	17.14	
15	FRP Adh., OFF-white	-57	Metal Shop Restroom			
0	I III TION.					
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
.1	I all all	-64	ANDIAL CLAD DOCKETHA - Das Lasings	1/1	1/14	
26	Caulking, White	-69	Metal Shop Restroom - Doos Casings			1
00			· •			
HM#	Material Description	Sample #	Sample Location	Condition	Friable	Quantity
	1. 1	60	Metal Shop Restrooms	I/P	Y/N	-
27	Drywall + Joint compound	-00	Mictal Shop Rezmoons		-	-
0	l'ungenter i	-61			-	
1154.4	Matazial Description	Sample #	Sample Location	Condition	Friable	Quantity
HM# /	Cove Base, 4" Pask Green, and Gray Adh.			I/P	Y/N	
28/20	Coup Base 4 Vouk breen, wo	-63 -64				
1/10	Concorrege Lacou Ad	-64	V			
1.1	Ging Hom.			Condition	Friable	Quantity
HM#	Material Description	Sample #	Sample Location	I/P	Y/N	Quantity
30/	Material Description FT, 9"x9" Brown w/ow Streaks, and	-65	(afeteria		1	- III.
7/10	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-66				
17	Black mastic	60				
HM#	B FT, 9" 49" Beige w/Brownstreaks, and B FT, 9" ×9" Beige w/Brownstreaks, and Black mastic	Sample #	Sample Location	Condition		Quantity
011	a " as Baina w/ Roughters and			G/F/P	Y/N	-
3/2	ET 9 49 URIGE OF DIOWNSHI TO 1 000	-67 -69	- Accent		-	+
11	Blackmastic	-69			+	+
	Uncertaint				_	

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Gold Beach 97444						
HM#	FT, 9"×9" Red w/ Beige Streaks, and Black mastic	Sample # 23-7/43 -69 -70	Sample Location	Condition I/P	Friable Y/N	Quantity
33/23	Black Mastic Material Description FT, 9", 9" Green W/ Multi-color Streaks, and Black Mastic Material Description	Sample # - 71 -72	Sample Location	Condition I/P	Friable Y/N	Quantity
34/	Material Description Cove Base, 4" Black, and Beige Adh.	Sample # -73 -74	Sample Location Cateforia Admin Office	Condition I/P	Friable Y/N	Quantity
36	Material Description Drywall + Soint Compound	Sample # -75 -76	Sample Location CAFEFERIA Student Spre VTP CENTER	Condition I/P	Friable Y/N	Quantity
<sup>IM#</sup> 37	Material Description Plaster + Skim coat	Sample # -78 -79 -80	Sample Location	Condition I/P	Friable Y/N	Quantity
ім# 38	Material Description Caspet Glue, Ton	Sample # 81 82	Sample Location	Condition I/P	Friable Y/N	Quantity
39	Material Description CT, 12"×30" Smooth	Sample # 83 84	Sample Location VTP CONJET	Condition I/P	Friable Y/N	Quantity
HQ	Material Description Plaster + Skin Coat	Sample #	Sample Location Admin office Student Store	Condition I/P	Friable Y/N	Quantity
41/23	Material Description 2nd-1gr FT, Gray, and Black Mastic	Sample #	Sample Location Gulet hoom	Condition I/P	Friable Y/N	Quantity
нм# Ц2	Material Description Ceiling Tile, 12"x12" G+P	Sample #	Sample Location Old Grym ACS From S	Condition I/P	Friable Y/N	Quantity
HM# H3/	Sheet vingl, green pebble pattern, and white glue	Sample # -92 -93	Sample Location	Condition G/F/P	Friable Y/N	Quantity

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HM#	Material Description	Sample # 7/4 2	Sample Location	Condition I/P	Friable Y/N	Quantity
45	FRP Adhesive, Gray	Sample # 23-7/43 -94 -95	old Gryn Restrooms			
нм#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
46	Caulking, white	-96 -97	$\checkmark$			
HM#	3	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
47	Grout From 6"x6" Ces. WT, White	-98 -99	Main Blog hestrooms SW			
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
48	Mortas From 6"x6" Ces. WT, gray	-100				
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
47/12	FT, 9"x9" olive w/ Beige Streaks, and Black Mastic	- 07				
	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
50	Grout From I'XI" CCT. FT, Gray	-105				
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
51	Material Description Adhesive From I'x1" Ces. Addressive FT, TGA	-106				
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
52	Caulking, white	-108				
HM#	Material Description	Sample #	Sample Location	Condition	Friable Y/N	Quantity
53	Material Description (T, 12"×12" pinhole	-//c				
11144	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
SH	CT, 12 X12 pegholew/ pinholes	-112	Classicoona 13			
HM#	Material Description	Sample #	Sample Location	Condition G/F/P	Friable Y/N	Quantity
55	FRP Adhesive, Tan	-114	Main Blog Boys Restreen North			
15	r rioron - 1	-115	- V <sup>-</sup>			

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7444 IM#	Material Description	Sample # 73-7/43	Sample Location	Condition I/P	Friable Y/N	Quantity
56	CARL de la	62 -116	Boys Locker Room			
0	CMU mortas, Gray	-117			1	
1#	Material Description	Sample #	Sample Location	Condition	Friable Y/N	Quantity
-	1 - + From 2"- 2" cer. IT. Park	-118	boys Locker hoom shower	I/P	1/1	
7/	Grout I. Corey	-119				
	Material Description Grout From 2"x 2" cer. FT, Dask Gray Material Description Mortar From 2"x 2" cer. FT, Lt. Gray Material Description Pipe insulation Hard Fittings, 4" Material Description Cove Base, 4" Lt. Brown, and Beige Addresive Material Description	Sample #	Sample Location	Condition	Friable	Quantity
M #	I For 7" - FT 1+			I/P	Y/N	
58	Mostar HOME XC CO. FI, LT.	-120 -121	V			
- 0	Gitag			Condition	Friable	Quantity
M#	Material Description	Sample #	Sample Location	I/P	Y/N	Quantity
59	Pine inculation Hard Stittings, 4"	-122 -123	Girls Locker Room closet			
1	lip postali i i i	-125	V			
M#	Material Description	- 12 3 - 12 4 Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
101	rove Base, I LT. Drown, and	-125	Boys Locker, Room Entry	1/1	1/1	
60/	Beige Hoursive	-126				
135	Cige non	Sample #	Sample Location	Condition	Friable	Quantity
1M#	Material Description	Sumple i		I/P	Y/N	1
					-	
	LANS STATES					
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
						-
HM#	Material Description	Sample #	Sample Location	Condition	Friable	Quantity
AM#	Material Description			I/P	Y/N	-
		-			-	1
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
				-/.	-7.0	
				Condition	Friable	Quantita
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
						1
						-
		Sample #	Sample Location	Condition	Friable	Quantity
HM#	Material Description	Sample #	Sample Location	G/F/P	Y/N	
					1	
					1	

C consultants	CHAIN OF CUSTODY RECORD	Page #:   G2 Job #: 23	of 3-7143 1-27-23
Jobsite Address: 29516 Ellensburg Ave	G2 Client: Central Curry School District Address: 29516 Ellensburg Ave	Submit Date: Sampled By:	1-28-23 SF
Gold Beach OR Asbestos:	G2 Contact: Sean Friend Phone #: (503) 863-0860 167-177		
Aspessos.     PLM     PLM/Point Count 400     Wipe       TEM     PLM/Point Count 1000     Vac       Turn-Around Time:     Same Day     Next Day	□ Other: Notes: GBHS		
HM# Material Description	Sample # Sample Location		riable Quantity //N
61 Bur	-127 Metal Shop Root		
HM# Material Description	Sample # Sample Location - (30 MCtg Shop host - Post Spans		Friable Quantity //N
62 ROOF PHR, Gray	Sample # Sample Location	Condition F	-riable Quantity
63 DUR	-132 wood Shop Roof -133	VP Y	(/N
HM# Material Description	Sample # Sample Location	The second se	Friable Quantity //N
64 Orywall + Joint compound	(older) -135 SE Boys Kestroom -136 Boys Locker Acom		
HM# Material Description 36 Drywall+ Joint Compound	Sample # Sample Location -(37 N Gists Restroam		Friable Quantity Y/N
36 Drywall+ Joint Compound HM# Material Description	Sample # Sample Location	No. of the second se	Friable Quantity Y/N
HM# Material Description	Sample # Sample Location		Friable Quantity Y/N
HM# Material Description	Sample # Sample Location		Friable Quantity Y/N
Samples Relinquished by: Date and Time: Samples Received by:	Samples Relinquished by: Date and Time: Samples Received by:		
Date and Time:	Date and Time: 11-29-23		

## Appendix C:

## **XRF** Readings Table

READING NO	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION PbC	UNITS	ACTION LEVEL	Pb +/-
446	CALIBRATION	Main Building	First						POSITIVE	1.0	1 mg/cm	2 1	0.03
447	CALIBRATION	Main Building	First						POSITIVE		3 mg/cm		0.03
448	CALIBRATION	Main Building	First						POSITIVE		7 mg/cm		0.03
449	CALIBRATION	Main Building	First						POSITIVE		1 mg/cm		0.02
450	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Wood	С	Brown	NEGATIVE	Intact	0 mg/cm	2 1	0.01
451	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Concrete	С	White	NEGATIVE	î	0 mg/cm	1	0.01
452	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	С	Brown	POSITIVE	Intact 1.0	3 mg/cm	2 1	0.03
453	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	С	Pink	NEGATIVE	Intact	0 mg/cm	2 1	0.01
454	29516 Ellensburg Av	Main Building	First	Exterior	Downspout	Metal	С	Brown	NEGATIVE	Intact	0 mg/cm	2 1	0.01
455	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Concrete	D	White	NEGATIVE	Intact	0 mg/cm	2 1	0.01
456	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	D	Pink	NEGATIVE	Intact	0 mg/cm	2 1	0.01
457	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	D	White	NEGATIVE	Intact	0 mg/cm	2 1	0.01
458	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	A	White	NEGATIVE	Intact	0 mg/cm	2 1	0.01
459	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	А	Pink	NEGATIVE	Intact 0.0	2 mg/cm	2 1	0.01
460	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Concrete	A	White	NEGATIVE	Intact	0 mg/cm	2 1	0.01
461	29516 Ellensburg Av	Main Building	First	Exterior	Downspout	Metal	A	White	NEGATIVE	Intact 0.0	1 mg/cm	2 1	0.01
462	29516 Ellensburg Av	Main Building	First	Exterior	Downspout	Metal	A	Pink	NEGATIVE	Intact 0.0	1 mg/cm	2 1	0.01
463	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	А	White	POSITIVE	Intact 1.2	9 mg/cm	2 1	0.19
464	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	A	Green	NEGATIVE	Intact	0 mg/cm	<sup>2</sup> 1	0.01
465	29516 Ellensburg Av	Main Building	First	Exterior	Window Trim	Wood	A	Green	NEGATIVE	Intact	0 mg/cm	2 1	0.01
466	29516 Ellensburg Av	Main Building	First	Exterior	Window Trim	Metal	А	Black	NEGATIVE	Intact 0.0	9 mg/cm	2 1	0.08
467	29516 Ellensburg Av	Main Building	First	Exterior	Window	Metal	A	Black	NEGATIVE	Intact	0 mg/cm	<sup>2</sup> 1	0.01
468	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	А	Black	POSITIVE	Intact 1.3	6 mg/cm	<sup>2</sup> 1	0.08
469	29516 Ellensburg Av	Main Building	First	Exterior	Door	Wood	А	Green	NEGATIVE	Intact	0 mg/cm	2 1	0.01
470	29516 Ellensburg Av	Main Building	First	Exterior	Door Jamb	Wood	A	Green	NEGATIVE	Intact	0 mg/cm	<sup>2</sup> 1	0.01
471	29516 Ellensburg Av	Main Building	First	Exterior	Door Jamb	Metal	A	Brown	NEGATIVE	Intact	0 mg/cm	2 1	0.01
472	29516 Ellensburg Av	Main Building	First	Exterior	Handrail	Metal	А	Black	POSITIVE	Poor 1.0	3 mg/cm	<sup>2</sup> 1	0.02
473	29516 Ellensburg Av	Main Building	First	Exterior	Window Sill	Wood	А	Green	POSITIVE	Intact 3.4	2 mg/cm	2 1	0.25
474	29516 Ellensburg Av	Main Building	First	Exterior	Window Trim	Wood	A	Green	NEGATIVE	Intact	0 mg/cm	<sup>2</sup> 1	0.01
475	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Concrete	А	Off-White	NEGATIVE	Intact 0.4	5 mg/cm	2 1	0.04
476	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	А	Off-White	NEGATIVE	Intact 0.4	1 mg/cm	2 1	0.13
477	29516 Ellensburg Av	Main Building	First	Exterior	Wall Trim	Wood	А	Green	NEGATIVE	Intact	0 mg/cm	2 1	0.01
478	29516 Ellensburg Av	Main Building	First	Exterior	Siding	Concrete	A	Green	NEGATIVE	1	0 mg/cm		0.01
479	29516 Ellensburg Av	Main Building	First	Exterior	Window	Wood	А	Green	POSITIVE		1 mg/cm		0.17
480	29516 Ellensburg Av	Main Building	First	Exterior	Door	Metal	А	Green	NEGATIVE	Intact 0.2	1 mg/cm	2 1	0.01
481	29516 Ellensburg Av	Main Building	First	Exterior	Handrail	Metal	А	White	NEGATIVE	Poor 0.1	3 mg/cm	2 1	0.02
482	29516 Ellensburg Av	Main Building	First	Exterior	Door	Wood	В	Green	NEGATIVE	Intact	0 mg/cm	2 1	0.01

<b>READING NO</b>	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
483	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Wood	В	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
484	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Wood	В	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
485	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	В	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
486	29516 Ellensburg Av	Main Building	First	Exterior	Soffit	Wood	В	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
487	29516 Ellensburg Av	Main Building	First	Exterior	Downspout	Metal	В	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
488	29516 Ellensburg Av	Main Building	First	Exterior	Wall	Concrete	С	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
489	29516 Ellensburg Av	Main Building	First	Exterior	Downspout	Metal	С	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
490	29516 Ellensburg Av	Main Building	First	Exterior	Door	Metal	С	Green	NEGATIVE	Intact	0.02	mg/cm <sup>2</sup>	1	0.01
491	29516 Ellensburg Av	Main Building	First	Exterior	Door Trim	Metal	С	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
492	29516 Ellensburg Av	Main Building	First	Exterior	Door Trim	Wood	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
493	29516 Ellensburg Av	Wood Shop	First	Exterior	Siding	Wood	D	Pink	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
494	29516 Ellensburg Av	Wood Shop	First	Exterior	Wall Trim	Wood	D	Pink	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
495	29516 Ellensburg Av	Wood Shop	First	Exterior	Downspout	Metal	D	Pink	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
496	29516 Ellensburg Av	Wood Shop	First	Bathroom	Door	Metal	С	Green	NEGATIVE	Intact	0.27	mg/cm <sup>2</sup>	1	0.01
497	29516 Ellensburg Av	Wood Shop	First	Bathroom	Door Trim	Wood	С	Black	NEGATIVE	Poor	0	mg/cm <sup>2</sup>	1	0.01
498	29516 Ellensburg Av	Wood Shop	First	Bathroom	Door Jamb	Wood	С	Black	NEGATIVE	Poor		mg/cm <sup>2</sup>		0.01
499	29516 Ellensburg Av	Wood Shop	First	Bathroom	Wall	Drywall	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
500	29516 Ellensburg Av	Wood Shop	First	Bathroom	Wall Paneling	Vinyl	В	Yellow	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.02
501	29516 Ellensburg Av	Wood Shop	First	Bathroom	Wall Paneling	Vinyl	D	Yellow	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.02
502	29516 Ellensburg Av	Wood Shop	First	Bathroom	Floor	Concrete	D	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
503	29516 Ellensburg Av	Wood Shop	First	Bathroom	Sink	Ceramic	А	White	POSITIVE	Intact	6.42	mg/cm <sup>2</sup>	1	0.23
504	29516 Ellensburg Av	Wood Shop	First	Bathroom	Urinal	Ceramic	A	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
505	29516 Ellensburg Av	Wood Shop	First	Bathroom	Toilet	Ceramic	А	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
506	29516 Ellensburg Av	Metal Shop	First	Bathroom	Sink	Ceramic	С	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
507	29516 Ellensburg Av	Metal Shop	First	Bathroom	Urinal	Ceramic	С	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
508	29516 Ellensburg Av	Metal Shop	First	Bathroom	Toilet	Ceramic	С	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
509	29516 Ellensburg Av	Metal Shop	First	Bathroom	Floor	Concrete	С	Green	NEGATIVE	Intact	0.23	mg/cm <sup>2</sup>	1	0.07
510	29516 Ellensburg Av	Metal Shop	First	Bathroom	Wall	Drywall	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
511	29516 Ellensburg Av	Metal Shop	First	Bathroom	Door Trim	Wood	В	Green	NEGATIVE	Intact	0.06	mg/cm <sup>2</sup>	1	0.05
512	29516 Ellensburg Av	Metal Shop	First	Bathroom	Door	Wood	В	Green	NEGATIVE	Intact	0.06	mg/cm <sup>2</sup>	1	0.04
513	29516 Ellensburg Av	Metal Shop	First	Bathroom	Door Jamb	Wood	В	Tan	NEGATIVE	Intact	0.03	mg/cm <sup>2</sup>	1	0.01
514	29516 Ellensburg Av	Metal Shop	First	Exterior	Siding	Concrete	С	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.05
515	29516 Ellensburg Av	Metal Shop	First	Exterior	Wall Trim	Wood	С	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
516	29516 Ellensburg Av	Metal Shop	First	Exterior	Downspout	Metal	С	Brown	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.01
517	29516 Ellensburg Av	Metal Shop	First	Exterior	Wall	Wood	С	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
518	29516 Ellensburg Av	Metal Shop	First	Exterior	Door	Metal	С	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
519	29516 Ellensburg Av	Metal Shop	First	Exterior	Door Trim	Metal	С	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>		0.04

<b>READING NO</b>	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
520	29516 Ellensburg Av	Metal Shop	First	Exterior	Door Trim	Wood	С	Pink	NEGATIVE	Intact	0.09	mg/cm <sup>2</sup>	1	0.04
521	29516 Ellensburg Av	Old Gym	First	Exterior	Door Trim	Wood	A	Red	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
522	29516 Ellensburg Av	Old Gym	First	Exterior	Door	Metal	A	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
523	29516 Ellensburg Av	Old Gym	First	Exterior	Siding	Metal	А	Gray	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
524	29516 Ellensburg Av	Old Gym	First	Exterior	Siding	Metal	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
525	29516 Ellensburg Av	Old Gym	First	Exterior	Window	Metal	A	Red	NEGATIVE	Poor	0	mg/cm <sup>2</sup>	1	0.01
526	29516 Ellensburg Av	Old Gym	First	Exterior	Window Trim	Wood	А	Red	NEGATIVE	Poor	0.81	mg/cm <sup>2</sup>	1	0.09
527	29516 Ellensburg Av	Old Gym	First	Exterior	Window Trim	Wood	A	Red	POSITIVE	Poor	0.98	mg/cm <sup>2</sup>	1	0.09
528	29516 Ellensburg Av	Old Gym	First	Exterior	Downspout	Metal	А	Brown	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
529	29516 Ellensburg Av	Old Gym	First	Exterior	Door	Wood	В	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
530	29516 Ellensburg Av	Old Gym	First	Exterior	Door Jamb	Metal	В	Black	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
531	29516 Ellensburg Av	Old Gym	First	Exterior	Wall	Drywall	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
532	29516 Ellensburg Av	Old Gym	First	Exterior	Sink	Ceramic	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
533	29516 Ellensburg Av	Old Gym	First	Exterior	Urinal	Ceramic	D	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
534	29516 Ellensburg Av	Old Gym	First	Exterior	Toilet	Ceramic	D	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
535	29516 Ellensburg Av	Main Building	First	Weight Room	Wall	Drywall	В	Yellow	NEGATIVE	Intact	0.18	mg/cm <sup>2</sup>	1	0.05
536	29516 Ellensburg Av	Main Building	First	Weight Room	Wall	Drywall	С	Gray	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
537	29516 Ellensburg Av	Main Building	First	Weight Room	Beam	Wood	С	Yellow	NEGATIVE	Intact	0.04	mg/cm <sup>2</sup>	1	0.01
538	29516 Ellensburg Av	Main Building	First	Weight Room	Window	Metal	D	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
539	29516 Ellensburg Av	Main Building	First	Cafeteria	Wall	Drywall	D	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
540	29516 Ellensburg Av	Main Building	First	Cafeteria	Wall	Drywall	А	White	NEGATIVE	Intact	0.2	mg/cm <sup>2</sup>	1	0.07
541	29516 Ellensburg Av	Main Building	First	Cafeteria	Door	Metal	A	Brown	NEGATIVE	Intact	0.21	mg/cm <sup>2</sup>	1	0.05
542	29516 Ellensburg Av	Main Building	First	Cafeteria	Door Trim	Metal	A	Black	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
543	29516 Ellensburg Av	Main Building	First	Cafeteria	Door Jamb	Metal	А	Black	NEGATIVE	Poor	0.08	mg/cm <sup>2</sup>	1	0.01
544	29516 Ellensburg Av	Main Building	First	Cafeteria	Wall Trim	Metal	А	Pink	NEGATIVE	Intact	0.07	mg/cm <sup>2</sup>	1	0.01
545	29516 Ellensburg Av	Main Building	First	SW Girls Restroon	Wall	Wood	A	Tan	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
546	29516 Ellensburg Av	Main Building	First	SW Girls Restroon	Wall Trim	Wood	В	Yellow	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
547	29516 Ellensburg Av	Main Building	First	SW Girls Restroon	Wall	Drywall	В	White	NEGATIVE	Intact	0.16	mg/cm <sup>2</sup>	1	0.07
548	29516 Ellensburg Av	Main Building	First	SW Girls Restroon	Wall Tile	Ceramic	В	Yellow	POSITIVE	Intact	7.9	mg/cm <sup>2</sup>	1	0.25
549	29516 Ellensburg Av	Main Building	First	SW Girls Restroon	Floor Tile	Ceramic	В	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
550	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Wall Tile	Ceramic	D	Tan	POSITIVE	Intact	5.01	mg/cm <sup>2</sup>	1	0.21
551	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Sink	Ceramic	D	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
552	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Toilet	Ceramic	В	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
553	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Urinal	Ceramic	В	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
554	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Wall Tile	Ceramic	В	Black	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
555	29516 Ellensburg Av	Main Building	First	SW Boys Restroor	Floor Tile	Ceramic	В	Gray	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
556	29516 Ellensburg Av	Main Building	First	SW Hallway	Wall	Drywall	A	White	NEGATIVE	Intact	0.43	mg/cm <sup>2</sup>	1	0.09

<b>READING NO</b>	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
557	29516 Ellensburg Av	Main Building	First	SW Hallway	Wall Trim	Wood	А	Green	NEGATIVE	Intact	0.12	mg/cm <sup>2</sup>	1	0.06
558	29516 Ellensburg Av	Main Building	First	SW Hallway	Siding	Wood	A	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
559	29516 Ellensburg Av	Main Building	First	Classroom 13	Wall	Drywall	С	Off-White	NEGATIVE	Intact	0.4	mg/cm <sup>2</sup>	1	0.09
560	29516 Ellensburg Av	Main Building	First	Classroom 13	Wall	Drywall	А	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
561	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Door	Wood	D	Gray	NEGATIVE	Intact	0.52	mg/cm <sup>2</sup>	1	0.13
562	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Door Jamb	Wood	D	Black	NEGATIVE	Intact	0.73	mg/cm <sup>2</sup>	1	0.11
563	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Door Jamb	Wood	D	Black	POSITIVE	Intact	1.39	mg/cm <sup>2</sup>	1	0.12
564	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Door Trim	Wood	D	Black	NEGATIVE	Intact	0.89	mg/cm <sup>2</sup>	1	0.04
565	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Door Trim	Wood	D	Black	POSITIVE	Intact	1.16	mg/cm <sup>2</sup>	1	0.11
566	29516 Ellensburg Av	Main Building	First	N Girls Restroom	Wall	Drywall	В	White	NEGATIVE	Intact	0.9	mg/cm <sup>2</sup>	1	0.04
567	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Wall	Drywall	D	Blue	POSITIVE	Intact	2.01	mg/cm <sup>2</sup>	1	0.48
568	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door Jamb	Wood	D	Green	NEGATIVE	Intact	0.89	mg/cm <sup>2</sup>	1	0.07
569	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door Jamb	Wood	D	Green	NEGATIVE	Intact	0.8	mg/cm <sup>2</sup>	1	0.04
570	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door Trim	Wood	D	Green	NEGATIVE	Intact	0.95	mg/cm <sup>2</sup>	1	0.09
571	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door Trim	Wood	D	Green	POSITIVE	Intact	1.1	mg/cm <sup>2</sup>	1	0.1
572	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door	Wood	D	Gray	NEGATIVE	Intact	0.33	mg/cm <sup>2</sup>	1	0.02
573	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Door	Wood	D	Green	NEGATIVE	Intact	0.57	mg/cm <sup>2</sup>	1	0.03
574	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Wall	Wood	С	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
575	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Floor	Concrete	С	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
576	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Wall	Wood	D	Black	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
577	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Sink	Ceramic	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
578	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Toilet	Ceramic	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
579	29516 Ellensburg Av	Main Building	First	N Boys Restroom	Urinal	Ceramic	В	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
580	29516 Ellensburg Av	Main Building	First	YTP Center	Wall	Plaster	А	White	NEGATIVE	Intact	0.12	mg/cm <sup>2</sup>	1	0.02
581	29516 Ellensburg Av	Main Building	First	YTP Center	Window Trim	Wood	А	Brown	NEGATIVE	Intact	0.15	mg/cm <sup>2</sup>	1	0.06
582	29516 Ellensburg Av	Main Building	First	YTP Center	Window Sill	Wood	А	Brown	NEGATIVE	Intact	0.28	mg/cm <sup>2</sup>	1	0.09
583	29516 Ellensburg Av	Main Building	First	YTP Center	Door	Wood	С	Blue	NEGATIVE	Intact	0.1	mg/cm <sup>2</sup>	1	0.04
584	29516 Ellensburg Av	Main Building	First	YTP Center	Door Jamb	Wood	С	Brown	NEGATIVE	Intact	0.16	mg/cm <sup>2</sup>	1	0.02
585	29516 Ellensburg Av	Main Building	First	YTP Center	Door Trim	Wood	С	Brown	NEGATIVE	Intact	0.09	mg/cm <sup>2</sup>	1	0.04
586	29516 Ellensburg Av	Main Building	First	YTP Center	Baseboard	Wood	В	White	NEGATIVE	Intact	0.16	mg/cm <sup>2</sup>	1	0.07
587	29516 Ellensburg Av	Main Building	First	YTP Center	Cabinet Face	Wood	D	Brown	NEGATIVE	Intact	0.1	mg/cm <sup>2</sup>	1	0.04
588	29516 Ellensburg Av	Main Building	First	YTP Center	Cabinet Door	Wood	D	Brown	NEGATIVE	Intact	0.09	mg/cm <sup>2</sup>	1	0.01
589	29516 Ellensburg Av	Main Building	First	Student Store	Wall	Plaster	А	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.05
590	29516 Ellensburg Av	Main Building	First	Student Store	Window	Wood	В	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.05
591	29516 Ellensburg Av	Main Building	First	Student Store	Window Trim	Wood	В	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
592	29516 Ellensburg Av	Main Building	First	Student Store	Wall	Plaster	В	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
593	29516 Ellensburg Av	Main Building	First	Student Store	Countertop	Wood	В	Yellow	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01

<b>READING NO</b>	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
594	29516 Ellensburg Av	Main Building	First	Student Store	Cabinet Door	Wood	В	White	NEGATIVE	Intact	0.21	mg/cm <sup>2</sup>	1	0.01
595	29516 Ellensburg Av	Main Building	First	Quiet Room	Door	Wood	В	White	NEGATIVE	Intact	0.75	mg/cm <sup>2</sup>	1	0.11
596	29516 Ellensburg Av	Main Building	First	Quiet Room	Door Jamb	Wood	В	Green	NEGATIVE	Intact	0.22	mg/cm <sup>2</sup>	1	0.02
597	29516 Ellensburg Av	Main Building	First	Quiet Room	Door Trim	Wood	В	White	NEGATIVE	Intact	0.64	mg/cm <sup>2</sup>	1	0.1
598	29516 Ellensburg Av	Main Building	First	Quiet Room	Baseboard	Wood	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
599	29516 Ellensburg Av	Main Building	First	Quiet Room	Window Trim	Wood	А	White	POSITIVE	Intact	2.48	mg/cm <sup>2</sup>	1	0.18
600	29516 Ellensburg Av	Main Building	First	Quiet Room	Window Sill	Wood	A	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
601	29516 Ellensburg Av	Main Building	First	Quiet Room	Wall	Wood	D	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
602	29516 Ellensburg Av	Main Building	First	Quiet Room	Wall	Plaster	В	Off-White	NEGATIVE	Intact	0.72	mg/cm <sup>2</sup>	1	0.1
603	29516 Ellensburg Av	Main Building	First	Quiet Room	Wall	Plaster	В	Off-White	NEGATIVE	Intact	0.5	mg/cm <sup>2</sup>	1	0.09
604	29516 Ellensburg Av	Main Building	First	Quiet Room	Door Jamb	Wood	В	Tan	NEGATIVE	Intact	0.7	mg/cm <sup>2</sup>	1	0.11
605	29516 Ellensburg Av	Main Building	First	Quiet Room	Door Trim	Wood	В	Tan	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.07
606	29516 Ellensburg Av	Main Building	First	Quiet Room	Baseboard	Wood	В	Tan	NEGATIVE	Intact	0.9	mg/cm <sup>2</sup>	1	0.03
607	29516 Ellensburg Av	Main Building	First	Quiet Room	Baseboard	Wood	A	Tan	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.1
608	29516 Ellensburg Av	Main Building	First	Quiet Room	Toilet	Ceramic	С	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.15
609	29516 Ellensburg Av	Main Building	First	Quiet Room	Door	Wood	С	Tan	NEGATIVE	Intact	0.53	mg/cm <sup>2</sup>	1	0.03
610	29516 Ellensburg Av	Main Building	First	Admin Office	Door	Wood	С	Blue	NEGATIVE	Intact	0.16	mg/cm <sup>2</sup>	1	0.05
611	29516 Ellensburg Av	Main Building	First	Admin Office	Door Jamb	Wood	С	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
612	29516 Ellensburg Av	Main Building	First	Admin Office	Door Trim	Wood	С	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.05
613	29516 Ellensburg Av	Main Building	First	Admin Office	Wall	Plaster	В	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
614	29516 Ellensburg Av	Main Building	First	Admin Office	Wall	Drywall	A	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
615	29516 Ellensburg Av	Main Building	First	Admin Office	Window Trim	Wood	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
616	29516 Ellensburg Av	Main Building	First	Admin Office	Window Sill	Wood	A	White	NEGATIVE	Intact	0.17	mg/cm <sup>2</sup>	1	0.07
617	29516 Ellensburg Av	Main Building	First	Admin Office	Wall	Plaster	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.07
618	29516 Ellensburg Av	Main Building	First	Admin Office	Door	Wood	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.04
619	29516 Ellensburg Av	Main Building	First	Admin Office	Door	Metal	В	Black	POSITIVE	Intact		mg/cm <sup>2</sup>		0.16
620	29516 Ellensburg Av	Main Building	First	Admin Office	Cabinet Face	Wood	A	Pink	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
621	CALIBRATION	Main Building	First	Admin Office	Cabinet Face	Wood	A	Pink	POSITIVE	Intact	1.06	mg/cm <sup>2</sup>	1	0.03
622	CALIBRATION	Main Building	First	Admin Office	Cabinet Face	Wood	A	Pink	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.03
623	CALIBRATION	Main Building	First	Admin Office	Cabinet Face	Wood	A	Pink	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.03
624	CALIBRATION	Main Building	First	Admin Office	Cabinet Face	Wood	A	Pink	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.02
741	CALIBRATION	Main Building	First	Admin Offices	Sink	Ceramic	В	White	POSITIVE	Intact	1.03	mg/cm <sup>2</sup>	1	0.03
742	CALIBRATION	Main Building	First	Admin Offices	Sink	Ceramic	В	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.03
743	CALIBRATION	Main Building	First	Admin Offices	Sink	Ceramic	В	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.03
744	CALIBRATION	Main Building	First	Admin Offices	Sink	Ceramic	В	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.02
745	29516 Ellensburg Av	Main Building	First	Boys Locker Roon	Wall	Drywall	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
746	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall Trim	Wood	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01

<b>READING NO</b>	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
747	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Wood	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
748	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door	Metal	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
749	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door Jamb	Metal	A	Black	NEGATIVE	Intact	0.02	mg/cm <sup>2</sup>	1	0.01
750	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	В	Black	NEGATIVE	Intact	0.82	mg/cm <sup>2</sup>	1	0.03
751	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	В	Green	POSITIVE	Intact		mg/cm <sup>2</sup>		0.03
752	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
753	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	A	Black	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
754	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Baseboard	Ceramic	А	Off-White	POSITIVE	Intact	6.3	mg/cm <sup>2</sup>	1	0.24
755	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door	Metal	А	Blue	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
756	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	А	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
757	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Sink	Ceramic	В	White	POSITIVE	Intact	6.07	mg/cm <sup>2</sup>	1	0.23
758	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Toilet	Ceramic	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
759	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall Tile	Ceramic	D	Off-White	POSITIVE	Intact	6.52	mg/cm <sup>2</sup>	1	0.24
760	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door	Wood	В	Blue	NEGATIVE	Intact	0.03	mg/cm <sup>2</sup>	1	0.03
761	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door Trim	Wood	В	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
762	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door Jamb	Wood	В	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
763	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Door	Metal	A	Black	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
764	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	A	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
765	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Wall	Brick	В	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
766	29516 Ellensburg Av	Main Building	First	Boys Locker Room	Floor Tile	Ceramic	В	Tan	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
767	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Floor Tile	Ceramic	В	Beige	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
768	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Wall	Brick	В	Black	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
769	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Wall	Brick	В	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
770	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Wall	Brick	В	Green	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
771	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Sink	Ceramic	В	White	POSITIVE	Intact	6.03	mg/cm <sup>2</sup>	1	0.23
772	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Toilet	Ceramic	D	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
773	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Door Trim	Wood	D	Black	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
774	29516 Ellensburg Av	Main Building	First	Girls Locker Room	Window	Metal	A	Black	NEGATIVE	Intact	0.03	mg/cm <sup>2</sup>	1	0.01
775	CALIBRATION	Main Building	First	Girls Locker Room	Window	Metal	A	Black	POSITIVE	Intact	1.04	mg/cm <sup>2</sup>	1	0.03
776	CALIBRATION	Main Building		Girls Locker Room	Window	Metal	A	Black	POSITIVE	Intact		mg/cm <sup>2</sup>		0.03
777	CALIBRATION	Main Building	First	Girls Locker Room	Window	Metal	A	Black	POSITIVE	Intact	1.04	mg/cm <sup>2</sup>	1	0.03
778	CALIBRATION	Main Building	First	Girls Locker Room	Window	Metal	A	Black	POSITIVE	Intact	1.03	mg/cm <sup>2</sup>	1	0.02

## Appendix D:

## Performance Characteristic Sheets (PCS)

## **Performance Characteristic Sheet**

#### EFFECTIVE DATE: February 1, 2022

#### MANUFACTURER AND MODEL:

Make:SciApsModels:Model X-550X-Ray Source:Rhodium (Rh) or Gold (Au) Anode

## FIELD OPERATION GUIDANCE

#### **ACTION LEVEL SETTING:**

1.0 mg/cm<sup>2</sup>

#### **OPERATING PARAMETERS**:

Timed mode: fixed 10-second reading.

Quick mode: variable-time reading (approximately 2-6 seconds).

#### XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm<sup>2</sup> (inclusive) on NIST SRM 2579 (1.02 mg/cm<sup>2</sup>)/NIST SRM 2573, or equivalent

#### SUBSTRATE CORRECTION:

Not applicable

#### INCONCLUSIVE RANGE OR THRESHOLD:

Au Anode (quick) READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	1.0 1.0 1.0 1.0 1.0 1.0
Rh Anode (Timed or Quick), Au Anode (Timed) READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	0.9 0.9 0.9 0.9 0.9 0.9 0.9

## **BACKGROUND INFORMATION**

#### **EVALUATION DATA SOURCE AND DATE:**

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, 2012 Edition ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in February 2022, with two separate instruments of each Anode type, operated in both Timed and Quick modes.

#### **OPERATING PARAMETERS**

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

#### XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film; for NIST SRM 2579a, use film 2573 (1.04 mg/cm<sup>2</sup>).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

#### **EVALUATING THE QUALITY OF XRF TESTING:**

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below. Compute

the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. In single-family and multifamily housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this

procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

#### TESTING TIMES:

The reading time in Archive tests was 10 seconds in Timed mode and from 2-6 seconds in Quick mode, for both the Rh Anode and Au Anode.

#### CLASSIFICATION OF RESULTS:

XRF results for the Au Anode in Quick mode are classified as **positive** if they are **greater than or equal** to 1.0 mg/cm<sup>2</sup> and **negative** if they are **less than** to 1.0 mg/cm<sup>2</sup>. XRF results for the Au Anode in Timed mode and for the Rh Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.9 mg/cm<sup>2</sup> and **negative** if they are **less than** to 0.9 mg/cm<sup>2</sup>

#### DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to develop Performance Characteristic Sheets at the Federal standard (Action Level) of 1.0 mg/cm<sup>2</sup> and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at <a href="http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997">http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997</a>.

## Appendix E:

## Certifications & Accreditation

## THIS IS TO CERTIFY THAT

## **SEAN FRIEND**

## HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE for ASBESTOS INSPECTOR REFRESHER

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

Course Date:
--------------

09/19/2023

Course Location:

Portland, OR

Certificate:

IR-23-0000

For verification of the authenticity of this certificate contact: PBS Engineering and Environmental Inc.

4412 S Corbett Avenue

Portland, OR 97239



CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 09/19/2024

ander fieldy

Andy Fridley, Instructor

## State of Oregon Oregon Health Authority

## Sean M. Friend

is certified by the Oregon Health Authority to conduct Lead-Based Paint Activities

## **Risk Assessor**

Certification Number: Issuance Date: Expiration Date:

2743--Indy--R 3/3/2022 3/3/2025





000675 SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035

## CONSTRUCTION CONTRACTORS BOARD LEAD-BASED PAINT

LICENSE NUMBER: 9152743-RA EXPIRATION DATE: 03/18/2024 ENTITY TYPE: N/A

## CONSTRUCTION CONTRACTORS BOARD

SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035 今 や や や や や や や や や

fold and detach along perforation

↓ ↓ ↓ ↓ ↓ LICENSE CARD ↓ ↓ ↓ ↓ ↓

STATE OF OREGON CONSTRUCTION CONTRACTORS BOARD LEAD-BASED PAINT CERTIFICATE

This document certifies that:

SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035

is licensed in accordance with Oregon Law as Lead Risk Assessor Contractor LICENSE NUMBER: 9152743-RA

EXPIRATION DATE: 03/18/2024

ENTITY TYPE: N/A

# **RILEY CREEK ELEMENTARY SCHOOL ROOFING PACKAGE**

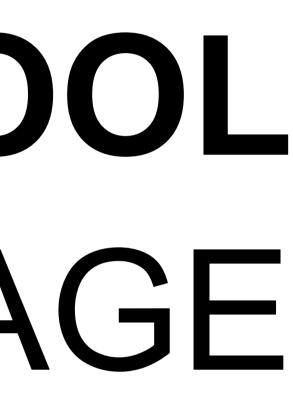
DATE PR FILE PAT

94350 Sixth Street, Gold Beach, OR 97444

**ISSUE FOR PERMIT/BID 2/9/2024** 

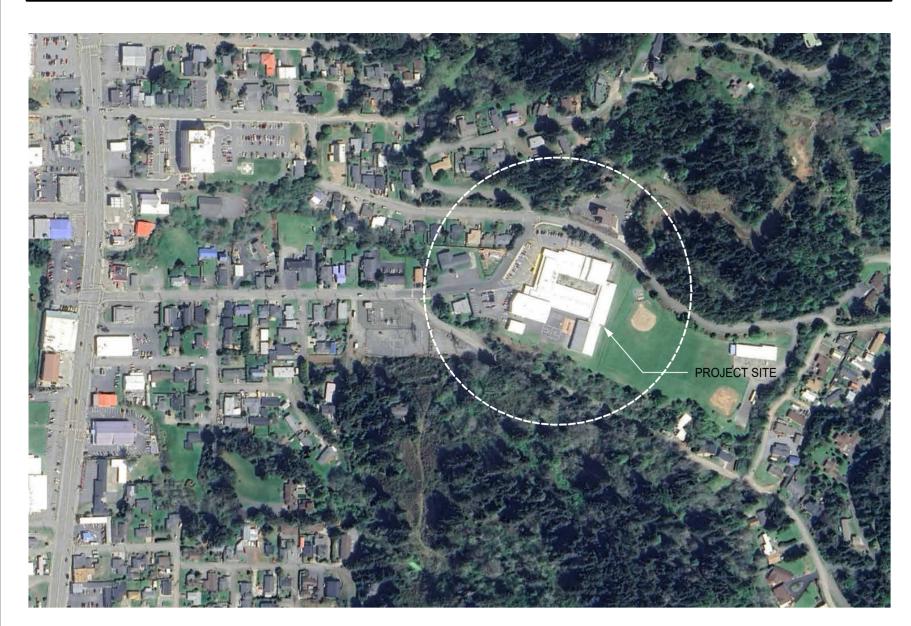
Soderstrom







## VICINITY MAP:



# **RILEY CREEK ELEMENTARY SCHOOL**

## PROJECT ADDRESS:

94350 Sixth Street. Gold Beach, OR 97444

## PROJECT SUMMARY:

REQUIRED MAINTENANCE OF SELECT EXISTING ROOF AREAS; ROOF REPLACEMENT OR RESTORATION, INCLUDING GUTTERS & DOWNSPOUT REPLACEMENT.

**BUILDING TYPE: VB/VA** OCCUPANCY: E NON-SPRINKLERED

## <u>APPLICABLE CODES:</u>

2022 OSSC (ADOPTED W/ AMENDMENTS UNDER IBC 2021) 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE [CLIMATE ZONE 4C] (ASHRAE STANDARD 90.1-2019)

## **PROJECT TEAM**

OWNER **CENTRAL CURRY SCHOOL DISTRICT** www.ccsd.k12.or.us 29516 Ellensburg Avenue Gold Beach, OR 97444 (541) 247-2003 **Eric Milburn**, Superintendent

## <u>ARCHITECT</u> SODERSTROM ARCHITECTS, LTD.

www.sdra.com 1331 NW Lovejoy St, Suite 775 Portland, OR 97209 (503) 228-5617 Fax. (503) 273-8584 Marlene Gillis, Principal

**PROJECT MANAGER** HMK COMPANY www.hmkco.org 46 N Front St, Suite 201 Medford, OR 97501 (541) 499-7996 Mike Freeman, Regional Director, Southern Oregon

# **PROJECT NOTES**

- (N.I.C.)
- IN THE PROJECT MANUAL

- TO INSTALLATION.
- INSTALLATION.
- WITH ARCHITECTS.
- NOTED.

- REQUIREMENTS.

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THE CONSTRUCTION CONTRACT IS FOR THE CONSTRUCTION OF A COMPLETE AND FULLY FUNCTIONING INSTALLATION. THESE DOCUMENTS DESCRIBE THE DESIGN INTENT AND SPECIFIC REQUIREMENTS OF THE INSTALLATION. THESE DOCUMENTS DO NOT INTEND TO SHOW EVERY ITEM REQUIRED TO CONSTRUCT THE WORK ITEMS SUCH AS FASTENERS, CONNECTORS, FILLERS, MISCELLANEOUS CLOSURE ELEMENTS, ANCILLARY CONTROL WIRING AND POWER WHERE REQUIRED FOR THE CONTROL OR OPERATION OF THE PROVIDED EQUIPMENT ARE NOT ALWAYS SHOWN BUT ARE CONSIDERED INCLUDED IN THE SCOPE OF THE WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A FULLY FUNCTIONING INSTALLATION WHICH MEETS THE DESIGN INTENT, INCLUDING THE SPECIFIC REQUIREMENTS INCLUDED IN THESE DOCUMENTS

ALL ITEMS IN THESE DOCUMENTS ARE NEW UNLESS OTHERWISE NOTED THESE DOCUMENTS DESCRIBE A SINGLE CONSTRUCTION CONTRACT. THE USE OF SUBCONTRACTORS IS THE ELECTION OF THE CONTRACTOR. THESE DOCUMENTS DO NOT INTEND TO DIVIDE THE WORK AMONG THE CONTRACTOR'S SUBCONTRACTORS. WHERE THE DOCUMENTS IDENTIFY WORK WHICH IS "NOT IN MECHANICAL WORK" OR "NOT IN ELECTRICAL WORK" IT MEANS THAT WORK IS NOT FURTHER DESCRIBED OR SPECIFIED IN THE MECHANICAL OR ELECTRICAL DRAWINGS OR SPECIFICATIONS. IT DOES NOT PRECLUDE THE CONTRACTOR FROM DELEGATING THE WORK TO THE ENTITIES OF HIS ELECTION. IN ADDITION THE DIVISION OF THE CONTRACT DOCUMENTS INTO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER DESIGN DISCIPLINES NEITHER DIVIDES THE WORK FOR THOSE DISCIPLINES AS SHOWN ONLY IN THOSE DRAWINGS OR SPECIFICATIONS. ITEMS INDICATED IN THIS SET NOTED "BY OWNER" ARE NOT IN THE CONTRACT

UNLESS OTHERWISE NOTED, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS TO REVIEW ALL DRAWINGS, PROJECT MANUAL, ADDENDA, ETC. IN ORDER TO ASSURE THE COORDINATION OF ALL WORK AFFECTING EACH TRADE. FAILURE TO REVIEW AND COORDINATE ALL CONTRACT DOCUMENTS BY THE GENERAL CONTRACTOR WITH ALL THE SUBCONTRACTORS FOR APPLICABLE ITEMS OF THE WORK SHALL NOT RELIVE THE RESPONSIBLE PARTY FROM PERFORMING ALL WORK SO REQUIRED AS PART OF THE CONTRACT UNLESS OTHERWISE NOTED, THE PROJECT MANUAL, WHICH INCLUDES THE GENERAL CONDITIONS, SUPPLEMENTAL CONDITIONS, AND TECHNICAL SPECIFICATIONS, AND THE DRAWINGS ARE COMPLEMENTARY AND TOGETHER DESCRIBE THE PROJECT REQUIREMENTS. WHERE THERE ARE DISCREPANCIES BETWEEN THE PROJECT MANUAL AND THE DRAWINGS, THE CONTRACTOR SHALL ADVISE THE ARCHITECT AND REQUEST A CLARIFICATION. THE ORDER OF

PRECEDENCE BETWEEN THE DRAWINGS AND THE PROJECT MANUAL IS AS DEFINED UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL LAYOUT AND SEQUENCE THE INSTALLATION OF THE WORK SO THAT THE DIFFERENT SYSTEMS DO NOT OBSTRUCT THE INSTALLATION OF SUCCESSIVE WORK. IN GENERAL, SYSTEMS INSTALLED FIRST

SHOULD BE KEPT AS HIGH AND TIGHT TO STRUCTURE AS POSSIBLE TO LEAVE SPACE AVAILABLE FOR SYSTEMS WHICH FOLLOW 8. REFER TO THE PROJECT MANUAL FOR SPECIFICATIONS, GENERAL INFORMATION, PRODUCTS AND EXECUTION REQUIREMENTS. REQUIREMENTS OF THE

SPECIFICATIONS APPLY TO ALL ASPECTS OF THE WORK AND ARE INCLUDED AS ADDITIONAL INFORMATION FOR EACH ITEM SPECIFIED. IF DISCREPANCIES EXISTS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL. THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVES OF ANY DISCREPANCIES

9. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS WILL VISIT THE SITE PRIOR TO BIDDING IN ORDER TO FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE IMPACT OF THE PROPOSED NEW WORK, INDICATED ON THE DRAWINGS AND SPECIFICATIONS, ON THESE CONDITIONS. ANY QUESTIONS REGARDING THE COORDINATION OF NEW WORK OR EXISTING CONDITIONS MUST BE SUBMITTED TO THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO BID SUBMISSION AND WITH ADEQUATE TIME FOR RESPONSE TO ALL BIDDERS. THE OWNER'S REPRESENTATIVE WILL RESPOND TO QUESTIONS, SUBMITTED IN A TIMELY MANNER, WITH WRITTEN CLARIFICATIONS FORWARDED TO ALL BIDDERS. 10. THE EXISTING DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS ARE ASSUMED TO BE ACCURATE BASED ON AVAILABLE INFORMATION. THE CONTRACTOR SHALL, PRIOR TO THE START OF CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS, PROVIDE A COMPLETE FIELD LAYOUT ON THE JOB SITE, AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEVIATIONS OR CONFLICTS WITH THESE DRAWINGS. 11. THE DRAWINGS SHALL NOT BE SCALED. THE GENERAL CONTRACTOR SHALL REFER TO THE DIMENSIONS INDICATED OR THE ACTUAL SIZES OF CONSTRUCTION ITEMS.

WHERE NO DIMENSIONS OR METHOD OF DETERMINING A LOCATION IS GIVEN, VERIFY CORRECT DIMENSIONS OR LOCATION WITH THE OWNER'S REPRESENTATIVE PRIOR 12. THE DRAWINGS AND REFERENCED DETAILS HAVE BEEN DIMENSIONED IN ORDER TO ESTABLISH THE CONTROL AND GUIDELINES FOR FIELD LAYOUT. WHERE A DISCREPANCY EXISTS BETWEEN THE DRAWING AND THE DETAIL THE CONTRACTOR

SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR CLARIFICATION PRIOR TO 13. DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED. 14. WHERE DIMENSIONS ARE NOTED TO BE VERIFIED IN THE FIELD (VIF) THE DIMENSION SHOWN IS THE DESIGN BASIS, BUT MAY DIFFER FROM ACTUAL CONDITIONS. CONTRACTOR SHALL VERIFY THESE DIMENSIONS WHILE LAYING OUT THE WORK AND REPORT ANY DISCREPANCIES BETWEEN THE DESIGN BASIS AND ACTUAL DIMENSIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK. WHERE DIMENSIONS ARE NOTED "+/-" FIELD DIMENSIONS MAY VARY FROM THE NOTED DIMENSIONS BY MINOR AMOUNTS. IF THE CONTRACTOR IDENTIFIES DIMENSIONS IN THE FIELD THAT DIFFER BY MORE THAN 1" FROM THE +/- DIMENSIONS INDICTED IN THE DRAWINGS. THE CONTRACTOR SHOULD CONFIRM DIFFERENTIAL

15. ABBREVIATIONS ON THIS SHEET APPLY TO THE ENTIRE SET UNLESS OTHERWISE

16. WALL FIRE RATING INDICATIONS ON THE FLOOR PLANS SHOW EXTENT OF FIRE RATED PARTITION. FIRE RATING IN A PARTITION SHALL CONTINUE OVER DOOR OR WINDOW OPENING WHETHER OR NOT THEY APPEAR IN PLAN. 17. ELEVATIONS ARE TO TOP OF CONCRETE OR OTHER HARD SURFACE MATERIAL. DO

NOT SCALE DRAWINGS. USE DIMENSIONS INDICATED. 18. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING THE WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR

CONDITIONS AND SHALL BE INCLUDED AS PART OF THE WORK. 19. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO START OF THE WORK. IN CASE OF CONFLICT BETWEEN ARCHITECTURAL AND CONSULTANTS DRAWINGS, THE

ARCHITECT WILL DETERMINE THE CORRECT INTENTION OF THE WORK. 20. PROVIDE PEDESTRIAN PROTECTION AS NECESSARY AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

21. ALL CONSTRUCTION RELATING TO BUILDING, PARKING OR SITE DEVELOPMENT SHALL CONFORM TO STATE OF OREGON AND JURISDICTIONAL ACCESSIBILITY

22. THE CONTRACTOR SHALL COORDINATE ANY AND ALL REQUIREMENTS FOR OFF-SITE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS, UTILITIES, ETC. OFF SITE IMPROVEMENTS SHALL MEET THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ).

23. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, SYMBOLS, AND TYPICAL DETAILS. SPECIFIC NOTES ON DETAILS APPLY TO

SIMILAR CONDITIONS UNLESS NOTED OTHERWISE (UNO / UON).

## ABBREVIATIONS

POUND OR NUMBER AIR CONDITIONING AUDIO VISUAL A/V ANCHOR BOLT ASPHALTIC CONCRETE ACM ALUMINUM COMPOSITE METAL ACT ACOUSTICAL CEILING TILE AD AREA DRAIN ADDENDUM ADD ADH ADHESIVE ADJUSTABLE, ADJACENT ABOVE FINISH FLOOR AGG AGGREGATE AUTHORITY HAVING AHJ JURISDICTION AL(UM) ALUMINUM ALT ALTERNATE ANOD ANODIZED AP ACCESS / ACOUSTIC PANEL APPROX APPROXIMATE ARCH ARCHITECT(URAL AUTOMATIC AUTO BATT BATT INSULATION BD BOARD BITUMINOUS BIT BLDG BUILDING BLKG BLOCKING BENCH MARK BM BO BOTTOM OF BOL BOLLARD BOT BOTTOM BR(N)Z BRONZE BSMT BASEMENT CAB CABINET CB CATCH BASIN CCTV CLOSED CIRCUIT T\ CEM CEMENT CF CUBIC FOOT CG CORNER GUARD CONTINUOUS INSULATION CI CJ(T) CONTROL JOINT CL CENTERLINE CLG CEILING CLEAR(ANCE) CLR CMU CONCRETE MASONRY UNIT COL COLUMN CONC CONCRETE CONSTRUCTION CONST CONT CONTINUE, CONTINUOUS COORD COORDINATE CPT CARPET CRS COURSE CS COUNTERSIN CSMT CASEMEN СТ CERAMIC TILE CTR CENTER CUST CUSTODIAL CX CONNECTION CUBIC YARD CY DEM(O) DEMOLISH, DEMOLITION DEP DEPRESSED DRINKING FOUNTAIN DF DIA DIAMETER DIAG DIAGONAL DIM DIMENSION DISP DISPENSER DIV DIVISION DL DEAD LOAD DMT DEMOUNTABLE DN DOWN DR DOOR DOWNSPOUT DS DTL DETAIL DWG(S) DRAWING(S) DWR DRAWER Е EAST EACH EA EXPANSION BOLT EB EJ EXPANSION JOINT EL, ELEV ELEVATION ELEC ELECTRIC(AL) EMER(G) EMERGENCY ENCL ENCLOSE(URE) EOS EDGE OF SLAB EP ELECTRICAL PANEL BOARD ETHYLENE PROPYLENE EPDM DIENEMONOMER EQ EQUAL EQUIP EQUIPMENT EST ESTIMATE EXH EXHAUST EXIST/(E) EXISTING EXP EXPOSED, EXPANSION EXTERIOR EXT FA FIRE ALARM FLUID APPLIED FLOORING FAF FLOOR DRAIN, FIRE DAMPER FD FE(C) FIRE EXTINGUISHER (CABINET) FF FINISH FLOOR FFE FURNISHINGS FIXTURES AND EQUIPMENT FGL FIBERGLASS FHC FIRE HOSE CABINET FHMS FLATHEAD MACHINE SCREW FHWS FLATHEAD WOOD SCREW FIN FINISH(ED) FLOOR FL FLASHG FLASHING FLOOR CLEANOUT FLCO FLR FLOOR(ING) FLS FIRE LIFE SAFETY FLUOR FLUORESCENT FND(N) FOUNDATION FOC FACE OF CONCRETE FOF FACE OF FINISH FOS FACE OF STEEL/STUD FP FIREPROOFING FR FRAME(D), FRAMING FULL SIZE, FLAME SPREAD FS FT FIRE TREATED FTG FOOTING GAUGE GA GALV GALVANIZED GB GRAB BAR, GYPSUM BOARD GLASS, GLAZING, GRIDLINE GL GWB GYPSUM WALL BOARD GYP (BD) GYPSUM (BOARD) HOSE BIB HB HBD HARDBOARD HOLLOW CORE HEAVY DUTY HD HDR HEADER HDW(R) HARDWARE

## **ABBREVIATIONS**

HOLLOW METAI

HM

HR

HT

JC

KO

I AN

I A \

LH

LW

MB

MH

MISC

MP

MTL

NAT

NIC

OA

OH

PNL

PSF

PT

QT

RA

RB

RH

RO

SA

SS

TB

TS

VIF

W/

WC

WP

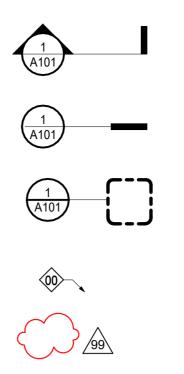
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HOR(IZ) HORIZONTAL HOUR HEIGHT HTG HEATING HEATING, VENTILLATION, AND AIR HVAC CONDITIONING HWD HARDWOOD HOT WATER HEATER HWH INSIDE DIAMETER INCL INCLUDE(D), INCLUDING INS(UL) INSULATE(D), INSULATION INT INTERIOR JAN(T) JANITOR JANITOR'S CLOSET JOINT KNOCK-OU \_AMINATE(C LAVATORY LEFT HAND LIGHTWEIGH MAX MAXIMUM MACHINE BOLT, MARKER BOARD MECH MECHANICAL MEMBRANE MEM MEZZANINE MEZZ MANUFACTURE(R MFR MGR MANAGER MANHOLE MINIMUM MISCELLANEOUS MASONRY OPENING MODULAR MOD METAL PANEL MOISTURE RESISTANT GYPSUM MRGB WALL BOARD METAL MULLION MULL MWP MEMBRANE WATERPROOFING NORTH NATURAL NOT IN CONTRACT NOMINA NOM NOT TO SCAL NTS OVERAL ON CENTER OUTSIDE DIAMETER OVERHEAD **OPENING** OPG OPPOSITE OPP **OVERHEAD** OVHD PARAPET PAR PFRF PERFORATE(D PJT PANEL JOINT PLAM PLASTIC LAMINATE PLAT PLATFORM PANE PAINT POUNDS PER SQUARE FOO POUNDS PER SQUARE INCH PRESSURE TREATED, POINT PTD PAINTED, PAPER TOWEL DISPENSEF PTL PARTIAL PTN PARTION PVC POLYVINYL CHLORIDE PWD PLYWOOD QUARRY TILE **RETURN AIR** RAD RADIUS RESILIENT BASE RCP REFLECTED CEILING PLAN RD ROOF DRAIN REF(R) REFER(ENCE), REFRIGERATOR REINFORCE(D), REINFORCING REINF REQ(D) REQUIRED REVISION(S), REVISED REV RIGHT HAND ROOM RM RND ROUND ROUGH OPENING SOUTH SUPPLY AIR SELF-ADHERED MEMBRANE SAM SC SOLID CORE SCHED SCHEDULE SEC(T) SECTION SIMILAR SIM SLEEVE SI SPEC(S) SPECIFICATION(S) SQ SQUARE STAINLESS STEEL STD STANDARD STL STEEL STRUCT STRUCTURAL SUPP SUPPLEMENT, SUPPLY SUSPENDED SUSP SHEET VINYL SV TACKBOARD TCKBD TEL TELEPHONE TEMP TEMPERED, TEMPERATURE TG, T&G TONGUE AND GROOVE TO TOP OF TOC TOP OF CURB, TOP OF CONCRETE TOF TOP OF FRAMING TOP OF PARAPET TOP TOP OF PLATE TOPL TOP OF ROOF TOR TOP OF STEEL TOS TOW TOP OF WALL TUBE STEEL TYP TYPICAL UNDERCOUNTER U/C UON, UNO UNLESS NOTED OTHERWISE VAPOR BARRIER VB VCT VINYL COMPOSITION TILE VERTICAL VERT VEST VESTIBULE VFY VERIFY VERIFY IN FIELD WEST WITH W/O WITHOUT WATER CLOSET WOOD WD WATERPROOF(ING) WS WATERSTOP WWF WELDED WIRE FABRIC EXTRUDED POLYSTYRENE XPS YARD YD

PLUS OR MINUS DIAMETER

## SYMBOLS LEGEND



**BUILDING SECTION** 1=SECTION NO. A101= SHEET NC DETAIL SECTION 1=SECTION NO. A101= SHEET NO DETAIL CALLOUT 1=DETAIL NO. A101= SHEET NC

KEYNOTE

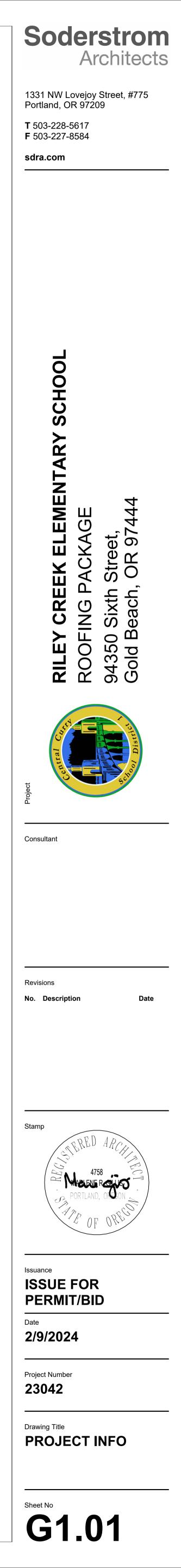
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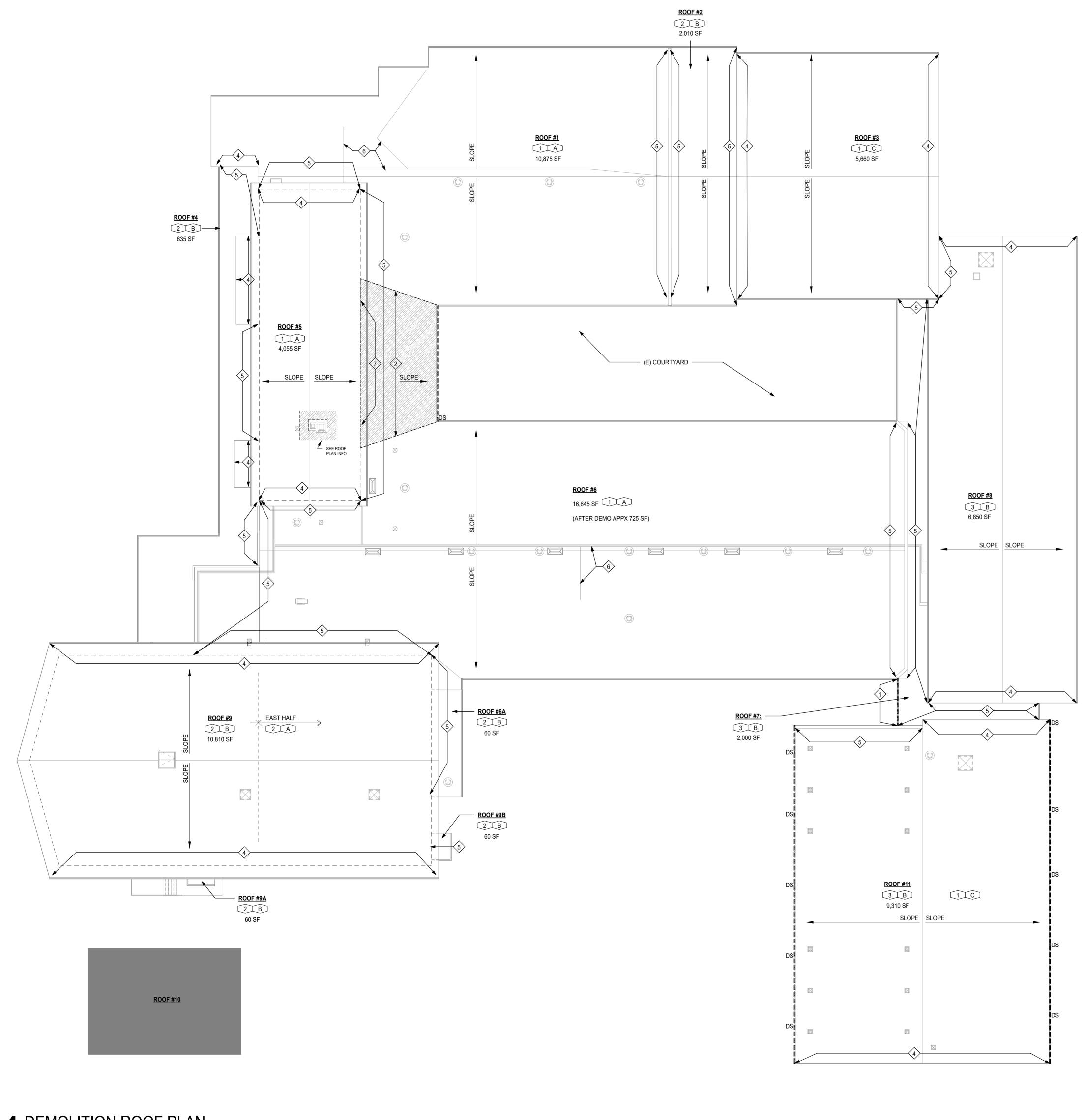
# SHEET INDEX

G0.01 COVER SHEET **PROJECT INFO** G1.01 AD2.02 DEMOLITION ROOF PLAN A2.02 **ROOF PLAN** A8.11 EXTERIOR DETAILS

## **GENERAL NOTES**

- 1. DIMENSIONS ARE TO FACE OF STRUCTURE UNLESS OTHERWISE NOTED 2. ALL 'MINIMUM" OR "CLEAR" DIMENSIONS SHALL BE MAINTAINED.
- 3. FIXED DIMENSIONS NOTED OUTSIDE THESE AREAS AND NOT NOTED AS "MINIMUM OR "CLEAR" DIMENSIONS MAY BE ASSUMED TO HAVE A TOLERANCE OF ±1/4".
- 4. WALL LOCATIONS NOT SPECIFICALLY DIMENSIONED BUT IN CLOSE RELATIVE LOCATION TO DIMENSIONED WALLS ARE TO BE ALIGNED FLUSH. ARCHITECT TO PROVIDE CLARIFICATION AT AREAS OF CONCERN.





## SHEET NOTES

ALL DIMS ARE TO BE VIF
 PROPERLY DISPOSE OF OR RECYCLE ALL COMPONENTS INDICATED FOR DEMO

## LEGEND

X" / 12"	DIRECTION OF ROOF SLOPE
DS	DOWNSPOUT
	ROOF VENTS AND EQUIPMENT
	ROOF HATCH
	SKYLIGHT
	NO ROOFING WORK SCOPE
	ROOFING TO BE DEMOLISHED
E <u>777777</u> 73	DEMO (E) GUTTERS, DRIP EDGE, & DOWNSPOUTS

## KEYNOTES

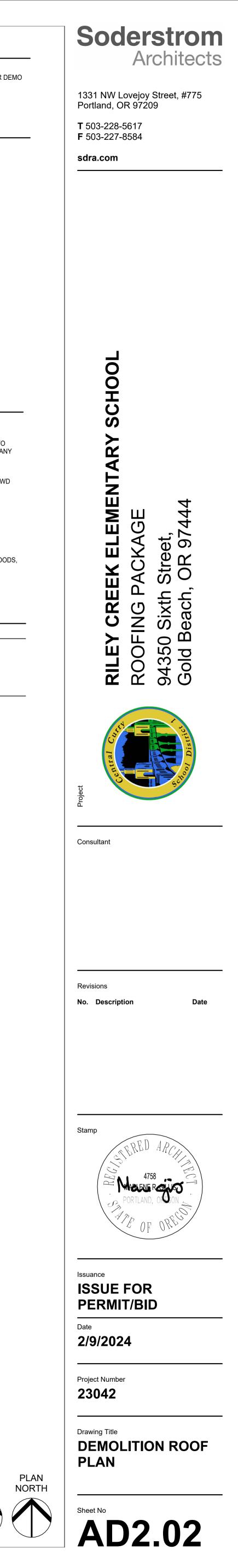
$\langle 1 \rangle$	DEMO (E) GUTTERS, DRIP EDGE (AS OCCURS) AND DOWNSPOUTS
$\langle 2 \rangle$	DEMO (E) ROOFING, INSULATION, COVER BOARD (AS OCCURS) DOWN TO WD DECK; INSPECT (E) WD DECK AND ADVISE OWNER & ARCHITECT IF AN

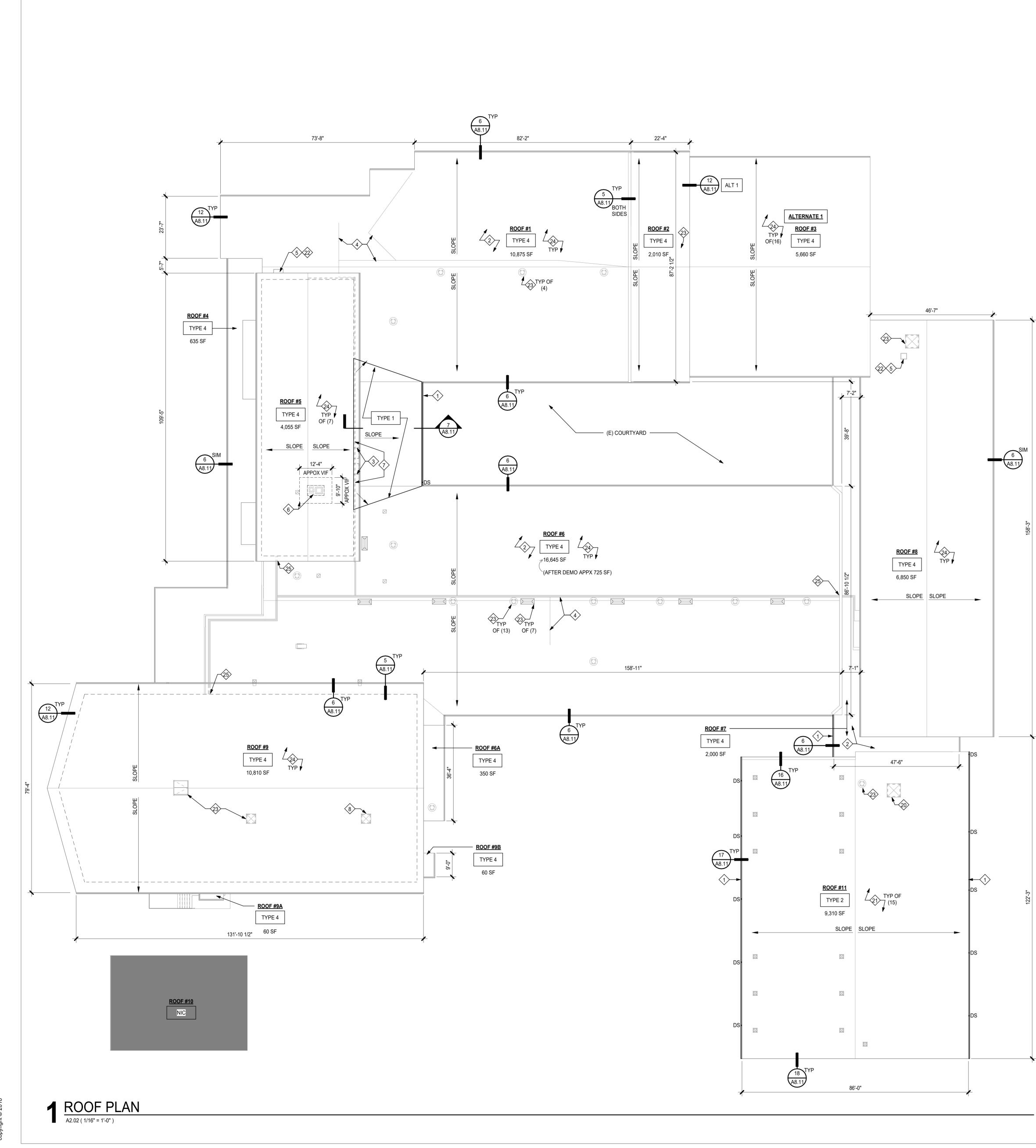
- ROTTING OF STRUCTURE OR MOLD IS FOUND BENEATH DECK BEFORE PROCEEDING W/ NEW INSTALL WORK.
   DEMO ABANDONED PENETRATIONS WHERE OCCURS AND INSTALL PLYWD FLUSH W/ (E) DECK
- DEMO GRAVEL STOP / EDGE METAL
- 5 DEMO COUNTERFLASHG
- (E) CONDUITS / CABLES TO REMAIN, SHOWN FOR REF ONLY
- RE-ROUTE (E) (3) CONDUIT LINES UP AND OVER TOP OF MECH DUCT HOODS, KEEP TIGHT TO WALL AND UNDER ROOF OVERHANG

## ROOF TYPES EXISTING

- ROOF TYPES EXISTING ROOFING / COVER BOARD:
- ISINGLE-PLY, MECH. FASTN. / NONEISINGLE-PLY, MECH. FASTN. / 1/4" GYPSUM
- 3 SINGLE-PLY, MECH. FASTN. / 1/4 GTF30M 3 SINGLE-PLY, MECH. FASTN. / 2-3 PLY SMOOTH CAP SHEET
- ROOF TYPES EXISTING INSUL / DECK:
- ROOF TYPES EXISTING IN
- B NONE / WD
- C 1/4" EPS / WD







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## **ROOF NOTES**

- ALL DIMS ARE TO BE VIF
   ALL ROOF TOP EQUIP WILL REQUIRE COLLATERAL PENETRATION FLASHG FOR CONDUIT AND/OR PIPING. NOT ALL PENETRATIONS ARE INDICATED ON THIS PLAN, REFER TO THE
- MECH AND ELECT DRAWINGS AND THE SPECIFICATIONS MANUAL LOCATIONS AND QUANTITES OF OTHER PENETRATIONS NOT INDICATED ON THIS PLAN
- 3. ALL CRICKETS ARE ACHIEVED W/ TAPERED RIGID INSULATION W/ A 1/4" PER FOOT RETURN SLOPE TYP AT FLAT ROOF AREA, UNO 4. ROOF ELEVATIONS SHOWN TO TOP OF THE ROOF SYSTEM (T.O.R.), TOP OF PARAPET
- (T.O.P.), OR TOP OF WALL (T.O.W.). ALL ROOF ELEVATIONS ARE APPROXIMATE AND ARE TO BE VIF
- REFER TO TYP ROOF DETAILS FOR FURTHER INFORMATION, SEE SHEET <u>A8.11</u>
   PROVIDE SITE-SPECIFIC SAFETY PLAN FOR ALL AREAS OF ROOFING WORK
   CLEAN & PREPARE AREAS OF WORK ACCORDING TO ROOFING MFR'S INSTALLATION
- INSTRUCTIONS INSPECT (E) WD DECK FOR ROT OR EXCESSIVE MOLD AND REPAIR OR REPLACE AS NECESSARY W/ IN LIKE KIND FLUSH W/ (E) TOP SURFACE
   AT ALL ROOF TYPE-2 AND TYPE-4: PRESSURE WASH ROOF SURFACES THROUGHOUT
- INCLUDING ALONG EDGES 10. PRESSURE WASH ALL (E) GUTTERS
- 11. SURVEY ALL (E) GUTTER'S FOR LEAKS AND REPAIR/SEAL, MISSING SEGMENTS / DOWNSPOUTS TO BE REPLACED W/ IN LIKE KIND; ALLOW FOR APPOX 20 LF OF GUTTER REPLACEMENT (NOT OTHERWISE SPECIFICALLY SHOWN) AND (5) SEAL/REPAIR
- INSTANCES PER ROOF INSTALL GUTTER HANGERS AT ALL (E) GUTTERS & WHERE REPLACED/REPAIRED
   ALL DOWNSPOUTS ARE TO MATCH (E) SIZE & SHAPE, OR 6" DIA, UNO

# ROOF LEGEND

X" / 12"	DIRECTION OF ROOF SLOPE
DS	DOWNSPOUT
□ 🔀 ⊠ ©	ROOF VENTS AND EQUIPMENT
	ROOF HATCH
	SKYLIGHT
	NEW GUTTERS
	NOROOFING WORK SCOPE

# ROOF TYPES / WORK SCOPE

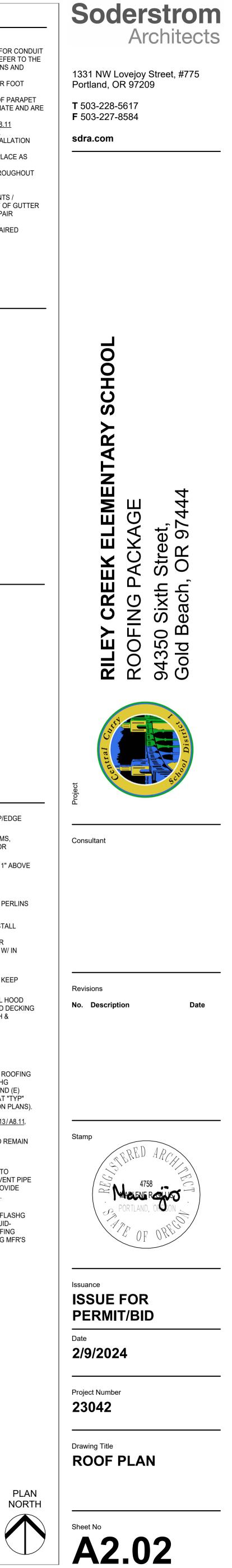
WORK APPLIES TO FULL ROOF AREA THROUGHOUT U.N.O.				
TYPE 1	REPLACEMENT (SELECT AREA): SINGLE-PLY MEMBRANE			
1/A8.11	TAPERED INSULATION, MECHANICALLY ATTACHED			
TYPE 2	REPLACEMENT OVERLAY: SINGLE-PLY MEMBRANE			
2/A8.11	INSUL MECHANICALLY ATTACHED			
TYPE 3 -	[NOT USED ]			
TYPE 4	RESTORATION: APPLIED COATING			
3/A8.11	(E) INSUL, VARS			

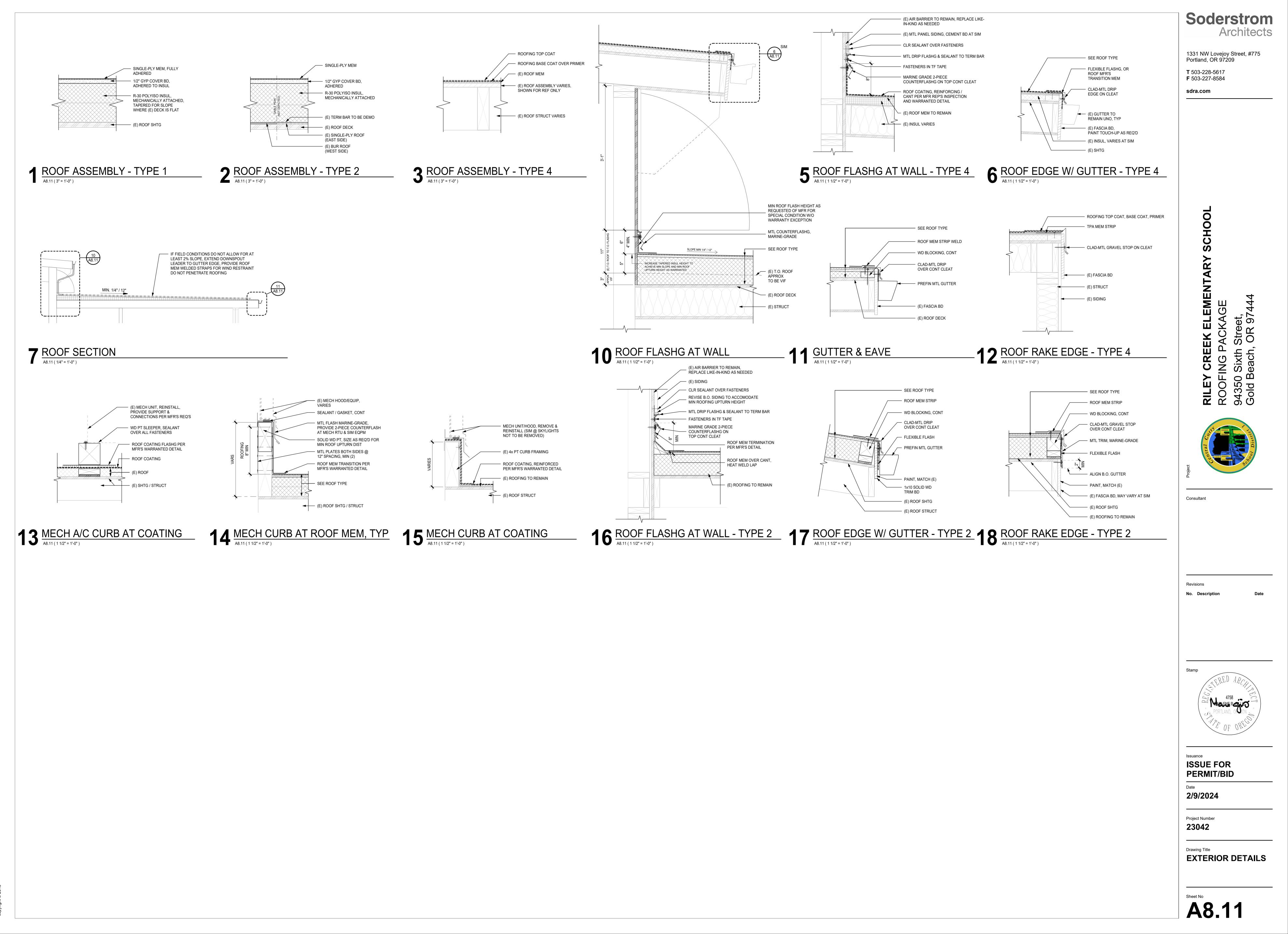
## **KEYNOTES**

$\langle 1 \rangle$	INSTALL PREFINISHED MTL GUTTERS & DOWNSPOUTS INCLUDING DRIP/EDGE MTLS AND TIE-IN TO (E) ROOFING
2>	INSPECT FOR DELAMINATING, PUNCTURES IN MEMBRANE, FAILED SEAMS, WATER BLISTERING, WRINKLING, OR SIM FAILURES, TO BE REPAIRED OR PATCHED PRIOR TO INSTALLING RESTORATION COATING
3	NOTE (E) (2) MECH DUCT HOODS ON EXTER WALL TO REMAIN, APPOX 11" ABOVE ROOF SURFACE, VIF
$\langle 4 \rangle$	(E) CONDUITS / CABLES TO REMAIN, SHOWN FOR REF ONLY
$\langle 5 \rangle$	PROVIDE 4X SOLID WD SLEEPERS PARALLEL W/ ROOF SLOPE, ATTACH PERLINS OR DECK/PLATFORM PER MECH EQUIP REQ'S
6	MASONRY CHIMNEY ALL (4) SIDES: REPAIR CRACKED MORTAR AND INSTALL MARINE-GRADE SADDLE / COUNTERFLASHG AT INTERSECTION TO MTL ROOFING AND (E) STEP FLASHG; INSPECT ADJ DECK FOR ADD'L ROT OR MOLD REMEDIATION AND REPLACE TO MATCH FLUSH; REPLACE INSUL W/ IN LIKE KIND; PATCH SINGLE-PLY MEMBRANE AND STRIPPING; APPLY

- RESTORATION COATING (7) RE-ROUTE (E) (3) CONDUIT LINES UP AND OVER TOP OF MECH HOODS, KEEP TIGHT TO WALL AND UNDER ROOF OVERHANG VFY ABANDONED PENETRATION W/ OWNER; INSTALL PREFINISHED MTL HOOD COVER W/ COUNTERFLASHG, OR, DEMO (E) CURBS AND INFILL W/ PLWD DECKING AND RIGID INSUL TO FLUSH W/ (E) SURFACE, PROVIDE ROOFING PATCH & TRANSITION PER MFR'S WARRANTED DETAIL.
- PROVIDE FLASHG TIE-IN TO MECH CURB REF TYP DETAIL <u>14/A8.11</u>, REMOVE & REINSTALL MECH EQUIP.
- PROVIDE MEMBRANE FLASHG TIE-IN TO (E) VENT PIPE TO REMAIN PER ROOFING MFR'S REQ'S AND INSTALL DETAIL; UTILIZE MFR'S FLUID APPLIED FLASHG PRODUCT WHERE A BOOT OR 2-PIECE COLLAR IS NOT FEASIBLE; EXTEND (E) VENT PIPE HEIGHT WHERE NEEDED TO ALLOW MIN 8" FLASH HEIGHT; AT "TYP" PROVIDE ALLOWANCE FOR UP TO (10) PER ROOF AREA (NOT SHOWN ON PLANS).
- 22 PROVIDE FLASHG TIE-IN AT MECH A/C EQUIP SLEEPER(S) PER DETAIL <u>13/A8.11</u>, COORDINATE W/ ROOFING MFR'S REQ'S AND INSTALL DETAIL. PROVIDE COATING FLASHG TIE-IN TO (E) MECH VENT PENETRATION TO REMAIN PER DETAIL <u>15/A8.11</u>, REMOVE AND REINSTALL AS REQ'D.
- PROVIDE COATING FLASHG TIE-IN TO (E) VENT OR PIPE PENETRATION TO REMAIN, PREP AND INSTALL PER ROOFING MFR'S DETAIL; EXTEND (E) VENT PIPE HEIGHT WHERE NEEDED TO ALLOW MIN 8" FLASH HEIGHT; AT "TYP" PROVIDE ALLOWANCE FOR UP TO (10) PER ROOF AREA (NOT SHOWN ON PLANS).
- 425 MULTIPLE GANGED PIPE/CONDUIT PENETRATION AT WALL & COUNTERFLASHG JUST ABOVE ROOF SURFACE: PROVIDE COATING FLASHG TIE-IN W/ FLUID-APPLIED FLASHG, COLLAR OR SADDLE FLASH, AND SEALANT PER ROOFING MFR'S DETAIL; COORDINATE FINAL DETAIL W/ ARCHITECT AND ROOFING MFR'S REP.









## Limited Regulated Building Materials Survey

Purpose: Pre-Renovation

Client: Central Curry School District 29516 Ellensburg Avenue Gold Beach, Oregon 97444

Project: Riley Creek Elementary School 94350 Sixth Street Gold Beach, Oregon 97444

G2 Project #: 23-7144

December 1, 2023

Prepared By:

G2 Consultants, a DBA of DKI Consultants, LLC 16869 SW 65th Avenue, #15 Lake Oswego, Oregon 97035 888-998-4224 www.g2ci.com CCB #223539

## Limited Regulated Building Materials Survey

## G2 Consultants Project #: 23-7144

Purpose of Inspection:	Pre-Renovation
Scope of Inspection:	Limited Regulated Building Materials Survey
Project Description:	Riley Creek Elementary School
Project Address:	94350 Sixth Street Gold Beach, Oregon 97444
Owner or Facility Operator:	Central Curry School District 29516 Ellensburg Avenue Gold Beach, Oregon 97444
Owner or Facility Operator Phone #:	541-247-2003

Technical Certifications					
Consultant	Discipline	Certification #	Regulatory Agency	Phone Number	
Sean Friend	Asbestos Building Inspector	IR-23-0000	EPA	503-863-0860	
	Lead Risk Assessor	LRA-R-41A035-8998B-22-00019	OHA		
		9152743-RA	CCB		

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## Executive Summary

G2 Consultants, a DBA of DKI Consultants, LLC (G2) was retained by HMK Company (HMK), on behalf of Central Curry School District (CCSD) to conduct a limited regulated building materials survey (RBMS). The survey consisted of a building inspection for asbestos-containing materials (ACM), lead-based paint (LBP), universal waste and items suspected of containing mercury or polycarbonate biphenyls (PCBs) The RBMS was conducted at Riley Creek Elementary School, located at 94350 Sixth Street in Gold Beach, Oregon. The scope of the inspection was limited to interior, exterior, and roofing materials anticipated to be impacted by the upcoming renovation activities, as specified by HMK. Authorization was provided by Mike Freeman with HMK.

Date(s) of Inspection: November 1-3, & 27, 2023

Purpose of Inspection: Pre-Renovation

**Scope of Inspection:** Limited to all accessible interior, exterior and roofing materials associated with the Reception Area, Northwest Restrooms, Locker Rooms, Classroom 31, Conference Room, Library Restrooms, Southeast Restrooms, and Classroom 52.

#### Asbestos

Results of the inspection have determined that asbestos is present in the following suspect materials presumed or sampled as part of this limited survey:

Asbestos-Containing Materials Identified or Presumed - Overview					
Material Description	Material Location*	Approx. Quantity*	Condition	Friable Y/N	
Floor Tile 9" x 9" Tan with Black and Red Streaks	Reception Area Storage, Reception Area Restrooms	174 sq. ft.	Good	Ν	
Mastic, Black	Reception Area, Classroom 31, Northwest Staff Restroom, Classroom 52	1,224 sq. ft.	Good	Ν	
Pipe Fitting Insulation	Throughout	80 Fittings	Good	Y	
Floor Tile 12" x 12" Black with Tan Specks	Gymnasium Entrance	86 sq. ft.	Good	N	
Transite Board	Exterior - Throughout	40,950 sq. ft.	Good	Ν	
Roofing Patch and Repair, Black	Roof Vent Hoods	4 Vents	Good	Ν	
Window Glazing, White	Reception Area Exterior Windows	56 lin. ft.	Good	Y	
Joint Compound on Drywall (Older)	Locker Rooms, Reception Area, Northwest Restrooms, Library Restroom, Classroom 31	9,525 sq. ft.	Good	Y	
Floor Tile 9" x 9" Brown Turtle-Shell Pattern	Classroom 31	943 sq. ft.	Good	N	
Floor Tile 12" x 12" Green with White Specks	Library Restroom, Southeast Custodial Closet	92 sq. ft.	Good	Ν	
Wall Texture, Orange Peel (Older)	Library Restroom	140 sq. ft.	Good	Y	

NOTE: Friability listed is based on conditions at the time of G2's survey. Materials may become friable if disturbed.

\* The material locations and quantities provided, represents the areas within the scope of work only. It does not represent the potential location/quantity of materials throughout the site.

Details of the inspection, descriptions and locations of materials, quantities, condition and friability can be found in the following sections of this report.

## Lead-Based Paint

Results of the limited inspection have determined that LBP is present on interior and exterior painted components evaluated that is equal to or above the concentration of 1.0 milligram per centimeter squared (mg/cm<sup>2</sup>). Lead above the 1.0 mg/cm<sup>2</sup> threshold was also identified in glazing of the ceramic wall tile and enamel sinks in the building.

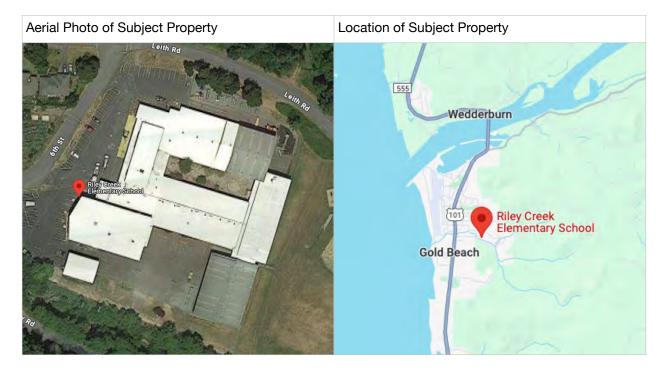
Potential lead-containing paint (LCP), below the threshold concentration of 1.0 mg/cm<sup>2</sup> may be present on other painted surfaces, as X-Ray Fluorescence (XRF) devices used to detect LBP cannot definitively confirm the presence or absence of LCP below 1.0 mg/cm<sup>2</sup>.

## Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as, fluorescent light tubes, ballasts, thermostats, compact fluorescent light bulbs, and high energy discharge (HID) light bulbs were present on the interior and exterior of the building.

## **Description of Structure(s)**

Type of facility:	School
Past uses:	School
Age of construction:	1957
Approximate square footage:	6,897 sq. ft. (Surveyed Areas only)
Number of floors:	1
Outbuildings included in inspection:	None
Inaccessible rooms/areas:	None



#### Scope of Inspection

G2 was contracted by HMK on behalf of CCSD to perform a limited RBMS inspection. The RBMS consisted of a building inspection for ACM, LBP, universal waste and items suspected of containing mercury or PCBs. The survey was conducted at Riley Creek Elementary School, located at 94350 Sixth Street, in Gold Beach, Oregon. The scope of the inspection was limited to only those suspect asbestos and lead-containing materials anticipated to be impacted by the upcoming renovation activities, as specified by HMK. The sampling was conducted to represent all suspect materials within the scope of work.

## Asbestos

The scope of services was to perform a visual and tactile inspection, and identify the presence, quantity and location of the accessible ACM, within the area(s) of the scope of work. All identified accessible suspect materials were sampled. The building was occupied at the time of the survey, therefore, destructive sampling techniques were not utilized to gain access to potentially hidden materials such as within wall cavities or other interstitial spaces.

Other suspect ACMs may be present in the building that were outside this limited scope of work, or in areas that were not accessible at the time of the survey. Furthermore, the material locations and quantities provided in this report represents the areas within the scope of work only. ACMs identified during this limited survey may potentially be located in additional rooms of the building, and at greater quantities than those stated in this report.

#### Lead-Based Paint

Readings of the lead content of painted surfaces throughout the areas included in the scope of work were collected using an XRF device. The readings were taken on the predominant interior and exterior painted components with the potential for a distinct painting history to provide a general understanding of the distribution of lead in these surfaces for renovation purposes.

#### Universal Waste, Mercury and PCBs

A visual inspection of the buildings was conducted for the presence of universal waste and items suspect for containing PCBs and mercury.

#### **Inspection Findings**

#### Asbestos

Results of the inspection have determined that asbestos is present in the following suspect materials sampled as part of this limited survey:

Asbestos-Containing Materials Identified							
HM No.†	Material Description	Material Location*	Approx. Quantity*	No. of Samples	Asb. Type & %	Condition	Friable Y/N
6	Floor Tile 9" x 9" Tan with Black and Red Streaks	Reception Area Storage, Reception Area Restrooms	174 sq. ft.	2	Chrysotile 4%	Good	N
7	Mastic, Black	Reception Area, Classroom 31, Northwest Staff Restroom, Classroom 52	1,224 sq. ft.	8	Chrysotile 3%	Good	N
18	Pipe Fitting Insulation	Throughout	80 Fittings	3	Amosite 2% Chrysotile 4%	Good	Y
19	Floor Tile 12" x 12" Black with Tan Specks	Gymnasium Entrance	86 sq. ft.	2	Chrysotile 3%	Good	Ν
27	Transite Board	Exterior - Throughout	40,950 sq. ft.	3	Chrysotile 15%	Good	Ν
28	Roofing Patch and Repair, Black	Roof Vent Hoods	4 Vents	2	Chrysotile 6%	Good	N
31	Window Glazing, White	Reception Area Exterior Windows	56 lin. ft.	2	Chrysotile 3%	Good	Y
36	Joint Compound on Drywall	Locker Rooms, Reception Area, Northwest Restrooms, Library Restroom, Classroom 31	9,525 sq. ft.	4	Chrysotile 2%	Good	Y
39	Floor Tile 9" x 9" Brown Turtle-Shell Pattern	Classroom 31	943 sq. ft.	2	Chrysotile 6%	Good	Ν
40	Floor Tile 12" x 12" Green with White Specks	Library Restroom, Southeast Custodial Closet	92 sq. ft.	2	Chrysotile 2%	Good	N
46	Wall Texture, Orange Peel (Older)	Library Restroom	140 sq. ft.	3	Chrysotile 3%	Good	Y

NOTE: Friability listed is based on conditions at the time of G2's survey. Materials may become friable if disturbed.

† - Homogeneous material number

\* The material locations and quantities provided, represents the areas within the scope of work only. It does not represent the potential location/quantity of materials throughout the site.

Results of the inspection have determined that asbestos is not present in the following materials sampled:

Non Asbestos-Containing Materials Identified         HM No. <sup>†</sup> Material Description         Material Location*       No. of Samples									
1	Carpet Tile Glue, Tan and Black	Reception Area, Classroom 52, Conference Room	2						
2	Cove Base 4" Black	Throughout	2						
3	Adhesive, Brown and Off-White, behind Various Cove Base	Throughout	2						
4	Cove Base 4" Light Brown	Throughout	2						
5	Adhesive, Beige and Brown, behind Various Cove Base	Throughout	2						
8	Cove Base 4" Red	Reception Restrooms, Reception Storage	2						
9	Adhesive, Brown, behind Red Cove Base	Reception Restrooms, Reception Storage	2						
10	Caulking, Off-White	Reception Restrooms, Locker Rooms	2						
11	Ceiling Tile, 12" x 12" Peghole with Pinholes	Reception Restrooms, Library Restroom, Classroom 31	2						
12	Ceiling Tile, 12" x 12" Peghole	Reception Area	2						
13	FRP Adhesive, Tan	Locker Rooms, Northwest Restrooms, Southeast Restrooms	2						
14	Grout, White, between 6" x 6" Ceramic Wall Tile	Locker Rooms, Northwest Restrooms, Southeast Restrooms	2						
15	Grout, Gray, between 1" x 1" Ceramic Floor Tile	Locker Rooms, Northwest Restrooms, Southeast Restrooms	2						
16	Mortar, White, under 6" x 6" Ceramic Wall Tile	Locker Rooms, Northwest Restrooms, Southeast Restrooms	2						
17	Mortar, Gray, under 1" x 1" Ceramic Floor Tile Locker Rooms, I Restrooms, Sour Restrooms		2						
20	Glue, Tan, under Black Floor Tile	Gymnasium Entrance	2						
21	Ceiling Tile, 2' x 4' Fissure with Pinholes	Conference Room, Classroom 52	2						
22	Wall Texture, Orange Peel (Newer)	Conference Room, Southeast Restrooms, Southeast Custodial Closet, Classroom 52							
23	Built-Up Roofing (Southeast Roof)	Southeast Roof	3						

Non Asbestos-Containing Materials Identified							
HM No.†	Material Description	Material Location*	No. of Samples				
24	Built-Up Roofing (Northeast Roof)	Northeast Roof	3				
25	Built-Up Roofing (Other Roofs)	Reception Roof, Locker Room Roof, Staff Room Roof	3				
26	Seam Compound, Gray	Roof Parapet Seams	2				
29	Seam Compound, White	Roof PVC Vents	2				
30	Seam Compound, Silver	Roof Flashing Seams	2				
32	Window Caulking, Tan	Southeast Exterior Windows	2				
33	Window Caulking, Gray	Admin Area Exterior Windows	2				
34	Seam Compound, Light Gray	Exterior Wall Penetration Seams	2				
35	Cove Base 4" Green	Northwest Restrooms	2				
37	Cove Base 4" Brown	Northwest Staff Restroom, Classroom 31	2				
38	Floor Tile 12" x 12" Olive with Multi-Color Streaks	Northwest Staff Restroom	2				
41	Cove Base 4" White	Southeast Staff Restroom	2				
42	Adhesive, Gray, behind White Cove Base	Southeast Staff Restroom	2				
43	Sink Undercoating, Black	Classroom 52	2				
44	Floor Tile 12" x 12" Tan with Multi-Color Specks	Classroom 52	2				
45	Drywall & Joint Compound (Newer)	Conference Room, 3 Southeast Restrooms, Southeast Custodial Closet, Classroom 52					

† - Homogeneous material number

\* The material locations provided, represents the areas within the scope of work only. It does not represent the potential locations/quantities of materials throughout the site.

Details of the samples collected, including locations of individual samples can be found in Appendix B: Laboratory Analysis Results & Chain of Custody.

#### Lead-Based Paint

The types of components listed in the following table indicate the presence of lead at or above the U.S. EPA Renovation, Repair and Painting Rule (EPA RRP) and the U.S. Department of the Housing and Urban Development (HUD) Guidelines threshold for LBP. The EPA and HUD definition of "positive" LBP via XRF analysis is lead concentrations equal to or greater than 1.0 mg/cm<sup>2</sup>. Additional details including reading number, floor, substrate, side, color and lead content details are located in the XRF Readings Table found in Appendix C.

Identified Components with Lead Equal to or Greater than 1.0 mg/cm <sup>2</sup>								
Structure	Room	Component	Color	Substrate	Condition	Result		
Riley Creek Elementary School	Exterior	Door	Red	Wood	Intact	LBP		
		Door Jamb	Red	Wood	Intect	LBP		
		Door Trim	Red	Wood	Intact	LBP		
	Northwest	Door Jamb	Green	Wood	Intact	LBP		
	Restrooms	Door	Blue	Wood	Intact	LBP		
	Throughout	Sink	White	Ceramic	Intact	Positive		
		Wall Tile	Multiple	Ceramic	Intact	Positive		

Readings in the table noted as LBP, are paint films with lead concentrations at or above 1.0 mg/cm<sup>2</sup>. Readings in the table noted as Positive, are non-painted surfaces, such as enamel or ceramic tile, with lead concentrations at or above 1.0 mg/cm<sup>2</sup>.

NOTE: This table is not intended to provide an exhaustive list of all LBP on the subject property. Not all painted components were tested as part of this LBP inspection. Readings were taken on the predominant interior and exterior painted components with the potential for a distinct painting history to provide a general understanding of the distribution of lead in these surfaces for renovation purposes. Not all paint films were evaluated.

#### Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as, fluorescent light tubes, ballasts, thermostats, compact fluorescent light bulbs, and high energy discharge (HID) light bulbs were present on the interior and exterior of the building. The following is a list of items observed:

- 4' Fluorescent Light Tubes 193
- Ballasts 87
- CFL Bulbs 9
- Flood Lights 2
- Thermostats 5

#### Recommended Response Actions

#### Asbestos

#### Asbestos-Containing Materials (ACM)

Any building material which contains asbestos in an amount greater than 1% is considered an ACM by the United States Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA), and by the State of Oregon Department of Environmental Quality (DEQ) and the Oregon Occupational Safety and Health Division (OR-OSHA).

Results of the limited survey have determined that multiple materials identified are ACMs, including Transite Board Siding, Tan 9" x 9" Floor Tile, Brown 9" x 9" Floor Tile, Black 12" x 12" Floor Tile, Green 12" x 12" Floor Tile, Black Mastic, Drywall Joint Compound, Orange Peel Wall Texture, Roofing Patch and Repair, Window Glazing, and Pipe Fitting Insulation. All materials were observed to be in good condition at the time of the survey.

If any untested suspect materials are encountered during renovation activities, they should be assumed to be ACM and not disturbed, unless sampling and analysis of the materials proves otherwise.

Friability is determined by whether a material can be crumbled, pulverized or reduced to a powder by pressure of an ordinary human hand. The friability of materials listed in this report are based on the present state and actual conditions of the materials observed at the time of G2's survey. Materials listed as non-friable can become friable through impact or damage.

#### All identified and presumed ACM must be removed by a licensed asbestos abatement contractor, or other certified individual, prior to impact if they are to be disturbed during renovation activities. ACM remaining in the building should be managed in good condition, under an Asbestos Management Plan, and checked regularly for damage.

OR-OSHA requires a variety of actions when ACM is present in a commercial structure. These include labelling, warning signs, hazard communication and periodic inspections. All of the requirements of a building owner/operator with regard to asbestos can be found in Oregon Administrative Rules (OAR) 437, Division 2.

Any ACM likely to be disturbed during renovation or demolition activities, other than by incidental contact with no generation of debris related to other construction activities, should be abated by a licensed asbestos abatement contractor. Any activities conducted where the primary object of the activity is the removal of ACM must be conducted by a licensed asbestos abatement contractor or other properly trained individuals.

The National Emissions Standards for Hazardous Air Pollutants (NESHAPs) requires that all Regulated Asbestos-Containing Materials (RACMs) be removed from a building prior to demolition.

#### Asbestos-Containing Materials - 1% Asbestos or Less

Any building material which contains asbestos in an amount of 1% or less is considered asbestoscontaining by OSHA and OR-OSHA. Although these materials are not considered ACMs, workers must be protected from exposure to asbestos, regardless of the percentage.

#### No materials were identified during this survey that contained 1% or less asbestos.

Many of the engineering controls and work practices required by the EPA and OSHA are applicable only to materials that contain greater than 1% asbestos. However, OSHA has established work practice requirements and prohibitions that apply when asbestos in any quantity is present, and/or whenever worker exposure exceeds the PEL regardless of the amount of asbestos in the materials involved. Applicable requirements for materials that contain 1% or less asbestos can be found in the OSHA Asbestos Construction Standard 29 CFR 1926.1101.

#### Lead-Based Paint

Results of the limited inspection have determined that LBP is present on interior and exterior painted components evaluated that is equal to or above the concentration of 1.0 milligram per centimeter squared (mg/cm<sup>2</sup>). Lead above the 1.0 mg/cm<sup>2</sup> threshold was also identified in glazing of the ceramic wall tile and enamel sinks in the building.

Potential lead-containing paint (LCP), below the threshold concentration of 1.0 mg/cm<sup>2</sup> may be present on other painted surfaces, as XRF devices used to detect LBP cannot definitively confirm the presence or absence of LCP below 1.0 mg/cm<sup>2</sup>. OSHA/OR-OSHA has requirements for employees working with or around LCP.

Lead-containing surfaces could create lead dust or lead contaminated soil hazards if the paint/glazing is turned to dust by abrasion, scraping or sanding. If conditions of intact paint surfaces become destabilized, these conditions will need to be addressed. All paint films in poor condition must be stabilized if the structure is to be demolished. If any construction or modernization work is done on the premises, this report should be given to the contractor(s). OSHA/OR-OSHA have requirements for employees working with or around LCP.

Contractors and other personnel who may impact these materials should be informed of the results of this inspection. LBP is a common cause of lead poisoning in children and represents a threat to the health and welfare of the occupants. Where economically feasible, it is our recommendation that all components that tested positive, and any similar untested components, be considered lead-laden, and lead-safe procedures are incorporated into any overall renovation and maintenance strategy in order to reduce the potential for contamination and/or exposure. Safe methods include: containing any work area to prevent dispersal of lead dust and chips, wet sanding and scraping at a minimum; collecting all paint chips and debris, and properly disposing of them.

Details of the locations and lead content for all of the readings can be found in Appendix C: XRF Readings Table.

If additional painted surfaces are discovered that were not tested as part of this inspection, or that are expected to be impacted as part of any renovation or demolition work, they should be presumed LBP until tested to show otherwise.

A risk assessment has not been conducted to evaluate potential lead hazards present at the properties and surrounding soil as part of this scope of work.

#### Universal Waste, Mercury and PCBs

Results of the inspection indicate that items suspect for containing mercury and PCBs, or that are classified as universal waste, such as, fluorescent light tubes, ballasts, thermostats, compact fluorescent light bulbs, and high energy discharge (HID) light bulbs were present on the interior and exterior of the building.

If any universal waste or items suspect for containing mercury and PCBs are identified and expected to be impacted during renovation/demolition work, these items must be disposed of properly according to local, state and federal guidelines.

#### Methodology

#### Asbestos

The field work was conducted using industry best practices. Samples of representative accessible suspect materials within the scope of work were collected during the course of the inspection. Materials were sampled according to homogeneous groupings using the Asbestos Hazard Emergency Response Act (AHERA) sampling guidelines.

Asbestos samples were collected in such a manner as to minimize release of the material into the surroundings. Sample number, material description, sample location and material location were recorded at the time of sampling. Each sample was placed in a sample container labeled with a unique sample number and submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, for analysis under chain of custody documentation. Samples were analyzed in accordance with EPA Method 600/R-93-116, using PLM with dispersion staining and using visual area estimation to determine percent asbestos content. This method allows for the identification of the primary types of asbestos used in building materials. The lower limit of detection for this method is one percent. Samples containing one percent or less asbestos by PLM with visual area estimation are reported as "Trace".

#### Lead-Based Paint

All testing of suspect LBP was conducted utilizing a SciAps X-ray fluorescence LBP analyzer, Model X550Pb (Rh) bearing Serial #01583. The device uses a rhodium X-ray fluorescence tube as opposed to a radioactive source. G2 followed the Performance Characteristics Sheets (PCS) for the specific X-Ray fluorescence instrument used during the LBP evaluation of the property. The XRF PCS is presented in Appendix D. The instrument was calibrated to the manufacturer's specifications and was also periodically verified against the National Institute of Standards and Testing (NIST) Standard Reference Material (SRM) 2579 lead film (1.0 mg/cm<sup>2</sup>).

The calibration of the instrument is conducted in accordance with the PCS for this instrument. These instruments are calibrated using a calibration standard block of known lead content. If for any reason the instruments do not maintain a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

Wall "A" in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall "A", Wall "B" will always be to your right, Wall "C" directly to the rear and Wall "D" to the left. Doors, windows and closets may be designated as left, center or right depending on their location on the wall. Doors, windows, and closets are designated as left, center or right depending on their location on the wall.

All individuals who performed this XRF testing and visual assessment have EPA and/or state licenses as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for states and Native American tribal groups.

#### Universal Waste, Mercury and PCBs

As part of this survey, a visual inspection for universal waste or items suspect for containing PCBs and mercury-was conducted. Items classified as universal waste or suspect for containing PCBs and mercury, if identified, were quantified and catalogued.

#### Limitations

G2 has performed this inspection in accordance with best industry methods and practices of the profession, and consistent with the level of care and skill ordinarily exercised by reputable environmental consultants under similar circumstances and conditions. The observations contained within this assessment are based upon site conditions readily accessible at the time of the site inspection. No other representation, guarantee or warranty, express or implied, is included or intended in this hazardous materials survey report. If any untested suspect materials are encountered during demolition activities, they should be assumed to be ACM and not disturbed, unless sampling and analysis of the materials proves otherwise.

The LBP portion of the inspection was planned, developed, and implemented based on G2's professional experience in performing LBP inspections. G2 performed an inspection for lead-containing paint of the predominant painted surfaces in order to provide a general indication of the distribution of lead for demolition purposes. G2 utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. A copy of personnel and company certifications has been provided in Appendix E. G2's evaluation of the painted surfaces identified during this inspection is based on conditions observed at the time of the inspection. G2 cannot be responsible for changing conditions that may alter the relative exposure risk for future changes in accepted methodology.

The owner is responsible to convey information regarding identified lead content to inhabitants, contractors, etc. expected to potentially be exposed. G2 recommends that both the contractor and the owner keep the records for three years.

This report consists of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date(s) of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation.

As with all environmental investigations, this inspection is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Respectfully submitted and reviewed by:

Ch Ehl

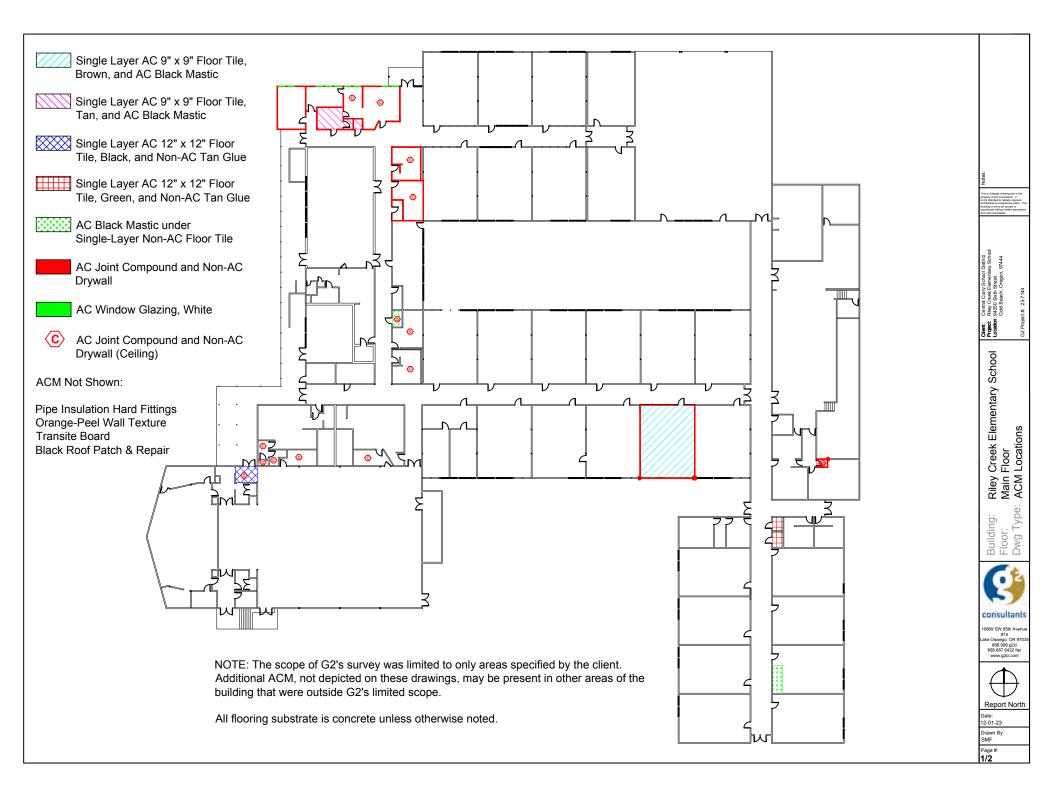
Chase Eckersell Sr. Project Specialist G2 Consultants

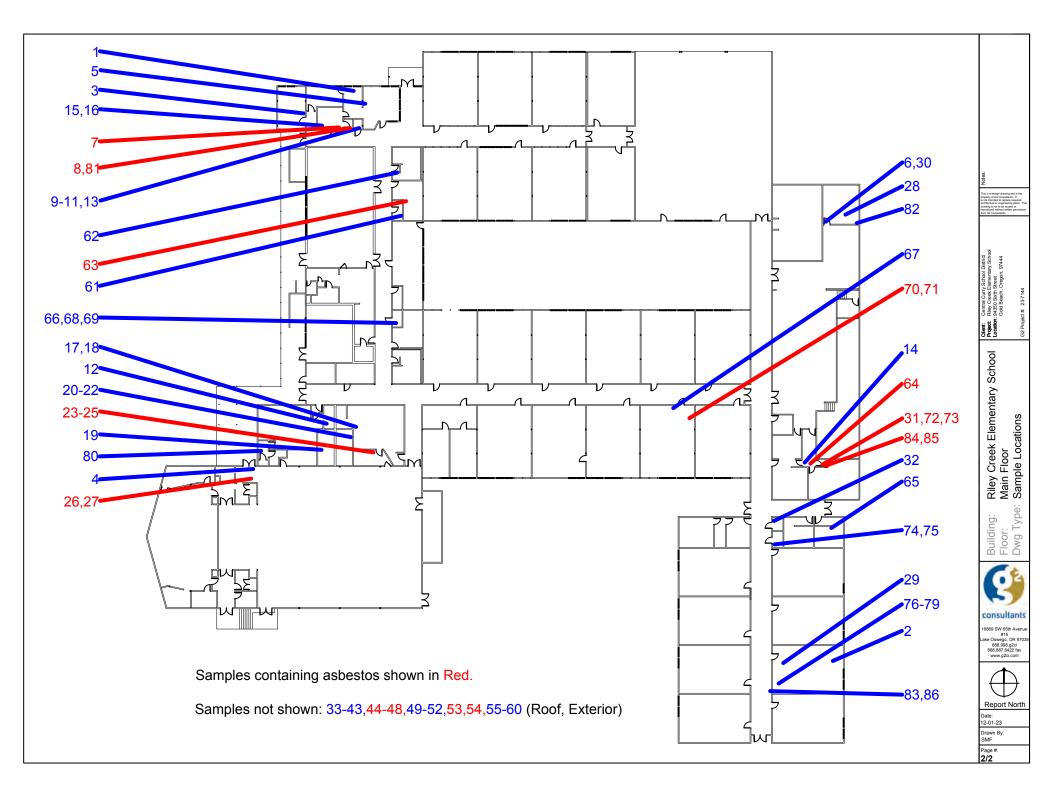
/L

Sean Friend Project Manager G2 Consultants

# Appendix A:

## Sample & Asbestos-Containing Materials Drawings





# Appendix B:

## Laboratory Analysis Results & Chain of Custody

SEEML Reference Number: G-231107078 Date Issued: 11/10/2023



### Southeast Environmental Microbiology Laboratories

102 Edinburgh Court Greenville, SC 29607 Phone: (864) 233-3770 Fax: (864) 233-6589

#### Asbestos Analytical Report By: Polarized Light Microscopy

This report has been prepared for **G2 Consultants** the information and data has been checked for thoroughness and accuracy. The results reported apply only to the materials as received. The documents(s) contained herein are confidential and privileged information intended for the exclusive use of the individual or entity named above. This report shall not be reproduced except in full without SEEML's approval.

Client Project Name: 23-7144

The Following report was prepared using this test method(s) contained within this document.

✓ PLM Bulk Asbestos Fiber Analysis: EPA 600/R-93/116
PLM 400 Point Count (<0.25%) EPA 600/R-93/116
PLM 1000 Point Count (<0.1%) EPA 600/R-93/116
PLM Carb 435 Level A Reporting Limit (<0.25%)
PLM Carb 435 Level B (Reporting limit <0.1%)
PLM by EPA/600/R-93/116 with Milling Prep 400 Point Count
PLM Vermiculite Initial Screening EPA 600R-93/116
PLM Cincinnati Method 600/R-04/004 (Amphibole Only)
PLM Vermiculite Method SOF-V 198.8 (Step 1 Chrysotile & Prep)
PLM Vermiculite Method SOF-V 198.8 (Step 2 (Amphibole)

### Approved By : <u>Andrea Berrios</u>

Thank you for choosing SEEML Labs. We strive to provide superior quality testing, analytical data and customer service. SEEML is accredited through the National Institute of Standards and Technology (NIST) National Voluntary Accreditation Program (NVLAP) for bulk asbestos analysis NVLAP # 201031-0 and licensed by the Texas Department of State Health Services (License Number: 300474). This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US government.



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-	
Client:		G2 Con	sultants	Date Sampled:	11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Analyzed by:		۸n	drea Berrios	Project Address:	94350 Sixth Street
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:	0/. A		% Fibrous Non-	0/ Non Eihroug Material	Description // contion
Client No.:	90 A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
444A	No	one Detected None Detected	100% Organic Matrix	(Multicolored) Mastic/Front Reception	
23-7144-1		ne Detected	None Delected	100 /0 Organic Matrix	(Multicolored) Mastic/Front Reception
445A	No	ne Detected	cted None Detected	100% Organic Matrix	(Tan) Mastic/Classroom 52
23-7144-2					
446A	No	None Detected None Dete	None Detected	100% Organic Matrix	(Black) Cove Base/Office #1
23-7144-3				, , , , , , , , , , , , , , , , , , ,	(,,,,,
446B	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Mastic/Office #1
23-7144-3					
447A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Cove Base/Gymnasium
23-7144-4					Entrance
447B	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Mastic/Gymnasium
23-7144-4					Entrance
447C	No	ne Detected	10% Talc	90% Organic Matrix	(Brown) Mastic/Gymnasium Entrance
23-7144-4				-	
448A	None Detected		None Detected	100% Organic Matrix	(Tan) Cove Base/Front Reception
23-7144-5					· · · · · · · · · · · · · · · · · · ·
448B	No	ne Detected	None Detected	100% Organic Matrix	(Off-White) Mastic/Front Reception
23-7144-5					

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#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Con	sultants	Date Sampled:	11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Applyzed by		4.5	drea Berrios	Project Address:	94350 Sixth Street
Analyzed by:		All	ured bernos	City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:	0/ 4	ahaataa Tuma	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
448C	Na	ne Detected	None Detected	100% Organic Matrix	(Brown) Mastic/Front Reception
23-7144-5	NO	ne Delected	None Delected	100 /0 Organic Matrix	(Brown) Mastic/ Front Reception
449A	No	ne Detected None Detected	100% Organic Matrix	(Tan) Cove Base/Conference Room	
23-7144-6			None Detected	100 /0 organic riddix	
449B	None Detected None De	None Detected	100% Organic Matrix	(Off-White) Mastic/Conference Room	
23-7144-6				, , , , , , , , , , , , , , , , , , ,	(
450A	4%	<b>4% Chrysotile</b> None Detected	None Detected	96% Organic Matrix	(Tan) Floor Tile/Reception Storage
23-7144-7					
450B	3%	% Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Reception Storage
23-7144-7		-			
451A	4%	% Chrysotile	None Detected	96% Organic Matrix	(Tan) Floor Tile/Reception Restroom
23-7144-8		-		-	
451B	3%	% Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Reception Restroom
23-7144-8		-		-	
452A	None Detected		None Detected	100% Organic Matrix	(Red) Cove Base/Reception Restroom
23-7144-9					
452B	No	ne Detected	10% Talc	90% Organic Matrix	(Brown) Mastic/Reception Restroom
23-7144-9				<b>.</b>	

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Con	sultants	Date Sampled:	11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Analyzed by:		40	drea Berrios	Project Address:	94350 Sixth Street
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:	0/ 4	ahaataa Turra	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention
Client No.:	% A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
453A			ne Detected None Detected	100% Organic Matrix	(Red) Cove Base/Reception Restroom
23-7144-10	NU	ne Detected	None Deletted	100 /0 Organic Matrix	(Red) cove base, Reception Restroom
453B	No	ne Detected	ected 10% Talc	90% Organic Matrix	(Brown) Mastic/Reception Restroom
23-7144-10	no				
454A	No	None Detected None Dete	None Detected	100% Organic Matrix	(Off-White) Caulking/Reception
23-7144-11			None Detected		Restroom-Sink
455A	No	Detected None Detected	None Detected	100% Organic Matrix	(Off-White) Caulking/Girl's Locker
23-7144-12					Room
456A	No	ne Detected	90% Cellulose	10% Binder/Filler	(Tan) Ceiling Tile/Reception Restroom
23-7144-13					
457A	No	ne Detected	90% Cellulose	10% Binder/Filler	(Tan) Ceiling Tile/Library Restroom-
23-7144-14					Attic Hatch
458A	None Detected		90% Cellulose	10% Binder/Filler	(Tan) Ceiling Tile/Reception Storage
23-7144-15					
459A	None Detected		90% Cellulose	10% Binder/Filler	(Tan) Ceiling Tile/Reception Storage
23-7144-16					
460A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Boy's Locker Room
23-7144-17				<b>J</b>	- · · ·

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#### **PLM Asbestos Bulk Sample Summary**

Client	:		sultants	Date Sampled:	11/01/2023
		16869 SW65tł	n Avenue #15	Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Analyzed by:		٨٣	drea Berrios	Project Address:	94350 Sixth Street
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:			% Fibrous Non-	0/ Nov Filmers Material	Description (Leasting
Client No.:	- % <i>^</i>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
461A	Na	e Detected None Detected	100% Organic Matrix	(Tan) Mastic/David Lasker Dear	
23-7144-18		ne Detected	None Delected		(Tan) Mastic/Boy's Locker Room
462A	No	ne Detected	None Detected	100% Binder/Filler	(White) Smooth Grout/Girl's Showers
23-7144-19					
462B	- No	ne Detected	d None Detected	100% Carbon/Quartz	(White) Mortar/Girl's Showers
23-7144-19					
463A	No	ne Detected	None Detected	100% Binder/Filler	(White) Smooth Grout/Boy's Showers
23-7144-20					
463B	- No	ne Detected	2% Cellulose	98% Carbon/Quartz	(White) Mortar/Boy's Showers
23-7144-20					
464A	- No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Boy's Showers
23-7144-21					<pre></pre>
464B	- No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Mortar/Boy's Showers
23-7144-21				,	
465A	- No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Grout/Boy's Showers
23-7144-22					(2.4), 0.04(20) 0 0.000015
465B	- No	ne Detected	None Detected	100% Carbon/Quartz	(Gray) Mortar/Boy's Showers
23-7144-22					

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-	
Client:		G2 Cor	nsultants	Date Sampled:	11/01/2023
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	go,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Analyzed by:		۸۵	drea Berrios	Project Address:	94350 Sixth Street
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:	0/- 4	chastes Tures	% Fibrous Non-	% Non-Fibrous Material	Description // ception
Client No.:	-70 A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
466A		2% Amosite,4% 23% Min Wool,6% Cellulose	65% Binder/Filler	(Gray) Pipe Insulation/Boy's Locker	
23-7144-23		Chrysotile	23 /0 Mill Wool, 0 /0 Cellulose		Room Office
467A		% Amosite,4% 23% Min Wool,6% Cellulose	65% Binder/Filler	(Gray) Pipe Insulation/Boy's Locker	
23-7144-24		Chrysotile		, .	Room Office
468A		<b>2% Amosite,4%</b> 23% Fiberglass,6%	65% Binder/Filler	(Gray) Pipe Insulation/Boy's Locker	
23-7144-25		Chrysotile	Cellulose	,	Room Office
469A	3%	% Chrysotile	None Detected	97% Organic Matrix	(Black) Floor Tile/Gymnasium Entrance
23-7144-26		-			
469B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Gymnasium Entrance
23-7144-26				-	
470A	3%	6 Chrysotile	None Detected	97% Organic Matrix	(Black) Floor Tile/Gymnasium Entrance
23-7144-27					
470B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Gymnasium Entrance
23-7144-27					
<b>471A</b>	None Detected		20% Fiberglass,60% Cellulose	20% Perlite	(Gray) Ceiling Tile/Conference Room
23-7144-28					<b> </b>
<b>472A</b> 23-7144-29	No	ne Detected	20% Min Wool,60% Cellulose	20% Perlite	(Gray) Ceiling Tile/Classroom 52
23-/144-29			Cellulose		I

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-		
Client:		G2 Con	sultants	Date Sampled:	11/01/2023	
		16869 SW65th Avenue #15		Date Received:	11/07/2023	
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		۸n	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:	0/- A	shoetes Turo	% Fibrous Non-	0/ Non Eihroug Material	Description // conting	
Client No.:	%0 A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
473A	No	None Detected None Detecte	None Detected	100% Binder/Filler	(White) Wall Texture/Conference Roon	
23-7144-30	NU	ne Detected	None Delected			
474A	20/	% Chrysotile	None Detected	98% Binder/Filler	(White) Wall Texture/Library Restroom	
23-7144-31		o em youne				
474B	No	None Detected 20% Cellulose	20% Cellulose	80% Gypsum	(White) Drywall/Library Restroom	
23-7144-31						
475A	No	None Detected None Detected	None Detected	100% Binder/Filler	(White) Wall Texture/SE Custodial	
23-7144-32	-				Closet	
475B	No	ne Detected	20% Cellulose	80% Gypsum	(White) Drywall/SE Custodial Closet	
23-7144-32						
476A	No	ne Detected	15% Synthetic	85% Organic Matrix	(Black) Shingle/Southeast Roof	
23-7144-33				-		
476B	None Detected		None Detected	100% Organic Matrix	(Black) Tar/Southeast Roof	
23-7144-33				-		
476C	None Detected		10% Cellulose,20%	70% Organic Matrix	(Black) Tar Felt/Southeast Roof	
23-7144-33			Fiberglass			
477A	No	ne Detected	15% Synthetic	85% Organic Matrix	(Black) Shingle/Southeast Roof	
23-7144-34				<b>J J J J J J J J J J</b>		

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:		G2 Con	sultants	Date Sampled:	11/01/2023	
		16869 SW65th Avenue #15		Date Received:	11/07/2023	
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		٨٣	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:			% Fibrous Non-	Of New Filmers Metanial	Description (Leasting	
Client No.:	%A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
477B	Na	News Detected	Nana Datastad	100% Organic Matrix	(Black) Tar/Southeast Roof	
23-7144-34		ne Detected	None Detected			
477C	No	ne Detected 15% Cellulose,30%	55% Organic Matrix	(Black) Tar Felt/Southeast Roof		
23-7144-34	_		Fiberglass	<u> </u>	· · · ·	
478A	No	e Detected 30% Fiberglass	70% Organic Matrix	(Black) Shingle/Southeast Roof		
23-7144-35				5		
478B	No	<b>Detected</b> None Detected	None Detected	100% Organic Matrix	(Black) Tar/Southeast Roof	
23-7144-35						
479A	No	ne Detected	30% Fiberglass	70% Organic Matrix	(Black) Roofing/Northeast Roof	
23-7144-36						
479B	No	ne Detected	15% Cellulose,30%	55% Organic Matrix	(Black) Tar Felt/Northeast Roof	
23-7144-36			Fiberglass	-		
480A	No	ne Detected	None Detected	100% Organic Matrix	(White) Vinyl Covering/Northeast Roof	
23-7144-37				-		
480B	No	ne Detected	20% Fiberglass	80% Organic Matrix	(Black) Roofing Material/Northeast Roof	
23-7144-37						
480C	No	ne Detected	100% Synthetic	None Detected	(Green) Fibrous Material/Northeast Roof	
23-7144-37						

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client:			sultants	Date Sampled:	
		16869 SW65th Avenue #15		Date Received:	11/07/2023
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023
		(888)998-4224/	debra@g2ci.com	· · ·	11/10/2023
				Date Revised:	
				Project Name:	23-7144
				Project No:	23-7144
Analyzed by:		٨٣	drea Berrios	Project Address:	94350 Sixth Street
Analyzed by.				City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078
Lab No.:	0/ 0	-	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention
Client No.:	<b>%</b> #	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
481A	No	None Detected None Detected	None Detected	100% Organic Matrix	(White) Vinyl Covering/Northeast Roo
23-7144-38		ne Delecteu	None Delected		(white) why covering/Northeast Roof
481B	No	ne Detected	ed 15% Fiberglass	85% Organic Matrix	(Black) Shingle/Northeast Roof
23-7144-38					
481C	No	ne Detected	Detected None Detected	100% Organic Matrix	(Black) Tar/Northeast Roof
23-7144-38					
481D	None Detected 100% Synth	100% Synthetic	None Detected	(Green) Fibrous Material/Northeast	
23-7144-38					Roof
482A	No	ne Detected	None Detected	100% Organic Matrix	(White) Vinyl Covering/Admin Roof
23-7144-39					(·······)·····
482B	No	ne Detected	20% Fiberglass	80% Organic Matrix	(Off-White) Fibrous Material/Admin
23-7144-39			g.use		Roof
482C	No	ne Detected	20% Fiberglass,60%	20% Organic Matrix	(Multicolored) Felt/Admin Roof
23-7144-39			Cellulose		
482D	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Admin Roof
23-7144-39					
483A	No	ne Detected	None Detected	100% Organic Matrix	(White) Vinyl Covering/Locker Room
23-7144-40					Roof

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				•		
Client:			sultants	Date Sampled:	11/01/2023	
16869 SW65th		n Avenue #15	Date Received:	11/07/2023		
Lake Oswego, C			jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
A so a home of the se		<b>A</b>	dura Daniar	Project Address:	94350 Sixth Street	
Analyzed by:		An	drea Berrios	City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:			% Fibrous Non-	0/ Non Elhando Matavial	Description (Leastion	
Client No.:	%A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
483B	No	no Dobostad	25% Fiberglass	75% Organic Matrix	(Black) Roofing Material/Locker Room	
23-7144-40		ne Detected			Roof	
483C	No	ne Detected	40% Fiberglass	60% Organic Matrix	(Off-White) Fibrous Material/Locker	
23-7144-40			10 /0 Hibergiuss		Room Roof	
483D	No	ne Detected	20% Fiberglass,60%	20% Organic Matrix	(Multicolored) Felt/Locker Room Roof	
23-7144-40			Cellulose	2070 organic Hadix		
483E	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Locker Room Roof	
23-7144-40						
484A	No	ne Detected	None Detected	100% Organic Matrix	(White) Vinyl Covering/Staff Room Root	
23-7144-41				100 /0 Organie Hadrix		
484B	No	ne Detected	15% Fiberglass	85% Organic Matrix	(Black) Roofing Material/Staff Room	
23-7144-41			13 /01/100/9/035		Roof	
484C	No	ne Detected	20% Fiberglass	80% Organic Matrix	(Off-White) Fibrous Material/Staff Room	
23-7144-41					Roof	
484D	No	ne Detected	20% Fiberglass,60%	20% Organic Matrix	(Multicolored) Felt/Staff Room Roof	
23-7144-41			Cellulose			
484E	No	ne Detected	None Detected	100% Organic Matrix	(Yellow) Foam/Staff Room Roof	
23-7144-41						

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client: G2 Cons		sultants	Date Sampled:	11/01/2023	
16869 SW65th			n Avenue #15	Date Received:	11/07/2023	
		Lake Osweg	jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		٨٣	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:		-	% Fibrous Non-	0/ Non Fibrous Material	Description // cention	
Client No.:	<b>~~</b>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
485A	No	ne Detected	10% Cellulose	90% Organic Matrix	(Crave) Compound/Boof Darapot Soam	
23-7144-42		ne Delected	10% Cellulose	90% Organic Matrix	(Gray) Compound/Roof-Parapet Seams	
486A	No	ne Detected	10% Cellulose	90% Organic Matrix	(Gray) Compound/Roof-Parapet Seams	
23-7144-43				5070 organie riadix	(,,, , , , , , ,	
487A	159	% Chrysotile	None Detected	85% Carbon/Quartz	(Gray) Siding/Exterior-South Library	
23-7144-44		,o em yound			Bldg	
488A	159	% Chrysotile	None Detected	85% Carbon/Quartz	(Gray) Siding/Exterior-Admin Bldg	
23-7144-45		,o em youne				
489A	159	% Chrysotile	None Detected	85% Carbon/Quartz	(Gray) Siding/Exterior-Gym Bldg	
23-7144-46		,o em youne			(Gray) Siding/Extends Gym Blag	
490A	6%	% Chrysotile	None Detected	94% Organic Matrix	(Black) Roofing Material/Roof-Vent	
23-7144-47					Hoods	
491A	6%	% Chrysotile	4% Fiberglass	90% Organic Matrix	(Black) Roofing Material/Roof-Vent	
23-7144-48		· · · <b>/</b> · · · · · · · · · · · · · · · · · · ·			Hoods	
492A	No	ne Detected	None Detected	100% Organic Matrix	(White) Compound/Roof-PVC Vents	
23-7144-49						
493A	- No	ne Detected	None Detected	100% Organic Matrix	(White) Compound/Roof-PVC Vents	
23-7144-50						

#### **Approved By: Andrea Berrios**

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Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client: G2 Cons		sultants	Date Sampled:	11/01/2023		
16869 SW65th			n Avenue #15	Date Received:	11/07/2023	
	Lake Oswego, OR, 97035				11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Apply god by		4.0	drea Berrios	Project Address:	94350 Sixth Street	
Analyzed by:		All	ured bernos	City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:			% Fibrous Non-	0/ New Filence Meterial	Description (Leasting	
Client No.:	%A	Asbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
494A	Na	ne Detected	None Detected	100% Organic Matrix	(Silver) Compound/Roof-Flashing	
23-7144-51		one Delected		100% Organic Matrix	Seams	
495A	No	ne Detected	None Detected	100% Organic Matrix	(Silver) Compound/Roof-Flashing	
23-7144-52			None Detected		Seams	
496A	30	⁄₀ Chrysotile	2% Talc	95% Binder/Filler	(White) Window Glazing/Exterior-Admin	
23-7144-53		o em ysoene	270 1010		Area Windows	
497A	30	⁄₀ Chrysotile	2% Talc	95% Binder/Filler	(White) Window Glazing/Exterior-Admir	
23-7144-54		o em yootno	270 1010		Area Windows	
498A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Caulking/Exterior-SE Classroom Windows	
23-7144-55						
499A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Caulking/Exterior-SE Classroom	
23-7144-56				10070 01 gallio 1 aa in	Windows	
500A	- No	ne Detected	None Detected	100% Organic Matrix	(Gray) Caulking/Exterior-Admin Area	
23-7144-57					Windows	
501A	- No	ne Detected	None Detected	100% Organic Matrix	(Gray) Caulking/Exterior-Admin Area	
23-7144-58					Windows	
502A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Compound/Exterior-Wall	
23-7144-59					Penetration Seams	

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	:	G2 Consultants		Date Sampled:	11/01/2023	
16869 SW65th			n Avenue #15	Date Received:	11/07/2023	
		Lake Osweg	Jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Apply and by a		4.5	drea Berrios	Project Address:	94350 Sixth Street	
Analyzed by:		All	ured bernos	City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:			% Fibrous Non-	0/ Non Fibrous Material	Description // cention	
Client No.:	- % <i>F</i>	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
503A	Na	ne Detected	None Detected	100% Organic Matrix	(Gray) Compound/Exterior-Wall	
23-7144-60		ne Delected			Penetration Seams	
504A	- No	ne Detected	None Detected	100% Organic Matrix	(Green) Cove Base/NW Boy's Restroom	
23-7144-61					(0.00.) 00.0 2000, 20, 0	
504B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/NW Boy's Restroom	
23-7144-61						
505A	No	ne Detected	None Detected	100% Organic Matrix	(Green) Cove Base/NW Girl's Restroom	
23-7144-62					(	
505B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/NW Girl's Restroom	
23-7144-62						
506A	29	% Chrysotile	None Detected	98% Binder/Filler	(Off-White) Joint Compound-1st	
23-7144-63		· ···· <b>/</b> · · ···			Layer/NW Boy's Restroom	
506B	29	% Chrysotile	None Detected	98% Binder/Filler	(Off-White) Joint Compound-2nd	
23-7144-63					Layer/NW Boy's Restroom	
506C	- No	ne Detected	4% Fiberglass,6% Cellulose	90% Gypsum	(White) Drywall/NW Boy's Restroom	
23-7144-63					(winte) Drywan/www boy's Restroom	
506D	19	% Chrysotile	3% Fiberglass,4% Cellulose	40% Binder/Filler,52%	(White) COMPOSITE Joint Compounds-	
23-7144-63		,,		Gypsum	Drywall/NW Boy's Restroom	

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Guidelines for Interpretation:



102 Edinburgh Court Greenville, SC 29607

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client: G2 Cons		nsultants	Date Sampled:	11/01/2023	
16869 SW65th			h Avenue #15	Date Received:	11/07/2023	
Lake Oswego, OR, 97035				Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		٨٣	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All	luied Dellios	City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:			% Fibrous Non-	0/ Non Fibrous Material	Description // cention	
Client No.:		sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
507A	20	/. Chrycostilo	None Detected	98% Binder/Filler	(White) Joint Compound/Library Mech	
23-7144-64	2%	6 Chrysotile	None Delected	96% billuer/Filler	Mezzanine	
<b>507B</b> 23-7144-64	No	ne Detected	10% Cellulose,5% Fiberglass	85% Gypsum	(White) Drywall/Library Mech Mezzanine	
507C				40% Binder/Filler,50%	(White) COMPOSITE Joint Compoud-	
23-7144-64	- <19	% Chrysotile	4% Cellulose,5% Fiberglass	Gypsum	Drywall/Library Mech Mezzanine	
508A		_			(White) Joint Compound/SE Boy's	
23-7144-65	- No		None Detected	100% Binder/Filler	Restroom	
508B	Na	no Dotostad	40/ Eiborglass 60/ Collulase		(White) Drauell/CE Royle Destroom	
23-7144-65		ne Detected	4% Fiberglass,6% Cellulose	90% Gypsum	(White) Drywall/SE Boy's Restroom	
509A	No	ne Detected	None Detected	100% Organic Matrix	(Brown) Cove Base/NW Staff Restroom	
23-7144-66		ne Delected	None Delected		(BIOWIT) COVE Base/NW Stall Restroom	
509B	No	ne Detected	None Detected	100% Organic Matrix	(Brown) Mastic/NW Staff Restroom	
23-7144-66	110					
510A	No	ne Detected	None Detected	100% Organic Matrix	(Brown) Cove Base/Classroom 31	
23-7144-67					(DIOWIT) COVE DASE/CLASSFOOM 31	
510B	No	ne Detected	None Detected	100% Organic Matrix	(Brown) Mastic/Classroom 31	
23-7144-67						

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				-		
Client:			sultants	Date Sampled:	11/01/2023	
16869 SW65th			n Avenue #15	Date Received:	11/07/2023	
Lake Oswego, OR, 97035			jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		4.5	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:	0/ 4	ahaataa Turra	% Fibrous Non-	0/ Non Fibrous Motorial	Description // cention	
Client No.:	%0 A	sbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
511A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Floor Tile/NW Staff Restroom	
23-7144-68	NU	ne Detected	None Delected			
511B	No	ne Detected	5% Cellulose	95% Organic Matrix	(Black) Mastic/NW Staff Restroom	
23-7144-68				5576 organic riddix		
512A	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Floor Tile/NW Staff Restroom	
23-7144-69						
512B	No	ne Detected	5% Cellulose	95% Organic Matrix	(Black) Mastic/NW Staff Restroom	
23-7144-69				5		
513A	6%	% Chrysotile	None Detected	94% Organic Matrix	(Brown) Floor Tile/Classroom 31	
23-7144-70		-		-		
513B	3%	% Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Classroom 31	
23-7144-70		-		-	-	
514A	6%	% Chrysotile	None Detected	94% Organic Matrix	(Brown) Floor Tile/Classroom 31	
23-7144-71						
514B	3%	% Chrysotile	None Detected	97% Organic Matrix	(Black) Mastic/Classroom 31	
23-7144-71						
515A	2%	% Chrysotile	None Detected	98% Organic Matrix	(Green) Floor Tile/Library Restroom	
23-7144-72						

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Guidelines for Interpretation:



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Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

				•		
Client: G2 Cons		sultants	Date Sampled:	11/01/2023		
16869 SW65th			n Avenue #15	Date Received:	11/07/2023	
Lake Oswego, OR, 97035			jo,OR,97035	Date Analyzed:	11/08/2023	
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		۸n	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		All		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93,	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:	0/. A		% Fibrous Non-	% Non-Fibrous Material	Description /Leastion	
Client No.:	%0 A	sbestos Type	Asbestos Material Type	% NON-FIDFOUS Material	Description/Location	
515B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Library Restroom	
23-7144-72	NU	ne Detected	None Detected			
516A	7%	% Chrysotile	None Detected	98% Organic Matrix	(Green) Floor Tile/Library Restroom	
23-7144-73	_ /	o em youne		5070 organie riadix		
516B	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Mastic/Library Restroom	
23-7144-73						
517A	No	ne Detected	None Detected	100% Organic Matrix	(White) Cove Base/SE Staff Restroom	
23-7144-74				5		
517B	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Mastic/SE Staff Restroom	
23-7144-74						
518A	No	ne Detected	None Detected	100% Organic Matrix	(White) Cove Base/SE Staff Restroom	
23-7144-75						
518B	No	ne Detected	None Detected	100% Organic Matrix	(Gray) Mastic/SE Staff Restroom	
23-7144-75				-		
519A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Sink Undercoating/Classroom 52	
23-7144-76						
520A	No	ne Detected	None Detected	100% Organic Matrix	(Black) Sink Undercoating/Classroom	
23-7144-77					52	

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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client	Client: G2 Consu		sultants	Date Sampled:	11/01/2023	
16869 SW65th /			n Avenue #15	Date Received:	11/07/2023	
		Lake Osweg	Date Analyzed:	11/08/2023		
		(888)998-4224/	debra@g2ci.com	Date Reported:	11/10/2023	
				Date Revised:		
				Project Name:	23-7144	
				Project No:	23-7144	
Analyzed by:		۸n	drea Berrios	Project Address:	94350 Sixth Street	
Analyzeu by.		AII		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231107078	
Lab No.:	0/ 1		% Fibrous Non-	% Non-Fibrous Material	Description /Leasting	
Client No.:	<b>~~</b>	Asbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location	
521A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Floor Tile/Classroom F2	
23-7144-78		she Delected	None Delected		(Tan) Floor Tile/Classroom 52	
521B	No	ne Detected	None Detected	100% Organic Matrix	(Black) Mastic/Classroom 52	
23-7144-78		The Detected				
522A	No	ne Detected	None Detected	100% Organic Matrix	(Tan) Floor Tile/Classroom 52	
23-7144-79			None Detetted			
522B	No	ne Detected	None Detected	100% Organic Matrix	(Black) Mastic/Classroom 52	
23-7144-79						
	4					
	4					
	4					

#### **Approved By: Andrea Berrios**

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#### Guidelines for Interpretation:

SEEML Reference Number: G-231129030 Date Issued: 12/01/2023



### Southeast Environmental Microbiology Laboratories

102 Edinburgh Court Greenville, SC 29607 Phone: (864) 233-3770 Fax: (864) 233-6589

#### Asbestos Analytical Report By: Polarized Light Microscopy

This report has been prepared for **G2 Consultants** the information and data has been checked for thoroughness and accuracy. The results reported apply only to the materials as received. The documents(s) contained herein are confidential and privileged information intended for the exclusive use of the individual or entity named above. This report shall not be reproduced except in full without SEEML's approval.

Client Project Name: Central Curry School District The Following report was prepared using this test method(s) contained within this document.

### Approved By : <u>Andrea Berrios</u>

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Phone: 864-233-3770, Fax: 864-233-6589 , www.seeml.com

NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client: G2 Cons			Date Sampled:			
16869 SW65th				Date Received:		
	Lake Oswego, OR, 97035			Date Analyzed:	12/01/2023	
		(888)998-4224/	debra@g2ci.com	· · · · ·	12/01/2023	
				Date Revised:		
				Project Name:	Central Curry School District	
				Project No:	23-7144	
Analyzed by:		Mo	rgan Riggins	Project Address:	94350 Sixth Street	
Analyzed by.		MO		City, State. ZIP:	Gold Beach, OR	
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231129030	
Lab No.:	0/- 4	shostos Turo	% Fibrous Non-	% Non-Fibrous Material	Description // eastion	
Client No.:	<b>70</b> <i>P</i>	sbestos Type	Asbestos Material Type	% NON-FIDFOUS Material	Description/Location	
160A	No	ne Detected	None Detected	100% Binder/Filler	(Gray) Joint Compound/Girls Locker	
23-7144-80		ne Detected			Room	
161A	3%	% Chrysotile	None Detected	97% Binder/Filler	(Tan) Texture/Girls Locker Room	
23-7144-81					()	
161B	No	ne Detected	10% Cellulose,4%	86% Gypsum	(White) Drywall/Girls Locker Room	
23-7144-81			Fiberglass			
162A	No	ne Detected	None Detected	100% Binder/Filler	(Blue) Texture/Conference Room	
23-7144-82				,	()	
162B	No	ne Detected	10% Cellulose,4%	86% Gypsum	(Off-White) Drywall/Conference Room	
23-7144-82			Fiberglass			
163A	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound 1/Corridor-	
23-7144-83					Outside Classroom 52	
163B	No	ne Detected	None Detected	100% Binder/Filler	(White) Joint Compound 2/Corridor-	
23-7144-83					Outside Classroom 52	
163C	No	ne Detected	10% Cellulose,4%	86% Gypsum	(White) Drywall/Corridor-Outside	
23-7144-83			Fiberglass		Classroom 52	
164A	30	% Chrysotile	None Detected	97% Binder/Filler	(Tan) Texture/Library Restroom	
23-7144-84	"	,				

#### **Approved By: Andrea Berrios**

Disclaimer

The results in this report only apply to the samples as received.

NOB samples are tested as a preliminary analysis. We highly recommend for Negative NOB samples resulting in less than 1% Asbestos to be verified by TEM or Point Analysis.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. NAD means no asbestos fibers were detected. When detected the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Guidelines for Interpretation:



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NVLAP Lab ID:201031-0 Texas Lic: 300474

#### **PLM Asbestos Bulk Sample Summary**

Client: G2 Consul		nsultants	Date Sampled:	11/27/2023	
16869 SW65th Avenue #1			h Avenue #15	Date Received:	11/29/2023
		Lake Osweg	Date Analyzed:	12/01/2023	
		(888)998-4224/	/debra@g2ci.com	Date Reported:	12/01/2023
				Date Revised:	
				Project Name:	Central Curry School District
				Project No:	23-7144
Analyzed by:		Mo	rgan Riggins	Project Address:	94350 Sixth Street
Analyzed by.		140		City, State. ZIP:	Gold Beach, OR
Methodology:		EPA/600/R-93	/116 Without Gravimetry	SEEML Ref#:	G-231129030
Lab No.:		Achaetee Turre	% Fibrous Non-	0/ Non Fibrous Material	Description // continu
Client No.:		Asbestos Type	Asbestos Material Type	% Non-Fibrous Material	Description/Location
164B	Na	ne Detected	10% Cellulose,4%	4% 86% Gypsum	(Mhite) Drawell/Librery/Destroom
23-7144-84		one Delected	Fiberglass		(White) Drywall/Library Restroom
165A	30	% Chrysotile	None Detected 97% Binder/Fille	97% Binder/Filler	(Tan) Texture/Library Restroom
23-7144-85	5,	o chi ysothe		57 70 Binder/Timer	(Tally Texture/Elbrary Resubolit
166A	No	ne Detected	<b>Detected</b> None Detected	100% Binder/Filler	(Gray) Texture/Corridor-Outside
23-7144-86			None Detected		Classroom 52
	4				
	-				
	-				
	-				
	+				
	1				

#### **Approved By: Andrea Berrios**

Disclaimer

The results in this report only apply to the samples as received.

NOB samples are tested as a preliminary analysis. We highly recommend for Negative NOB samples resulting in less than 1% Asbestos to be verified by TEM or Point Analysis.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. NAD means no asbestos fibers were detected. When detected the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

#### Guidelines for Interpretation:

Consultants	CHAIN OF CUS	STODY RECORD	Page #:	of	9
Consultants			G2 Job #:	23-7144	1/2/22
Jobsite Address:	G2 Clier	nt: Central Curry School District	Sample Date Submit Date:		1 3/23
94350 Sixth Street 0	Addres	s: 29516 Ellensburg Ave	Sampled By:		0 3
Gold Beach C1-231107678	G2 Contac	tt Sean Friend UUU Soo			
OR CIODIOTO Asbestos:	Phone	t: Sean Friend #: (503) 863-0860 4444 - 522			
PLM DPLM/Point Count 400 Wipe	Other:	Notes:			
TEM PLM/Point Count 1000 Vac		Notes: RCES			
Turn-Around Time: □ Same Day □ Next Day □ 2 Day 3 Day Results to: labresults@g2ci.com	□ 4 Day				
HM# Material Description	Sample #	Sample Location	10	10000	1
	Sample # 23-7/44	Sample Location	Condition	Friable Y/N	Quantity
1 Caspet Glue, Tan + Black	-1	Front Reception		1715	-
	-2	Front Acception Classroom 52		-	-
	1.				1
HM# Material Description 2/2 Cove Base, 4"Black, and CW	Sample #	Sample Location	Condition	Friable	Quantity
76 Cove Back 4 Black and CW	2	off the	I/P	Y/N	1
45 00001 11	-4	OFFice # 1 Gymnasium Entrance			
4-1.05 10		Cymrasium Emarce		-	-
HM# Material Description	Sample #	Sample Location	Condition	Friable	Quantity
HM# Material Description 4/5 COVE Base, 4" Lt. Brown, and			I/P	Y/N	scuanticy
15 000000000000000000000000000000000000	5	Conference Room		-	
HM# HM# HM# HM# COVE Base, 4" Lt. Brown, and Beige + Brown Addressive HM# HM# Material Description	-6	CONFEGENCE Room			1
HM# Material Description / 2 0	Sample #	Sample Location			-
1/ 4- 911 911 - Plat + Red	Sample #	Sample Location	Condition	Friable Y/N	Quantity
6/7 FT, 9"x 9" Tan w/ Black + Ked	-7	Reception Starce		1714	
HM# Material Description 6/7 FT, 9"×9" Tan w/Black + Red Streaks, and Black mastr	-7	Reception Storage Reception Restroom		1	
spices, and once mastr					
HM# Material Description	Sample #	Sample Location	Condition	Friable	Quantity
6/9 cove Base, 4" Red, and Brown	-9	Reception Restroom	I/P	Y/N	
79 Adhesive	-10	Reception Restroom			-
Aducsive	10			-	
HM# Material Description	Sample #	Sample Location	Condition	Friable	Quantity
10 Culting TT culto			I/P	Y/N	
10 Caulking, off-white	-12	Reception Restroom - Sink Gists Locker Room			
J	-12	Guiri's Locker Room		-	
HM# Material Description	Sample #	Sample Location	Condition	Frichle	Quantity
11 - 11 - 17" 17" - 16	1		I/P	Friable Y/N	Quantity
11 Ceiling Tile 16 x12 regnole	-   3 -   4	Reception Restroom			
11 Ceiling Tile, 12"x12" peghole w/pinholes	-14	Library Restroom - Attic Hatch			
	Somela #				
	Sample #	Sample Location	Condition		Quantity
1 rolling Tile 12"x12" regule	-15	Leception Storage	I/P	Y/N	
12 Criting Tile, 12"×12" Peghole	-16			+	1.
					-
Samples Relinquished by: Segn Friend		Campion Deline debud bur		-	
Date and Time: 11-6-2023 5:00		Samples Relinquished by: Date and Time:			
Samples Received by:		Samples Received by: 9.			
Date and Time:		Date and Time: 11-7-23			

Jobsite Address: 94350 Sixth Street

0

G2 Job #: 23-7144

Page #: 2 of 4

#### Gold Beach 97444 HM# Material Description Sample # 73-7144 Sample Location Condition Friable Quantity FRP Adhesive, Tan 13 I/P Y/N Locker hook HM# Grout + Mostas From 6"x6" ceranic WT, White Material Description Sample # Sample Location Condition Friable Quantity I/P Y/N BOYS Shower HM# 18 Pipe Insulation Hard Fittings, 3" Sample # Sample Location Condition Friable Ouantity 15/17 I/P Y/N Boys Shavers HM# Sample # Sample Location Condition Friable Quantity I/P Y/N boys Locker Room OFFice -25 HM# FT, 12"×12"Black w/Tanspects, and Tan Glue Material Description Sample # Sample Location 19/20 Condition Friable Quantity I/P Y/N Entrance bymasium HM# Sample # Sample Location CT, Z'x4' Fissure w/ Pinholes 2 Condition Friable Quantity I/P Y/N Classroom 52 HM# Material Description Sample # Sample Location Condition Wall Texture, orange - feel Friable Quantity 22 I/P Y/N -30 Conference Room -31 Library Restroom -32 SE custodial Close HM# Material Description Sample # Condition Friable Quantity 23 I/P Y/N BUK Southeast ROOF -35 HM# Material Description Sample # Sample Location Condition Friable Quantity 24 I/P BUK Y/N Northeast Roof -36 -38 HM# Material Description Sample # Sample Location Condition 25 Friable Quantity I/P BUR Y/N -31 Admin Rocf -40 Locker Room -41 Staff Room 2007 HM# Material Description Sample # Sample Location Condition Friable Quantity 26 Sean compound, Gray G/F/P Y/N -72 hoof - Parapet seams -43

Jobsite Address: 94350 Sixth Street G2 Job #: 23-7144

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#### Gold Beach 97444

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HM# Material Description Sample Location Sample # 77-7 Condition Friable Quantity 144 Transite Board - South Library Blog I/P Y/N 2 Fxterior HM# Material Description Sample # Sample Location Condition Friable Quantity I/P Y/N Koof - venthood 28 ROOF P+R HM# Material Description Sample # Sample Location Condition Friable Quantity I/P Y/N Sean compand, white vents KOOF -HM# Material Description Sample # Sample Location Condition Friable Quantity I/P St. Y/N 30 KOOF - Flashing Seen compand, Silves Seans HM# Material Description Sample # Sample Location Condition Friable Quantity Window Glazing, White 31 I/P Y/N Exterior -OWA Asea WINDOWS Material Description HM# Sample # Sample Location Friable Condition Quantity Window Caulking, Tan 32 I/P Y/N CE Classroom window EXTESIOF -HM# Material Description Sample # Sample Location Condition Friable Quantity Window caulking, Gray I/P Y/N 33 Extesion - Admin Area Window -58 HM# Material Description Sample # Sample Location Condition Friable Quantity I/P Y/N Seam compound, light Gray 34 Wall penetration Segus -59 Extesios -Material Description Cove Base, 4" Green, and Ow Adhesive HM# Sample # Sample Location Condition Friable Quantity 35/2 I/P Y/N NW Boys Restroom -61 NW Girls Restroam -62 HM# Material Description Sample # Sample Location Condition Friable Quantity Drywall + Joint Compound I/P Y/N 36 -63 NW BOYS RESTROM Library Mech, MEZZANINE SE Boys Restroom Sample Location HM# Material Description 37/5 Cove Base, 4" Brown, and Brown Adh. -65 Sample # Condition Friable Quantity G/F/P Y/N NW STAFF RESTROOM Lasstoom

Jobsite Address: 94350 Sixth Street G2 Job #: 23-7144

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0 Gold Bead	'n					
97444 HM#	Material Description FT, 12"×12" Olive W/multi-colos greaks Gud Black mastic Material Description FT, 9"×9" Brown Turtle-shell Pattern Cud Black mastic Material Description Turtle Sectors	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
nal	IT 17" 17" live w/multi-colos greaks	23-1149	NW STORF RESTROOM	1/P	1/1	
50/7	FI, is sit vive of a delack weight	-69	Jose Start income			
.,	with Black Mastic	Camalo #	Sample Location	Condition	Friable	Quantity
39/7	Material Description	Sample #		I/P	Y/N	
	FI TXI DIGUN INTRESLUTI INTON	-70	Classroom 31			
	and Black mastic	-71	V			
HM#	Material Description FT, 12"×12" Green w/ white speaks, and Tan Glue	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
40/	IT 17", 17" Green W/ White speaks,	-77	Library Restracm	-/-		12
	To Flue	-73				-
10	we have the	Sample #	Sample Location	Condition	Friable	Quantity
нм#	Material Description	Jampie #		I/P	Y/N	1
4/42	Cove Base, 4" White, and Gray Adhesive	-/7	SE Staff Restroom			-
	Adhesive	15	V			
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
117	silve breation Black	-76	Classing ~ 52	2/ F		
7>	Sink undercoating, Black	-77	VIA MILY I T		1	
	1		Sample Location	Condition	Friable	Quantity
HM#	FT, 12"×12" Tan W/Mati-Color Specks, and Black Mastic	Sample #	Sample Locaron	I/P	Y/N	
44	FT. 12 × 12 / (44 W/ MURI) - (0)	-78			-	
17	credit and Block Mashir	-79	V			1.1.1.1.1
HM#	Material Description	Sample #	Sample Location	Condition	Friable	Quantity
				I/P	Y/N	-
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
				-/.	1.1.1	
		-				
	A A STATE OF A ST			Condition	Frichlo	Quantity
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
					-	
1.000				Condition	Friable	Quantity
HM#	Material Description	Sample #	Sample Location	I/P	Y/N	Quantity
10.00						
					-	1.
				Condition	Friable	Quantity
HM#	Material Description	Sample #	Sample Location	G/F/P	Y/N	Quantity
					1	_

0	consultants	CHAIN OF CUS	STODY RECORD	Page #:	/ of	1
	Address: Sixth Street	G2 Clien Addres	nt: Central Curry School District s: 29516 Ellensburg Ave	G2 Job #: Sample Date Submit Date Sampled By	: 11-Z	8-23
OR Asbesto	s: Crasila9030		t: Sean Friend #: (503) 863-0860 160-166			
TEM Turn-Arc Results	PLM/Point Count 400     PLM/Point Count 1000     Vac      Pund Time: Same Day Next Day 2 Day 3 Day to: labresults@g2ci.com	Other: Day	Notes: RCES			
нм# 36	Material Description	Sample # 	Sample Location GITTS Locker Room	Condition I/P	Friable Y/N	Quantity
нм# 45	Material Description Drywall+Joint Compound (Never)	Sample # -82 -83	Sample Location Conference Room Corridor - outside Classform 52	Condition I/P	Friable Y/N	Quantity
нм# 46	Material Description Wall Fexture, orange-peel (older)	Sample # 	Sample Location Library Restroom	Condition I/P	Friable Y/N	Quantity
нм# 22	Material Description Wall Texture, Orange-Peel (Newer)	Sample # ~86	Sample Location Corridor-outside Classroom 52	Condition I/P	Friable Y/N	Quantity
HM#	Material Depariation	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
HM#	Material Description	Sample #	Sample Location	Condition I/P	Friable Y/N	Quantity
Date and	Received by:		Samples Relinquished by: Date and Time: Samples Received by: Date and Time:			

-

## Appendix C:

## **XRF** Readings Table

Central Curry School District Lead-Based Paint Inspection Riley Creek Elementary School - 94350 Sixth St, Gold Beach, OR XRF Readings Table 12-01-23

READING NO	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
625	CALIBRATION								POSITIVE		1.02	mg/cm <sup>2</sup>	1	0.03
626	CALIBRATION								POSITIVE		1.03	mg/cm <sup>2</sup>	1	0.03
627	CALIBRATION								POSITIVE		1.05	mg/cm <sup>2</sup>	1	0.03
628	CALIBRATION								POSITIVE		1.04	mg/cm <sup>2</sup>	1	0.02
629	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door	Wood	A	Red	NEGATIVE	Intact	0.88	mg/cm <sup>2</sup>	1	0.03
630	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door	Wood	А	Red	POSITIVE	Intact	1.36	mg/cm <sup>2</sup>	1	0.17
631	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door Jamb	Wood	A	Red	POSITIVE	Intact	1.59	mg/cm <sup>2</sup>	1	0.17
632	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door Trim	Wood	A	Red	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.03
633	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Handrail	Metal	A	Red	NEGATIVE	Intact	0.08	mg/cm <sup>2</sup>	1	0.01
634	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Post	Wood	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
635	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Siding	Concrete	A	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
636	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window Trim	Wood	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
637	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window Sill	Wood	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
638	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window Sill	Wood	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
639	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window	Wood	A	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
640	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall Trim	Wood	D	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
641	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall	Concrete	D	White	NEGATIVE	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
642	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Downspout	Metal	D	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
643	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall	Concrete	D	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
644	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door	Wood	D	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>	1 1	0.02
645	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Door Trim	Wood	D	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
646	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window Sill	Wood	D	Red	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.11
647	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall	Wood	С	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
648	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall	Concrete	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
649	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window Trim	Wood	С	Brown	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
650	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window	Metal	С	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
651	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Downspout	Metal	С	Brown	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
652	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Downspout	Metal	В	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
653	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Window	Metal	В	Off-White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
654	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall	Concrete	В	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
655	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall Trim	Wood	В	White	NEGATIVE	Poor		mg/cm <sup>2</sup>	1	0.09
656	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Wall Trim	Wood	В	White	NEGATIVE	Poor		mg/cm <sup>2</sup>	1	0.03
657	94350 Sixth St., Gold Beach, OF	Main Building	First	Exterior	Downspout	Metal	В	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
658	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 52	Wall	Drywall	A	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
659	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 52	Door Trim	Metal	D	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
660	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 52	Door Jamb	Metal	D	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
661	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Corridor	Wall	Drywall	В	Off-White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
662	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Corridor	Cabinet Face	Metal	в	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
663	94350 Sixth St., Gold Beach, OF	-		SE Restrooms	Wall	Drywall	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01

#### Central Curry School District Lead-Based Paint Inspection Riley Creek Elementary School - 94350 Sixth St, Gold Beach, OR XRF Readings Table 12-01-23

READING NO	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	ЪС	UNITS	ACTION LEVEL	Pb +/-
664	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Wall Tile	Ceramic	A	Off-White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
665	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Door Jamb	Metal	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
666	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Floor	Ceramic	A	Brown	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
667	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Toilet	Ceramic	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
668	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Urinal	Ceramic	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
669	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Sink	Ceramic	С	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.24
670	94350 Sixth St., Gold Beach, OF	Main Building	First	SE Restrooms	Cabinet Face	Wood	в	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
671	94350 Sixth St., Gold Beach, OF	Main Building	First	Library Restroom	Door Jamb	Wood	D	Stained	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
672	94350 Sixth St., Gold Beach, OF	Main Building	First	Library Restroom	Door Trim	Wood	D	Stained	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
673	94350 Sixth St., Gold Beach, OF	Main Building	First	Library Restroom	Wall	Drywall	A	Off-White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
674	94350 Sixth St., Gold Beach, OF	Main Building	First	Library Restroom	Toilet	Ceramic	В	White	NEGATIVE	Intact	0	mg/cm <sup>2</sup>	1	0.01
675	94350 Sixth St., Gold Beach, OF	Main Building	First	Conference Room	Wall	Drywall	A	Pink	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
676	94350 Sixth St., Gold Beach, OF	Main Building	First	Conference Room	Wall	Drywall	С	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
677	94350 Sixth St., Gold Beach, OF	Main Building	First	Conference Room	Window Trim	Metal	С	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
678	94350 Sixth St., Gold Beach, OF	Main Building	First	Conference Room	Door Jamb	Metal	С	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
679	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Door Jamb	Wood	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
680	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Door Trim	Wood	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.03
681	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Door	Wood	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.07
682	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Wall	Drywall	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
683	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Wall	Drywall	A	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
684	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Wall Trim	Wood	A	Tan	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
685	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Window Trim	Wood	С	Tan	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.03
686	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Window Trim	Wood	С	Tan	NEGATIVE	Intact	0.66	mg/cm <sup>2</sup>	1	0.09
687	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Window Sill	Wood	С	Tan	NEGATIVE	Intact	0.13	mg/cm <sup>2</sup>	1	0.05
688	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Wall Trim	Wood	С	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
689	94350 Sixth St., Gold Beach, OF	Main Building	First	Classroom 31	Sink	Ceramic	A	White	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.25
690	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Wall	Wood	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
691	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Door	Wood	В	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
692	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Door Jamb	Wood	В	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.02
693	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Door Trim	Wood	В	Blue	NEGATIVE	Intact	0.09	mg/cm <sup>2</sup>	1	0.01
694	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Wall	Wood	С	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
695	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Door Trim	Wood	С	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.09
696	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Door Jamb	Wood	С	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
697	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Cabinet Door	Wood	A	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.06
698	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Cabinet Face	Wood	A	Green	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.06
699	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Floor Tile	Ceramic	A	Blue	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
700	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Wall Tile	Ceramic	D	Gray	POSITIVE	Intact		mg/cm <sup>2</sup>	1	0.24
701	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Sink	Ceramic	D	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01
	94350 Sixth St., Gold Beach, OF	-		Locker Rooms	Urinal	Ceramic	D	White	NEGATIVE	Intact		mg/cm <sup>2</sup>	1	0.01

#### Central Curry School District Lead-Based Paint Inspection Riley Creek Elementary School - 94350 Sixth St, Gold Beach, OR XRF Readings Table 12-01-23

READING NO	SITE	STRUCTURE	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	Pb +/-
703	94350 Sixth St., Gold Beach, OF	Main Building	First	Locker Rooms	Toilet	Ceramic	D	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
704	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Wall	Drywall	D	Blue	NEGATIV	Intact	0.05	mg/cm <sup>2</sup>	1	0.01
705	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Trim	Wood	D	Red	NEGATIV	Intact	0.07	mg/cm <sup>2</sup>	1	0.06
706	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Jamb	Wood	D	Red	NEGATIV	Intact	0.12	mg/cm <sup>2</sup>	1	0.07
707	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door	Wood	D	Blue	NEGATIV	Intact	0.22	mg/cm <sup>2</sup>	1	0.07
708	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Wall Tile	Ceramic	А	Tan	POSITIVE	Intact	7.46	mg/cm <sup>2</sup>	1	0.25
709	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Floor Tile	Ceramic	A	Tan	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
710	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Urinal	Ceramic	D	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
711	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Toilet	Ceramic	С	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
712	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Sink	Ceramic	А	Off-White	POSITIVE	Intact	5.98	mg/cm <sup>2</sup>	1	0.22
713	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Floor	Concrete	A	Red	NEGATIV	Poor	0	mg/cm <sup>2</sup>	1	0.01
714	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Jamb	Wood	D	Blue	NEGATIV	Intact	0.22	mg/cm <sup>2</sup>	1	0.06
715	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Trim	Wood	D	Blue	NEGATIV	Intact	0.03	mg/cm <sup>2</sup>	1	0.01
716	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Floor	Concrete	D	Green	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
717	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Cabinet Face	Wood	В	Blue	NEGATIV	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
718	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Cabinet Shelf	Wood	В	Blue	NEGATIV	Intact	0.01	mg/cm <sup>2</sup>	1	0.01
719	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Floor Tile	Ceramic	В	Green	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
720	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Trim	Wood	D	Green	NEGATIV	Intact	0.22	mg/cm <sup>2</sup>	1	0.01
721	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door Jamb	Wood	D	Green	POSITIVE	Intact	3.87	mg/cm <sup>2</sup>	1	0.23
722	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Door	Wood	D	Blue	POSITIVE	Intact	1.45	mg/cm <sup>2</sup>	1	0.2
723	94350 Sixth St., Gold Beach, OF	Main Building	First	NW Restrooms	Wall	Drywall	D	White	NEGATIV	Intact	0.02	mg/cm <sup>2</sup>	1	0.01
724	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Wall	Drywall	С	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
725	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Door Trim	Wood	С	Blue	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
726	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Door Jamb	Metal	С	Blue	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
727	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Window Trim	Wood	A	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
728	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Sink	Ceramic	С	White	POSITIVE	Intact	7.32	mg/cm <sup>2</sup>	1	0.25
729	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Cabinet Face	Wood	С	Blue	NEGATIV	Intact	0.06	mg/cm <sup>2</sup>	1	0.01
730	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Cabinet Door	Wood	С	Blue	NEGATIV	Intact	0.05	mg/cm <sup>2</sup>	1	0.04
731	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Window	Wood	A	Off-White	NEGATIV	Intact	0.11	mg/cm <sup>2</sup>	1	0.07
732	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Door	Wood	С	Beige	NEGATIV	Intact	0.05	mg/cm <sup>2</sup>	1	0.01
733	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Door Jamb	Wood	С	Blue	NEGATIV	Intact	0.16	mg/cm <sup>2</sup>	1	0.01
734	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Door Trim	Wood	С	Brown	NEGATIV	Intact	0.04	mg/cm <sup>2</sup>	1	0.01
735	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Wall	Drywall	В	White	NEGATIV	Intact	0.07	mg/cm <sup>2</sup>	1	0.07
736	94350 Sixth St., Gold Beach, OF	Main Building	First	Admin Offices	Sink	Ceramic	В	White	NEGATIV	Intact	0	mg/cm <sup>2</sup>	1	0.01
737	CALIBRATION								POSITIVE			mg/cm <sup>2</sup>	1	0.03
738	CALIBRATION								POSITIVE		1.08	mg/cm <sup>2</sup>	1	0.03
739	CALIBRATION								POSITIVE		1.04	mg/cm <sup>2</sup>	1	0.03
740	CALIBRATION								POSITIVE			mg/cm <sup>2</sup>	1	0.02

## Appendix D:

## Performance Characteristic Sheets (PCS)

## **Performance Characteristic Sheet**

#### EFFECTIVE DATE: February 1, 2022

#### MANUFACTURER AND MODEL:

Make:SciApsModels:Model X-550X-Ray Source:Rhodium (Rh) or Gold (Au) Anode

#### FIELD OPERATION GUIDANCE

#### **ACTION LEVEL SETTING:**

1.0 mg/cm<sup>2</sup>

#### **OPERATING PARAMETERS:**

Timed mode: fixed 10-second reading.

Quick mode: variable-time reading (approximately 2-6 seconds).

#### XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm<sup>2</sup> (inclusive) on NIST SRM 2579 (1.02 mg/cm<sup>2</sup>)/NIST SRM 2573, or equivalent

#### SUBSTRATE CORRECTION:

Not applicable

#### INCONCLUSIVE RANGE OR THRESHOLD:

Au Anode (quick) READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	1.0 1.0 1.0 1.0 1.0 1.0
Rh Anode (Timed or Quick), Au Anode (Timed) READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	0.9 0.9 0.9 0.9 0.9 0.9 0.9

#### **BACKGROUND INFORMATION**

#### **EVALUATION DATA SOURCE AND DATE:**

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, 2012 Edition ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in February 2022, with two separate instruments of each Anode type, operated in both Timed and Quick modes.

#### **OPERATING PARAMETERS**

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

#### XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film; for NIST SRM 2579a, use film 2573 (1.04 mg/cm<sup>2</sup>).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

#### **EVALUATING THE QUALITY OF XRF TESTING:**

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below. Compute

the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. In single-family and multifamily housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this

procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

#### TESTING TIMES:

The reading time in Archive tests was 10 seconds in Timed mode and from 2-6 seconds in Quick mode, for both the Rh Anode and Au Anode.

#### CLASSIFICATION OF RESULTS:

XRF results for the Au Anode in Quick mode are classified as **positive** if they are **greater than or equal** to 1.0 mg/cm<sup>2</sup> and **negative** if they are **less than** to 1.0 mg/cm<sup>2</sup>. XRF results for the Au Anode in Timed mode and for the Rh Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.9 mg/cm<sup>2</sup> and **negative** if they are **less than** to 0.9 mg/cm<sup>2</sup>

#### DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to develop Performance Characteristic Sheets at the Federal standard (Action Level) of 1.0 mg/cm<sup>2</sup> and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at <a href="http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997">http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997</a>.

## Appendix E:

## Certifications & Accreditation

## THIS IS TO CERTIFY THAT

## **SEAN FRIEND**

## HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE for ASBESTOS INSPECTOR REFRESHER

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

09/19/2023

Course Location:

Portland, OR

Certificate:

IR-23-0000

For verification of the authenticity of this certificate contact: PBS Engineering and Environmental Inc.

4412 S Corbett Avenue

Portland, OR 97239



CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 09/19/2024

ander fieldy

Andy Fridley, Instructor

## State of Oregon Oregon Health Authority

## Sean M. Friend

is certified by the Oregon Health Authority to conduct Lead-Based Paint Activities

## **Risk Assessor**

Certification Number: Issuance Date: Expiration Date:

2743--Indy--R 3/3/2022 3/3/2025





000675 SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035

#### CONSTRUCTION CONTRACTORS BOARD LEAD-BASED PAINT

LICENSE NUMBER: 9152743-RA EXPIRATION DATE: 03/18/2024 ENTITY TYPE: N/A

### CONSTRUCTION CONTRACTORS BOARD LEAD-BASED PAINT

SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035 今 や や や や や や や や や

fold and detach along perforation

↓ ↓ ↓ ↓ ↓ LICENSE CARD ↓ ↓ ↓ ↓ ↓

STATE OF OREGON CONSTRUCTION CONTRACTORS BOARD LEAD-BASED PAINT CERTIFICATE

This document certifies that:

SEAN M FRIEND 16869 SW 65TH AVE #15 LAKE OSWEGO OR 97035

is licensed in accordance with Oregon Law as Lead Risk Assessor Contractor LICENSE NUMBER: 9152743-RA

EXPIRATION DATE: 03/18/2024

ENTITY TYPE: N/A

Attachment A

## PREVAILING WAGE RATES

for

Public Works Contracts in Oregon

Oregon Bureau of Labor and Industries

# Prevailing Wage Rates for Public Works Contracts

Christina E. Stephenson Labor Commissioner Rates Effective January 5, 2024







In this rate book are the new prevailing wage rates for Oregon non-residential public works projects, effective January 5, 2024.

Prevailing wage rates are the minimum hourly wages that must be paid to all workers employed on all public works projects. Thank you for your engagement in the process and commitment to Oregon law.

Our team is ready to help support you with any questions you have. We also offer regular, free, informational seminars and webinars for contractors and public agencies. Contact us at <u>PWR.Email@boli.oregon.gov</u> or (971) 353-2416.

Christina E. Stephenson Labor Commissioner

#### More information about prevailing wage rates:

The Oregon Bureau of Labor & Industries publishes the prevailing wage rates (PWR) that are required to be paid to workers on non-residential public works projects in Oregon.

A separate document, <u>Definitions of Covered Occupations for Public Works Contracts in Oregon</u>, provides occupational definitions used to classify the duties performed on public works projects. These definitions are used to find the correct prevailing wage rate.

The rate book and definition publications are available online at <u>https://www.oregon.gov/boli</u>, as well as additional information, supporting documents, and forms.

Please contact us at <u>PWR.Email@boli.oregon.gov</u> or (971) 353-2416, for additional information such as:

- Applicable prevailing wage rates for projects (Generally, the rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the project.)
- Federal Davis-Bacon rates (In cases where projects are subject to both state PWR and federal Davis-Bacon rates, the higher wage must be paid.)
- Required PWR provisions for specifications and contracts
- Apprentice rates





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Forms necessary to comply with ORS 279C.800 through ORS 279C.870 can be found on our website at <u>https://www.oregon.gov/boli/employers/Pages/prevailing-wage.aspx</u>. Contractors are encouraged to use and keep on file the forms provided as master copies for use on future prevailing wage rate projects.

All of the information in this booklet can be accessed and printed from the Internet at: <u>www.oregon.gov/BOLI</u>

Pursuant to ORS 279C.800 to ORS 279C.870, the prevailing wage rates contained in this booklet have been adopted for use on public works contracts in Oregon.

## Required Postings for Prevailing Wage Contractors and Subcontractors

### PREVAILING WAGE RATES

Every contractor and subcontractor engaged in work on a public works must post the applicable prevailing wage rates for that project in an obvious place on the worksite, so workers have ready access to the information.

### DETAILS OF FRINGE BENEFIT PROGRAMS

When a contractor or subcontractor provides or contributes to a health and welfare plan or a pension plan, or both, for employees who are working on a public works project, the details of all fringe benefit plans or programs must be posted on the worksite.

The posting must include a description of the plan or plans, information about how and where claims can be made and where to obtain more information. The notice must be posted in an obvious place on the work site in the same location as the prevailing wage rates.

### WORK SCHEDULE

Contractors and subcontractors must give workers their regular work schedule (days of the week and number of hours per day) in writing before beginning work on the project.

Contractors and subcontractors may provide the schedule at the time of hire, prior to starting work on the contract, or by posting the schedule in a location frequented by employees, along with the prevailing wage rate information and any fringe benefit information.

If an employer fails to give written notice of the worker's schedule, the work schedule will be presumed to be a five-day schedule. The schedule may only be changed if the change is intended to be permanent and is not designed to evade the PWR overtime requirements.

ORS 279C.840(4); OAR 839-025-0033(1). ORS 279C.840(5); OAR 839-025-0033(2). ORS 279C.540(2); OAR 839-025-0034.

## PUBLIC WORKS BONDS

**Every** contractor and subcontractor who works on public works projects subject to the prevailing wage rate (PWR) law is required to file a \$30,000 <u>"PUBLIC WORKS BOND"</u> with the Construction Contractors' Board (CCB). This includes flagging and landscaping companies, temporary employment agencies, and sometimes sole proprietors.

The key elements of ORS 279C.830(2) and ORS 279C.836 specify that:

- Specifications for every contract for public works must contain language stating that the contractor and every subcontractor must have a public works bond filed with the CCB before starting work on the project, unless otherwise exempt.
- Every contract awarded by a contracting agency must contain language requiring the contractor:
  - To have a public works bond filed with the CCB before starting work on the project, unless otherwise exempt; and
  - To include in every subcontract a provision requiring the subcontractor to have a public works bond filed with the CCB before starting work on the project unless otherwise exempt
- Every subcontract that a contractor or subcontractor awards in connection with a public works contract between a contractor and a public agency must require any subcontractor to have a public works bond filed with the CCB before starting work on the public works project, unless otherwise exempt.
- Before permitting a subcontractor to start work on a public works project, contractors must first verify their subcontractors either have filed the bond, or have elected not to file a public works bond due to a bona fide exemption.
- The PWR bond is to be used exclusively for unpaid wages determined to be due by the Bureau of Labor & Industries.
- The bond is in effect continuously (you do not have to have one per project).
- A public works bond is in addition to any other required bond the contractor or subcontractor is required to obtain.

### Exemptions:

- Allowed for a disadvantaged business enterprise, a minority-owned business, womanowned business, a business that a service-disabled veteran owns or an emerging small business certified under ORS 200.055, for the first FOUR years of certification;
  - Exempt contractor must still file written verification of certification with the CCB, and give the CCB written notice that they elect not to file a bond.
  - The prime contractor must give written notice to the public agency that they elect not to file a public works bond.
  - Subcontractors must give written notice to the prime contractor that they elect not to file a public works bond.
- For projects with a total project cost of \$100,000 or less, a public works bond is not required. (Note this is the total project cost, not an individual contract amount.)
- Emergency projects, as defined in ORS 279A.010(f).

## **PREVAILING WAGE RATES**

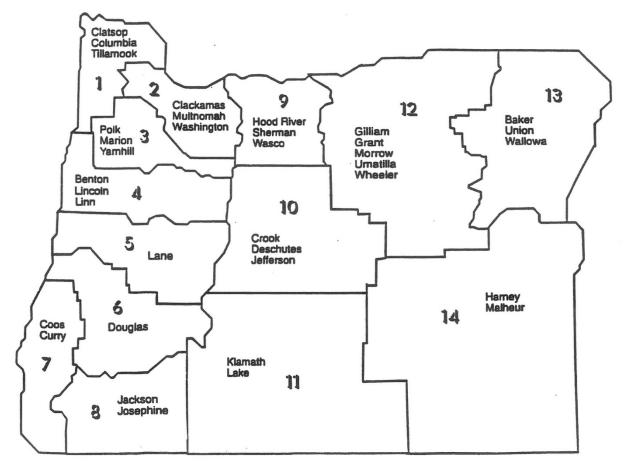
### FINDING THE CORRECT PREVAILING WAGE RATE

To find the correct rate(s) required on your public works project, you will need:

- the date the project was first advertised for bid
- the county your project is in
- the duties of workers on the job

Generally, the rate you should look for is based on the date the project was first advertised for bid. (See OAR 839-025-0020(8) for information about projects that contract through a CM/GC, or contract manager/general contractor.)

The Labor Commissioner must establish the prevailing rate of wage for each region as defined in law. (See ORS 279C.800.) Each region is comprised of one to five counties. See below instructions on locating the correct prevailing wage rate for your public works project.



### To find the correct rate in this rate book:

1. Determine the duties that are being performed by each worker. Use the booklet <u>Definitions</u> of <u>Covered Occupations</u> to find the definition that most closely matches the actual work performed by the worker. You can find this publication online at <u>https://www.oregon.gov/boli/employers/Pages/occupational-definitions.aspx</u>. 2. Find the correct occupation in the "Prevailing Wage Rate for Public Works Contracts" below. The prevailing wage rate is made up of an hourly base rate and an hourly fringe rate. The combination of these two amounts must be paid to each worker. Watch for possible zone <u>differential, shift differential, and/or hazard pay.</u> If the occupation lists different rates for different Areas of the state, locate the Area that includes the county where the project is located.

Apprentices must be paid consistent with their registered apprenticeship program standard. You can find apprenticeship rates on our website at <u>https://www.oregon.gov/boli/employers/Pages/prevailing-wage-rates.aspx</u>. You may also contact the agency to confirm the correct apprenticeship rate.

The "Prevailing Wage Rate Laws" handbook provides specific information and answers questions regarding prevailing wage laws and is available on our website at <a href="https://www.oregon.gov/boli/employers/Pages/prevailing-wage.aspx">https://www.oregon.gov/boli/employers/Pages/prevailing-wage.aspx</a>.

If you have any questions about any of this information, please contact the Bureau of Labor & Industries at <u>PWR.Email@boli.oregon.gov</u> or (971) 353-2416.

### Prevailing Wage Rates by Occupations—Table of Contents

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Truck Driver	. <u>26</u>

Occupation and Premium/Differential Pay	Base Rate / Fringe Rate			
ASBESTOS WORKER/INSULATOR	59.32	23.42		
Firestop Containment	44.83	16.99		
BOILERMAKER	42.33	32.22		
BRICKLAYER/STONEMASON	45.42	24.92		
This trade is tended by "Tenders to Mason Trades."				
Add \$1.00 per hour to base rate for refractory repair work.				

#### CARPENTER

Zone A (Base Rate)		
Group 1	45.80	19.65
Group 2	45.97	19.65
Group 3 (Millwrights)	55.28	19.65
Group 4	Elimi	inated
Group 5 (Bridge & Highway)	46.40	19.65
Group 6 (Piledrivers)	46.74	19.65

#### Zone Differential for Carpenters - Add to Zone A Base Rate

Zone B 1.25 per hour

- Zone C 1.70 per hour
- Zone D 2.00 per hour
- Zone E 3.00 per hour
- Zone F 5.00 per hour
- Zone G **10.00** per hour

Zone A: Projects located within 30 miles of the respective city hall of the cities listed.

- Zone B: More than 30 miles but less than 40 miles.
- Zone C: More than 40 miles but less than 50 miles.
- Zone D: More than 50 miles but less than 60 miles.
- Zone E: More than 60 miles but less than 70 miles.
- Zone F: More than 70 miles but less than 100 miles.
- Zone G: More than 100 miles.

#### Reference Cities for Group 1 and 2 Carpenters

Albany Astoria	Coos Bay Eugene	Klamath Falls La Grande	Newport Ontario	Roseburg Salem
Baker City	Goldendale	Lakeview	Pendleton	The Dalles
Bend	Grants Pass	Longview	Portland	Tillamook
Brookings	Hermiston	Madras	Port Orford	Vancouver
Burns	Hood River	Medford	Reedsport	

See more Reference Cities for Zone Differential on page 7

#### **CARPENTER** (continued)

#### Reference Cities for Group 3 Carpenters

Eugene	Medford	Portland	Vancouver
Longview	North Bend	The Dalles	

#### Reference Cities for Group 5 and 6 Carpenters

Bend	Longview	North Bend
Eugene	Medford	Portland

#### Zones for Group 6 Carpenter are determined by the distance between the project site and either

1) The worker's residence; or

2) City Hall of a reference city listed, whichever is closer.

**Note:** All job or project locations shall be computed (determined) on the basis of road miles and in the following manner. A mileage measurement will start at the entrance to the respective city hall, facing the project (if possible), and shall proceed by the normal route (shortest time--best road <u>via</u> Google Maps) to the geographical center on the highway, railroad, and street construction projects (end of measurement). On all project contracts, the geographical center where the major portion of the construction is located, shall be considered the center of the project (end measurement).

#### Group 2, 5 and 6:

Welders shall receive a 5% premium per hour based on their Group's journeyman wage rate, with an 8-hour minimum.

#### Group 1 and 3:

When working with toxic treated wood, workers shall receive \$.25/hour premium pay for minimum of eight (8) hours.

#### Group 5 and 6:

When working with creosote and other toxic treated wood, workers shall receive \$.25/hour premium pay for minimum of eight (8) hours.

#### Group 6:

When working in sheet pile coffer dams or cells up to the external water level, workers shall receive \$.15/hour premium pay for minimum of eight (8) hours.

#### **CEMENT MASON**

This trade is tended by "Concrete Laborer."

41.33	21.95
42.19	21.95
42.19	21.95
43.16	21.95
	42.19 42.19

Zone Differential for Cement Mason - Add to Basic Hourly Rate

Zone A: **3.00** per hour

Zone B: **5.00** per hour

Zone C: 10.00 per hour

- Zone A: Projects located 60-79 miles of the respective city hall of the Reference Cities listed below.
- Zone B: Projects located 80-99 miles of the respective city hall of the Reference Cities listed below.
- Zone C: Projects located 100 or more miles of the respective city hall of the Reference Cities listed below (Page 8).

#### **CEMENT MASON** (continued)

#### Reference Cities for Cement Mason

Bend	Eugene	Pendleton	Salem	Vancouver
Corvallis	Medford	Portland	The Dalles	

When a contractor takes current employees to a project that is located more than 59 miles from the city hall of the Reference City that is closest to the contractor's place of business, Zone Pay is to be paid for the distance between the city hall of the identified Reference City and the project site.

**Note**: All miles are to be determined on the basis of road miles using the normal route (shortest time – best road), from the city hall of the Reference City closest to the contractor's place of business and the project.

#### **DIVER & DIVER TENDER**

Zone 1 (Base Rate)		
DIVER	97.56	19.65
DIVER TENDER	53.56	19.65

1) For those workers who reside within a reference city below, their zone pay shall be computed from the city hall of the city wherein they reside.

2) For those workers who reside nearer to a project than is the city hall of any reference city below, the mileage from their residence may be used in computing their zone pay differential.

3) The zone pay for all other projects shall be computed from the city hall of the nearest reference city listed below.

#### Zone Differential for Diver/Diver Tender - Add to Zone 1 Base Rate

- Zone 2: **1.25** per hour
- Zone 3: 1.70 per hour
- Zone 4: 2.00 per hour
- Zone 5: 3.00 per hour
- Zone 6: 5.00 per hour
- Zone 7: 10.00 per hour
- Zone 1: Projects located within 30 miles of city hall of the reference cities listed.
- Zone 2: More than 30 miles, but less than 40 miles.
- Zone 3: More than 40 miles, but less than 50 miles.
- Zone 4: More than 50 miles, but less than 60 miles.
- Zone 5: More than 60 miles, but less than 70 miles.
- Zone 6: More than 70 miles, but less than 100 miles.
- Zone 7: More than 100 miles.

#### Reference Cities for Diver/Diver Tender

Bend	Longview	North Bend
Eugene	Medford	Portland

See more information on Zone Pay calculation and Diver Depth/Enclosure Pay on Page 9

#### DIVER & DIVER TENDER (continued)

**Note:** All job or project locations shall be computed (determined) on the basis of road miles and in the following manner. A mileage measurement will start at the entrance to the respective city hall, facing the project (if possible), and shall proceed by the normal route (shortest time--best road via Google Maps) to the geographical center on the highway, railroad, and street construction projects (end of measurement). On all project contracts, the geographical center where the major portion of the construction is located, shall be considered the center of the project (end measurement).

#### Diver Depth Pay:

Depth Below Water Surface (FSW)	Daily Depth Pay
50-100 ft.	2.00 per foot over 50 feet
101-150 ft.	3.00 per foot over 100 feet
151-220 ft.	4.00 per foot over 150 feet
Over 220 ft.	5.00 per foot over 220 feet

The actual depth in FSW shall be used in determining depth premium.

Diver Enclosure Pay (working without vertical escape):

<b>Distance Traveled in the Enclosure</b> 0 – 25ft.	Daily Enclosure Pay N/C
25 – 300 ft.	1.00 per foot from the entrance
300 – 600 ft.	<b>1.50</b> per foot beginning at 300 ft.
Over 600 ft.	2.00 per foot beginning at 600 ft.

#### DREDGER

Zone A (Base Rate)

Leverman (Hydraulic & Clamshell)	56.47	16.70
Assistant Engineer (Watch Engineer, Mechanic Machinist)	53.31	16.70
Tenderman (Boatman Attending Dredge Plant), Fireman	51.82	16.70
Fill Equipment Operator	50.65	16.70
Assistant Mate	47.95	16.70

Zone Differential for Dredgers - Add to Zone A Base Rate

Zone B: 3.00 per hour

Zone C: 6.00 per hour

#### Zone mileage based on road miles:

Zone A: Center of jobsite to no more than 30 miles from the City Hall of Portland.

Zone B: More than 30 miles but not more than 60 miles.

Zone C: Over 60 miles.

19.45

19.45

#### DRYWALL, LATHER, ACOUSTICAL CARPENTER & CEILING INSTALLER

Zone 1 (Base Rate)	
1. DRYWALL INSTALLER	45.80
2. LATHER, ACOUSTICAL CARPENTER & CEILING INSTALLER	45.80

Zone Differential for Lather, Acoustical Carpenter & Ceiling Installer

Zone mileage based on road miles:

Zone B	61-80 miles	6.00 per hour
Zone C	81-100 miles	9.00 per hour
Zone D	101 or more	12.00 per hour

The correct transportation allowance shall be based on AAA road mileage from the City Hall of the transportation reference cities listed herein.

#### Reference Cities for Drywall, Lather, Acoustical Carpenter & Ceiling Installer

Albany	Bend	Grants Pass	Medford	Portland	Seaside
Astoria	Brookings	Hermiston	Newport	Reedsport	The Dalles
Baker	Coquille	Klamath Falls	North Bend	Roseburg	Tillamook
Bandon	Eugene	Kelso-Longview	Pendleton	Salem	Vancouver

Certified welders shall receive 5% over the base wage rate, with an eight (8) hour minimum.

#### **ELECTRICIAN**

Electrician	45.00	19.88
Lighting Maintenance and Material Handler	22.38	10.32

#### Reference County

Malheur

Aroa 1

#### Shift Differential\*

1 <sup>st</sup> Shift "day":	Between the hours of 8:00am and 4:30pm $-$ 8 hours pay for 8 hours work
2 <sup>nd</sup> Shift "swing":	Between the hours of 4:30pm and 12:30am – 8 hours pay for 8 hours work plus 7.5% for all hours worked
3 <sup>rd</sup> Shift "graveyard":	Between the hours of 12:30am and 8:00am – 8 hours pay for 8 hours work plus 15% for all hours worked.

\* The Employer shall be permitted to adjust the starting hours of the shift by up to two (2) hours.

When workers are required to work under compressed air or to work from trusses, scaffolds, swinging scaffolds, bosun's chair or on building frames, stacks or towers at a distance, the following should be added to base rate.

50 – 90 feet to the ground:	Add 1 <sup>1</sup> ⁄ <sub>2</sub> x the base rate
90+ feet to the ground:	Add 2 x the base rate

Pursuant to ORS 279C.815(2)(b), the Electrician Area 6 rate is the highest rate of wage among the collective bargaining agreements for Electrician Areas 1 and 6

#### ELECTRICIAN (continued)

Area 2		
Electrician	54.65	24.37
Cable Splicer	57.38	24.45
Certified Welder	60.12	24.53
Material Handler	32.79	13.11

#### **Reference Counties**

Baker	Grant	Umatilla	Wallowa
Gilliam	Morrow	Union	Wheeler

Add 50% of the base rate when workers are required to work under the following conditions:

1) Under compressed air with atmospheric pressure exceeding normal pressure by at least 10%.

2) From trusses, swing scaffolds, bosun's chairs, open platforms, unguarded scaffolds, open ladders, frames, tanks, stacks, silos and towers where the workman is subject to a direct fall of (a) more than 60 feet or (b) into turbulent water under bridges, powerhouses or spillway faces of dams.

<u>Area 3</u>						
Electrician					50.03	24.00
Reference Counties	<u> </u>					
Coos Cu	ry	Douglas				
Lane – <b>See Area 4</b>		Lincoln – See Area 4				
Shift Differential*						
1 <sup>st</sup> Shift "day":	Between	the hours of 8:00am and 4:30pm	_	8 hours pay for 8 hours	work	
2 <sup>nd</sup> Shift "swing":	Between	the hours of 4:30pm and 1:00am	_	8 hours pay for 8 hours worked	work plus 17% for a	ll hours
3 <sup>rd</sup> Shift "graveyard	": Between	the hours of 12:30am and 9:00a	n –		work plus 31% for a	ll hours

\* The Employer shall be permitted to adjust the starting hours of the shift by up to two (2) hours.

When workers are required to work under compressed air or where gas masks are required, or to work from trusses, all scaffolds including mobile elevated platforms, any temporary structure, bosun's chair or on frames, stacks, towers, tanks, within 15' of the leading edges of any building at a distance of:

50 – 75 feet to the ground	Add 1 $\frac{1}{2}$ x the base rate
75+ feet to the ground	Add 2 x the base rate

High Time is not required to be paid on any permanent structure with permanent adequate safeguards (handrails, mid-rails, and toe guards). Any vehicle equipped with outriggers are exempted from this section.

#### ELECTRICIAN (continued)

Area 4							
Electrician						55.27	23.24
Cable Splicer						60.80	23.40
Lighting Maintenance	/Material	Handler				24.29	10.38
Reference Counties f	or Area 4						
Benton Deschu Crook Jefferse		Lane Linn	Lincoln				
Marion – <b>See Area 5</b>	rate	Polk – <b>See</b>	Area 5 rate	Yan	nhill – <b>See Area 5 rate</b>		
Shift Differential*							
1 <sup>st</sup> Shift "day"	Betwee	n the hours c	of 8:00am and 4	l:30pm –	8 hours pay for 8 hours	s work	
2 <sup>nd</sup> Shift "swing"	Betwee	n the hours c	of 4:30pm and 1	l:00am –	8 hours pay for 8 hours worked	s work plus 17%	for all hours
3 <sup>rd</sup> Shift "graveyard"	Betwee	n the hours c	of 12:30am and	9:00am –	8 hours pay for 8 hours worked.	s work plus 31.4	% for all hours

\* The Employer shall be permitted to adjust the starting hours of the shift by up to two (2) hours.

Area 5		
Electrician	60.50	30.39
Electrical Welder	66.55	30.57
Material Handler/Lighting Maintenance	34.49	20.67

#### **Reference Counties**

Clackamas	Hood River	Polk	Wasco
Clatsop	Marion	Sherman	Washington
Columbia	Multnomah	Tillamook	Yamhill

#### Shift Differential\*

1 <sup>st</sup> Shift "day"	Between the hours of 7:00am and 5:30pm –	8 hours pay for 8 hours work
2 <sup>nd</sup> Shift "swing"	Between the hours of 4:30pm and 3:00am –	8 hours pay for 8 hours work plus 17.3% for all hours worked
3 <sup>rd</sup> Shift "graveyard"	Between the hours of 12:30am and 11:00am –	8 hours pay for 8 hours work plus 31.4% for all hours worked.

\* The Employer shall be permitted to adjust the starting hours of the shift by up to two (2) hours.

See more information on Shift Differentials and Zone Pay on Page 13.

#### ELECTRICIAN (continued)

Zone Pay for Area 5 – **Electrician and Electrical Welder** Add to Basic Hourly Rate

#### Zone mileage based on air miles:

Zone 1: 31-50 miles – **1.50** per hour Zone 2: 51-70 miles – **3.50** per hour Zone 3: 71-90 miles – **5.50** per hour Zone 4: Beyond 90 – **9.00** per hour

There shall be a 30-mile free zone from downtown Portland City Hall and a similar 15-mile free zone around the following cities:

Astoria	Seaside	Tillamook
Hood River	The Dalles	

Further, the free zone at the Oregon coast shall extend along Hwy 101 west to the ocean Hwy 101 east 10 miles if not already covered by the above 15-mile free zone.

<u>Area 6</u>		
Electrician	45.00	19.88
Lighting Maintenance and Material Handler	22.38	10.32

#### **Reference Counties**

Harney	Josephine	Lake
Jackson	Klamath	Malheur

#### Douglas - See Area 3 rate

#### Shift Differential

1 <sup>st</sup> Shift "day"	Between the hours of 8:00am and 4:30pm –	8 hours pay for 8 hours work
2 <sup>nd</sup> Shift "swing"	Between the hours of 4:30pm and 1:00am –	8 hours pay for 8 hours work plus 7.5% for all hours worked
3 <sup>rd</sup> Shift "graveyard"	Between the hours of 12:30am and 9:00am $-$	8 hours pay for 8 hours work plus 15% for all hours worked.

\* The Employer shall be permitted to adjust the starting hours of the shift by up to two (2) hours.

When workers are required to work under compressed air or to work from trusses, scaffolds, swinging scaffolds, bosun's chair or on building frames, stacks or towers at a distance, the following should be added to base rate.

50 – 90 feet to the ground:	Add 1 $\frac{1}{2}$ x the base rate
90+ feet to the ground:	Add 2 x the base rate

#### **ELEVATOR CONSTRUCTOR, INSTALLER AND MECHANIC**

<u>Area 1</u> Mechanic <u>Reference Co</u>	<u>unties</u>				64.87	43.07
Baker	Union	Wallowa	Umatilla			
<u>Area 2</u> Mechanic <u>Reference Co</u>	<u>unties</u>				62.51	42.34
Benton Clackamas Clatsop Columbia Coos Crook Curry	Deschutes Douglas Gilliam Grant Harney Hood River Jackson	Jefferson Josephine Klamath Lake Lane Lincoln Linn	Malheur Marion Morrow Multnomah Polk Sherman Tillamook	Wasco Washington Wheeler Yamhill		
Umatilla – See <u>FENCE CONS</u>	e Area 1 rate STRUCTOR (NC	DN-METAL)			36.11	16.80
FENCE EREC	TOR (METAL)				36.11	16.80
<u>GLAZIER</u>					47.36	26.36

Add \$1.00 to base rate when employee works from a swing stage, scaffold, suspended contrivance or mechanical apparatus from the third floor up or thirty feet of free fall (whichever is less), and employee is required to wear a safety belt.

Add twenty percent (20%) to base rate when employee works from a bosun chair (non-motorized single-man apparatus), regardless of height.

Certified welders shall receive twenty percent (20%) above the base rate for actual time spent performing welding duties.

HAZARDOUS MATERIALS HANDLER	30.03	16.18
HIGHWAY/PARKING STRIPER	70.00	15.52

#### IRONWORKER

Zone 1 (Base Rate):

43.82 33.98

Zone Differential for Ironworker – Add to Basic Hourly Rate

- Zone 2: 6.88/hr. or \$55.00 maximum per day
- Zone 3: 10.00/hr. or \$80.00 maximum per day
- Zone 4: 12.50/hr. or \$100.00 maximum per day
- Zone 1: Projects located within 45 miles of city hall in the reference cities listed below.
- Zone 2: More than 46 miles, but less than 60 miles.
- Zone 3: More than 61 miles, but less than 100 miles.
- Zone 4: More than 100 miles.

Note: Zone pay for Ironworkers shall be determined using the quickest route per Google Maps and computed from the city hall or dispatch center of the reference cities listed below or the residence of the employee, whichever is nearer to the project.

**Reference Cities and Dispatch Center** 

Medford Portland

#### LABORER

- --

16.80
16.80
16.80
16.80

Zone Differential for Laborers Add to Zone A Base Rate

Zone B: .85 per hour Zone C: **1.25** per hour Zone D: **2.00** per hour

- Zone E: 4.00 per hour
- Zone F: 5.00 per hour
- Zone A: Projects located within 30 miles of city hall in the reference cities listed.
- Zone B: More than 30 miles but less than 40 miles.
- Zone C: More than 40 miles but less than 50 miles.
- Zone D: More than 50 miles but less than 80 miles.
- Zone E: More than 80 miles but less than 100 miles.
- Zone F: More than 100 miles.

#### **Reference Cities for Laborer**

Albany	Burns	Hermiston	Roseburg
Astoria	Coos Bay	Klamath Falls	Salem
Baker City	Eugene	Medford	The Dalles
Bend	Grants Pass	Portland	

See More Information on Zone Differentials on Page 16.

#### **LABORER** (continued)

**Note:** All job or project locations shall be computed (determined) on the basis of road miles and in the following manner. A mileage measurement will start at the entrance to the respective city hall, facing the project (if possible), and shall proceed by the normal route (shortest time, best road) to the geographical center on the highway, railroad, and street construction projects (end of measurement). On all other project contracts, the geographical center where the major portion of the construction is located, shall be considered the center of the project (end measurement).

Any Laborer working in Live Sewers shall receive forty dollars (\$40) per day in addition to their regular pay.

LANDSCAPE LABORER/TECHNICIAN (Laborer Group 4)	25.01	16.80
LIMITED ENERGY ELECTRICIAN		
<u>Area 1</u>	35.05	17.28
Reference County		

Malheur

Pursuant to ORS 279C.815(2)(b), the Limited Energy Electrician Area 6 rate is the highest rate of wage among the collective bargaining agreements for Limited Energy Electrician Areas 1 and 6.

<u>Area 2</u> Reference (	<u>Counties</u>				35.97	16.88
Baker Gilliam	Grant Morrow	Umatilla Union	Wallowa Wheeler			
<u>Area 3</u> <u>Reference (</u>	Counties				40.52	21.58
Benton Coos	Curry Douglas	Lane Lincoln	Linn			
<u>Area 4</u> Reference (	<u>Counties</u>				40.34	17.72
Deschutes Crook	Jefferson					
	ee Area 3 rate Area 3 rate		e Area 3 rate See Area 5 rate	Polk – <b>See Area 5 rate</b> Yamhill – <b>See Area 5 rate</b>		

LIMITED EN		CIAN (continued	1)		
<u>Area 5</u>				49.66	25.03
Reference Co	ounties				
Clackamas Clatsop Columbia	Hood River Marion Multnomah	Polk Sherman Tillamook	Wasco Washington Yamhill		
<u>Area 6</u>				35.05	17.28
Reference Co	<u>ounties</u>				
Harney Jackson	Josephine Klamath	Lake Malheur			
Douglas – <b>Se</b>	e Area 3 rate				
LINE CONST	RUCTOR				
<u>Area 1 (All R</u>	egions)				
Group 1				67.80	25.20
Group 2				60.54	24.87
Group 3				35.58	15.44
Group 4				52.06	21.29
Group 5				45.41	18.09
Group 6				37.53	17.74
Group 7				20.71	12.56
Reference Co	ounties				

#### Reference Counties

#### All counties

Pursuant to ORS 279C.815(2)(b), the Line Constructor Area 1 rate is the highest rate of wage among the collective bargaining agreements for Line Constructor Area 1 and Area 2.

#### MARBLE SETTER

46.42 24.92

This trade is tendered by "Tile, Terrazzo, & Marble Finishers." Add \$1.00 per hour to base rate for refractory repair work.

Occupation and Pr	emium/Diff	erential Pa	ay	Bas	e Rate / Fr	inge Rate
PAINTER & DRYWALL TAPI	ER					
					33.50 25.45	15.06
INDUSTRIAL PAINTING BRIDGE PAINTING					35.45 41.58	15.06 15.06
					41.00	10.00
<u>Shift Differential for Painter</u> Add \$2.00/hour to base rate fo	or entire shift if any	/ hours are work	ked outside of 5	:00 a.m. to 5:0	00 p.m.	
DRYWALL TAPER						
Zone A (Base Rate)					42.52	20.78
Zone Differential for Drywall Ta	aper – Add to Zon	e A Base Rate				
Zone B: 6.00 per hour						
Zone C: <b>9.00</b> per hour Zone D: <b>12.00</b> per hour						
Zone A: Projects located les Zone B: Projects located 61 Zone C: Projects located 81 Zone D: Projects located 10	miles to 80 miles. miles to 100 miles		re city hall of the	e dispatch citie	es listed.	
Dispatch Cities for Drywall Tap	per					
Albany Bend	Grants Pass	Medford	Portland	Seaside		
Astoria Brookings Baker Coquille	Hermiston Klamath Falls	Newport North Bend	Reedsport Roseburg	The Dalles Tillamook		
Bandon Eugene	Kelso-Longview	Pendleton	Salem	Vancouver		
Note: Zone pay is based on A	AA Road Mileage					
PLASTERER AND STUCCO	MASON					
This trade is tended by "Tende	ers to Plasterers."					
<u>Zone A</u> (Base Rate)					42.86	19.38
Zone Differential for Plasterer	and Stucco Masor	<u>n</u> – Add to Zone	A Base Rate			
Zone B: <b>6.00</b> per hour Zone C: <b>9.00</b> per hour						
Zone D: <b>12.00</b> per hour						
Zone A:Projects located lesZone B:Projects located 61Zone C:Projects located 81Zone D:Projects located 10	miles to 80 miles. miles to 100 miles		re city hall of the	e reference citi	es listed below.	

See More Information on Zone Differentials on Page 16

**Base Rate / Fringe Rate** 

37.50

17.57

PLASTERER AND STUCCO MASON (Continued)
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Bend	Eugene	Medford	Portland	Seaside
Coos Bay	La Grande	Newport	Salem	The Dalles

Add \$1.00 to base rate for swinging scaffold work.

Add \$2.00 to base rate for nozzle technicians on plastering machines.

#### PLUMBER/PIPEFITTER/STEAMFITTER

#### <u>Area 1</u>

Gilliam

**Reference Counties** 

Harney Malheur

Baker – See Area 2 rates

#### Zone Differential for Area 1 - Add to Base Rate

Zone 1: 2.50 per hour

Zone 2: 3.50 per hour

Zone 3: 5.00 per hour

#### Zone mileage based on road miles:

- Zone 1: Forty (40) to fifty-five (55) miles from City Hall in Boise, Idaho.
- Zone 2: Fifty-five (55) to one hundred (100) miles from City Hall in Boise, Idaho.
- Zone 3: Over one hundred (100) miles from City Hall in Boise, Idaho.

Add \$2.21 to base rate if it is possible for worker to fall 30 ft. or more, or if required to wear a fresh-air mask or similar equipment for 2 hours or more.

<u>Area 2</u>				57.00	35.51
Reference	Counties				
Baker	Grant	Umatilla	Wallowa		

Zone Differential for Area 2 – Add to Base Rate

Zone 2: 10.62/hr. not to exceed \$80.00 day.

#### Zone mileage based on road miles:

Morrow

Zone 2: Eighty (80) miles or more from City Hall in Pasco, Washington.

Union

Add \$1.00 to base rate in one-hour minimum increments if it is possible for worker to fall 35 ft. or more.

Wheeler

Add \$1.00 to base rate in one-hour minimum increments if worker is required to wear a mask in hazardous areas.

## **Occupation and Premium/Differential Pay**

## Base Rate / Fringe Rate

54.92 35.00

### Reference Counties

Area 3

BentonDeschutesClackamasDouglasClatsopHood RiverColumbiaJacksonCoosJeffersonCrookJosephineCurryKlamath	Lake Lane Lincoln Linn Marion Multnomah Polk	Sherman Tillamook Wasco Washington Yamhill
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Gilliam – See Area 2 rate

Wheeler - See Area 2 rate

### POWER EQUIPMENT OPERATOR

Zone 1 (Base Rate)		
Group 1	56.66	16.90
Group 1A	58.82	16.90
Group 1B	60.98	16.90
Group 2	54.75	16.90
Group 3	53.60	16.90
Group 4	50.27	16.90
Group 5	49.03	16.90
Group 6	45.81	16.90

## POWER EQUIPMENT



#### **POWER EQUIPMENT OPERATOR** (continued)

Zone Pay Differential for Power Equipment Operator – Add to Zone 1 Base Rate Zone 2: **3.00** per hour

Zone 3: **6.00** per hour

#### For projects in the following metropolitan counties:

Clackamas	Marion	Washington
Columbia	Multnomah	Yamhill

- (A) All jobs or projects located in Multhomah, Clackamas and Marion counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Hwy 26 and West of Mile Post 30 on Hwy 22 and all jobs located in Yamhill County, Washington County and Columbia County shall receive Zone 1 pay for all classifications.
- (B) All jobs or projects located in the area outside the *identified boundary* above, but less than 50 miles from Portland City Hall shall receive Zone 2 pay for all classifications.
- (C) All jobs or projects located more than 50 miles from Portland City Hall, but outside the identified border above, shall receive Zone 3 pay for all classifications.

#### Reference cities for projects in all remaining counties:

Albany	Coos Bay	Grants Pass	Medford
Bend	Eugene	Klamath Falls	Roseburg

- (A) All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone 1 pay for all classifications.
- (B) All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone 2 for all classifications.
- (C) All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone 3 pay for all classifications.

**Note:** All job or project locations shall be computed (determined) on the basis of road miles and in the following manner. A mileage measurement will start at the entrance to the respective city hall, facing the project (if possible), and shall proceed by the normal route (shortest time-best road) to the geographical center on the highway, railroad, and street construction projects (end of measurement). On all other project contracts, the geographical center where the major portion of the construction is located, shall be considered the center of the project (end measurement).

Add \$10.00/hour hyperbaric pay for Group 4 Tunnel Boring Machine Mechanic.

Add \$0.40 to the base rate for any and all work performed underground, including operating, servicing and repairing of equipment.

Add \$0.50 to the base rate per hour for any employee who works suspended by a rope or cable.

Add \$0.50 to the base rate for employees who do "pioneer" work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation.

**Note:** A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Waste Site. For information on this differential, call the Prevailing Wage Rate Coordinator at (971) 353-2416.

#### **POWER EQUIPMENT OPERATOR** (continued)

#### Shift Differential

#### **Two-Shift Operations:**

On a two-shift operation, when the second shift starts after 4:30 p.m., second-shift workers shall be paid the base hourly wage rate plus 5% for all hours worked.

When the second shift starts at 8:00 p.m. or later, the second-shift workers shall be paid at the base hourly wage rate plus 10% for all hours worked.

#### **Three-Shift Operations:**

On a three-shift operation, the base hourly wage rate plus five percent (5%) shall be paid to all second-shift workers for all hours worked, and the base hourly wage rate plus ten percent (10%) shall be paid to all third shift workers for all hours worked.

#### ROOFER

#### Area 1

**Reference Counties** 

Baker	Deschutes	Morrow	Union
Clackamas	Gilliam	Multnomah	Wasco
Clatsop	Grant	Sherman	Wallowa
Columbia	Hood River	Tillamook	Washington
Crook	Jefferson	Umatilla	Wheeler

Add 10% to the base rate for handling coal tar pitch or coal tar-based materials.

Add 10% to the base rate for handling fiberglass insulation.

#### <u>Area 2</u>

#### **Reference Counties**

Benton	Harney	Lake	Malheur
Coos	Jackson	Lane	Marion
Curry	Josephine	Lincoln	Polk
Douglas	Klamath	Linn	Yamhill

Crook – See Area 1 rates Deschutes – See Area 1 rates

Add \$2.00 to the base rate for handling coal tar products.

Add \$1.50 to the base rate for handling fiberglass insulation.

35.05 18.85

20.98

40.23

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ROOFER (Continued)

Area 4					40.23	20.98
Reference Cou	<u>inty</u>					
Umatilla	Union	Wallowa				
Add 10% to the	e base rate for ha	andling coal tar p	oitch or coal tar-l	based materials.		
Add 10% to the	e base rate for ha	andling fiberglas	s insulation.			
	RS 279C.815(2)( r Roofer Areas 1		rea 1 rate is the	highest rate of wage among	the collective b	argaining
<u>Area 5</u>					40.23	20.98
Reference Cou	inty					
Morrow						
Add 10% to the fiberglass insul		andling coal tar p	oitch or coal tar-	based materials. Add 10% to	the base rate fo	or handling
	RS 279C.815(2)( r Roofer Areas 1		rea 1 rate is the	highest rate of wage among	the collective b	argaining
SHEET META	L WORKER					
<u>Area 1</u>					50.80	26.46
Reference Cou	Inties					
Benton Clackamas Clatsop Columbia Crook	Deschutes Gilliam Grant Hood River Jefferson	Lincoln Linn Marion Morrow Multnomah	Polk Sherman Tillamook Umatilla Wasco	Washington Wheeler Yamhill		

Add 10% to base rate for work performed on any swinging platform, swinging chair or swinging ladder. Add 10% to base rate for work where a worker is exposed to resins, chemicals, or acid.

#### <u>Area 2</u>

Reference Counties

Baker – See Area 3 rate Malheur – See Area 4 rate

Base Rate / Fringe Rate

SHEET META	L WORKER (Co	ontinued)			
<u>Area 3</u>				45.78	26.58
Reference Cou	<u>unties</u>				
Baker	Union	Wallowa			
Morrow – See	Area 1 rate	Umatilla – <b>Se</b>	ee Area 1 rate		
Add \$.45 to ba above the grou		performed on a	ny swinging stage, swinging scaffold or bosor	ı chair in excess of	f thirty (30) feet
Add \$1.00 to b	ase rate for wor	k where it is nec	essary to wear a chemically activated type fac	e mask.	
<u>Area 4</u>				42.03	23.57
Reference Cou	<u>unties</u>				
Douglas Harney	Jackson Josephine	Klamath Lake	Lane Malheur		
Coos – See A	rea 5 rate	Curry – See A	rea 5 rate		
Add 10% to ba	ise rate for work	performed on ar	ny swinging platform, swinging chair or swingir	ng ladder.	
Add 10% to ba	ise rate for work	where a worker	is exposed to resins, chemicals, or acid.		
<u>Area 5</u>				42.39	24.61
Reference Cou	<u>unties</u>				
Coos	Curry				

Add 10% to base rate for work performed on any swinging platform, swinging chair or swinging ladder. Add 10% to base rate for work where a worker is exposed to resins, chemicals, or acid.

SOFT FLOOR	<u>LAYER</u>				39.63	18.57
<u>SPRINKLER F</u>	ITTER					
<u>Area 1</u>					46.18	26.40
Reference Cou	<u>inties</u>					
Benton Clackamas Clatsop Columbia Coos Crook Curry	Deschutes Douglas Gilliam Grant Harney Hood River Jackson	Jefferson Josephine Klamath Lake Lane Lincoln Linn	Malheur Marion Morrow Multnomah Polk Sherman Tillamook	Umatilla Wasco Washington Wheeler Yamhill		

## **Occupation and Premium/Differential Pay**

Base Rate / Fringe Rate

**SPRINKLER FITTER** (Continued)

SPRINKLER F	FITTER (Continue	ed)				
<u>Area 2</u>					39.61	26.39
Reference Cou	<u>inties</u>					
Baker	Union	Wallowa				
Gilliam – <b>See</b> A Grant – <b>See</b> A		-	ee Area 1 rate ee Area 1 rate	Umatilla – <b>See Area 1 rate</b>		
TENDER TO I	MASON TRADE	<u>S</u> (Brick and St	onemason, Mortar	Mixer, Hod Carrier)	41.29	16.80
Add \$0.50 to b	ase rate for refra	ctory repair wo	ork.			
<u>TENDER TO F</u> Zone A (Base	PLASTERER AN Rate)	<u>D STUCCO M</u>	ASON		39.62	16.80
Zone B: 6.00 Zone C: 9.00 Zone D: 12.0						
<ul> <li>Zone A: Projects located within 60 miles of city hall in the reference cities listed.</li> <li>Zone B: More than 61 miles but less than 80 miles.</li> <li>Zone C: More than 81 miles but less than 100 miles.</li> <li>Zone D: More than 101 miles</li> </ul>						
Reference Citi	<u>es</u>					
Bend Coos Bay	Eugene La Grande	Medford Newport	Portland Salem	Seaside The Dalles		
Add \$0.50 to b	ase rate for refra	ctory repair wo	ork.			
TESTING AND BALANCING (TAB) TECHNICIAN For work performed under the <u>Sheet Metal</u> classification, including Air-Handling Equipment, Ductwork See <u>SHEET METAL WORKER RATE</u>						
For work performed under the Plumber/Pipefitter/Steamfitter classification, including Water Distribution Systems						
See <u>PLUMBER/PIPEFITTER/STEAMFITTER RATE</u>						
TILE SETTER	TERRAZZO WO	ORKER: Hard	Tile Setter		38.96	21.51
This trade is tended by "Tile, Terrazzo, & Marble Finisher." Add \$1.00 when performing terrazzo work.						
Add \$1.00 when working with epoxy, furnane, or alkor acetylene.						

Occupation and Premium/Differential Pay	Base Rate / Fri	inge Rat
TILE, TERRAZZO, AND MARBLE FINISHER		
1. TILE, TERRAZZO FINISHER	29.12	15.95
Add \$1.00 when performing terrazzo work.		
Add \$1.00 when working with epoxy, furnane, or alkor acetylene.		
2. BRICK & MARBLE FINISHER	29.12	16.08
Add \$1.00 per hour to base rate for refractory repair work.		
TRUCK DRIVER Zone A (Base Rate)		
Group 1	32.06	17.13
Group 2	32.21	17.13
Group 3	32.36	17.13
Group 4	32.67	17.13
Group 5	32.92	17.13
Group 6	33.12	17.13
Group 7	33.35	17.13

#### Zone differential for Truck Drivers - Add to Zone A Base Rate

Zone B: .65 per hour

- Zone C: 1.15 per hour
- Zone D: 1.70 per hour
- Zone E: 2.75 per hour

#### Zone A: Projects within 30 miles of the cities listed.

Zone B: More than 30 miles but less than 40 miles.

- Zone C: More than 40 miles but less than 50 miles.
- Zone D: More than 50 miles but less than 80 miles.
- Zone E: More than 80 miles.

#### Reference Cities

Albany	Burns	Hermiston	Madras	Pendleton	The Dalles
Astoria	Coos Bay	Hood River	Medford	Portland	Tillamook
Baker	Corvallis	Klamath Falls	McMinnville	Port Orford	Vancouver
Bend	Eugene	La Grande	Newport	Reedsport	
Bingen	Goldendale	Lakeview	Ontario	Roseburg	
Brookings	Grants Pass	Longview	Oregon City	Salem	

**Note:** All job or project locations shall be computed (determined) on the basis of road miles and in the following manner. A mileage measurement will start at the entrance to the respective city hall, facing the project (if possible), and shall proceed by the normal route (shortest time-best road) to the geographical center on the highway, railroad, and street construction projects (end of measurement). On all other project contracts, the geographical center where the major portion of the construction is located, shall be considered the center of the project (end measurement).

#### LIST OF CONTRACTORS INELIGIBLE TO RECEIVE PUBLIC WORKS CONTRACTS PUBLICATION DATE: JANUARY 5, 2024

#### To: All Oregon Contracting Agencies

Pursuant to ORS 279C.860, contractors on this list are ineligible to receive public works contracts subject to the Prevailing Wage Rate Law. These contractors and subcontractors, <u>as well as</u> any firm, corporation, partnership or association in which the contractor or subcontractor has a financial interest are ineligible to receive public works contracts until removed from this list. You can find the most current and up to date list of contractors ineligible to receive public works contracts on our website at <u>https://www.oregon.gov/boli/employers/Pages/pwr-ineligible-contractors.aspx</u>.

If you have questions regarding the list or for the most current information regarding persons ineligible to receive prevailing wage contracts, please contact the Prevailing Wage Rate Coordinator in Portland at (971) 353-2416.

Contractor	Address	Date Placed	Removal Date
AI Dumptruck Services LLC	703 N Hayden Meadows Dr. #206 Portland, OR 97213 731 N Hayden Meadows Dr. #206 Portland, OR 97217 2408 NE 164th Avenue Vancouver, WA 98684	2/24/2020	2/23/2027
Advanced Flagging & Pilot Car Inc.	I 6400 NE Las Brisas Ct., Apt. 43 Portland, OR 97230 650 NE Holladay St. Portland, OR 97232 I 6400 NE Las Brisas Ct. Portland, OR 97230	2/5/2021	2/4/2024
Alan Tatom	168 Clearwater Avenue NE Salem, OR 97301	7/10/2015	7/9/2025
Angela Canell	2416 NE 11th Avenue Portland, OR 97212 529 SE Grand #307 Portland, OR 97214	/24/2020	/23/2023
Antonio Thomas	<ul> <li>I 6400 NE Las Brisas Ct., Apt. 43</li> <li>Portland, OR 97230</li> <li>650 NE Holladay St.</li> <li>Portland, OR 97232</li> <li>I 6400 NE Las Brisas Ct.</li> <li>Portland, OR 97230</li> </ul>	2/5/2021	2/4/2024
Cameron Creations, Steven Cameron, Nancy Cameron *	PO Box 2 Lowell, OR 97452	5/25/2000	
Canell's Flagging LLC	731 N Hayden Meadows Dr., Ste 107 Portland, OR 97217	11/24/2020	11/23/2023
Christina Ingram	2676 Copeland Road Harper, Oregon 97606	5/6/2022	5/5/2025
CJ Construction, Inc	2969 Ferguson St NW Salem, OR 97304 846 55th Ave Salem, OR 97304	12/11/2020	11/6/2023
David Miller *	731 NW Naito Parkway, #215 Portland, OR 97209	6/17/2020	
Diversified Masonry LLC	PO Box 144 Ranchester, WY 82839	1/5/2021	1/4/2024
Eugene Graeme	169 SE Cody Lane	7/3/2017	7/2/2027

#### LIST OF CONTRACTORS INELIGIBLE TO RECEIVE PUBLIC WORKS CONTRACTS PUBLICATION DATE: JANUARY 5, 2024

Contractor	Address	Date Placed	Removal Date
Green Thumb Landscape and Maintenance, Inc. aka Green Thumb Landscaping, aka GT General Contracting	4400 Dallas Hwy Salem, OR 97304 PO Box 5172 Salem, OR 97304	12/11/2020	10/10/2023
Green Thumb LLC aka Green Thumb Contracting	4400 Salem-Dallas Hwy Salem, OR 97304 4400 Shaw St NW Salem, OR 97304 PO Box 5172 Salem, OR 97304	12/11/2020	10/10/2023
Hai T. Nguyen	9024 Silver Star Ave Vancouver, WA 98664	2/3/2020	2/2/2023
High-N-Shine Concrete Floor, Inc.	9024 Silver Star Ave Vancouver, WA 98664	2/3/2020	2/2/2023
Jennifer Friedman	2526 Ellen Lane NW Salem, OR 97304 4400 Shaw St NW Salem, OR 97304 4400 Salem-Dallas Hwy Salem, OR 97304 PO Box 5172 Salem, OR 97304	12/11/2020	10/10/2023
Kim Bell Flagging, Inc.	8535 Woodard Ave SE Salem, OR 97317	1/12/2016	1/11/2023
Kimberly Bell-Eddy	8535 Woodard Ave SE Salem, OR 97317	1/12/2016	1/11/2023
Lisa Hoang aka Kim Lien Hoang aka Lien Kim Hoang aka Kim Hope aka Lisa K Ryan aka Ryan Lien Hoang aka Kim L Hoang aka Lien Hoang Ryan aka Lien K Hoang-Ryan aka Hoang K Lien aka Lisa Hall aka Lisa Kim Ryan aka Lien Ryan aka Lien Hoang Ryan aka Kim Hoang Lien aka K Lisa Hoang	<ul> <li>703 N Hayden Meadows Dr. #206</li> <li>Portland, OR 97213</li> <li>731 N Hayden Meadows Dr., #206</li> <li>Portland, OR 97217</li> <li>2408 NE 164th Avenue</li> <li>Vancouver, WA 98684</li> </ul>	2/24/2020	2/23/2027
Michael Barker	32966 Tennessee Road Lebanon, OR 97355	1/5/2021	1/4/2024
NW Flagging LLC	703 N Hayden Meadows Dr. #206 Portland, OR 97213 731 N Hayden Meadows Dr. #206 Portland, OR 97217 2408 NE 164th Avenue Vancouver, WA 98684	2/24/2020	2/23/2027
Oregon Building & Landscaping Services LLC	703 N Hayden Meadows Dr. #206 Portland, OR 97213 731 N Hayden Meadows Dr. #206 Portland, OR 97217 2408 NE 164th Avenue Vancouver, WA 98684	2/24/2020	2/23/2027
Pacharee Polson	9024 Silver Star Ave Vancouver, WA 98664	2/3/2020	2/2/2023

#### LIST OF CONTRACTORS INELIGIBLE TO RECEIVE PUBLIC WORKS CONTRACTS PUBLICATION DATE: JANUARY 5, 2024

Contactor	Address	Date Placed	Removal Date
Pacific NW Drywall & Acoustics LLC aka Pacific	731 NW Natio Parkway #215	6/17/2020	
NW Drywall& Acoustics LLC*	Portland, OR 97209		
Phillip Walker	580 Market Street NE Salem, OR 97301	7/10/2015	7/9/2025
Regional Traffic Management LLC	703 N Hayden Meadows Dr. #206 Portland, OR 97213 731 N Hayden Meadows Dr. #206 Portland, OR 97217 2408 NE 164th Avenue Vancouver, WA 98684	2/24/2020	2/23/2027
Sang In Nam dba Cornerstone Janitorial Services*	130 NE Danbury Ave Hillsboro, OR 97124	9/20/2016	
Scott Friedman	2969 Ferguson St NW Salem, OR 97304 4400 Dallas Hwy Salem, OR 97304 PO Box 5172 Salem, OR 97304	12/11/2020	10/10/2023
Snake River Construction and Excavation LLC	2676 Copeland Road Harper, Oregon 97606	5/6/2022	5/5/2025
Timothy Covington, aka Tim York	16055 NE Stanton St. Portland, OR 97230 2933 NE 11th Ave. Portland, OR 97212 12231 NE Stanton St. Portland, OR 97230	4/13/2021	4/12/2024
Tyrell Ingram	2676 Copeland Road Harper, Oregon 97906	5/6/2022	5/5/2025
WCI Construction LLC	169 SE Cody Lane Madras, OR 97741	7/3/2017	7/2/2027
WWJD Traffic Control, Inc.	168 Clearwater Avenue NE Salem, OR 97301	7/10/2015	7/9/2025

\* Not to be removed from debarment.

### Prevailing Wage Rate Laws Handbook

The 2024 edition of the <u>*Prevailing Wage Rate Laws Handbook*</u> is now available on our website at <u>https://www.oregon.gov/boli/employers/Pages/prevailing-wage.aspx</u>.

In addition to providing this and other PWR publications, Oregon BOLI Labor & Industries' PWR Unit regularly offers free, informational seminars for both public agencies and contractors. The current schedule is available online at <a href="https://www.oregon.gov/boli/employers/Pages/prevailing-wage-seminars.aspx">https://www.oregon.gov/boli/employers/Pages/prevailing-wage-seminars.aspx</a>.

If you are interested in being included on our mailing lists for future seminar notifications, please contact us at <u>PWR.Email@boli.oregon.gov</u> or (971) 353-2416.