Maintenance Building Remodel

# GRAYS HARBOR TRANSIT

Hoquiam, Washington

Project No. 19-12F


OWNER Grays Harbor Transit
Greg Fountain, Facilities Maintenance Supv.
705 30th Street
Hoquiam, WA 98550
(360) 986-3318

ARCHITECT of RECORD Harbor Architects LLC
Alan Gozart AIA, Project Architect
345 W Wishkah Street
Aberdeen, WA 98520
VOICE: (360) 532-0980


September 4, 2023

Harbor Architects LLC

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END, SECTION 00 01 15

## 1. ADVERTISEMENT

1.1. NOTICE TO BIDDERS

Sealed Bids will be received for the following Project:

| | |
|---|---|
| TITLE: | 19-12F, Maintenance Building Remodel<br>Grays Harbor Transit<br>Hoquiam, Washington |
| DESCRIPTION: | Interior remodel of wood frame structure including addition of restroom facility. |
| TIME & DATE: | 3:00PM, November 1, 2023 |
| BY: | Grays Harbor Transit |
| RECEIVED AT: | Grays Harbor Transit Administration Office<br>Harbor Place<br>343 W Wishkah Street<br>Aberdeen, Washington 98520 |
| LOCATION OF BID OPENING: | Grays Harbor Transit Administration Office<br>343 W Wishkah Street, Aberdeen Washington 98520 |

All bids received shall be publicly opened and read aloud at the above time.

1.2. DATES OF ADVERTISEMENT FOR BIDS

1. October 3, 2023
2. October 10, 2023

1.3. BIDDING DOCUMENTS

1. Bidding Documents for the Work are those prepared by the Architect:

   **HARBOR ARCHITECTS LLC**
   345 W Wishkah
   Aberdeen, Washington 98520
   (360) 532-0980

2. Bidding Documents are available online at http://www.harborarchitects.com/19-12f.

3. Bona fide Bidders may purchase copies of the Drawing Set only, from the office of the Architect upon submitting a check, payable to Harbor Architects LLC in the amount of $(4.00 per sheet).

4. Project Manuals are available by download only.

5. Bidding Documents will be available for examination during the bidding period at the following locations:

   Office of the Architect
   Office of the Owner
   Associated Subcontractors, Tacoma
   Builder's Exchange of Washington, Everett
   Dodge Data and Analytics, Tacoma

1.4. INQUIRIES AND ADDENDA

1. Addenda may be issued for the purpose of clarification and/or revision of the Project Manual and/or Drawings. Addenda will be sent to known bidders and will become part of the Contract Documents. Any costs resulting from Addenda should be included in the Bid Sum.
2. Direct all questions in writing to Alan Gozart AIA at the office of the Architect, email alan@harborarchitects.com.
3. Submit questions no later than Tuesday October 24th by 12:00 pm. Clarifications will be included in Addenda.
4. Verbal answers and clarifications are not binding on any party.

1.5. BID GUARANTEE

Bidders shall be bound by their bids for (30) calendar days following the bid opening.

1.6. BID SECURITY

1. A bid security, in the form of a certified check, bank cashier's check or bid bond is required with each Bid in an amount equal to (5) percent of the Base Bid, plus Additive Alternates, if any.
2. Should a bidder fail to enter into an Agreement with the Owner and/or fail to furnish the bonds required by the Contract Documents within ten (10) days after his/her Bid has been accepted, the Contractor's Bid Security shall be forfeited to the Owner as liquidated damages, not as a penalty.

1.7. BONDS

Contractor shall secure, include costs therefore in the Bid, and pay for bonds issued by a bonding company with a Best's rating of "A", or better, and licensed to transact business in the State of Washington in Statutory Form. Liability under each of the bonds shall be 100 percent of the contract sum, including state sales tax, for:

1. Performance.
2. Labor and Material Payment.
3. One-year maintenance for correction of defective work.

1.8. PRE-BID CONFERENCE

1. A Pre-Bid Conference will be held on Wednesday, October 11, 2023 at 2:00 pm, at the Project Site, 705 30th Street, Hoquiam, WA 98550. Representatives for the Owner and the Architect will be available to answer questions.
2. To be eligible to bid, all bidders must physically inspect the premises and familiarize themselves with all existing conditions.

1.9. RESPONSIBILITY CRITERIA

Bidders will be required to submit the following documents:

1. Non-Collusion Affidavit.
2. Certification Regarding Responsibility Matters.
3. Certification of Compliance with Wage Payment Statutes.

1.10. PREVAILING WAGE RATES

1. WA State Prevailing Wage Rates: Shall apply.

1.11. EQUAL OPPORTUNITY

1. Grays Harbor Transit is an Equal Opportunity and Affirmative Action Employer.
2. Grays Harbor Transit hereby notifies all bidders that small, minority and/or women owned business enterprises will be afforded full opportunity to submit bids in response to this advertisement and will not be discriminated against on the grounds of religion, age, race, color, sexual identification, or national origin.
3. This advertisement will be posted on the State Office of Minority and Women's Business Enterprise (OMWBE) website at www.omwbe.wa.gov.

1.12. BASIS OF AWARD

The lowest responsive bid, including selected Alternates shall be the sole basis of award.

1.13. REJECTION OF BIDS

1. Grays Harbor Transit reserves the right to reject or accept any or all bids not accompanied by bid security or data required by the bidding documents or a bid in any way incomplete or irregular.
2. Bids received after the above time and date will be returned, unopened, to the bidder.

END, SECTION 00 11 13

To: Grays Harbor Transit

Having carefully examined the Project Manual and Drawings, entitled: 19-12F, Maintenance Building Remodel, Hoquiam, Washington, as well as the premises and conditions affecting the work, the Undersigned states he/she has the means to furnish all labor, material and equipment to perform all the work required by and in strict accordance with the above-named Contract Documents for the following sums:

## 1. BASE BID

For the Base Bid, as defined in the Project Manual: $_____.

## 2. UNIT PRICES

The Undersigned agrees to perform additional work or to eliminate work called for under the Contract if so requested by the Owner at any time during the period of the Contract for the unit prices set forth herein. Failure to provide unit prices for any of the items listed will render this proposal non-responsive.

Paint existing gypsum board walls: $_____/SF.

Paint existing gypsum board ceilings: $_____/SF.

Paint existing metal door frames: $_____/EA.

## 3. EXISTING CONDITIONS

☐ By checking this box, the Undersigned confirms that he/she, and principal subcontractors, have physically inspected the premises and have familiarized themselves with all existing conditions.

## 4. NON-COLLUSION AFFIDAVIT

☐ By checking this box, the Undersigned confirms that he/she has completed Section 00 45 19, NON-COLLUSION AFFIDAVIT and has attached said document to this Bid Form.

## 5. SALES TAX

None of the above prices include state sales tax.

## 6. TIME OF COMPLETION

The Undersigned agrees, if awarded the Contract, to achieve substantial completion of the Work included in Base Bid and Alternates within _____ calendar days after receiving official notice to proceed.

## 7. BID GUARANTEE

Bidders shall be bound by their bids for (30) calendar days following the bid opening.

**8. LIQUIDATED DAMAGES**

The Undersigned acknowledges and agrees to abide by all provisions of paragraph 11.4, Liquidated Damages in the Supplementary Conditions. Adjustments to completion time will be granted for adverse weather conditions, transportation interruptions and other situations beyond control of the Contractor

**9. CONTRACT & BONDS**

Should the Undersigned be notified of the acceptance of this Bid within (15) days after the time set for opening bids, he/she agrees to execute a contract for the above Work, for a compensation computed from the above sums, and to furnish performance, payment and maintenance bonds as required by the Contract Documents.

**10. RESPONSIBILITY MATTERS**

The Undersigned understands that he/she will be required to submit the following documents after award of the Contract:

1. Certification Regarding Responsibility Matters.
2. Certification of Compliance with Wage Payment Statutes.

**11. ADDENDA**

Receipt of the following Addenda to the Contract Documents is acknowledged:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Addendum No. | _____ | Date | _____ | Addendum No. | _____ | Date | _____ |
| Addendum No. | _____ | Date | _____ | Addendum No. | _____ | Date | _____ |
| Addendum No. | _____ | Date | _____ | Addendum No. | _____ | Date | _____ |

Name of Bidder:_____

By (print name):_____ Title:_____

Signature:_____ Date:_____

Address:_____

Telephone:_____ FAX:_____

Email Address:_____

State of Washington Contractor's License No.:_____

U.B.I. Number:_____

END, SECTION 00 41 13

To: Grays Harbor Transit

The undersigned, being duly sworn on oath says, that he/she is authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers and that he/she is the person responsible in my firm for the price(s), the amount of this proposal and the preparation of the proposal.

I state that

1. The price(s) and amount of this proposal have been arrived at independently and without consultation, communication or agreement with any other contractor, proposer or potential proposer.
2. Neither the price(s) nor the amount of this proposal, and neither the approximate price(s) nor approximate amount of this proposal, have been disclosed to any other firm or person who is a proposer or potential proposer, and they will not be disclosing before bid opening.
3. No attempt has been made or will be made to induce any firm or persons to refrain from submitting a proposal for this contract, or to submit a price(s) bid higher that the price(s) in this proposal, or to submit any intentionally high or noncompetitive price(s) or other form of complementary proposal.
4. The proposal of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

5. _____ its affiliates, subsidiaries, officers, directors and
(Name of Firm)
employees are not currently under investigation by any governmental agency and have not in the last (3) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract.

I state that _____ understands and acknowledges that the above
(Name of Firm)
representations are material and important and will be relied on by Grays Harbor Transit in awarding the contract(s) for which this bid is submitted.

I understand and my firm understands that any misstatement in this affidavit is, and shall be, treated as fraudulent concealment from Grays Harbor Transit of the true facts relating to the submission of bids for this contract.

Signed: _____

Firm: _____

Subscribed and sworn to me before this _____ day of _____ , 20____

Notary Public _____

My Commission expires: _____

END, NON-COLLUSION AFFIDAVIT

To: Grays Harbor Transit

The undersigned, being duly sworn on oath says, that he/she is authorized to make this affidavit on behalf of my firm, and its owners, directors and officers and that he/she is the person responsible in my firm for the price(s), the amount of this proposal and the preparation of the proposal.

I state that the undersigned:

1. Are not presently debarred, suspended, proposed for debarment declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not, within a (3) period preceding this proposal, been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
3. Are not presently indicated for or otherwise criminally charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated above; and
4. Have not within a (3) year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

I state that _____ understands and acknowledges that the above
(Name of Firm)
representations are material and important and will be relied on by the Grays Harbor Transit in awarding the contract(s) for which this bid is submitted.

I understand and my firm understands that any misstatement in this affidavit is, and shall be, treated as fraudulent concealment from the Grays Harbor Transit of the true facts relating to the submission of bids for this contract.

Signed: _____

Firm: _____

Subscribed and sworn to me before this _____ day of _____ , 20_____

Notary Public _____

My Commission expires: _____

END, CERTIFICATION REGARDING RESPONSIBILITY MATTERS

To: Grays Harbor Transit

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date November 1, 2023 the bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Bidder's Business Name: _____

Signature of Authorized Official*: _____

Printed Name: _____

Title: _____

Date: _____

City and State: _____

Check One:
Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, State where business entity was formed: _____

If a co-partnership, give firm name under which business is transacted: _____

* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.

END, CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

DRAFT

# AIA® Document A105™ – 2017

## *Standard Short Form of Agreement Between Owner and Contractor*

AGREEMENT made as of the « » day of « » in the year « »
*(In words, indicate day, month and year.)*

BETWEEN the Owner:
*(Name, legal status, address and other information)*

« »« »
« »
« »
« »

and the Contractor:
*(Name, legal status, address and other information)*

« »« »
« »
« »
« »

for the following Project:
*(Name, location and detailed description)*

« »
« »
« »

The Architect:
*(Name, legal status, address and other information)*

« »« »
« »
« »
« »

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

TABLE OF ARTICLES



ARTICLE 1 THE CONTRACT DOCUMENTS

The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of

.1 this Agreement signed by the Owner and Contractor;

.2 the drawings and specifications prepared by the Architect, dated « », and enumerated as follows:

Drawings:

| Number | Title | Date |
|---|---|---|
| « » | | |

Specifications:

| Section | Title | Pages |
|---|---|---|
| « » | | |

.3 addenda prepared by the Architect as follows:

| Number | Date | Pages |
|---|---|---|
| « » | | |

.4 written orders for changes in the Work, pursuant to Article 10, issued after execution of this Agreement; and

.5 other documents, if any, identified as follows:

« »

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 2.1 The Contract Time is the number of calendar days available to the Contractor to substantially complete the Work.

§ 2.2 Date of Commencement:

Unless otherwise set forth below, the date of commencement shall be the date of this Agreement.
*(Insert the date of commencement if other than the date of this Agreement.)*

« »

§ 2.3 Substantial Completion:

Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion, as defined in Section 12.5, of the entire Work:
*(Check the appropriate box and complete the necessary information.)*

[ « » ] Not later than « » ( « » ) calendar days from the date of commencement.

[ « » ] By the following date: « »

ARTICLE 3 CONTRACT SUM

§ 3.1 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work. Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

«Zero Dollars and Zero Cents» ($ «0.00» )

§ 3.2 For purposes of payment, the Contract Sum includes the following values related to portions of the Work:
*(Itemize the Contract Sum among the major portions of the Work.)*

| Portion of the Work | Value |
|---|---|
| « » | |

§ 3.3 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner:
*(Identify the accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)*

« »

§ 3.4 Allowances, if any, included in the Contract Sum are as follows:
*(Identify each allowance.)*

| Item | Price |
|---|---|
| « » | |

§ 3.5 Unit prices, if any, are as follows:
*(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)*

| Item | Units and Limitations | Price per Unit ($0.00) |
|---|---|---|
| « » | | |

## ARTICLE 4 PAYMENTS

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the Owner shall pay the Contractor, in accordance with Article 12, as follows:
*(Insert below timing for payments and provisions for withholding retainage, if any.)*

« »

§ 4.2 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.
*(Insert rate of interest agreed upon, if any.)*

« » % « »

## ARTICLE 5 INSURANCE

§ 5.1 The Contractor shall maintain the following types and limits of insurance until the expiration of the period for correction of Work as set forth in Section 14.2, subject to the terms and conditions set forth in this Section 5.1:

§ 5.1.1 Commercial General Liability insurance for the Project, written on an occurrence form, with policy limits of not less than « » ($ « » ) each occurrence, « » ($ « » ) general aggregate, and « » ($ « » ) aggregate for products-completed operations hazard.

§ 5.1.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than « » ($ « » ) per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance, and use of those motor vehicles along with any other statutorily required automobile coverage.

§ 5.1.3 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 5.1.1 and 5.1.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 5.1.4 Workers' Compensation at statutory limits.

§ 5.1.5 Employers' Liability with policy limits not less than « » ($ « » ) each accident, « » ($ « » ) each employee, and « » ($ « » ) policy limit.

§ 5.1.6 The Contractor shall provide builder's risk insurance to cover the total value of the entire Project on a replacement cost basis.

§ 5.1.7 Other Insurance Provided by the Contractor
*(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)*

| Coverage | Limits |
| --- | --- |
| « » | |

§ 5.2 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance and shall provide property insurance to cover the value of the Owner's property. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner's property insurance.

§ 5.3 The Contractor shall obtain an endorsement to its Commercial General Liability insurance policy to provide coverage for the Contractor's obligations under Section 8.12.

§ 5.4 Prior to commencement of the Work, each party shall provide certificates of insurance showing their respective coverages.

§ 5.5 Unless specifically precluded by the Owner's property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents, and employees, each of the other; and (2) the Architect, Architect's consultants, and any of their agents and employees, for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance or other insurance applicable to the Project, except such rights as they have to the proceeds of such insurance.

## ARTICLE 6 GENERAL PROVISIONS

### § 6.1 The Contract

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

### § 6.2 The Work

The term "Work" means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment, and services provided, or to be provided, by the Contractor to fulfill the Contractor's obligations.

### § 6.3 Intent

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.

### § 6.4 Ownership and Use of Architect's Drawings, Specifications and Other Documents

Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. The Architect shall retain all common law, statutory, and other reserved rights, including the copyright. The Contractor, subcontractors, sub-subcontractors, and suppliers are authorized to use and reproduce the instruments of service solely and exclusively for execution of the Work. The instruments of service may not be used for other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect.

### § 6.5 Electronic Notice

Written notice under this Agreement may be given by one party to the other by email as set forth below.
*(Insert requirements for delivering written notice by email such as name, title, and email address of the recipient, and whether and how the system will be required to generate a read receipt for the transmission.)*

« »

## ARTICLE 7 OWNER

### § 7.1 Information and Services Required of the Owner

§ 7.1.1 If requested by the Contractor, the Owner shall furnish all necessary surveys and a legal description of the site.

§ 7.1.2 Except for permits and fees under Section 8.7.1 that are the responsibility of the Contractor, the Owner shall obtain and pay for other necessary approvals, easements, assessments, and charges.

§ 7.1.3 Prior to commencement of the Work, at the written request of the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence.

### § 7.2 Owner's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work until the correction is made.

§ 7.3 Owner's Right to Carry Out the Work

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, without prejudice to other remedies, correct such deficiencies. In such case, the Architect may withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the cost of correction, provided the actions of the Owner and amounts charged to the Contractor were approved by the Architect.

§ 7.4 Owner's Right to Perform Construction and to Award Separate Contracts

§ 7.4.1 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.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

## ARTICLE 8 CONTRACTOR

§ 8.1 Review of Contract Documents and Field Conditions by Contractor

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 8.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies, or omissions discovered to the Architect.

§ 8.2 Contractor's Construction Schedule

The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work.

§ 8.3 Supervision and Construction Procedures

§ 8.3.1 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.

§ 8.3.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner, through the Architect, the names of subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any subcontractor or supplier to whom the Owner or Architect have made a timely and reasonable objection.

§ 8.4 Labor and Materials

§ 8.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

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

§ 8.5 Warranty

The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 12.5.

§ 8.6 Taxes

The Contractor shall pay sales, consumer, use, and similar taxes that are legally required when the Contract is executed.

§ 8.7 Permits, Fees and Notices

§ 8.7.1 The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work.

§ 8.7.2 The Contractor shall comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Architect in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules, and regulations.

§ 8.8 Submittals

The Contractor shall promptly review, approve in writing, and submit to the Architect shop drawings, product data, samples, and similar submittals required by the Contract Documents. Shop drawings, product data, samples, and similar submittals are not Contract Documents.

§ 8.9 Use of Site

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents, and the Owner.

§ 8.10 Cutting and Patching

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

§ 8.11 Cleaning Up

The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.

§ 8.12 Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect'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, a 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.

ARTICLE 9 ARCHITECT

§ 9.1 The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work.

§ 9.3 The Architect will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

§ 9.4 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor.

§ 9.5 The Architect has authority to reject Work that does not conform to the Contract Documents.

§ 9.6 The Architect will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 On written request from either the Owner or Contractor, the Architect will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents.

§ 9.8 Interpretations and decisions of the Architect 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 decisions, the Architect 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 rendered in good faith.

§ 9.9 The Architect's duties, responsibilities, and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

## ARTICLE 10 CHANGES IN THE WORK

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, and the Contract Sum and Contract Time shall be adjusted accordingly, in writing. If the Owner and Contractor cannot agree to a change in the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit.

§ 10.2 The Architect may authorize or order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Such authorization or order shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall proceed with such minor changes promptly.

§ 10.3 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.

## ARTICLE 11 TIME

§ 11.1 Time limits stated in the Contract Documents are of the essence of the Contract.

§ 11.2 If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment.

§ 11.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the responsible party.

## ARTICLE 12 PAYMENTS AND COMPLETION

### § 12.1 Contract Sum

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

### § 12.2 Applications for Payment

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the values stated in this Agreement. The Application shall be supported by data substantiating the Contractor's right to payment as the Owner or Architect may reasonably require, such as evidence of payments made to, and waivers of liens from, subcontractors and suppliers. 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 stored, and protected from damage, off the site at a location agreed upon in writing.

§ 12.2.2 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, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or other encumbrances adverse to the Owner's interests.

### § 12.3 Certificates for Payment

The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in part; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole. If certification or notification is not made within such seven day period, the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time and the Contract Sum shall be equitably adjusted due to the delay.

### § 12.4 Progress Payments

§ 12.4.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the Architect shall have responsibility for payments to a subcontractor or supplier.

§ 12.4.4 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 requirements of the Contract Documents.

### § 12.5 Substantial Completion

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Contractor believes that the Work or designated portion thereof is substantially complete, it will notify the Architect and the Architect will make an inspection to determine whether the Work is substantially complete. When the Architect determines that the Work is substantially complete, the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, establish the responsibilities of the Owner and Contractor, and 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 of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

### § 12.6 Final Completion and Final Payment

§ 12.6.1 Upon receipt of a final Application for Payment, the Architect will inspect the Work. When the Architect finds the Work acceptable and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the Architect releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests, or encumbrances arising out of the Contract.

§ 12.6.3 Acceptance of final payment by the Contractor, a subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

## ARTICLE 14 CORRECTION OF WORK

§ 14.1 The Contractor shall promptly correct Work rejected by the Architect as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement, and additional testing.

§ 14.2 In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of one year after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

§ 14.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

## ARTICLE 15 MISCELLANEOUS PROVISIONS

### § 15.1 Assignment of Contract

Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

### § 15.2 Tests and Inspections

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the Architect requires additional testing, the Contractor shall perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections, or approvals that do not become requirements until after the Contract is executed. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

### § 15.3 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules.

## ARTICLE 16 TERMINATION OF THE CONTRACT

### § 16.1 Termination by the Contractor

If the Work is stopped under Section 12.3 for a period of 14 days through no fault of the Contractor, the Contractor may, upon seven additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and profit, and costs incurred by reason of such termination.

### § 16.2 Termination by the Owner for Cause

§ 16.2.1 The Owner may terminate the Contract if the Contractor

.1 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 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or

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

§ 16.2.2 When any of the above reasons exist, the Owner, after consultation with the Architect, 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

.1 take possession of the site and of all materials thereon owned by the Contractor, and

.2 finish the Work by whatever reasonable method the Owner may deem expedient.

§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of the Contract.

### § 16.3 Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

## ARTICLE 17 OTHER TERMS AND CONDITIONS

*(Insert any other terms or conditions below.)*

« »

This Agreement entered into as of the day and year first written above.

*(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)*

« »

| | |
|---|---|
| « » | « » |
| ***OWNER*** *(Signature)* | ***CONTRACTOR*** *(Printed name and title )* |
| « »« » | « »« » |
| *(Printed name and title )* | LICENSE NO.: |
| | JURISDICTION: |

## 1. GENERAL

The following supplements modify, change, delete from or add to the "Standard Short Form of Agreement Between Owner and Contractor", AIA Document A105 – 2017. Where any article of the General Conditions is modified or any Paragraph, Subparagraph or Clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

## 2. ARTICLE 1 THE CONTRACT DOCUMENTS

In the second line, after the word "Specifications" add the following: "Bid Form".

Add the following paragraphs:

### 1.1 The Project Manual

The Project Manual is the volume which includes the Bidding Documents, Sample Forms, Contract Documents and the Specifications.

### 1.2 Inconsistencies or Conflicts

In case of inconsistencies or conflict among Contract Documents, notify Architect immediately. For bidding purposes, the Contractor and Subcontractors shall include in their bid(s) the more expensive method or product.

### 1.3 Intent of the Contract Documents

**1.3.1** Whenever an article, device or piece of equipment is referred to in singular number, such reference applies to all such articles shown on Drawings or required to complete the installation.

**1.3.2** Whenever an article, device or piece of equipment is referred to, provide all accessory components, trims, covers, etc. as required for a complete installation and finished appearance.

### 1.4 Order of Precedence

In case of inconsistencies or conflict among Contract Documents, interpretations shall be based on the following priorities:

- **.1** Change Orders and other modifications.
- **.2** The Agreement.
- **.3** Addenda, with those of later date having precedence over those of earlier date.
- **.4** Supplementary Conditions.
- **.5** General Conditions of the Contract for Construction.
- **.6** Specifications.
- **.7** Drawings.
- **.8** Other documents enumerated in the Agreement as part of the Contract Documents.

### 1.5 Knowledge

The terms "knowledge", "recognize", and "discover" and their respective derivatives, and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows (or should know), recognizes (or should recognize), and discovers (or should discover) in exercising the care, skill, and diligence required by the Contract Doubments. Analogously, the expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a contractor familiar with the Project and exercising the care, skill, and diligence required of the Contractor by the Contract Documents.

## 3. ARTICLE 5 INSURANCE

**5.1.1 through 5.1.7** – Omit these paragraphs entirely.

Add the following subparagraphs:

**5.1.1** The insurance required by Paragraph 5.1 shall be written on an occurrence basis for not less than the following, or greater if required by law:

**.1** Worker's Compensation:
- **a)** State:
  Statutory
- **b)** Employers, Contingent Liability (Stop Gap):
  **$500,000**

**.2** Commercial General Liability-Occurrence Basis Form (including: Premises-Operations, Independent Contractors' Protective, Products and Completed Operations and Broad Form Property Damage):
- **a)** Bodily Injury & Property Damage:
  **$1,000,000** Each Occurrence
  **$2,000,000** Annual Aggregate
- **b)** Products and Completed Operations to be maintained for two years after final payment.
- **c)** Must be consistent with Insurance Service Office occurrence form CG 00 01.

**.3** Contractual Liability:
- **a)** Bodily Injury & Property Damage:
  **$1,000,000** Each Occurrence

**.4** Personal Injury with Employment Exclusion Deleted:
  **$1,000,000** Annual Aggregate

**.5 Comprehensive Automobile Liability (including hired and non-owned liability) :**
- **a)** Bodily Injury & Property Damage:
  **$1,000,000** Each Occurrence
- **b)** Must be consistent with Insurance Service Office occurrence form CG 00 01.

**.6** The Contractor shall obtain and keep in force during the term of the Contract, and for at least three (3) years thereafter, the above public liability and property damage insurance with companies or through sources approved by the State Insurance Commissioner pursuant to Title 48 RCW.
- **a)** The Contractor shall not commence work under the Contract or under any special condition until he has obtained all insurance required and until such insurances have been approved by the Owner.
- **b)** The Contractor shall not allow any subcontractor to commence work on his subcontract until all similar insurances required of the subcontractor have been obtained and approved. Said insurance shall provide coverage to the Contrator, any subcontractor performing work provided by this Contract, and the Owner.

**.7 The Owner, Architect and their employees and consultants shall be named as an additional insured on the commercial general liability policy. The policy shall be** endorsed to **stipulate** that no cancellation or reduction in coverage shall be made without giving (30) days advance written notice to the Owner by registered mail. Such insurance shall be primary and concurrent with any other insurance held by the Owner.

**5.1.2** The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the state in which the Project is located insurance for protection from claims under worker's compensation acts and other employee benefit acts which are applicable, claims for damages because of bodily injury, including death, and claims for damages, other than to the Work itself, to property which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater, and shall include contractual liability insurance applicable to the Contractor's obligations. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least (30) days prior written notice has been given to the Owner.

**5.1.3** The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

Add the following Subparagraphs:

**5.2.1** The Contractor shall purchase and maintain property insurance on an "all-risk" policy form, including builder's risk, in the amount of the initial Contract Sum, plus the value of subsequent modifications and cost of materials supplied and 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, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and sub-subcontractors in the Project. The Contractor shall file a copy of each policy with the Owner before an exposure to loss may occur. 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 Owner.

## 4. ARTICLE 6 GENERAL PROVISIONS

### 6.2 The Work

Add the following to end of paragraph: "Bids will be taken and awarded under a single contract including General, Mechanical, and Electrical Work as applicable."

## 5. ARTICLE 7 OWNER

### 7.1 Information and Services Required of the Owner

**7.1.2** Add the following to end of paragraph: "The Owner shall arrange and pay for any plan checking fee required by Code and other regulatory agencies. Do not include plan checking fees in the Bid."

Add the following paragraph:

### 7.5 Owner's Right to Salvage

The Owner shall have the option of claiming any material removed during the course of the Work not scheduled for reuse. All material not claimed by the Owner shall be promptly removed from the premises and be disposed by the Contractor.

## 6. ARTICLE 8 CONTRACTOR

### 8.3 Supervision And Construction Procedures

Add the following Subparagraphs:

**8.3.3** It is the Contractor's responsibility to coordinate the work of the principle Subcontractors, observing the following work schedule priority (in descending order), particularly where space is limited: 1) HVAC ductwork, 2) general plumbing work, 3) fire sprinkler plumbing work, 4) electrical work. In instances where the above priority was not observed and a conflict arises over adequate space for mechanical work, installed work shall be modified as required to allow adequate space for all work at no additional cost to the Owner.

**8.3.4** The Contractor will be responsible for determining, prior to commencement of the Work, the locations of all undergound utility lines, cables, pipelines, and similar such underground public service installations within and serving the Project site, utilizing utility locating services or other means. The Contractor will coordinate with utility and other involved third party representatives regarding utility locations and related issues, and will hand excavate or otherwise take special precautions so as to perform the Work in such a manner as to avoid damaging or interrupting the items of underground infrastructure.

### 8.6 Taxes

Add the following to end of paragraph: "Taxes to be paid include those imposed by Federal, State, County and City governments excepting only real estate taxes on the property and such taxes as applicable shall be included in the proposal sums. The State retail sales tax is not permitted to be included in the proposal sums; the Owner will pay sales taxes proportionately with each periodic and final payment request in addition to the amount allowed on the payment certificate and Contractor shall pay such taxes to the authority as required by law.

### 8.7 Permits, Fees and Notices

**8.7.1** Add the following to end of paragraph: "Each Subcontractor shall secure and pay for all special permits, fees and licenses for his/her work."

Add the following paragraph:

### 8.13 Subcontracts

The Architect is not bound to define the limits of any Subcontract, and will not enter into disputes between the Contractor and his employees, including Subcontractors.

## 7. ARTICLE 10 CHANGES IN THE WORK

Add the following paragraphs:

**10.4** The allowance for overhead and profit combined, included in the total cost to the Owner, shall be limited as follows:

- **.1** For the Contractor, for any work performed by the Contractor's own forces, (12) percent
- **.2** For each Subcontractor, for any work performed by the Subcontractor's own forces, (12) percent
- **.3** For the Contractor, for any work performed by its Subcontractor(s), (8) percent
- **.4** For each Subcontractor, for any work performed by its lower tier Subcontractor(s), (8) percent.

**10.5** The allowance for bonds and insurance, combined, shall be limited to (2) percent.

## 8. ARTICLE 11 TIME

Add the following paragraphs:

**11.4 Liquidated Damages**

**11.4.1** Because the Owner finds it impractical to calculate the actual cost of delays, he/she has adopted the following schedule of liquidated damages for failure to complete the Contract on time. Accordingly, the Contractor agrees:

- **.1** to pay (according to the schedule below) liquidated damages for each working day beyond the contract deadline date for completion, and
- **.2** to authorize the Owner to deduct these liquidated damages from any money due or coming due to the Contractor.

| ORIGINAL CONTRACT AMOUNT | | LIQUIDATED DAMAGES |
|---|---|---|
| From More Than | To And Including | Per Working Day |
| $ 0 | $ 25,000 | $75 |
| 25,001 | 50,000 | 150 |
| 50,001 | 100,000 | 200 |
| 100,001 | 500,000 | 250 |
| 500,001 | 1,000,000 | 500 |

**11.4.2** For overruns in Contract time occurring after the Date of Substantial Completion, the schedule of liquidated damages listed above will not apply. After the Substantial Completion Date, Liquidated Damages shall be assessed on the basis of direct engineering and related costs assignable to the project from the Date of Substantial Completion to the date of actual completion of all the Contract Work. The Contractor shall complete the remaining work as promptly as possible. Upon request by the Architect, the Contractor shall furnish a written schedule for completing the Contract.

**11.4.3** Liquidated Damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of Liquidated Damages will, in any degree, release the Contractor from further obligations and liabilities to complete the entire Contract.

## 9. ARTICLE 12 PAYMENTS & COMPLETION

**12.2 Applications for Payment**

**12.2.1** Add the following to end of paragraph: “Once each calendar month, the Owner will make partial payment to the Contractor on the basis of a duly certified approved estimate of the work performed during the preceding calendar month. A sum equal to (5) percent of such estimate shall be retained.

**12.4 Progress Payments**

**12.4.2** Add the following to end of paragraph: “Each calendar month, the Contractor shall submit invoices to be received by the Owner by the first business day of each month for all work completed in the prior month. Owner will pay Contractor for all invoices received by the first business day of each month within (30) days of receipt of invoice. Owner will pay for invoices received after the first business day of each month in accordance with its normal payment schedule.”

## 10. ARTICLE 15 MISCELLANEOUS PROVISIONS

Add the following paragraphs:

**15.3 Governing Law**

Add the following to the end of the paragraph: " Any notice of demand for arbitration shall be filed with the Seattle, Washington office of the American Arbitration Association in addition to the other parties named herein above."

**15.4 Bonds**

Contractor shall secure, include costs therefore in the Bid, and pay for performance, labor/material payment and maintenance bonds issued by a bonding company with a Best's rating of "A" or better and licensed to transact business in the State of Washington in Statutory Form. Other bond forms will not be acceptable. Liability under each of the bonds shall be 100 percent of contract sum (including state sales tax) for:

**.1** Performance.
**.2** Labor/material Payment.
**.3** One Years maintenance for correction of defective work.

**15.5** All work under this Contract shall be performed pursuant to public policy of the State of Washington, as set forth in Chapter 49.28 RCW, as amended, requiring that public work be performed in work days of not more than eight hours each, except in extraordinary emergency. The provisions of said Chapter 49.28 RCW, as amended, are by reference incorporated and made a part hereof. Pursuant to the provisions of Sections 49.28.050 and 49.28.060 RCW, the Owner may cancel the Agreement in case the Work is not performed in accordance with the said policy.

**15.6** The Contractor and all Subcontractors are hereby notified that the Owner will affirmatively insure that all minority business enterprises will be afforded full opportunity to participate in this Project, and will not be discriminated against on the grounds of race, color, sex or national origin. Comply with Chapter 49.60 RCW in all activities relating to this Contract.

**15.7** Before commencement of work on a public works contract, each Contractor and Subcontractor shall file with the Owner and with the Director of Labor and Industries a Statement of Intent to Pay Prevailing Wages (S.F. No. L.I. 700-29) including fringe benefits; to be followed at the conclusion of the contract, before release of the retained percentage, with the submission of an Affidavit of Wages accordance with RCW 39.12.040. Contractor(s) shall pay to the Department of Labor and Industries Department all required fees and shall include the above costs in the Base Bid. Contractor is responsible for obtaining and filing these forms for his/her Subcontractors.

**15.7.1** Contractor shall verify current Prevailing Wage Rates and Benefit Code Key as required by RCW 39.12.022 and as furnished by the State of Washington Department of Labor and Industries (Employment Standards Division). The Dept. of Labor and Industries website is: http://www.lni.wa.gov/tradeslicensing/prevwage/wagerates.

**15.7.2** Contractor shall verify apprenticeship requirements as required by the Contract Documents. Dept. of Labor and Industries website is: https://fortress.wa.gov/lni/wagelookup/ApprenticeWageLookup.aspx.

**15.7.3** Per Section 2 of WAC 296-127-011, for all contracts, except Building Services Maintenance Contracts, the Prevailing Wage Rates which are in effect on the date when the bids by the Prime Contractor are required to be submitted to the Contract Awarding Agency are the prevailing wage rates which must be paid for the duration of the Contract.

**15.8** Pursuant to Chapter 62, Laws of 1973, 1st Ex. Sess., those provisions of Federal, State and local statutes, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that affect of are affected by the herein described Project are, to the extent they are reasonably obtainable, as follows: RCW 43.21C, 030; RCW 90.58.140; RCW 90.58.320; and RCW 70.94.152. Conform with the provisions therefore.

END, SECTION 00 73 00

# State of Washington
# Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

## Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

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## Journey Level Prevailing Wage Rates for the Effective Date: 9/1/2023

| County | Trade | Job Classification | Wage | Holiday | Overtime | Note | *Risk Class |
|---|---|---|---|---|---|---|---|
| Grays Harbor | Asbestos Abatement Workers | Journey Level | $59.07 | 5D | 1H | | View |
| Grays Harbor | Boilermakers | Journey Level | $74.29 | 5N | 1C | | View |
| Grays Harbor | Brick Mason | Journey Level | $69.07 | 7E | 1N | | View |
| Grays Harbor | Brick Mason | Pointer-Caulker-Cleaner | $69.07 | 7E | 1N | | View |
| Grays Harbor | Building Service Employees | Janitor | $15.74 | | 1 | | View |
| Grays Harbor | Building Service Employees | Shampooer | $15.74 | | 1 | | View |
| Grays Harbor | Building Service Employees | Waxer | $15.74 | | 1 | | View |
| Grays Harbor | Building Service Employees | Window Cleaner | $15.74 | | 1 | | View |
| Grays Harbor | Cabinet Makers (In Shop) | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Carpenters | Acoustical Worker | $74.96 | 15J | 4C | | View |
| Grays Harbor | Carpenters | Bridge, Dock And Wharf Carpenters | $74.96 | 15J | 4C | | View |
| Grays Harbor | Carpenters | Floor Layer & Floor Finisher | $74.96 | 15J | 4C | | View |
| Grays Harbor | Carpenters | Journey Level | $74.96 | 15J | 4C | | View |
| Grays Harbor | Carpenters | Scaffold Erector | $74.96 | 15J | 4C | | View |
| Grays Harbor | Cement Masons | Application of all Composition Mastic | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Application of all Epoxy Material | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Application of all Plastic Material | $72.87 | 15J | 4U | | View |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Grays Harbor | Cement Masons | Application of Sealing Compound | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Application of Underlayment | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Building General | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Composition or Kalman Floors | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Concrete Paving | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Curb & Gutter Machine | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Curb & Gutter, Sidewalks | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Curing Concrete | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Finish Colored Concrete | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Floor Grinding | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Floor Grinding/Polisher | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Green Concrete Saw, self-powered | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Grouting of all Plates | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Grouting of all Tilt-up Panels | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Gunite Nozzleman | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Hand Powered Grinder | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Journey Level | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Patching Concrete | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Pneumatic Power Tools | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Power Chipping & Brushing | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Sand Blasting Architectural Finish | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Screed & Rodding Machine | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Spackling or Skim Coat Concrete | $72.37 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Troweling Machine Operator | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Troweling Machine Operator on Colored Slabs | $72.87 | 15J | 4U | | View |
| Grays Harbor | Cement Masons | Tunnel Workers | $72.87 | 15J | 4U | | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Divers & Tenders | Bell/Vehicle or Submersible Operator (Not Under Pressure) | $129.71 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Dive Supervisor/Master | $93.94 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Diver | $129.71 | 15J | 4C | 8V | View |
| Grays Harbor | Divers & Tenders | Diver On Standby | $88.94 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Diver Tender | $80.82 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI | $93.26 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI | $98.26 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI | $102.26 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI | $107.26 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI | $109.76 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI | $114.76 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI | $116.76 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI | $118.76 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI | $120.76 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Manifold Operator | $80.82 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Manifold Operator Mixed Gas | $85.82 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Remote Operated Vehicle Operator/Technician | $80.82 | 15J | 4C | | View |
| Grays Harbor | Divers & Tenders | Remote Operated Vehicle Tender | $75.41 | 15J | 4C | | View |
| Grays Harbor | Dredge Workers | Assistant Engineer | $79.62 | 5D | 3F | | View |
| Grays Harbor | Dredge Workers | Assistant Mate (Deckhand) | $79.01 | 5D | 3F | | View |
| Grays Harbor | Dredge Workers | Boatmen | $79.62 | 5D | 3F | | View |
| Grays Harbor | Dredge Workers | Engineer Welder | $81.15 | 5D | 3F | | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Dredge Workers | Leverman, Hydraulic | $82.77 | 5D | 3F | | View |
| Grays Harbor | Dredge Workers | Mates | $79.62 | 5D | 3F | | View |
| Grays Harbor | Dredge Workers | Oiler | $79.01 | 5D | 3F | | View |
| Grays Harbor | Drywall Applicator | Journey Level | $74.96 | 15J | 4C | | View |
| Grays Harbor | Drywall Tapers | Journey Level | $74.50 | 5P | 1E | | View |
| Grays Harbor | Electrical Fixture Maintenance Workers | Journey Level | $82.57 | 5C | 1G | | View |
| Grays Harbor | Electricians - Inside | Cable Splicer | $88.45 | 5C | 1G | | View |
| Grays Harbor | Electricians - Inside | Journey Level | $82.57 | 5C | 1G | | View |
| Grays Harbor | Electricians - Inside | Lead Covered Cable Splicer | $94.34 | 5C | 1G | | View |
| Grays Harbor | Electricians - Inside | Welder | $88.45 | 5C | 1G | | View |
| Grays Harbor | Electricians - Motor Shop | Journey Level | $34.55 | 5C | 1I | | View |
| Grays Harbor | Electricians - Powerline Construction | Cable Splicer | $93.00 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Certified Line Welder | $85.42 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Groundperson | $55.27 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Heavy Line Equipment Operator | $85.42 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Journey Level Lineperson | $85.42 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Line Equipment Operator | $73.35 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Meter Installer | $55.27 | 5A | 4D | 8W | View |
| Grays Harbor | Electricians - Powerline Construction | Pole Sprayer | $85.42 | 5A | 4D | | View |
| Grays Harbor | Electricians - Powerline Construction | Powderperson | $63.50 | 5A | 4D | | View |
| Grays Harbor | Electronic Technicians | Journey Level | $53.46 | 6Z | 1B | | View |
| Grays Harbor | Elevator Constructors | Mechanic | $107.49 | 7D | 4A | | View |
| Grays Harbor | Elevator Constructors | Mechanic In Charge | $116.13 | 7D | 4A | | View |
| Grays Harbor | Fabricated Precast Concrete Products | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Fabricated Precast Concrete Products | Journey Level - In-Factory Work Only | $15.74 | | 1 | | View |
| Grays Harbor | Fence Erectors | Fence Erector | $50.07 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Fence Erectors | Fence Laborer | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Flaggers | Journey Level | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Glaziers | Journey Level | $28.66 | 5R | 1Z | | View |
| Grays Harbor | Heat & Frost Insulators And Asbestos Workers | Journey Level | $87.15 | 15H | 11C | | View |
| Grays Harbor | Heating Equipment Mechanics | Journey Level | $96.42 | 7F | 1E | | View |
| Grays Harbor | Hod Carriers & Mason Tenders | Journey Level | $62.49 | 15J | 4V | 8Y | View |
| Grays Harbor | Industrial Power Vacuum Cleaner | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Inland Boatmen | Boat Operator | $61.41 | 5B | 1K | | View |
| Grays Harbor | Inland Boatmen | Cook | $56.48 | 5B | 1K | | View |
| Grays Harbor | Inland Boatmen | Deckhand | $57.48 | 5B | 1K | | View |
| Grays Harbor | Inland Boatmen | Deckhand Engineer | $58.81 | 5B | 1K | | View |
| Grays Harbor | Inland Boatmen | Launch Operator | $58.89 | 5B | 1K | | View |
| Grays Harbor | Inland Boatmen | Mate | $57.31 | 5B | 1K | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Cleaner Operator | $49.48 | 15M | 11O | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Foamer Operator | $49.48 | 15M | 11O | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Grout Truck Operator | $49.48 | 15M | 11O | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Head Operator | $47.41 | 15M | 11O | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Technician | $41.20 | 15M | 11O | | View |
| Grays Harbor | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | TV Truck Operator | $44.31 | 15M | 11O | | View |
| Grays Harbor | Insulation Applicators | Journey Level | $74.96 | 15J | 4C | | View |
| Grays Harbor | Ironworkers | Journeyman | $85.80 | 15K | 11N | | View |
| Grays Harbor | Laborers | Air, Gas Or Electric Vibrating Screed | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Airtrac Drill Operator | $60.90 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Laborers | Ballast Regular Machine | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Batch Weighman | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Brick Pavers | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Brush Cutter | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Brush Hog Feeder | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Burner | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Caisson Worker | $60.90 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Carpenter Tender | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Cement Dumper-paving | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Cement Finisher Tender | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Change House Or Dry Shack | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Chipping Gun (30 Lbs. And Over) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Chipping Gun (Under 30 Lbs.) | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Choker Setter | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Chuck Tender | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Clary Power Spreader | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Clean-up Laborer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Concrete Dumper/Chute Operator | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Concrete Form Stripper | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Concrete Placement Crew | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Concrete Saw Operator/Core Driller | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Crusher Feeder | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Curing Laborer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Demolition: Wrecking & Moving (Incl. Charred Material) | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Ditch Digger | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Diver | $60.90 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Laborers | Drill Operator (Hydraulic, Diamond) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Dry Stack Walls | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Dump Person | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Epoxy Technician | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Erosion Control Worker | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Faller & Bucker Chain Saw | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Fine Graders | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Firewatch | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Form Setter | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Gabian Basket Builders | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | General Laborer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Grade Checker & Transit Person | $62.49 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Grinders | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Grout Machine Tender | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Groutmen (Pressure) Including Post Tension Beams | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Guardrail Erector | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Hazardous Waste Worker (Level A) | $60.90 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Hazardous Waste Worker (Level B) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Hazardous Waste Worker (Level C) | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | High Scaler | $60.90 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Jackhammer | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Laserbeam Operator | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Maintenance Person | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Manhole Builder-Mudman | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Material Yard Person | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Mold Abatement Worker | $59.07 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Laborers | Motorman-Dinky Locomotive | $62.59 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster) | $62.49 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pavement Breaker | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pilot Car | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pipe Layer (Lead) | $62.49 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pipe Layer/Tailor | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pipe Pot Tender | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pipe Reliner | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pipe Wrapper | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Pot Tender | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Powderman | $60.90 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Powderman's Helper | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Power Jacks | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Railroad Spike Puller - Power | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Raker - Asphalt | $62.49 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Re-timberman | $60.90 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Remote Equipment Operator | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Rigger/Signal Person | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Rip Rap Person | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Rivet Buster | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Rodder | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Scaffold Erector | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Scale Person | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Sloper (Over 20") | $60.15 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Laborers | Sloper Sprayer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Spreader (Concrete) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Stake Hopper | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Stock Piler | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Swinging Stage/Boatswain Chair | $50.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Tamper & Similar Electric, Air & Gas Operated Tools | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Tamper (Multiple & Self-propelled) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Timber Person - Sewer (Lagger, Shorer & Cribber) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Toolroom Person (at Jobsite) | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Topper | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Track Laborer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Track Liner (Power) | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Traffic Control Laborer | $53.54 | 15J | 4V | 9C | View |
| Grays Harbor | Laborers | Traffic Control Supervisor | $56.73 | 15J | 4V | 9C | View |
| Grays Harbor | Laborers | Truck Spotter | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Tugger Operator | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 0-30 psi | $175.79 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 30.01-44.00 psi | $180.82 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 44.01-54.00 psi | $184.50 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 54.01-60.00 psi | $190.20 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 60.01-64.00 psi | $192.32 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 64.01-68.00 psi | $197.42 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 68.01-70.00 psi | $199.32 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 70.01-72.00 psi | $201.32 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Compressed Air Worker 72.01-74.00 psi | $203.32 | 15J | 4V | 9B | View |
| Grays Harbor | Laborers | Tunnel Work-Guage and Lock Tender | $62.59 | 15J | 4V | 8Y | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Laborers | Tunnel Work-Miner | $62.59 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Vibrator | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Vinyl Seamer | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Watchman | $45.51 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Welder | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Well Point Laborer | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers | Window Washer/Cleaner | $45.51 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers - Underground Sewer & Water | General Laborer & Topman | $59.07 | 15J | 4V | 8Y | View |
| Grays Harbor | Laborers - Underground Sewer & Water | Pipe Layer | $60.15 | 15J | 4V | 8Y | View |
| Grays Harbor | Landscape Construction | Landscape Construction/Landscaping Or Planting Laborers | $45.51 | 15J | 4V | 8Y | View |
| Grays Harbor | Landscape Construction | Landscape Operator | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Landscape Maintenance | Groundskeeper | $15.74 | | 1 | | View |
| Grays Harbor | Lathers | Journey Level | $74.96 | 15J | 4C | | View |
| Grays Harbor | Marble Setters | Journey Level | $69.07 | 7E | 1N | | View |
| Grays Harbor | Metal Fabrication (In Shop) | Fitter | $15.74 | | 1 | | View |
| Grays Harbor | Metal Fabrication (In Shop) | Laborer | $15.74 | | 1 | | View |
| Grays Harbor | Metal Fabrication (In Shop) | Machine Operator | $15.74 | | 1 | | View |
| Grays Harbor | Metal Fabrication (In Shop) | Painter | $15.74 | | 1 | | View |
| Grays Harbor | Metal Fabrication (In Shop) | Welder | $15.74 | | 1 | | View |
| Grays Harbor | Millwright | Journey Level | $76.51 | 15J | 4C | | View |
| Grays Harbor | Modular Buildings | Cabinet Assembly | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Electrician | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Equipment Maintenance | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Plumber | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Production Worker | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Tool Maintenance | $15.74 | | 1 | | View |

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| Grays Harbor | Modular Buildings | Utility Person | $15.74 | | 1 | | View |
| Grays Harbor | Modular Buildings | Welder | $15.74 | | 1 | | View |
| Grays Harbor | Painters | Journey Level | $51.71 | 6Z | 11J | | View |
| Grays Harbor | Pile Driver | Crew Tender | $80.82 | 15J | 4C | | View |
| Grays Harbor | Pile Driver | Journey Level | $75.41 | 15J | 4C | | View |
| Grays Harbor | Plasterers | Journey Level | $70.91 | 7Q | 1R | | View |
| Grays Harbor | Plasterers | Nozzleman | $74.91 | 7Q | 1R | | View |
| Grays Harbor | Playground & Park Equipment Installers | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Plumbers & Pipefitters | Journey Level | $85.72 | 5A | 1G | | View |
| Grays Harbor | Power Equipment Operators | Asphalt Plant Operators | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Assistant Engineer | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Barrier Machine (zipper) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Batch Plant Operator: concrete | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Boat Operator | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Bobcat | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Brokk - Remote Demolition Equipment | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Brooms | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Bump Cutter | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Cableways | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Chipper | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Compressor | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Concrete Finish Machine - Laser Screed | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Concrete Pump: Truck Mount With Boom Attachment Over 42 M | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Concrete Pump: Truck Mount With Boom Attachment Up To 42m | $79.31 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators | Conveyors | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes Friction: 200 tons and over | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes, A-frame: 10 tons and under | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments) | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: 20 tons through 44 tons with attachments | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: 300 tons and over or 300' of boom including jib with attachments | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments) | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: Friction cranes through 199 tons | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Cranes: through 19 tons with attachments, a-frame over 10 tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Crusher | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Deck Engineer/Deck Winches (power) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Derricks, On Building Work | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Dozers D-9 & Under | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Drill Oilers: Auger Type, Truck Or Crane Mount | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Drilling Machine | $80.82 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Elevator and man-lift: permanent and shaft type | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Finishing Machine, Bidwell And Gamaco & Similar Equipment | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Forklift: 3000 lbs and over with attachments | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Forklifts: under 3000 lbs. with attachments | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Grade Engineer: Using Blue Prints, Cut Sheets, Etc | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Gradechecker/Stakeman | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Guardrail Punch | $79.31 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators | Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Horizontal/Directional Drill Locator | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Horizontal/Directional Drill Operator | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Hydralifts/Boom Trucks Over 10 Tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Hydralifts/boom trucks: 10 tons and under | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Leverman | $81.65 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Loader, Overhead, 6 Yards. But Not Including 8 Yards | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Loaders, Overhead Under 6 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Loaders, Plant Feed | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Loaders: Elevating Type Belt | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Locomotives, All | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Material Transfer Device | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Mechanics: All (Leadmen - $0.50 per hour over mechanic) | $80.82 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Motor Patrol Graders | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Oil Distributors, Blower Distribution & Mulch Seeding Operator | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Overhead, bridge type Crane: 20 tons through 44 tons | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Overhead, bridge type: 100 tons and over | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Overhead, bridge type: 45 tons through 99 tons | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Pavement Breaker | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Pile Driver (other Than Crane Mount) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Plant Oiler - Asphalt, Crusher | $78.71 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators | Posthole Digger, Mechanical | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Power Plant | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Pumps - Water | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Quad 9, Hd 41, D10 And Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Quick Tower: no cab, under 100 feet in height base to boom | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Remote Control Operator On Rubber Tired Earth Moving Equipment | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Rigger and Bellman | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Rigger/Signal Person, Bellman(Certified) | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Rollagon | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Roller, Other Than Plant Mix | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Roller, Plant Mix Or Multi-lift Materials | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Roto-mill, Roto-grinder | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Saws - Concrete | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Scraper, Self Propelled Under 45 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Scrapers - Concrete & Carry All | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Scrapers, Self-propelled: 45 Yards And Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Service Engineers: Equipment | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shotcrete/Gunite Equipment | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons | $80.82 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Shovel, Excavator, Backhoes: Over 90 Metric Tons | $81.65 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Slipform Pavers | $80.02 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators | Spreader, Topsider & Screedman | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Subgrader Trimmer | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Tower Bucket Elevators | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Tower Crane: over 175' through 250' in height, base to boom | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Tower crane: up to 175' in height base to boom | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Tower Cranes: over 250' in height from base to boom | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Transporters, All Track Or Truck Type | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Trenching Machines | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Truck Crane Oiler/Driver: 100 tons and over | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Truck crane oiler/driver: under 100 tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators | Truck Mount Portable Conveyor | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Vac Truck (Vactor Guzzler, Hydro Excavator) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Welder | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Wheel Tractors, Farmall Type | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators | Yo Yo Pay Dozer | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Asphalt Plant Operators | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Assistant Engineer | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Barrier Machine (zipper) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Batch Plant Operator, Concrete | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Boat Operator | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Bobcat | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Brokk - Remote Demolition Equipment | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Brooms | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Bump Cutter | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cableways | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Chipper | $79.31 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Compressor | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Concrete Finish Machine - Laser Screed | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Concrete Pump: Truck Mount With Boom Attachment Over 42 M | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Concrete Pump: Truck Mount With Boom Attachment Up To 42m | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Conveyors | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes Friction: 200 tons and over | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes, A-frame: 10 tons and under | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments) | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 20 tons through 44 tons with attachments | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 20 tons through 44 tons with attachments | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 300 tons and over or 300' of boom including jib with attachments | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments) | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: Friction cranes through 199 tons | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Cranes: through 19 tons with attachments, a-frame over 10 tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Crusher | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Deck Engineer/Deck Winches (power) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Derricks, On Building Work | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Dozers D-9 & Under | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Drill Oilers: Auger Type, Truck Or Crane Mount | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Drilling Machine | $80.82 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Elevator and man-lift: permanent and shaft type | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Finishing Machine, Bidwell And Gamaco & Similar Equipment | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Forklift: 3000 lbs and over with attachments | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Forklifts: under 3000 lbs. with attachments | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Grade Engineer: Using Blue Prints, Cut Sheets, Etc | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Gradechecker/Stakeman | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Guardrail Punch | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Horizontal/Directional Drill Locator | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Horizontal/Directional Drill Operator | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Hydralifts/boom trucks: 10 tons and under | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Hydralifts/boom trucks: over 10 tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Leverman | $81.65 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Loader, Overhead, 6 Yards. But Not Including 8 Yards | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Loaders, Overhead Under 6 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Loaders, Plant Feed | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Loaders: Elevating Type Belt | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Locomotives, All | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Material Transfer Device | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Mechanics: All (Leadmen - $0.50 per hour over mechanic) | $80.82 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Motor Patrol Graders | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Oil Distributors, Blower Distribution & Mulch Seeding Operator | $75.26 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Overhead, bridge type Crane: 20 tons through 44 tons | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Overhead, bridge type: 100 tons and over | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Overhead, bridge type: 45 tons through 99 tons | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Pavement Breaker | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Pile Driver (other Than Crane Mount) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Plant Oiler - Asphalt, Crusher | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Posthole Digger, Mechanical | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Power Plant | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Pumps - Water | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Quad 9, Hd 41, D10 And Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Quick Tower: no cab, under 100 feet in height base to boom | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Remote Control Operator On Rubber Tired Earth Moving Equipment | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Rigger and Bellman | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Rigger/Signal Person, Bellman(Certified) | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Rollagon | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Roller, Other Than Plant Mix | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Roller, Plant Mix Or Multi-lift Materials | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Roto-mill, Roto-grinder | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Saws - Concrete | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Scraper, Self Propelled Under 45 Yards | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Scrapers - Concrete & Carry All | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Scrapers, Self-propelled: 45 Yards And Over | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shotcrete/Gunite Equipment | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons | $78.71 | 15J | 11G | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons | $80.82 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoes: Over 90 Metric Tons | $81.65 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Slipform Pavers | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Spreader, Topsider & Screedman | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Subgrader Trimmer | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Tower Bucket Elevators | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Tower Crane: over 175' through 250' in height, base to boom | $81.69 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Tower crane: up to 175' in height base to boom | $80.86 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Tower Cranes: over 250' in height from base to boom | $82.49 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Transporters, All Track Or Truck Type | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Trenching Machines | $78.71 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Truck Crane Oiler/Driver: 100 tons and over | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Truck Crane Oiler/Driver: 100 tons and over | $79.35 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Truck crane oiler/driver: under 100 tons | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Truck Mount Portable Conveyor | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Vac Truck (Vactor Guzzler, Hydro Excavator) | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Welder | $80.02 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Wheel Tractors, Farmall Type | $75.26 | 15J | 11G | 8X | View |
| Grays Harbor | Power Equipment Operators-Underground Sewer & Water | Yo Yo Pay Dozer | $79.31 | 15J | 11G | 8X | View |
| Grays Harbor | Power Line Clearance Tree Trimmers | Journey Level In Charge | $57.22 | 5A | 4A | | View |
| Grays Harbor | Power Line Clearance Tree Trimmers | Spray Person | $54.32 | 5A | 4A | | View |
| Grays Harbor | Power Line Clearance Tree Trimmers | Tree Equipment Operator | $57.22 | 5A | 4A | | View |
| Grays Harbor | Power Line Clearance Tree Trimmers | Tree Trimmer | $51.18 | 5A | 4A | | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Power Line Clearance Tree Trimmers | Tree Trimmer Groundperson | $38.99 | 5A | 4A | | View |
| Grays Harbor | Refrigeration & Air Conditioning Mechanics | Journey Level | $87.46 | 5A | 1G | | View |
| Grays Harbor | Residential Brick Mason | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Carpenters | Journey Level | $28.10 | | 1 | | View |
| Grays Harbor | Residential Cement Masons | Journey Level | $25.84 | | 1 | | View |
| Grays Harbor | Residential Drywall Applicators | Journey Level | $49.92 | 15J | 4C | | View |
| Grays Harbor | Residential Drywall Tapers | Journey Level | $21.62 | | 1 | | View |
| Grays Harbor | Residential Electricians | Journey Level | $43.03 | 6Z | 1B | | View |
| Grays Harbor | Residential Glaziers | Journey Level | $28.66 | 5R | 1Z | | View |
| Grays Harbor | Residential Insulation Applicators | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Laborers | Journey Level | $24.48 | | 1 | | View |
| Grays Harbor | Residential Marble Setters | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Painters | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Plumbers & Pipefitters | Journey Level | $26.35 | | 1 | | View |
| Grays Harbor | Residential Refrigeration & Air Conditioning Mechanics | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Sheet Metal Workers | Journey Level | $96.42 | 7F | 1E | | View |
| Grays Harbor | Residential Soft Floor Layers | Journey Level | $57.11 | 5A | 3J | | View |
| Grays Harbor | Residential Sprinkler Fitters (Fire Protection) | Journey Level | $19.42 | | 1 | | View |
| Grays Harbor | Residential Stone Masons | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Terrazzo Workers | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Terrazzo/Tile Finishers | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Residential Tile Setters | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Roofers | Journey Level | $60.90 | 5A | 3H | | View |
| Grays Harbor | Roofers | Using Irritable Bituminous Materials | $63.90 | 5A | 3H | | View |
| Grays Harbor | Sheet Metal Workers | Journey Level (Field or Shop) | $96.42 | 7F | 1E | | View |
| Grays Harbor | Shipbuilding & Ship Repair | New Construction Heat & Frost Insulator | $87.15 | 15H | 11C | | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Boilermaker | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Carpenter | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Crane Operator | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Electrician | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Heat & Frost Insulator | $87.15 | 15H | 11C | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Laborer | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Machinist | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Operating Engineer | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Painter | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Pipefitter | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Rigger | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Sheet Metal | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Shipwright | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Shipbuilding & Ship Repair | Ship Repair Warehouse / Teamster | $45.06 | 7Y | 4K | | View |
| Grays Harbor | Sign Makers & Installers (Electrical) | Journey Level | $18.04 | | 1 | | View |
| Grays Harbor | Sign Makers & Installers (Non-Electrical) | Journey Level | $18.04 | | 1 | | View |
| Grays Harbor | Soft Floor Layers | Journey Level | $66.32 | 15J | 4C | | View |
| Grays Harbor | Solar Controls For Windows | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Sprinkler Fitters (Fire Protection) | Journey Level | $72.57 | 7J | 1R | | View |
| Grays Harbor | Stage Rigging Mechanics (Non Structural) | Journey Level | $15.74 | | 1 | | View |
| Grays Harbor | Stone Masons | Journey Level | $69.07 | 7E | 1N | | View |
| Grays Harbor | Street And Parking Lot Sweeper Workers | Journey Level | $16.00 | | 1 | | View |
| Grays Harbor | Surveyors | Assistant Construction Site Surveyor | $78.74 | 7A | 11H | 8X | View |
| Grays Harbor | Surveyors | Chainman | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Surveyors | Construction Site Surveyor | $80.05 | 7A | 11H | 8X | View |
| Grays Harbor | Surveyors | Drone Operator (when used in conjunction with survey work only) | $75.29 | 7A | 11H | 8X | View |

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|---|---|---|---|---|---|---|---|
| Grays Harbor | Surveyors | Ground Penetrating Radar Operator | $75.29 | 7A | 11H | 8X | View |
| Grays Harbor | Telecommunication Technicians | Journey Level | $53.46 | 6Z | 1B | | View |
| Grays Harbor | Telephone Line Construction - Outside | Cable Splicer | $40.11 | 5A | 2B | | View |
| Grays Harbor | Telephone Line Construction - Outside | Hole Digger/Ground Person | $26.67 | 5A | 2B | | View |
| Grays Harbor | Telephone Line Construction - Outside | Telephone Equipment Operator (Light) | $33.49 | 5A | 2B | | View |
| Grays Harbor | Telephone Line Construction - Outside | Telephone Lineperson | $37.90 | 5A | 2B | | View |
| Grays Harbor | Terrazzo Workers | Journey Level | $62.36 | 7E | 1N | | View |
| Grays Harbor | Tile Setters | Journey Level | $62.36 | 7E | 1N | | View |
| Grays Harbor | Tile, Marble & Terrazzo Finishers | Finisher | $53.19 | 7E | 1N | | View |
| Grays Harbor | Traffic Control Stripers | Journey Level | $89.54 | 15L | 1K | | View |
| Grays Harbor | Truck Drivers | Asphalt Mix Over 16 Yards | $74.20 | 15J | 11M | 8L | View |
| Grays Harbor | Truck Drivers | Asphalt Mix To 16 Yards | $73.36 | 15J | 11M | 8L | View |
| Grays Harbor | Truck Drivers | Dump Truck | $73.36 | 15J | 11M | 8L | View |
| Grays Harbor | Truck Drivers | Dump Truck & Trailer | $74.20 | 15J | 11M | 8L | View |
| Grays Harbor | Truck Drivers | Other Trucks | $74.20 | 15J | 11M | 8L | View |
| Grays Harbor | Truck Drivers - Ready Mix | Transit Mix | $74.20 | 15J | 11M | 8L | View |
| Grays Harbor | Well Drillers & Irrigation Pump Installers | Irrigation Pump Installer | $15.74 | | 1 | | View |
| Grays Harbor | Well Drillers & Irrigation Pump Installers | Oiler | $15.74 | | 1 | | View |
| Grays Harbor | Well Drillers & Irrigation Pump Installers | Well Driller | $15.74 | | 1 | | View |

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## Overtime Codes

**Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

## Overtime Codes Continued

1. O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer)) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

## Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

## Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

## Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

## Overtime Codes Continued

4. V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

## Overtime Codes Continued

11. D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

## Overtime Codes Continued

11. J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

## Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

   B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

   C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

   D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

   H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

   I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

   K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

   L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

   N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

   P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

   Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

   R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

   S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

   Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

   H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

## Holiday Codes Continued

6. T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

   Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

   B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

   H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

   I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

## Holiday Codes Continued

7. J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

## Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

## Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

## Note Codes Continued

8. S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: $2.00, Class B Suit: $1.50, And Class C Suit: $1.00. Workers performing underground work receive an additional $0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional $0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional $0.50 per hour.

V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

## Note Codes Continued

8. Z. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

9. A. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

## Note Codes Continued

9. E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. RELATED WORK

1. Section 01 22 00: Unit Prices.
2. Section 01 23 00: Alternates.

1.3. WORK INCLUDED

Provide all labor, materials and equipment required to complete all the Work under a single, lump sum contract for Maintenance Building Remodel, located at 705 30th Street, Hoquiam, Washington, as shown on the Drawings and described in the Project Manual. Items of the Work include, but are not limited to:

1. Relocate Dispatch area to former Meeting Room.
2. Expand driver's lounge into former Dispatch area.
3. Convert existing Work Room to restroom facility with (2) standard private toilet stalls, (1) accessible private toilet stall, and common lavatory area.
4. Create File Room on upper floor.
5. Remove and relocate existing tackboards and whiteboards and reinstall as directed by Owner.
6. Asbestos abatement.

1.4. WORK NOT INCLUDED

The following items of work will be performed by others, under separate contract, and are not included in this Contract. The Contractor is responsible for storing, if requested, separate contract equipment. The Contractor is responsible for coordinating related work of the Contract with separate contract work. The Contractor shall provide all preparatory work necessary for proper installation of separate contract items including: blocking and backing, and shall provide all finish work necessary for proper installation of separate contract items including: caulking, grouting, furring and painting adjacent surfaces.

1. Privacy screen in Hall-121.
2. Radio equipment and associated
3. Voice/data cabling and all terminations.
4. Moving furniture and equipment, unless shown otherwise.
5. All other items shown on the Drawings and/or described in the Project Manual as "NIC" (not in contract).

1.5. HAZARDOUS MATERIALS SURVEY

See Appendix for Good Faith Hazardous Materials Survey conducted by EnviroTech, dated May 31, 2023..

1.6. WORK PARAMETERS

1. Owner's Operation: Contractor shall make every effort to minimize disruption to Owner's operations during the construction period. Drivers and dispatch schedule is:
   a. Monday through Friday: 4:30A to 11:00P.
   b. Saturday and Sunday: 7:00A to 9:30P.
2. Construction Access: All exterior points of access to Owner's operation shall be accessible and useable for normal daytime operations, Monday through Friday.
3. Construction Hours: Most construction activity may commence at 7:00 a.m. and shall conclude at 5:30 p.m., Monday through Friday. Saw cutting, jack hammering and other loud activities shall be limited to 11:00 p.m. to 4:30 a.m., Monday through Friday, and 5:30 p.m. to 6:30 a.m. Saturday and Sunday.

4. The Owner shall have the right to require alternative scheduling or sequencing of Work without penalty nor modification to Contract Time nor Contract Sum when necessary to prevent disruption of Owner's occupancy and/or operation.
5. Smoking will not be permitted inside any project buildings. Smoking will not be permitted within (25) feet of any building entrance.
6. The Contract price shall include all expenses, fees and costs directly and indirectly associated with access and limitations to traffic routes, delivery, storage and loading areas, and include costs for traffic planning and control, after-hours and premium time and off-site storage necessary resulting from Contract requirements and restrictions.
7. Where Owner's facilities and services, made available for the Contractor's use, are not adequate to fulfill Contract requirements and facilitate efficient and timely execution of the Work, the Contractor shall provide supplemental facilities and services as necessary to ensure efficient and timely execution of the Work at no change in Contract amount.
8. Utility Interruptions: Service interruptions required for the Work shall be scheduled with the Owner not less than (14) days in advance of the interruption.
9. Hot Work: Such work may include, but is not limited to: concrete cutting, brazing, grinding, welding and soldering. See Fire Watch paragraph below.
10. Language Communication: In order to maintain adequate, verbal communication on the job site, if any work crews on the project are predominantly non-English speaking, at least (1) supervisor shall be fluent in English and shall be present on the job site whenever the work crew is present. This requirement shall apply to the General Contractor and all Subcontractors.
11. Employee Conduct: Employees of the General Contractor and all Subcontractors shall wear appropriate clothing at all times on the jobsite and shall refrain from inappropriate language and conduct at all times on the jobsite.

1.7. SEQUENCE OF THE WORK

1. Lower Floor:
   a. Complete all work shown and specified in Driver Support-114 and Dispatch-115 starting with hazmat abatement.
   b. Owner provided work (data cabling, radio installation, etc.) will be performed in the above rooms.
   c. Current Dispatch operation will relocate from present location to the above rooms and resume complete and full operation.
   d. Work in all other rooms will then be performed starting with hazmat abatement.
2. Upper Floor:
   a. Existing asbestos containing sheet vinyl floor covering assembly shall be abated.
   b. Work in all rooms will then be performed.

1.8. FIRE WATCH

Conform to all NFPA 101 -Life Safety Code requirements and all other regulations dealing with interruption of fire protection and hot work construction activities.

1.9. UNIT PRICES

1. All Unit prices described in Section 01 22 00 are required to be reflected in the Bid Form as submitted by the Bidder. Do not submit any unit prices other than as described in this Section.
2. Unit prices requested on the Bid Form, Section 00 41 13 are provided only to address possible changes in the scope of the work, initiated after contract award. Unit prices shall include will not be considered as a basis of bid evaluation. Unit prices shall include all costs for overhead and profit. The same unit price will be used for additions and deletions.
3. Immediately after award of the Contract, or as soon thereafter as the Owner has made a decision on which, if any, of the unit prices will be selected, thoroughly and clearly advise necessary personnel, Subcontractors and suppliers as to the nature of unit prices selected by the Owner.

1.10. TIME OF COMPLETION

1. Shall be as stipulated on the Bid Form.
2. Bidder shall fill in blank with number of calendar days necessary to achieve Substantial Completion.
3. Contract time adjustments will be made for adverse weather conditions and other events beyond the control of the contractor.

## 2. EXISTING CONDITIONS & FACILITIES

2.1. EXISTING CONDITIONS

1. The contractor and principal subcontractors have visited and examined the project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, labor, materials, equipment, goods, supplies, services and other items to furnished and all other requirements of the Contract Documents, as well as the surface conditions and other matters that may be encountered at the project site or affect performance of the Work or the cost or difficulty thereof.
2. The contract documents contain reference to existing conditions, materials, furnishings, and equipment. The information is developed from existing drawings and site and building observations, and is provided for reference only. The contractor shall verify all existing conditions and dimensions.
3. It is to be assumed the existing building is not level, square, or plumb.
4. Submitting a bid shall indicate the Contractor's acceptance of the existing conditions, and willingness to provide the labor, materials and equipment necessary to complete the work intended by the contract documents.

2.2. VERIFICATION

1. The Contractor shall verify and coordinate dimensions and elevations among all Drawings prior to proceeding with any work or fabrication.
2. Any discrepancies found among the Drawings, Project Manual/Specifications and the project conditions shall be reported to the Architect, who shall correct such discrepancy in writing.
3. Any work done by the Contractor after discovery of any such discrepancy shall be done at the Contractor's risk.

2.3. MAINTENANCE OF EXISTING FACILITIES

1. It is extremely difficult to assess damages and effect repairs to the facilities damaged during construction. In cases where utility lines are broken or plugged, resulting damages can be very costly.
2. The Contractor shall provide protection for all existing improvements against damage due to the Work of this Contract.
3. The Contractor shall replace and/or repair any existing improvements damaged during construction at no cost to the Owner.

2.4. BRACING & SHORING

The Contractor is responsible for all bracing and shoring during construction.

2.5. LAY DOWN AREA

Material lay down area will be designated at the pre-construction conference.

## 3. CODES & REGULATIONS

Comply with the latest editions of the following as amended and adopted by the State (WAC 51-50) and the local AHJ. Contractor and Subcontractors shall conform with the AHJ the current codes being enforced, including, but not limited to:

1. International Building Code.
2. International Fire Code.
3. International Mechanical Code.
4. International Plumbing Code (where applicable).
5. Uniform Plumbing Code (where applicable).
6. National Electric Code.
7. State Fire Marshal Regulations.
8. State of Washington Electrical Construction Code.
9. Standard on Accessible and Usable Buildings and Facilities (ICC/ANSI 117.1 - 2017)
10. Final Rule, Department of Justice, "Non-discrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities", 28 CFR Part 36 (Implementing Title III, Americans with Disabilities Act, Public Law 101-336).
11. Washington State Energy Code (WAC 51-11C).
12. State of Washington Safety Standards for Construction Work (WAC 296-155).

## 4. DRAWINGS & PROJECT MANUAL

1. Bidding information, including Drawings and Project Manual, are available online at the following location: http://www.harborarchitects.com/19-12F.
2. Bidding information, including Drawings and Project Manual, are available online at the following location: https://fortress.wa.gov/ga/apps/BidCal/default.aspx.
3. **A plan holders list is available online at the following web address:** http://www.harborarchitects.com/19-12F**. Any plan holders not listed must contact Carrie Hubbard at Harbor Architects LLC, (360) 532-0980 or carrie@harborarchitects.com.**
4. For convenience, the Drawings and Project Manual are arranged in several trade divisions or sections, but such separation does not establish limits of work required by any Subcontractor or trade. Terms and conditions of such limitations are wholly between the Contractor and Subcontractors.

END, SECTION 01 11 00

## 1. GENERAL

1.1. DESCRIPTION

1. Unit prices are used to adjust the Contract Amount where actual conditions are discovered to vary from established allowances. Unit prices are used to provide additional work where warranted by discovered conditions (such as additional piles if an obstruction is encountered). Unit prices are used to provide additional work as may be requested by Owner.
2. All Unit Prices described in this Section are required to be reflected on the Bid Form as submitted by the Bidder. Do not submit any Unit Prices other than as described in this Section.
3. Include all miscellaneous devices, appurtenances and accessories necessary and required for a complete installation regardless of whether specifically mentioned as part of the Unit Price. The Unit Price shall include full compensation for the cost of labor, materials, equipment, overhead, profit and any other associated costs.

1.2. COORDINATION

1. Immediately after the award of the Contract, or as soon thereafter as the Owner has decided on which, if any, of the Unit Prices will be selected, thoroughly and clearly advise necessary personnel, Subcontractors and suppliers as to the nature of the Unit Prices selected by the Owner.
2. The listing of work included is provided as a check list for the Contractor's convenience and are general in nature. It is the responsibility of the Contractor to include in his/her bid all necessary work for the Unit Price described.

1.3. SELECTION OF UNIT PRICES

1. It is the intent of the Owner to select the accepted Unit Prices at the time of the Contract award.
2. Unit Prices shall be valid for (60) days from the bid due date.

## 2. UNIT PRICES

2.1. EXISTING GYPSUM BOARD WALL PAINTING
Add paint coats as specified in Section 09 91 00.

2.2. EXISTING GYPSUM BOARD CEILING PAINTING
Add paint coats as specified in Section 09 91 00.

2.3. EXISTING METAL DOOR FRAME PAINTING
Add paint coats as specified in Section 09 91 00.

END SECTION 01 22 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. RELATED WORK

Payments and completion conditions are covered under the General Conditions and the modifications of same.

## 2. EXECUTION

2.1. SCHEDULE OF VALUES

1. Submit the Schedule of Values in form approved by the Architect, listing not less than one Line Item for their work and subcontracted work in each applicable Section of the Specifications, Divisions 1 through 48 inclusive. Total sum of the Schedule of Values shall equal the Contract sum.
2. Upon request of the Architect, submit further breakdown of the work in any of the Sections of the Specifications.
3. Approved Change Order sums are to be listed as separate Line Items at the end of the Schedule of Values.

2.2. APPLICATIONS FOR PAYMENT

1. Payment Application Form: Submit applications for payment using form provided by Architect.
   a. Follow Line Items set forth in the Schedule of Values for breakdown of costs.
   b. Contractor shall submit a signed and notarized application to the Architect via email. All items and calculations on application as well as breakdown sheets must be completed prior to submission
   c. The signature of the Contractor certifies that to the best of the Contractor's information, knowledge and belief, the Work covered by the Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown is now due.
   d. On all public works projects, the Contractor and all Subcontractors shall pay all workers weekly.
   e. The Contractor and all Subcontractors shall file a copy of its certified payroll records using the department of labor and industries' online system at least once per month as required by RCW 39.12.120.
   f. Certified payrolls shall be attached to all applications for payment.

2. Payment Application Times: Timing of progress payment submittals for Architect's review and Owner's processing shall be discussed at the Pre-Construction Conference.
3. Application For Payment-Initial: Administrative actions and submittals that must precede or coincide with submittal of the initial Application For Payment shall include the following:
   a. Statement of Intent to Pay Prevailing Wages (State of WA) for each trade.
   b. Copies of all Permits including general building permit, plumbing permit, electrical permit and any other permits issued by the jurisdiction in conjunction with the Work.
   c. Copies of authorizations and licenses from governing authorities for performance of the Work, including but not limited to a City of Hoquiam Business License.
   d. Revised, up to date construction schedule reflecting work completed in place.
4. Application For Payment-Monthly: Administrative actions and submittals that must precede or coincide with submittal of a monthly Application For Payment shall include a revised, up to date construction schedule reflecting work completed in place.

5. Application For Payment-Substantial Completion: Following issuance of the Certificate of Substantial Completion, the Contractor may submit an Application for Payment. Administrative actions, work items and submittals that must precede or coincide with submittal of a Substantial Completion Application For Payment shall include the following:
   a. Certificates of Occupancy and similar approvals.
   b. Warranties, guarantees and maintenance agreements.
   c. Final Cleaning.
   d. List of incomplete work (punchlist items) attached to Architect's Certificate of Substantial Completion.
6. Application For Payment-Final: Administrative actions and submittals that must precede or coincide with Final Application For Payment shall include the following:
   a. Affidavit of Wages Paid (State of WA) for each trade.
   b. Completion of project close-out items. See Section 01 77 00.
   c. Completion of incomplete work list.
   d. Affidavits of payment of taxes and fees from all governing taxing entities including Municipal, County, State and Federal. It shall also cover the filing of all necessary forms with all regulating agencies.
   e. Removal of temporary facilities and services.

END, SECTION 01 29 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide representation and make necessary accommodations for pre-construction conference and regularly scheduled progress meetings.

1.3. RELATED WORK
1. Section 01 33 00: Submittals (Construction Schedule).

1.4. REPORTING
The Architect will arrange to provide reporting. No later than (4) days after each project meeting, the Architect will distribute copies of minutes of the meeting to each party present and to other parties as necessary.

## 2. MEETINGS

2.1. PRE-CONSTRUCTION CONFERENCE
1. Timing: A time mutually agreeable to the Owner, Contractor and Architect will be selected no later than (15) days after execution of the Agreement and prior to commencement of construction activities. This meeting will be held at the Operations conference room.
2. Attendees: The Owner, Architect and their consultants, Contractor, and their superintendent and mechanical and electrical Subcontractors. Each party will be represented by persons familiar with, and authorization, to conclude matters relating to the Work.
3. Agenda: Discuss items of significance including topics such as:
   a. Chain of communications.
   b. Tentative construction schedule.
   c. Critical work sequencing.
   d. Designation of responsible personnel.
   e. Status of permits.
   f. Procedures for processing field decisions and Change Orders.
   g. Procedures for processing Application for Payment.
   h. Procedures for processing Submittals.
   i. Distribution of Contract Documents.
   j. Preparation of record documents.
   k. Workplace Safety
   l. Materials and equipment deliveries.
   m. Security.
   n. Housekeeping.

2.2. PROGRESS MEETINGS
1. Timing: A time mutually agreeable to the Owner, Contractor and Architect will be selected and held on an as needed basis. These meetings will be held in the Operations conference room.
2. Attendees: In addition to the Owner, Architect and their consultants, Contractor and their superintendent, each Subcontractor and supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented by persons familiar with and authorized to conclude matters relating to the progress of the Work.
3. Construction Schedule: The Construction Schedule shall be revised monthly, as applicable. The Construction Schedule shall address all Subcontractor and Supplier activities, including start

and finish dates. Copies of the most recent Construction Schedule shall be provided to all Subcontractors and Suppliers. The Contractor shall clearly communicate to all Subcontractors and Suppliers their responsibility to adhere to their start and finish dates on the schedule. All Subcontractors and Suppliers shall inform the Contractor, in writing, when, for whatever reason, they cannot fulfill their schedule obligations. This information will be communicated by the Contractor at the progress meeting for discussion and action.

4. Agenda: Discuss items of significance that could affect progress including topics such as:
   a. Review safety and security issues.
   b. Review job progress in relation to the construction schedule. Determine which activities are behind or ahead of schedule. Determine how construction behind schedule will be expedited.
   c. Status of submittals.
   d. Requests for Information (RFI).
   e. Changes in the work.
   f. Work quality.
   g. Review and approve payment request applications.
   h. Document and track emergent issues requiring attention.

2.3. PRE-INSTALLATION CONFERENCES

1. When required by these specifications and/or as requested, convene pre-installation conferences at the Operations conference room prior to commencing installation.
2. Pre-installation conference topics will include, but not be limited to:
   a. Coordination with radio equipment vendor.
3. Attendees: Contractor project manager and superintendent, affected Subcontractors, Owner's Project Manager, Architect, and equipment representatives.
4. Agenda: Review conditions of installation, preparation, installation procedures, coordination with related work and visual critical issues.
5. Commencement of the specific work items will not proceed until all issues have been addressed and resolved.

2.4. PROJECT CLOSEOUT CONFERENCE

1. Timing: A time mutually agreeable to the Owner, Contractor and Architect will be selected no later than (7) days after distribution of the "punch list". This meeting will be held at the Operations conference room.
2. Attendees: The Owner, Architect and their consultants, Contractor and their superintendent and mechanical and electrical Subcontractors. Each party will be represented by persons familiar with and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance including topics as:
   a. Review remaining items of work on the "punch list" to be completed.
   b. Review remaining submittals required before final payment.
   c. Develop time schedule that addresses completion of all remaining items of work and completion of all remaining submittals. The Contractor shall communicate to all Subcontractors and Suppliers their responsibility to adhere to the above final completion schedule.

2.5. MINUTES

1. The Architect will compile the minutes (unless otherwise arranged/agreed) of each conference and will distribute copies to all parties.
2. The minutes compiled by the Architect will be the official record and all clarifications and/or corrections shall be transmitted, in writing, to the Architect within (4) days of the date of receipt.

3. At least (1) bound volume of all conference minutes shall be maintained by the Contractor in the job office until project completion.

END, SECTION 01 31 19

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Make all submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.3. RELATED WORK

1. Section 01 31 19: Project Meetings
2. Section 01 77 00: Contract Closeout
3. Specific submittals are specified under pertinent other Sections.

1.4. PROCESSING SUBMITTALS

1. General: Date and mark submittals to show the names of the Project, Architect, Contractor, originating Subcontractor, manufacturer or supplier, and separate dealer if pertinent. Identify Specification Section and locations at which materials or equipment are to be installed. Each submittal shall be accompanied by the cover sheet supplied by the Architect. **Contractor shall review, amend and approve all submittals prior to their submission to the Architect; submittals not so approved and signed will be returned to the Contractor without any review by the Architect until they are properly processed by the Contractor.** Contractor shall transmit submittals to Architect via email. Architect will transmit processed submittals back to Contractor via email. Contractor is responsible for obtaining and distributing required copies of submittals to his Subcontractors and material suppliers after, as well as before, final approval. **Because a significant amount of clarity is lost via transmission, facsimile copies will not be accepted for processing.** Emailed submittals shall be contained in one complete pdf document. Submittals consisting of multiple pdf documents will be returned to the Contractor without any review by the Architect until they are properly compiled.
2. Samples: When required, furnish current and complete sets for color selection. Where samples must show a custom color, texture, graining or finish, furnish two samples of sufficient size to indicate general visual effect. If a color, texture, graining or finish range is indicated, furnish three sets of pairs illustrating the full scope of this range.
3. Shop Drawings: When required, shop drawings shall clearly indicate the correct configurations and relative sizes, materials, metal gauges, etc. of the various components and the proposed methods of fabrication, required clearances, supports and any other pertinent data. All items shown on shop drawings that do not conform to Drawings and Specifications shall be specifically noted as such (flagged) and brought to the Architect's attention. If this is not done, the Architect's approval shall not include this unauthorized change in the Contract Documents.
4. Manufacturer's Data: When required, submit manufacturer's descriptive data including catalog sheets for materials, equipment and fixtures, showing dimensions, performance characteristics and capacities, wiring diagrams and controls, schedules, and other pertinent information as required. Where printed materials describe more than one product or model, clearly identify which is to be furnished.
5. Submittal Checklist: See Initial Project Submittals checklist included in this Project Manual. Contractor shall maintain this checklist throughout the initial process and transmit the checklist in each section as one submittal.

## 2. SUBMITTALS

2.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

2.2. SUBMITTALS; WITHIN SEVEN DAYS OF CONTRACT AWARD

1. List of Subcontractors with U.B.I. Number for each.
2. Certification Regarding Responsibility Matters.
3. Certification of Compliance with Wage Payment Statutes.

2.3. SUBMITTALS; PRIOR TO NOTICE TO PROCEED

1. Agreement.
2. Performance and Labor & Material Payment Bonds.
3. Certificate of Contractor's Liability Insurance.
4. Certificate of Contractor's Property Insurance (if required by Contract Documents).

2.4. SUBMITTALS; PRIOR TO STARTING WORK

1. Schedule of Values.
2. Construction Schedule.
3. Statements of Intent to Pay Prevailing Wages (WA State form: F700-029-000).

2.5. SUBMITTALS; DURING WORK

| Section or Division No. | | Item |
|---|---|---|
| 03 20 00 | Concrete Reinforcement | shop drawing |
| 03 30 00 | Cast-In-Place Concrete | mix design, shop drawing(s) |
| 06 40 00 | Architectural Woodwork | samples, shop drawing |
| 07 21 00 | Building Insulation | mfrs. data |
| 07 60 00 | Flashing & Sheet Metal | shop drawing |
| 07 92 00 | Joint Sealants | mfrs. data |
| 08 11 00 | Metal Doors & Frames | shop drawing, mfrs. data |
| 08 53 00 | Vinyl Windows | shop drawing, mfrs. data |
| 08 70 00 | Finish Hardware | hardware schedule, mfrs. data |
| 09 29 00 | Gypsum Board | mfrs. data |
| 09 51 00 | Acoustical Ceilings | samples, mfrs. data |
| 09 65 19 | Resilient Tile Flooring | samples, mfrs. data |
| 09 68 13 | Tile Carpeting | samples, shop drawing, mfrs. data |
| 09 77 00 | Pre-Finished FRP Panels | samples, mfrs. data |
| 09 90 00 | Painting & Coating | samples, materials list |
| 10 14 00 | Identifying Devices | samples, shop drawing, mfrs. data |
| 10 26 00 | Wall Protection Systems | shop drawing, mfrs. data |
| 10 28 00 | Toilet, Bath & Laundry Accessories | mfrs. data |
| 10 51 00 | Lockers | samples, mfrs. data |
| 12 30 00 | Manufactured Casework | shop drawing, mfrs. data |
| 21 00 00 | Fire Suppression | shop drawing, mfrs. data |
| 22 30 00 | Plumbing Systems | shop drawing, mfrs. data |
| 22 40 00 | Plumbing Fixtures & Trim | mfrs. data |
| 23 00 00 | HVAC | shop drawing, mfrs. data |
| 26 00 00 | Electrical General Provisions | shop drawing, mfrs. data |
| 26 50 00 | Lighting | shop drawing, mfrs. data |
| 28 31 00 | Fire Detection & Alarm | shop drawing, mfrs. data |

2.6. SUBMITTALS; PRIOR TO FINAL PAYMENT
Covered under Section 01 77 00.

END, SECTION 01 33 00

Harbor Architects LLC
HARBOR PLACE | 345 W WISHKAH | ABERDEEN WA 98520 | 360.532.0980 | harborarchitects.com

# INITIAL PROJECT SUBMITTALS

*Date:* Month, Day, Year
*Project No:* 19-12F

**Contractor**
address
city-state-zip

*Project Name:* Maintenance Building Remodel
GRAYS HARBOR TRANSIT
Hoquiam, Washington

The following items must be completed within (7) days of contract award. Contractor shall maintain this checklist throughout the initial process and transmit the checklist and all items in this section as one submittal. See Section 01 33 00 of the project manual for full submittal requirements.

| Date Submitted | Item | Contractor/Sub/Trade | Received By HA |
|---|---|---|---|
| | List of Subcontractors with U.B.I. Number for each. | | |
| | Certification Regarding Responsibility Matters | | |
| | Certification of Compliance with Wage Payment Statutes | | |
| | Non-Collusion Affidavit | | |

The following items must be completed prior to Notice to Proceed. Contractor shall maintain this checklist throughout the initial process and transmit the checklist and all items in this section as one submittal. See Section 01 33 00 of the project manual for full submittal requirements.

| Date Submitted | Item | Contractor/Sub/Trade | Received By HA |
|---|---|---|---|
| | Agreement | | |
| | Performance and Labor & Material Payment Bonds | | |
| | Certificate of Contractor's Liability Insurance | | |
| | Certificate of Contractor's Property Insurance | | |

The following items must be completed prior to starting work. Contractor shall maintain this checklist throughout the initial process and transmit the checklist and all items in this section as one submittal. See Section 01 33 00 of the project manual for full submittal requirements.

| Date Submitted | Item | Contractor/Sub/Trade | Received By HA |
|---|---|---|---|
| | Schedule of Values | | |
| | Construction Schedule | | |
| | Statements of Intent to Pay Prevailing Wages (WA State form: F700-029-000). | | |

Harbor Architects LLC
HARBOR PLACE | 345 W WISHKAH | ABERDEEN WA 98520 | 360.532.0980 | harborarchitects.com

# SUBMITTAL TRANSMITTAL

Maintenance Building Remodel
**Grays Harbor Transit**
Hoquiam, Washington
1-19-12F

**Contractor Representative**
Street Address
City, State, Zip
(555) 555-5555

| No. | Spec Section | Item | Subcontractor/Supplier | Date Submitted |
|---|---|---|---|---|
| | | | | |

| Contractor Comments | Architect Comments |
|---|---|
| | |

**Contractor**

☐ Approved ☐ Approved as Noted

By providing this submittal, the contractor certifies he/she has performed a detailed review of the submittal. Contractor is responsible for: verifying quantities, confirming proper materials, correlating and confirming dimensions at the job site, choice of fabrication processes and techniques of construction, coordination of his/her work with that of other trades, and performing the work in a safe and satisfactory manner.

Approved By | Date

**Architect/Engineer**

☐ No Exceptions Taken ☐ Review Comments ☐ Submit Specific Item as noted above
☐ Revise and Resubmit ☐ Rejected

Review is only for general conformance with the design concept of the project and general compliance with the information included in the Contract Documents. Any action shown is subject to the requirements of the drawings and specifications.

The contractor shall review and confirm the above comments and actions prior to furnishing the processed submittal to subcontractors/suppliers.

Reviewed By | Date

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement and Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. ABBREVIATIONS

1. For purpose of abbreviation, the words "install" and/or "erect" and/or "connect" and/or "apply in accordance with the manufacturer's written recommendations" shall not, in all cases, be repeated hereinafter in these Specifications. However, in all cases, each and every item, material and/or equipment shall be installed and/or erected and/or connected and/or applied strictly in accordance with the manufacturer's written recommendations. Additional abbreviations may be described on Drawings.

2.

| | | | |
|---|---|---|---|
| A/C | air conditioning | BC | bottom of curb |
| AB | anchor bolt | BD | board |
| ABV | above | BHMA | Builders Hardware Manufacturers Association |
| AC | asphaltic concrete | BITUM | bituminous |
| ACI | American Concrete Institute | BL | building line |
| ACOUST | acoustical | BLDG | building |
| ACT | acoustical ceiling tile | BLK | block |
| AD | area drain | BLKG | blocking |
| ADA | Americans with Disabilities Act | BM | beam/bench mark |
| ADD | additive/addendum | BRG | bearing |
| ADJ | adjustable/adjacent | BRK | brick |
| AFF | above finished floor | BSMT | basement |
| AHJ | agency having jurisdiction | BTM | bottom |
| AHU | air-handling unit | BTW | between |
| AISC | American Institute of Steel Construction | BUR | built-up roof |
| AITC | American Institute of Timber Construction | C | celsius/centigrade |
| AL | aluminum | CAB | cabinet |
| ALT | alternate/alteration | CAP | capacity |
| AMP | amperes | CARP | carpet |
| ANOD | anodized | CB | catch basin |
| ANSI | American National Standards Institute | CEIL | ceiling |
| APA | American Plywood Association | CEM | cement |
| APPROX. | approximate(ly) | CEM PL | cement plaster |
| APWA | American Public Works Association | CER | ceramic |
| ARCH | architect/architectural | CFM | cubic feet per minute |
| ASPH | asphalt | CI | cast iron |
| ASTM | American Society for Testing & Materials | CIP | cast in place |
| AVG | averge | CJ | control joint |
| AWI | American Woodwork Institute | CLF | chain link fence |
| AWPB | American Wood Preservers Bureau | CLG | ceiling |
| AWS | American Welding Society | CLKG | caulking |

| | |
|---|---|
| CLR | clear |
| CLT | cross laminated timber |
| CMU | concrete masonry units |
| CO | clean out |
| COL | column |
| COMP | composite/composition |
| CONC | concrete |
| COND | condition |
| CONN | connect/connection |
| CONST | construction |
| CONT | continuous |
| CONTR | Contractor |
| COORD | coordinate |
| CR | cold rolled |
| CS | Commercial Standard of U.S. Department of Commerce |
| CT | ceramic tile |
| CTR | center |
| CTSK | countersunk |
| CU | cubic |
| CW | cold water |
| CY | cubic yard |
| d | penny nails |
| D | dryer |
| db | decibel |
| DBL | double |
| DCVA | double check valve assembly |
| DECID | deciduous |
| DEPT | department |
| DET | detail |
| DF | drinking fountain (w/o cooler) |
| DIA | diameter |
| DIAG | diagonal |
| DIFF | diffuser |
| DIM | dimension |
| DISP | disposal/dispenser |
| DL | dead load |
| DN | down |
| DR | door/drain |
| DS | downspout |
| DTL | detail |
| DW | dishwasher |
| DWG | drawing |
| DWR | drawer |
| E | east |
| EA | each |
| EB | expansion bolt |
| EJ | expansion joint |
| EL | elevation |
| ELECT | electrical |
| ELEV | elevation/elevator |
| EMERG | emergency |
| ENAM | enamel |
| ENCL | enlosure/enclosed |
| ENTR | entrance |
| EPX | epoxy |
| EQ | equal/earthquake |
| EQJ | earthquake joint |
| EQUIP | equipment |
| EXC | excavate/excavation |
| EXIST | existing |
| EXP | expansion |
| EXT | exerior |
| F | fahrenheit |
| FA | fire alarm |
| FAB | fabricate |
| FB | Flat Bar |
| FD | Floor Drain |
| FDC | Fire Department connection |
| FDN | foundation |
| FE | fire extinguisher |
| FEC | fire extinguisher cab |
| FF | factory finish |
| FG | float glass |
| FH | flathead |
| FHMS | flathead machine screw |
| FHWS | flathead wood screw |
| FIN | finish(ed) |
| FL | floor |
| FLASH | flashing |
| FLOUR | flourescent |
| FM | Factory Mutual Research Corporation |
| FOB | face of brick |
| FOC | face of concrete |
| FOF | face of finish |
| FOIC | furnished by owner, installed by contractor |
| FOM | face of masory |
| FOS | face of studs |
| FP | fireproof(ing) |
| FPWH | freeze proof wall hydrant |
| FR | freezer/fire retardant |
| FS | full size/floor sink |
| FT | foot or feet |
| FTG | footing |
| FURN | furnish |
| FURR | furring |
| FUT | future |
| G | Gas |
| GA | gauge |

| | |
|---|---|
| GALV | Galvanized |
| GB | grab bar |
| GC | general contractor |
| GD | grabage disposal |
| GFI | ground fault interruptor |
| GFRC | glass fiber reinforced concrete |
| GFRG | glass fiber reinforced gypsum |
| GFRP | glass fiber reinforced plaster |
| GL | glass/glazing/glazed |
| GLAM | glue-laminated wood |
| GND | ground |
| GWB | gypsum wallboard |
| GYP | gypsum |
| H | high |
| HB | hose bib |
| HC | hollow core |
| HCT | hollow clay tile |
| HCW | hollow core wood |
| HDBD | hardboard |
| HDNR | hardener |
| HDR | header |
| HDWD | hardwood |
| HDWE | hardware |
| HM | hollow metal |
| HORIZ | horizontal |
| HP | horsepower/heat pump |
| HR | hour/handrail |
| HT | height |
| HTG | heating |
| HVAC | heating, ventilating & air conditioning |
| HW | hot water |
| HWR | hot water return |
| IAPMO | International Association of Plumbing & Mechanical Officials |
| IBC | International Building Code |
| ICC | International Code Council |
| ID | inside diameter |
| IE | invert elevation |
| IFC | International Fire Code |
| IG | insulating glass |
| IMC | International Mechanical Code |
| IN | inches |
| INFO | information |
| INSP | inspection |
| INST | install/installation |
| INSUL | insulation |
| INT | interior |
| IPC | International Plumbing Code |
| IRC | International Residential Code |
| JAN | janitor |
| JST | joist |
| JT | joint |
| KD | kiln-dried |
| KIP | 1000 pounds |
| KIT | kitchen |
| KO | knock out |
| KP | kick plate |
| L | left/length |
| LAB | laboratory |
| LAM | laminated |
| LAV | lavatory |
| LB | pound |
| LH | left hand |
| LHR | left-hand reverse |
| LKR | locker |
| LL | live load |
| LT | light |
| LTWT | lightweight |
| MACH | machine |
| MAINT | maintenance/maintain |
| MASY | masonry |
| MATL | material |
| MAX | maximum |
| MB | machine bolt/marker board |
| MC | medicine cabinet |
| MDF | medium-density fiberboard |
| MDO | medium-density overlay |
| MECH | mechanical |
| MEMB | membrane |
| MEZZ | mezanine |
| MFR | manufacturer |
| MG | mixed grain |
| MH | manhole |
| MIN | minimum |
| MISC | miscellaneous |
| MO | masonry opening |
| MOD | module/modify |
| MS | machine screw |
| MTD | mounted |
| MTL | metal |
| MUL | mullion |
| N | north |
| NBFU | National Bureau of Fire Underwriters |
| NEC | National Electrical Code |
| NEMA | National Electrical Manufacturers Association |

| | |
|---|---|
| NFPA | National Fire Protection Association |
| NIC | not in contract |
| NO./# | number |
| NOM | nominal |
| NTW | not to scale |
| NWMA | National Woodwork Manufacturers Association |
| OA | overall |
| OC | on center |
| OD | outside diameter |
| OFF | office |
| OHWS | oval head wood screw |
| ON | oval head/ over-height |
| OPNG | opening |
| OPP | opposite |
| OSB | oriented strand board |
| OZ | ounce |
| pbd | pegboard |
| PBD | particleboard |
| PC | precast |
| PERF | perforated |
| PERP | perpendicular |
| PH | phase |
| PL | plate |
| PLAM | plastic laminate |
| PLAS | plaster |
| PLWD | plywood |
| PNL | panel |
| PNT | paint/point |
| POL | polish |
| PP | push plate |
| PR | pair |
| PREFAB | prefabricate |
| PSF | pounds per square foot |
| PSI | pounds per square inch |
| PT | pressure treated |
| PTN | partition |
| PVC | polyvinyl chloride |
| PVMT | pavement |
| QT | quarry tile |
| QTR | quarter |
| R | radius |
| RA | return air |
| RB | rubber base |
| RD | roof drain |
| REBAR | reinforcing bar |
| RECEPT | receptacle |
| RECT | rectangular |
| REF | reference |
| REINF | reinforced/reinforcing |
| REQD | required |
| RES | resilient |
| RET | retaining/return |
| REV | revision |
| RH | right hand |
| RM | room |
| RO | rough opening |
| ROW | right of way |
| RP | radius point |
| RPBD | reduced pressure backflow preventer device |
| RS | rough sawn |
| RWL | rainwater leader |
| S | south |
| S STL | stainless steel |
| S&R | shelf and rod |
| S&V | stain and varnish |
| SAN | sanitary |
| SC | solid core |
| SCHED | schedule |
| SCR | shower curtain rod |
| SCW | solid core wood |
| SDI | Steel Door Institute |
| SEC | second |
| SECT | section |
| SF | square feet |
| SHM | similar |
| SHR | shower |
| SHT | sheet |
| SHTG | sheathing |
| SHV | sheet vinyl |
| SLR | sealer |
| SMACNA | Sheet Metal and Air Conditioning Contractors National Association, Inc. |
| SMS | sheet-metal screws |
| SPEC | specification |
| SQ | square |
| SS | service sink |
| ST | stone |
| STA | station |
| STC | sound-transmission class |
| STD | standard |
| STL | steel |
| STOR | storage |
| STRUCT | structure/structural |
| SUBFL | subfloor |
| SURF | surface |

| | |
|---|---|
| SUSP | suspended |
| SYM | symmetrical |
| T&B | top and bottom |
| T&G | tongue and groove |
| TB | towel bar/tack board |
| TBB | tile backer board |
| TC | top of curb/top of concrete |
| TEL | telephone |
| TEMP | tempered/temporary/temperature |
| TER | terazzo |
| TF | top of footing |
| THK | thick/thickness |
| THR | threshold |
| TN | toenail |
| TOD | top of deck |
| TOIL | toilet |
| TOL | tolerance |
| TOP | top of pavement |
| TOS | top of steel |
| TOW | top of wall |
| TV | television |
| TYP | typical |
| UC | under counter/undercut |
| UL | Underwriters Laboritories, Inc. |
| UNFIN | infinished |
| UNO | unless noted otherwise |
| UR | urinal |
| UT | utility |
| UV | unit ventilator/ultraviolet |
| V | volt |
| VAR | variable/varnish/varies |
| VCT | vinyl composition tile |
| VERT | vertical |
| VEST | vestibule |
| VG | vertical grain |
| VOL | volume |
| VP | veneer plaster |
| VT | vinyl tile |
| VWC | vinyl wall covering |
| W | west/water/clothes washer/watt |
| W/ | with |
| W/O | without |
| WAIN | wainscot |
| WC | water closet |
| WCLIB | West Coast Lumber Inspection Bureau |
| WD | wood |
| WDW | window |
| WF | wide flange |
| WH | water heater |
| WP | work point/waterproof |
| WS | weatherstripping |
| WT | weight |
| WWM | welded wire mesh |
| WWPA | Western Wood Products Association |
| YD | yard/yard drain |

3. Reference herein to specifications issued by the above-named or other organizations names in the Specifications shall mean the edition of said Standard Specifications current at the time of opening Bids for work under this Contract, unless otherwise noted.
4. Division 00 00 00 and any modifications to same, or Division 01 00 00 of the Project Manual shall void any of the general, but not technical provisions of any of the referenced Standard Specifications in conflict therewith.

1.3. DEFINITIONS

The following definitions, of terms or words used in this Project Manual, are in addition to those in the General Conditions.

1. The term "product" includes materials, systems and equipment.
2. The term "Project Manual" is the volume which includes: The Bidding & Contract Requirements and the Specifications, Sections 00 00 00 through 48 00 00, inclusive, as applicable, and as listed in the Table of Contents bound herein.
3. The term "Architect" shall mean: Harbor Architects LLC, 345 W Wishkah Street, Aberdeen, WA 98520.
4. The term "Owner" shall mean: Grays Harbor Transit acting by and through its Board of Directors.
5. "As directed" means: as directed by the Architect.
6. Where the words "or approved" or "as approved" or "for approval" are used, the Architect is the sole judge of the quality and suitability of the proposed substitution.
7. The word "furnish" shall mean: purchase, pay for, receive and/or store the material, item or equipment at the site ready for installation or erection, unless otherwise specifically noted.
8. The word "install" shall mean: pay for, and do all work necessary for installing and/or erecting and/or connecting the item or material complete in place, unless otherwise specifically noted.
9. The word "provide" shall mean: furnish and install and pay for, complete in place.
10. Where the words "similar to" are used and followed by a manufacturer's name and product, model, or type number, such manufacturer, product, model or type number shall be considered as the standard of quality for the item or material or work specified, in a general and technical sense, not meaning "identical".
11. Wherever in these documents an article, device or piece of equipment is referred to in the singular number, such reference shall mean: to include as many such articles as are shown on the Drawings or are required to complete the installation.

END, SECTION 01 42 13

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Provide temporary construction, devices, equipment, power and convenience utilities for use, convenience and safety of personnel engaged in the Work of the Contract.
2. Unless otherwise noted, the temporary facilities described herein shall be provided by the Contractor.

1.3. JOB CONDITIONS

1. Make all required connections to existing utility systems with minimum disruption to services in the existing utility systems.
2. When disruption of the existing service is required, do not proceed without the Architect's approval and, when required, provide alternate temporary service if needed by Owner.

## 2. TEMPORARY FACILITIES

2.1. UTILITIES

1. Telephone: Provide cell phone available at all times during working hours.
2. Electricity: Owner will provide. Contractor shall provide all required extension cords, lighting outlets, power outlets (ground fault interrupter type), lamps and other required equipment for construction purposes. Comply with all applicable NEMA, NEC & UL standards.
3. Water-Drinking: Provide storage and dispensing container with single-use cups.
4. Water-Construction: Owner will provide.

2.2. STRUCTURES

1. Toilets: Provide portable chemical toilet on premises for use by all those associated with the Work.
2. Fences & Barricades: Provide and maintain during the course of the Work in accordance with the requirements of the General Conditions and State Safety Regulations to guard against injury and damage to workers, third persons and property of others due to work on this Project.

2.3. SAFETY MEASURES

1. Comply with "Safety Standards for Construction Work" (WAC 296-155), and “General Safety and Health Standards, Operating Near Electric Power Lines” (WAC 296-24-24019), latest edition.
2. Contractor shall develop written fall protection plan, as required by above standard, for this particular project and maintain (1) copy on the jobsite. Obtain any necessary approvals from Department of Labor & Industries, Division of Industrial Safety & Health.
3. Contractor shall train and instruct all personnel in all items contained in fall protection plan and operation near electric power lines and shall keep a record of employee training and maintain it on the jobsite.

2.4. DUST CONTROL

1. Building Interior:
   a. Provide temporary dust barriers to adequately protect interior spaces away from active project areas from dust encroachment and contamination.
   b. Coordinate placement of dust barriers with Owner to minimize impact to building operations.

c. Provide temporary protection to existing HVAC equipment and ductwork from dust contamination. Provide temporary filters and change often as necessary to avoid contamination of existing system(s).
d. Provide necessary cleaning services for work spaces outside project area and HVAC equipment and ductwork where contamination has occurred, at no cost to the Owner.

2.5. NOISE MITIGATION

1. When sawcutting concrete, concrete removal and operating general noise making tools and equipment during demolition activities, coordinate schedule with Owner.
2. Above demolition work shall occur outside normal work hours of Owner as described in Section 01 11 00.

## 3. EXECUTION

3.1. MAINTENANCE & REMOVAL

1. Maintain all temporary facilities as long as needed for the safe and proper completion of the Work.
2. Remove all such temporary facilities as rapidly as progress of the Work will permit, or as directed.

3.2. CLEANING UP

1. The Contractor and each Subcontractor shall, at all times, keep the premises free from accumulation of waste materials or rubbish caused by the Work.
2. Remove all trash and debris from the site and dispose at Contractor's expense.
3. Remove spilled trash and debris from streets, driveways and parking areas in time to prevent such materials from affecting traffic or clogging drainage systems (clean any drains thusly contaminated).

END, SECTION 01 50 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. This Section establishes general requirements pertaining to cutting into nominally completed and/or existing work and subsequent fitting and patching required to restore existing surfaces to their original condition.
2. Work Required: Do all cutting (including excavating), fitting and patching of the Work as required to:
   a. Install specified work in existing construction.
   b. Make the Work and its several systems, elements and parts fit and interface properly together.
   c. Uncover work to provide for installation of improperly timed work.
   d. Remove and replace defective work or work not conforming to the requirements of the Contract Documents.
   e. Uncover work to provide for Architect's, Special Inspector's and/or Building Inspector's observations of work covered prior to inspection and/or approval.

1.3. RELATED WORK

1. Section 02 41 19: Selective Demolition.
2. Section 03 20 00: Concrete Reinforcing Cutting & Patching.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. STRUCTURAL REQUIREMENTS

1. Do not cut and patch structural work in a manner that would result in a reduction of load-carrying capacity or stiffness.
2. Do not cut and patch existing structural systems until adequate, temporary bracing and shoring have been installed or until completion of load-carrying or bracing elements of new construction.

1.6. OPERATIONAL & SAFETY REQUIREMENTS

Do not cut and patch operational elements or safety related components in a manner that would result in a reduction of their capacity to perform in the manner intended, or that would result in increased maintenance, or decreased operational life or decreased safety.

1.7. VISUAL REQUIREMENTS

1. Do not cut and patch work, either new or existing, in a manner that would result in substantial visual evidence of cut and patch work.
2. Remove and replace work judged by the Architect to be cut and patched in a visually unsatisfactory manner.

## 2. PRODUCTS

2.1. MATERIALS

1. For replacement of items removed, use materials complying with pertinent Section of these Specifications.
2. Except as otherwise indicated, or as directed by the Architect, use materials for patching that are identical to existing materials.
3. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect and structural integrity.
4. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

## 3. EXECUTION

3.1. SURFACE CONDITIONS

1. Inspection: Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching and backfilling. After uncovering of the Work, inspect conditions affecting installation of new work.
2. Discrepancies: If uncovered conditions are not as anticipated, immediately notify the Architect and secure needed directions. Do not proceed until unsatisfactory conditions are corrected.

3.2. PREPARATION

1. Provide shoring, bracing and support as required to maintain structural integrity of existing buildings and all structural elements affected by cutting and patching operations.
2. Protect other work during cutting and patching to prevent damage.
3. Provide protection from adverse weather conditions for that part of the Work that may be exposed during cutting and patching operations.
4. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
5. Take precautions not to cut existing pipe, conduit or duct serving existing building but scheduled to be relocated until provisions have been make to bypass them.

3.3. PERFORMANCE

1. General: Except as otherwise indicated or as approved by the Architect, proceed with cutting and patching at the earliest feasible time and complete work without delay. Execute fitting and adjustment of materials and products to provide a finished installation in compliance with the specified products, functions, tolerances and finishes.
2. Cutting: Cut the work using methods that are least likely to damage work to be retained or adjoining work. In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and metals using a cutting machine such as a carborundum saw or core drill to insure neat holes. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use. By-pass utility services such as pipe and conduit, before cutting, where such utility services are shown or required to be removed, relocated or abandoned. Cut off conduit and pipe in walls or partitions to be removed. After by-pass and cutting, cap, valve or plug and seal tight remaining portion of pipe and conduit to prevent entrance of moisture or other foreign matter.
3. Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the Work. Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining work in a manner which will eliminate evidence of patching and refinishing. Where removal of walls or partitions extends one area into another, patch and repair floor, wall and ceiling surfaces at the interstitial junction to provide an even surface of uniform color and appearance. Where patch occurs in a smooth painted

surface, extend final paint coat over entire unbroken surface continuing patch, after patched area has received prime and base coat.

4. Cleaning: Thoroughly clean areas and spaces where work is performed or used as access to the Work. Remove completely paint, concrete splatters and items of similar nature. Thoroughly clean surfaces before painting or other finishing is applied.

END, SECTION 01 73 29

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to the Bidding and Contract Requirements and Division 1.

1.2. RELATED WORK
1. Submittals required before the Work starts and during progress of the Work are covered under Section 01 33 00.
2. Cleaning up during the progress of the Work is covered under Section 01 50 00.

1.3. RECORD DRAWINGS
1. General: Do not use record drawings for construction purposes. Protect from deterioration and loss in secure, fire-resistive location. Provide access to record drawings for the Architect's reference during normal working hours.
2. Maintain a clean, undamaged set of black line prints of Contract Drawings and Shop Drawings. Mark the set(s) to show the actual installation where the installation varies from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record later.
3. Mark record sets with red, erasable pencil. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings. Attach Change Order sketches, etc. to record set and note related Change Order numbers.
4. Format: Provide electronic files in one pdf document copied on (2) flash drives. Record drawings shall be indexed with bookmarks for each trade.

1.4. OPERATION & MAINTENANCE MANUALS
1. General: Provide the following information as appropriate:
   a. complete subcontractor's list including all subcontractors – name, address, telephone number, email address and representative name.
   b. For each section listed in paragraph 3 below, include the following:
      i. supplier's name, address and telephone number
      ii. installer's name, address and telephone number
      iii. manufacturer's model and number
      iv. exploded parts list
      v. copies of warranties
      vi. cleaning and maintenance instructions
      vii. wiring diagrams
      viii. inspection procedures
      ix. Shop Drawings and product data and other information as appropriate.
   c. Review manuals provided by subcontractors for compliance with this section.
2. Format: Provide electronic files in a single pdf document copied on (2) flash drives. O&M Manual shall be indexed with bookmarks for each section listed in paragraph 3 below.
3. At a minimum, include above information for all items identified below:

| Section or Division No. | |
|---|---|
| 06 40 00 | Architectural Woodwork |
| 08 11 00 | Metal Doors & Frames |
| 08 53 00 | Vinyl Windows |
| 08 70 00 | Finish Hardware |
| 09 51 00 | Acoustical Ceilings |
| 09 65 19 | Resilient Tile Flooring |
| 09 68 13 | Tile Carpeting |
| 09 77 00 | Pre-Finished FRP Panels |

| | |
|---|---|
| 09 90 00 | Painting & Coating |
| 10 14 00 | Identifying Devices |
| 10 21 13 | Toilet Partitions & Urinal Screens |
| 10 26 00 | Wall Protection Systems |
| 10 28 00 | Toilet, Bath & Laundry Accessories |
| 10 51 00 | Wardrobe Lockers |
| 12 21 13 | Horizontal Louver Blinds |
| 12 30 00 | Manufactured Casework |
| 21 00 00 | Fire Suppression |
| 22 30 00 | Plumbing Systems |
| 22 40 00 | Plumbing Fixtures & Trim |
| 23 00 00 | HVAC |
| 26 00 00 | Electrical General Provisions |
| 26 50 00 | Lighting |
| 28 31 00 | Fire Detection & Alarm |

## 2. REQUIREMENTS BEFORE FINAL PAYMENT

2.1. CLEANING UP

Immediately before final acceptance of the Project, the Contractor is to perform the following tasks in all rooms and building areas affected by the Work:

1. Wash glass, on both sides and wash mirrors on exposed face, using experienced window washers employed by an approved janitorial service.
2. Vacuum clean all floors, floor covering and carpeting. Provide manufacturer's recommended temporary maintenance on resilient floors. Shampoo carpeting if it was not adequately protected after installation and is heavily soiled.
3. Clean and hand dust shelving, cabinets, and casework.
4. Drag all lawn, planting bed and pavement areas with a magnet to pick up any stray nails and other metal debris.

2.2. CLOSE OUT PROCEDURE

1. When the Contractor considers the Work to be substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items that remain to be completed or corrected and request a “punch list” observation from the Architect. Based on this list provided by the Contractor, the Architect will confirm or deny that the project is substantially complete as defined by the Project Manual.
2. When the Work is substantially complete, as determined by the Architect, the Architect will prepare a Certificate of Substantial Completion. The “punch list” observation list shall be attached to the Certificate and the Contractor shall establish the time needed to finish all items on the list.
3. The Contractor shall inform the Architect, in writing, when the “punch list” items have been completed. The Architect will confirm completion of the “punch list” items.
4. If it is necessary for the Architect to make multiple site visits to confirm completion of “punch list” items, the Architect may invoice the Contractor for time spent beyond the initial site visit.

2.3. SUBMITTALS; BEFORE FINAL PAYMENT

1. Contractor shall maintain the closeout submittals checklist throughout the closeout process and transmit the checklist and all items as one submittal.
2. An affidavit attesting payment of all payrolls, bills for materials and other indebtedness.
3. Releases and waivers of liens from Contractor, Subcontractors and material suppliers, in form approved by the Owner.
4. Letter of Consent of Surety to final payment.
5. Affidavits of Wages Paid.

6. Equipment and Work guarantees (longer than one year). Complete all required warranty registration forms that are required for all manufactures. It is the General Contractor's responsibility to compile a warranty registration list for all the Work. Obtain necessary signatures that may be required for warranty registration.
7. Operations and Maintenance Manuals, as one complete submittal, as described in paragraph 1.4, to include the following:
   d. Architectural Work equipment maintenance and operation instruction manuals, complete, in final form.
   e. Mechanical Work equipment maintenance and operating instruction manuals, complete, in final form.
   f. Electrical Work equipment maintenance and operating instruction manuals, complete, in final form.
8. Marked-up record drawings, as one complete submittal, as described in paragraph 1.3, to include the following:
   a. Architectural Work marked-up record drawings, complete.
   b. Mechanical Work marked-up record drawings, complete.
   c. Electrical Work marked-up record drawings, complete.
9. Electrical inspector's certificate of acceptance of the Work.
10. Certificate of Occupancy.
11. Asbestos-Free Certificate. Verify that all materials installed on the project are asbestos-free. See form bound in Project Manual.
12. List of extra materials, as required by specifications sections and storage location.
13. Complete list of all painting materials and colors used including manufacturer and color code identification number and/or formula.
14. Provide written confirmation of all final inspection approvals for all permits issued (building, mechanical, plumbing, electrical, etc.) by agency having jurisdiction.

END, SECTION 01 77 00

# Asbestos-Free Materials Certification

Project: 19-12F, Maintenance Building Remodel, Grays Harbor Transit, Hoquiam, Washington

Date: _____

I _____, as the authorized representative for _____, certify that all materials installed and used by the undersigned pursuant to this project are free (contain less than 1%) of any laboratory detectable amounts of asbestos containing material using the method specified in Appendix E, Subpart E of 40 CFR Part 763 Section 1, polarized light microscopy. Materials are described as asbestos-free as represented by the Manufacturer's "Material Safety Data Sheet" (MSDS). This certification includes all materials installed and used by the contractor, all subcontractors and all other contractors performing work on this project for work completed as described below:

Description of Project:_____

Contractor/Vendor Name:_____

Representative Name:_____Title:_____

Address:_____

Phone:_____Fax:_____Email:_____

License No:_____UBI No:_____

Signature:_____

Subscribed and sworn to me this_____day of _____, 20_____

Notary Public:_____

My Commission Expires:_____

Harbor Architects LLC
HARBOR PLACE | 345 W WISHKAH | ABERDEEN WA 98520 | 360.532.0980 | harborarchitects.com

# PROJECT CLOSEOUT - SUBMITTALS

*Date:*
*Project No:* 19-12F

**Contractor**
address
city-state-zip

*Project Name:* Maintenance Building Remodel
GRAYS HARBOR TRANSIT
Hoquiam, Washington

The following items must be completed prior to final payment. Contractor shall maintain this checklist throughout the closeout process and transmit the checklist and all items as one submittal. See Section 01 77 00 of the project manual for full closeout requirements. Submittal of documents and checklist certifies that contractor has performed a detailed review of all materials to ensure that they comply with Section 01 77 00.

| Item | Contractor/Sub/Trade | Received By HA |
|---|---|---|
| Affidavits of Wages Paid (WA State form: F700-007-000). | | |
| An affidavit attesting payment of all payrolls, bills for materials and other indebtedness. | | |
| Releases and waivers of liens from Contractor, Subcontractors and material suppliers, in form approved by the Owner. | | |
| Letter of Consent of Surety to final payment. | | |
| Equipment and Work guarantees (longer than one year). | | |
| Operations and Maintenance Manuals, complete | | |
| Marked-up record drawings, complete. | | |
| Electrical inspector's certificate of acceptance of the Work. | | |
| Certificate of Occupancy. | | |
| Asbestos-Free Certificate. Verify that all materials installed on project are asbestos-free. See form bound in Project Manual. | | |
| List of extra materials, as required by specifications sections and storage location. | | |
| Complete list of all painting materials and colors used including manufacturer and color code identification number and/or formula. | | |
| Provide written confirmation of all final inspection approvals for all permits issued (building, mechanical, plumbing, electrical, etc.) by agency having jurisdiction. | | |

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirments.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

In accordance with pertinent provisions of this Section, carefully demolish, remove from the site and dispose properly those items scheduled to be so demolished.

1.3. RELATED WORK

1. Section 01 50 00: Temporary Facilities.
2. Section 01 73 29: Cutting & Patching.
3. Section 03 20 00: Concrete Reinforcing Cutting & Patching.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.
3. In instances of removal of asbestos containing materials, all workers and supervisors shall be certified with the State of Washington.

1.5. REFERENCE BENCHMARKS & MONUMENTS

Locate and carefully maintain all benchmarks, monuments and other reference points and, if disturbed or destroyed, replace as directed at no cost to Owner.

1.6. EXISTING UTILITIES

1. Underground: Consult with serving utilities before excavation work starts to determine locations of active existing utilities. Known active utilities will be located by local utility locate service. Contractor shall arrange for utility locate prior to starting work. Protect and repair any damage thereto, without cost to Owner, in manner approved by Serving Utility and/or Owner. Plug or cap pipes or conduits not to be re-used at site improvement lines. Unknown active utilities or private piping or conduits, if encountered, to be protected and any damage thereto shall be repaired in manner approved by Serving Utility and/or Owner with cost to be responsibility of Owner.
2. Overhead: Protect all overhead utilities on or adjacent to site from damage caused by the Work and repair any damage thereto at no cost to Owner.
3. Inactive Utilities: Remove from within building lines; plug or cap in approved manner at least three (3) feet outside building or site improvement lines as directed.

1.7. PROTECTION

1. Provide barriers, safety guards and warning lights as required for public protection by law and ordinance.
2. Keep streets, walks and alleys clean and free of obstructions.

1.8. EXISTING IMPROVEMENTS

1. Conduct all operations in such a manner as to prevent damage to existing structures and surfaces to remain and to adjacent property.
2. Repair any damage incurred because of work in this Section to satisfaction of Architect.
3. Resulting damage to existing floor, wall and ceiling finishes shall be replaced or repaired at no additional cost to the Owner.

1.9. ASBESTOS ABATEMENT STANDARDS

1. Hazardous Materials Investigation: See asbestos and lead paint survey performed by EnviroTech Consulting Services LLC, included in Appendix.
2. Disclosure: The Owner is aware of the presence of asbestos-containing materials present on the job site.
   a. Sheet vinyl flooring and mastic on first and second floors.

## 2. EXECUTION

2.1. GENERAL

In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.

2.2. SALVAGE RIGHTS

The Owner shall have the option of claiming any material removed during the course of the Work, not scheduled for reuse.

2.3. DEMOLITION

1. By careful study of the Contract Documents, determine the location and extent of selective demolition to be performed.
2. Visit the project site and verify the extent and location of selective demolition required. Carefully identify limits of selective demolition. Mark interface surfaces as required to enable workers to identify items to be removed and items to be left in place, intact.
3. Prepare and follow an organized plan for demolition and removal of items. Completely remove items scheduled to be so demolished and removed, leaving surfaces clean, solid and ready to receive new materials specified elsewhere.
4. Saw cut all existing concrete, maintaining straight and uniform lines.
5. Demolished material, not salvaged by the Owner, shall be considered to be property of the Contractor and shall be completely removed from the job site.
6. Use means necessary to prevent dust becoming a nuisance to the public, to the Owner's operation, to neighbors and to other work being performed on or near the job site. Erect and maintain necessary dust barriers to seal off the demolition area from unaffected spaces.

2.4. DISPOSAL

1. Provide all necessary labor and equipment to haul demolition debris to proper disposal site.
2. Pay for all disposal costs.

2.5. REPLACEMENTS

In the event of demolition of items not so scheduled to be demolished, promptly replace such items to the approval of the Architect, at no additional cost to the Owner.

END, SECTION 02 41 19

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement and Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all reinforcement where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 03 30 00: Cast-In-Place Concrete.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. ACI 315: Manual of Standard Practice for Detailing Reinforced Concrete Structures, latest edition.
2. ACI 318: Building Code Requirements for Reinforced Concrete, latest edition.
3. ASTM: A82, A185 and A615.

1.6. SUBMITTALS

1. Submit shop drawings for review showing details of bars, anchors and other items, if any, provided under this Section.
2. See Section 01 33 00 for Submittals.

1.7. INSPECTION

1. Obtain Architect's approval of reinforcement steel placement prior to placing concrete.
2. Secure necessary approval from local Building Official prior to placing concrete.

## 2. PRODUCTS

2.1. BARS

1. Provide deformed bars conforming to ASTM A615.
2. All bars shall be Grade 60 (Grade A706 for welded bars unless otherwise noted, Grade 40 for bend out bars).
3. All bars shall be new billet stock, uncoated and free from rust and/or scale.

2.2. TIE WIRE

Provide black, annealed steel, (16) gauge minimum, conforming to Federal Specification QQ-W-461.

2.3. MECHANICAL COUPLERS

1. General: All cut bars shall be spliced with mechanical couplers
2. Coupler: Provide Dayton Superior “Bar Lock XL”, or equal, mechanical couplers.
3. Coupler Finish: Black.

2.4. SUPPORTS & SPACERS

1. Provide chairs or masonry blocks, two (2) inches square maximum.
2. Reinforcing supports shall be designed to not penetrate vapor barrier under slab.

## 3. EXECUTION

3.1. GENERAL

1. Detail, fabricate and place per ACI 315 and 318.
2. Replace bars removed by slab demolition. See paragraph 3.2. below.
3. Position, support, and secure reinforcement against displacement by formwork, construction and concrete placing operations.
4. Notify Architect if conflict for space occurs.

3.2. REINFORCING CUTTING & PATCHING (AT STRUCTURAL SLABS)

1. General: Prior to commencing with reinforced concrete slab cutting, review existing conditions with Architect. Do not cut concrete grade beams – contact Architect for direction.
2. Cutting Concrete Slab: Where existing concrete is to be removed, score perimeter with concrete saw, taking care not to cut reinforcing bars.
3. Concrete Removal: Break up concrete, disturbing existing concrete reinforcing as little as possible.
4. Cutting Reinforcing: Make a single cut in each bar and bend up, out of the way. Bend bars as little as possible.
5. Bar Splices: Install mechanical couplers in strict accordance with manufacturer's written instructions.

3.3. MINIMUM COVER

Provide concrete cover over reinforcement as follows, unless shown otherwise:

1. Concrete cast against earth: 3".
2. Slabs not exposed to weather: 3/4".

3.4. SPLICES

1. Splice cut bars with "Bar Lock", or equal, mechanical couplers, typical.
2. Splice and Development Length Schedule (Concrete):

| | Minimum Lap Splice Lengths ("Ls") | | Minimum Development Lengths ("Ld") | | Minimum Embedment Length for Standard End Hooks ("Ldh") |
|---|---|---|---|---|---|
| Bar Size | Top Bars (1) | Other Bars | Top Bars (1) | Other Bars | |
| #3 | 2'-0" | 1'-6" | 1'-6" | 1'-3" | 0'-7" |
| #4 | 2'-8" | 2'-0" | 2'-0" | 1'-7" | 0'-9" |
| #5 | 3'-4" | 2'-7" | 2'-7" | 2'-0" | 1'-0" |
| #6 | 4'-0" | 3'-1" | 3'-1" | 2'-4" | 1'-2" |

(1) "Top Bars" are horizontal bars with more than (12) inches depth of concrete cast below them.

END, SECTION 03 20 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide cast-in-place concrete, including all required formwork, where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 03 20 00: Concrete Reinforcing.
2. Section 03 20 00: Concrete Reinforcing Cutting & Patching

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

Conform to the latest editions of the following:

1. ACI 116: Cement and Concrete Terminology.
2. ACI 117: Standard Specifications for Tolerances.
3. ACI 301: Specifications for Structural Concrete for Buildings.
4. ACI 302: Guide to Concrete Floor and Slab Construction.
5. ACI 304: Guide for Measuring, Mixing, Transporting and Placing Concrete.
6. ACI 308: Standard Specification for Curing Concrete.
7. ACI 309: Standard Specification for Consolidation of Concrete.
8. ACI 311: Guide for Concrete Inspection.
9. ACI 315: Details and Detailing of Concrete Reinforcement.
10. ACI 318: Building Code Requirements for Structural Concrete.
11. ACI 347: Guide to Formwork of Concrete.
12. ACI 506: Guide for Shotcreting.
13. ASTM C33: Standard Specification for Concrete Aggregates.
14. ASTM C94: Standard Specification for Ready-Mix Concrete.
15. ASTM C150: Standard Specification for Portland Cement.
16. ASTM C260: Standard Specification for Air-Entrained Admixtures for Concrete.
17. ASTM C309: Standard Specification for Liquid Membrane-Forming Compounds for Curing.
18. ASTM C494: Standard Specification for Chemical Admixtures for Concrete.
19. ASTM C595: Standard Specification for Blended Hydraulic Cements.
20. ASTM C618: Standard Specification for…Fly Ash… Maximum loss on ignition shall be 1.0%.
21. ASTM C1017: Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
22. ASTM C1116: Synthetic Fiber Reinforced Concrete and Shotcrete.
23. ASTM C1218: Standard Test Method for Water-Soluable Chloride in Mortar and Concrete.

1.6. SUBMITTALS

1. Submit concrete mix design for review.
2. See Section 01 33 00 for Submittals.

1.7. INSPECTION
1. Obtain Architect's approval of reinforcement steel placement prior to placing concrete.
2. Secure necessary approval from local Building Official prior to placing concrete.

## 2. PRODUCTS

2.1. FORMS
1. Design, erect, support, brace and maintain formwork so it will safely support vertical and lateral loads which might be applied until such loads can be supported safely by the concrete structure.
2. Construct forms to the exact sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades and level and plumb work in the finished structure.
3. Use form release agents that will not transfer to the concrete.

2.2. CONCRETE INGREDIENTS
1. Mix Designs: The Contractor shall design concrete mixes that meet, or exceed, the requirements of the concrete mix table. The mix designs shall facilitate anticipated placement methods, weather, rebar congestion, architectural finishes, construction sequencing, structural details, and all other factors required to provide a structurally sound, aesthetically acceptable finished product. Water reducing admixtures will likely be required to meet these requirements. Concrete mix designs shall clearly indicate the target slump. Slump tolerance shall be ±1½ inches.
2. Portland Cement: Provide gray color, Type I-II, conforming to ASTM C150.
3. Coarse and Fine Aggregate: Conform to ASTM C33. Maximum size of coarse aggregate shall be 1/5 of narrowest dimension between forms of concrete member, in no case exceeding 1 1/2 inch size. If pumping of concrete is employed, maximum size shall be 3/4 inch. Provide pea gravel at polished concrete slabs.
4. Water: Clean and potable.
5. Admixture Manufacturers: Shall be Master Builders, W.R. Grace, or equal. All manufacturer's recommendations shall be strictly followed.
6. Air-entraining Agent: Conform to ASTM C260. Attain five (5) percent (plus/minus 1-1/2 percent) entrained air, by volume, for all concrete exposed to weather.
7. Water-reducing Agent: Type A – water-reducing, Type D - water reducing and retarding or Type E - water reducing and accelerating. Conform to ASTM C494-80.
8. Maximum Chloride Content: The maximum water-soluble chloride content shall not exceed 0.15% by weight of cementitious material unless noted otherwise.

2.3. CONCRETE PROPERTIES
1. General: All concrete shall be ready-mixed per ASTM C94.
2. Flowable Concrete: At Contractor's option, Contractor may use Master Builders Admixture (MBA) systems, or equal, using Pozzolith or Rheobuild admixtures, to produce flowable concrete. Manufacturer's concrete technician shall assist in determining proportions for admixture systems concrete and shall obtain approval of Architect prior to employing this procedure.
3. Compressive Strength: Conform to Section 1905, International Building Code. **[Note: Conformance may require higher compressive strength than that specified, depending on production facility field strength test records.]**

| Item | Design f'c(psi) | Maximum Water/ Cement Ratio | (2) Minimum Fly Ash P/CY | Maximum Aggregate Size (inches) | Notes | (1) Minimum Cementitous Material (sack/yard) |
|---|---|---|---|---|---|---|
| Structural Slabs | 4,000 @ 28 days | 0.45 | 100 | 3/4 | | 5 1/2 |
| All Other Concrete | 4,000 @ 28 days | 0.50 | - | 3/4 | | 5 1/2 |

Concrete Mix Notes:

(1) Total cementitous material is the sum of all cement plus fly ash.
(2) At the Contractor's option, fly ash may be substituted for cement, but shall not exceed 25% by weight of total cementitous material.

2.4. EPOXY ADHESIVE

Provide Hilti Inc. "HIT-HY 200", or equal, two-component, hybrid adhesive.

2.5. BONDING AGENT

Fresh to hardened concrete, provide Sika "Arematec 110 EpoCem", or equal.

2.6. CURING MATERIALS

1. Interior Slabs: Provide liquid, membrane-forming compound conforming to ASTM C309, Type I, clear, containing no materials which would impair bonding of flooring products.

2.7. ACCESSORIES

1. Vapor Barrier: Under interior, on-grade slabs provide (15) mil polyethylene sheeting conforming to ASTM E1745. Stego Industries "Stego Wrap" or equal, polyethylene with "Stego Tape", or equal, polyethylene film and an acrylic, pressure-sensitive adhesive. Seal all pipe and conduit penetrations watertight. Provide screed chairs to avoid vapr barrier penetrations.

## 3. EXECUTION

3.1. FORMWORK

1. Conform to ACI 301.
2. Provide form-release agents that will not impair subsequent surface treatments or finishes.
3. Provide all necessary formwork accessories as indicated, recommended or required.
4. After placement, remove all forms, screeds, screed stakes, projecting form ties and bolts. Do not pry against concrete when removing forms.

3.2. MIXING & PLACING

1. All mixing and transporting equipment, forms, reinforcing and subgrade shall be free of all foreign matter and ice.
2. Attain uniform distribution during mixing, discharging mixer completely before recharging. Convey and deposit in a manner to prevent segregation. No aluminum conveying equipment is permitted. Conform to ACI 301.
3. Place concrete following all applicable ACI recommendations. Concrete shall be placed monolithically between construction or expansion joints.
4. Do not embed piping, other than electrical conduit, in structural concrete. Locate conduit to maintain maximum strength of the structure. Increase the thickness of the concrete if the outside diameter of the conduit exceeds thirty (30) percent of the thickness of the concrete. Do not embed aluminum in concrete.
5. Set all bolts, inserts and other required items in the concrete as directed, sufficiently secured to resist displacement.
6. Consolidate freshly placed concrete per ACI 309 using internal mechanical vibrators with 7000 rpm minimum frequency. Penetrate vibration head into upper portions of underlying plastic layers. Do not over-vibrate.
7. If concrete is placed by the pump method, horses shall be provided to support the hose. **The hose shall not be allowed to ride on the reinforcing.**
8. During placement, concrete shall not free fall more than (5) feet without written approval of Structural Engineer.

3.3. FINISHING FLATWORK SURFACES

1. General: Finish surfaces true with tolerance in any direction not to exceed 1/4 inch in ten (10) feet. Slope slabs 1/4 inch per foot, minimum, to drains.
2. Provide smooth trowel surface.

3.4. CURING & PROTECTION

1. Protect all freshly placed concrete from premature drying and excessive hot or cold temperature extremes.
2. Maintain curing procedures used for seven (7) days, at temperatures of (50) degrees F. If mean daily temperature drops below (40) degrees F. during this period, extend curing period an equal number of days or provide temporary heat or additional protection to maintain specified minimum temperature of air in contact with concrete.
3. Protect all concrete during curing period from all damaging mechanical disturbances, especially load stresses, heavy shock and excessive vibration. Provide necessary security at jobsite to prohibit marking of concrete surface while it is still plastic. Any concrete that receives imprinted damage will be removed and replaced at no cost to the Owner.
4. Protect finished surfaces from all damage.
5. Do not load self-supporting structures in manner to over-stress concrete.
6. Start curing procedures on slabs immediately after finishing operation. Install curing materials according to manufacturer's written instructions.

END, SECTION 03 30 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement and Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide metal fabrications where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 03 30 00: Cast-In-Place Concrete
2. Section 06 10 00: Rough Carpentry.
3. Section 06 40 00: Architectural Woodwork.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS
1. Conform to AISC "Manual of Steel Construction", latest edition.
2. ASTM: As noted hereinafter.

## 2. PRODUCTS

2.1. MISCELLANEOUS SHAPES & PLATES
Conform to ASTM A36 (fy = 36 ksi).

2.2. BOLTS
1. General: Provide hot-dipped galvanized steel, typical.
2. Machine Bolts: Conform to ASTM A307, Grade A.
3. Anchor Bolts: Conform to ASTM F1554, Grade 36, Class 2A.

2.3. DRILLED-IN EXPANSION ANCHORS
Provide Hilti Inc. "KwikBolt", or equal. (7) inch minimum embedment, or as shown.

2.4. POWDER ACTUATED FASTENERS
Provide Hilti “X-ZF” pins, Powers/Rawl “8 mm Drive Pins”, or equal.

2.5. EPOXY ADHESIVE
Provide Hilti Inc. “HIT-HY 200”, or equal, two-component, hybrid adhesive.

## 3. EXECUTION

3.1. GENERAL
Install metal fabrications as shown and required on Drawings.

3.2. EPOXY ADHESIVE
Install adhesives in strict accordance with manufacturers written instructions.

3.3. WELDING
Use E70 electrodes.

END, SECTION 05 50 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide wood, nails, bolts, screws, framing anchors and other rough hardware, and other items needed, and perform rough carpentry for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 05 50 00: Metal Fabrications.
2. Section 06 20 00: Finish Carpentry.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. Lumber & Timber: Conform to "West Coast Lumber Inspection Bureau Standard Grading and Dressing Rules", latest edition, for Douglas Fir, West Coast Hemlock and Western Red Cedar, hereinafter called "WCLIB".
2. Plywood: Conform to "U.S. Department of Commerce Product Standards PS 1-95 for Softwood Plywood - Construction and Industrial" hereinafter called "PS 1-95".
3. Grade Marks: Association grade mark and trademark must appear on each piece, or each shipment must be accompanied by a certificate of inspection.

1.6. PRODUCT HANDLING

Stack materials, level, and off ground, protected from excessive moisture absorption.

## 2. PRODUCTS

2.1. FRAMING LUMBER (KILN-DRIED)

1. 6 x Beams & Headers: Douglas Fir-Larch No. 1.
2. 2 x to 4 x Joists, Purlins & Headers: Douglas Fir-Larch No. 2 or Hem-Fir No. 1.
3. 6 x Posts & Columns: Douglas Fir-Larch No. 1.
4. Interior Bearing Studs & 4 x Columns: Douglas Fir-Larch No. 2 or Hem-Fir No. 1.
5. Interior Non-Bearing Studs: Douglas Fir-Larch No. 2 or Hem-Fir No. 1.
6. Other Structural Framing: Minimum, Douglas Fir-Larch No. 2 or Hem-Fir No. 1.
7. Utility & Standard Grades not permitted.

2.2. PRESSURE-TREATED LUMBER

1. General: Unless noted otherwise, pressure treated lumber shall be incised.
2. Hem-Fir/Hemlock: Provide alkaline copper quaternary (ACQ-C) water borne preservative per American Wood Preservers Association (AWPA) standard P5, to a minimum retention of 0.40 pounds per cubic foot.
3. Douglas Fir: Provide ammoniacal copper zinc arsenate (ACZA) water-borne preservative per AWPA standard U1 to a minimum retention of 0.40 pounds per cubic foot.

2.3. FASTENERS

1. Provide all nails, bolts, screws, etc. as required. Nailed connection designs are based on "common wire" or box nails with the following properties:
   a. 8d: 0.131" diameter, 2 1/2" length.
   b. 10d: 0.148" diameter, 3" length.
   c. 16d: 0.162" diameter, 3 1/2" length.
   d. 20d: 0.192" diameter, 4" length.
2. Provide Simpson "Strong-Tie", or equal, connectors. Framing connectors shall have ICBO approval. All framing connectors shall be fully nailed. All framing connectors shall have Simpson (G90) galvanized protective coatings.

## 3. EXECUTION

3.1. GENERAL FRAMING

1. Carefully lay out, cut, fit and erect framing. Install all work to true lines, plumb and level.
2. Calculate anticipated lumber shrinkage and erect framing accordingly.
3. Conform to fastening schedule per 2015 IBC, Table 2304.10.1, as adopted by local jurisdiction, or more if indicated on Drawings. Stagger all nailing to prevent splitting of wood members.
4. Do not notch or drill structural members, except as allowed by IBC Sections 2308.9.10, 2308.9.11 and 2308.10.4.2, or as restricted by plans or details, or as approved prior to installation.
5. Provide all necessary blocking and backing required for work in other Sections. Verify items requiring blocking and/or backing along with specific requirements.
6. Full Height Studs: Unless noted otherwise on Drawings, all bearing wall studs shall be full height between structural supports.
7. Header Framing: At structural mullions between windows and/or doors, provide (1) bearing stud at each end of header and (1) minimum, king stud, extending full height to double plate above, unless shown otherwise on Drawings.

3.2. PRESSURE-TREATED LUMBER

1. All wood in contact with concrete or masonry shall be pressure-treated.
2. Treat cut ends and drilled holes with (3) liberal brush coats of Cuprinol #10, or equal (20% solution of Copper Naphthanate). If wood is to be painted, use Cuprinol #20, or equal, clear.

END, SECTION 06 10 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide finish wood, nails, bolts, screws and other finish carpentry hardware, and other items needed, and perform finish carpentry for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Carpentry.
2. Section 07 60 00: Flashing & Sheet Metal.
3. Section 07 90 00: Joint Sealants.
4. Section 09 90 00: Painting & Coatings.
5. Section 12 30 00: Manufactured Casework.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. Lumber & Timber: Conform to "West Coast Lumber Inspection Bureau Standard Grading and Dressing Rules", latest edition, for Douglas Fir, West Coast Hemlock and Western Red Cedar, hereinafter called "WCLIB". Conform to Architectural Woodwork Institute (AWI) Quality Standards, latest edition.
2. Softwood Plywood: Conform to "U.S. Department of Commerce Product Standards PS 1-95 for Softwood Plywood - Construction and Industrial" hereinafter called "PS 1-95".
3. Hardwood Plywood: Conform to Hardwood Plywood and Veneer Association (HPVA) grading standards, latest edition.

1.6. PRODUCT HANDLING

1. Interior Materials: Stack level, off floor inside building.
2. Use all means necessary to protect materials of this Section before, during and after installation and to protect installed work and materials of all other trades.

1.7. JOB CONDITIONS

All drywall and other "wet" work shall be completed not less than ten (10) days prior to delivery of interior finish lumber and/or plywood to the Project.

## 2. PRODUCTS

2.1. INTERIOR WORK

1. General: Provide the following materials as manufactured by Mouldings & Millwork, or equal.
2. Misc. Boards & Trim: Provide Spero Eco-Wise MDF, pre-primed.

2.2. FASTENERS

1. Provide all necessary nails, brads and screws to complete the Work.
2. All interior fasteners shall be galvanized.

## 3. EXECUTION

3.1. GENERAL

1. Provide necessary blocking and backing for all items.
2. Place and fit all finish carpentry in a first-class workmanlike manner, free of all hammer marks, dents, gouges, splits or other defects. At interior work, set nail heads for puttying over.
3. Unless otherwise specified, 45-degree mitre-cut all end joints with tightly sealed joints.
4. Unless otherwise specified, surface all interior finish lumber on all sides exposed to view, free from machine marks and machine sanded smooth equal to hand sanding, sharp edges slightly eased.
5. Install trim in as long lengths as practicable, well secured to adjacent construction, plumb, level and in true alignment with openings and other construction.
6. All casings and trim to be backed out to allow firm, tight fit over materials. Saw-kerf wide trim to minimize cupping.

3.2. SEALANT INSTALLATION

1. Install construction sealant during finish carpentry work as items are installed, not after work is finished.
2. Conceal sealant to the greatest extent possible.
3. Always provide bond breaker to limit adhesion as noted in Section 07 90 00. Failure to provide necessary bond breakers shall be grounds to remove and replace affected finish materials at no additional cost to the Owner.

END, SECTION 06 20 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all architectural woodwork shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 05 50 00: Metal Fabrications.
2. Section 06 10 00: Rough Carpentry.
3. Section 06 20 00: Finish Carpentry.
4. Section 12 30 00: Manufactured Casework.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

Conform to "Custom" grade as specified in "Quality Standards Illustrated" of the Architectural Woodwork Institute (AWI), unless otherwise specified below.

1.6. SUBMITTALS

1. Submit samples of plastic laminate for color selection.
2. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING

1. Stack level, off floor in shop and in building after delivery.
2. Use all means necessary to protect materials of this Section before, during and after installation and to protect installed work and materials of all other trades.

1.8. JOB CONDITIONS

1. All drywall and other "wet" work shall be completed not less than ten (10) days prior to delivery of architectural woodwork to the jobsite.
2. Building shall be dry to approved condition and continuously heated to 65 degrees F. minimum not less than ten (10) days before materials included in this Section are placed therein. Maintain this same minimum temperature through completion and acceptance of entire project.

## 2. PRODUCTS

2.1. RESTROOM VANITY

1. Plywood Substrate: Provide 3/4" thickness, hardwood veneer plywood with solid and patched inner plies.
2. Plastic Laminate Surfaces: Provide WilsonArt , or equal, laminate with “AEON Enhanced Performance” offering high wear and scratch resistance, general purpose (HGS) Type 107, .048 inch thickness.

3. Backsplash Trim: Provide plastic laminate over substrate. Laminate and substrate shall match that provided for vanity. Provide (4) inches high, unless shown otherwise.

2.2. COUNTERTOPS

4. PB Substrate: Provide 3/4 inch thickness, industrial-strength particleboard with minimum density of (45) pcf.
5. MDF Substrate: At high moisture areas (where sinks, lavatories, etc. are present), provide Roseburg “Medex”, or equal, medium density fiberboard utilizing a synthetic resin system.
6. Plastic Laminate Top: Provide WilsonArt , or equal, laminate with “AEON Enhanced Performance” offering high wear and scratch resistance, general purpose (HGS) Type 107, .048 inch thickness.
7. Backing Sheet: Where countertop is exposed on underside, provide WilsonArt, or equal, .020 inch thickness backing sheet on underside of substrate.
8. Adhesives: Shall be recommended and approved by plastic laminate manufacturer.
9. Backsplash Trim: Provide plastic laminate over substrate. Laminate and substrate shall match that provided for countertop. Provide (4) inches high, unless shown otherwise.
10. Edge: Provide PVC “T” trim.

## 3. EXECUTION

3.1. FABRICATION

1. Prior to fabrication, field measure all locations to receive work in this Section and verify that actual job conditions match those shown on shop drawings.
2. Fabricate per AWI Standard Specifications, per approved shop drawings.

3.2. INSTALLATION

1. Install all woodwork to true horizontal and plumb lines, in perfect alignment with no distortions. Provide concealed shims as required.
2. Unless shown otherwise, provide HP plastic laminate edge at countertops. Install HP plastic laminate edge before top. Laminate countertop shall overlap laminate edge and shall be eased to eliminate sharp corners
3. Provide backsplashes typically where any countertop adjoins a wall. .
4. Patch all minor HP laminate nicks and scratches with custom-mixed filler of matching color.
5. Fully seal backsplash to countertop joint and backsplash to wall joint to avoid moisture penetration.
6. At Restroom Vanity, provide clear finish on semi-exposed surfaces and provide heat-activated wood tape on semi-exposed edges.
7. Tape securely in place over completed countertops a layer of protective cardboard to minimize potential damage. Replace all countertop HP laminate deemed unrepairable by Architect.

END, SECTION 06400

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide building insulation where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 06 10 00: Rough Carpentry.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. PRODUCT HANDLING
1. Deliver materials to jobsite in manufacturer's original, sealed containers, properly labeled and identified.
2. Store off floor, protected from moisture.

1.6. JOB CONDITIONS
1. Prior to installation of products in this Section, all framing lumber shall have a maximum moisture content of (19) percent.
2. Moisture Meters: Measure moisture content with Wagner Meters “Orion 910”, Lignomat “Mini-Ligno S/DC”, or equal.

## 2. PRODUCTS

2.1. BLANKETS - THERMAL
1. Provide kraft-faced fiberglass blankets of thicknesses shown on Drawings as manufactured by Johns Manville, or equal.
2. Insulation shall be formaldehyde-free.

2.2. BLANKETS - SOUND
1. Provide Bonded Logic Inc., "UltraTouch", or equal, Class A, denim insulation. Or, provide Owens Corning “Thermafiber SAFB”, or equal, mineral wool insulation.
2. Provide insulation to the full depth of wall cavity unless shown otherwise on Drawings.
3. Insulation shall be formaldehyde-free.

2.3. FOAM SEALANT
1. Provide single component, moisture curing, polyurethane foam sealant as manufactured by Macklanburg-Duncan, or equal.
2. Sealant shall have a (4) to (5) R value per inch thickness and shall be UL listed.

2.4. OUTLET GASKETS & CAULKING

1. Provide foam gaskets cut to tightly fit profiles of outlet devices. Foam material shall comply with all applicable codes.
2. Provide caulking to seal gap between gypsum board and electrical boxes that complies with all applicable codes.

## 3. EXECUTION

3.1. BLANKETS

1. Where applicable, vapor barrier shall be installed facing to warm side of room, typical.
2. Friction fit between framing, fitting ends of blanket tight to plates and/or blocking. Where applicable, staple nailing flanges over face of studs, typical.
3. Place additional insulation behind all recessed boxes, etc., where blanket is cut. Fill void between door frame and rough wall opening with insulation.
4. Provide wire retainers at 16” on center at floor insulation over crawl space.
5. Install attic rafter vents to maintain ventilation air flow between insulation and roof sheathing. At vaulted ceilings, install vents full length of rafters.

3.2. FOAM SEALANT

1. General: Install foam sealant in strict accordance with manufacturer’s written instructions.
2. Install foam sealant at all penetrations in thermal envelop as required by and in conformance with Washington State Energy Code, Commercial Provisions.
3. Foam sealant shall be installed in following locations, but are not limited to:
   a. Provide caulking to seal gap between gypsum board and electrical boxes.
   b. Caulk top and bottom plates at all wiring and/or piping penetrations.
   c. Caulk sill plate to subfloor.
   d. Seal wiring penetrations into electrical boxes.
   e. Seal recessed lighting fixture housings where they penetrate ceiling material.

3.3. OUTLET GASKETS & CAULKING

Install foam gaskets around all outlet devices and caulk all gaps between electrical boxes and gypsum board, at all exterior walls of the thermal envelope, in strict accordance with manufacturer’s written instructions.

END, SECTION 07 21 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements

1.2. DESCRIPTION

Provide all flashing and sheet metal complete, in place, as shown on the Drawings, specified herein and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 20 00: Finish Carpentry.
2. Section 07 90 00: Joint Sealants.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

Conform to latest edition of SMACNA "Architectural Sheet Metal Manual".

1.6. WARRANTY

1. Furnish written warranty to Owner to cover work performed under this Section to be watertight and weathertight for a period of two years from date of substantial completion.
2. Provide standard panel manufacturer's paint finish warranty for specific wall panels. "Zincalume" coating shall have limited (25) year warranty against rupture, fail structurally or perforation. "DuraTech5000" coating shall have limited (30) year warranty covering items below. "DuraTechNT" coating shall have limited (25) year warranty covering items below.
   a. Cracking, flaking or peeling.
   b. Showing a color change more than (5) Hunter delta-E units as determined by ASTM method D-2244-02.
   c. Chalking in excess of ASTM D-4214-98 method A D659 number 8.

## 2. PRODUCTS

2.1. MISCELLANEOUS FLASHING

1. General: Provide (26) gage, painted galvanized steel. Provide factory-applied, oven-baked, finish based on DuraTechNT, or equal, polyvinylidene fluoride resin.
2. Provide C-metal trim around the perimeter of the new window and window cutouts.

## 3. EXECUTION

3.1. GENERAL

Fabricate and install work in this Section according to SMACNA architectural manual.

3.2. INSTALLATION

1. Install all items in this Section as shown on Drawings in strict accordance with manufacturer's recommendations.
2. Field verify existing construction and window installation and match.

END, SECTION 07 60 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide sealants and related accessories needed for the construction shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 06 20 00: Finish Carpentry.
2. Section 07 60 00: Flashing & Sheet Metal.
3. Section 08 11 00: Standard Metal Doors & Frames.
4. Section 08 53 00: Vinyl Windows.
5. Section 09 20 00: Gypsum Board.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. PRODUCT HANDLING
1. Deliver materials to jobsite in manufacturer's original, sealed containers, properly labeled and identified.
2. Store as recommended by manufacturer.

1.6. JOB CONDITIONS
1. Do no exterior work during wet weather or when moisture is present on subject surfaces.
2. Perform work only if ambient temperatures are within the range specified by sealant manufacturer.

## 2. PRODUCTS

2.1. SEALANTS - GENERAL
1. General: Conform to Federal Specification TT-S-00230C, Type II, Class A for non-sag type for vertical surfaces. Sealants shall be non-staining type for porous and non-porous surfaces.
2. One-Part Polyurethane: Provide Sika Corp. "Sikaflex-la" or Sherwin-Williams “Stampede-1”, or equal.
3. One-Part Elastomeric: Provide Sherwin-Williams “SherMax”, or equal, urethanized elastomeric or Sherwin-Williams “PowerHouse”, or equal, siliconized acrylic latex elastomeric sealant.
4. One-Part Polyurethane – Concrete: Provide Sika Corp. “Sikaflex Concrete Fix”, or equal.
5. One-Part Silicone: Provide GE "Contractors 1000", or equal.
6. Color: Furnish stock colors, matching adjacent finish material colors as close as possible; or as directed.

2.2. SEALANTS – VINYL WINDOWS
1. Provide OSI Sealants, Inc., “H2U”, or equal, paintable urethane acrylic sealant, conforming to Federal Specification TT-S-001657, Type I.
2. Color: Furnish stock colors, matching adjacent finish material colors as close as possible; or as directed.

2.3. SEALANTS – EXISTING METAL SIDING
Provide Uniflex “One Flash Permanent Roof Repair Sealant”, or equal.

2.4. BACKER ROD
1. Provide closed cell polyethylene rod with a bond breaker film surface to prevent adhesion to sealant.
2. Rod diameter shall be (25) per cent, minimum, greater than joint width.

2.5. BOND BREAKER TAPE
Provide C.R. Laurence, or equal, clear plastic tape with clear polyethylene adhesive backing, approximately (8) mils thickness.

2.6. PRIMER
Provide as recommended and manufactured by sealant manufacturer, non-staining type.

## 3. EXECUTION

3.1. GENERAL
1. Select the most appropriate sealant products for specific applications. Make sealant decisions in conjuction with painting subcontractor.
2. Install materials in strict accordance with manufacturer's written instructions. All sealant joints shall be even and neatly tooled.
3. Conceal sealant when possible, during, not after, installation of finish materials.
4. **Use backer rod or bond breaker tape to eliminate three-sided adhesion which will shorten the service life of dynamic joints.**

3.2. BACKER ROD
1. At butt-type joints, install backer rod so that joint depth does not exceed (50) percent of joint width.
2. Install at a uniform depth and in a fully relaxed position.

3.3. BOND BREAKER TAPE
At fillet-type joints and band-aid-type joints, install bond breaker tape.

3.4. DOOR FRAMES & TRIM
1. Metal Frames: Provide sealant at all joints between metal frames and wall finish and wood trim as applicable.
2. Wood Trim: Provide sealant at all joints between wood trim and wood trim, and wood trim and wall finish.

3.5. DRYWALL PARTITIONS
Provide sealant at all intersections of wallboard with floor and ceiling terminations.

END, SECTION 07 90 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all metal doors and frames complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 07 90 00: Joint Sealants.
2. Section 08 70 00: Finish Hardware.
3. Section 08 80 00: Glazing.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. Conform to the Steel Door Institute (SDI) "Recommended Specifications, Standard Steel Doors and Frames, SDI 100-83".
2. Conform to National Fire Protection Association (NFPA) NFPA80, NFPA 101, and NFPA105.

1.6. SUBMITTALS

1. Submit manufacturer's data and shop drawings which include door and frame schedule and complete details for review.
2. Submit color samples for prefinished interior frames.
3. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING

Store materials off floor in a dry area inside the building.

## 2. PRODUCTS

2.1. FLUSH DOORS

1. Manufacturer: Shall be a member of the Steel Door Institute: Ceco, Curries, Fenestra, Mesker, Republic, Steelcraft or approved. Doors and frames shall be of same manufacturer.
2. General: Shall be of flush construction with visible edge seam and beveled (1/8 inch in 2 inches) at lock edge. Provide doors fully prepared for specified hardware. Hardware reinforcements shall conform to SDI Standards. Reinforce doors for closers even if not scheduled. Face skins shall be cold-rolled steel, (18) gauge. Doors shall be bondarized and finished with (1) baked-on prime paint coat.
3. Interior Doors: Shall have impregnated kraft honeycomb core that is fully laminated to both inside faces of door skins.
4. Glass Lites: Provide manufacturer's standard profile trim kit and covers.

2.2. INTERIOR FRAMES

1. Manufacturer: Shall be a member of the Steel Door Institute: Ceco, Curries, Mesker, Republic, Steelcraft or approved. Doors and frames shall be of same manufacturer.
2. General: Shall be cold-rolled steel mortised, reinforced, drilled and tapped for all mortised hardware per SDI Standards. Reinforce frames for closers even if not scheduled. Provide metal plaster guards for all mortised cutouts. Provide (1) baked-on prime paint coat.
3. Welded Frames: Set up and weld frame joints. Provide (2) base and (6) wall anchors suitable for particular wall construction for each frame. Gauge as shown on Door Schedule.

## 3. EXECUTION

3.1. GENERAL

1. Verify that job conditions are correct and proper for installation of frames. Verify opening dimensions.
2. Coordinate with other trades where necessary to make provisions for installation. Do not proceed with work until unsatisfactory conditions have been corrected.

3.2. DOORS

Install doors with proper clearances to frames in proper operating condition, free of dents and other damage.

3.3. FRAMES

1. Erect frames plumb and square.
2. Brace until built into adjacent work, then remove spreader bars, as applicable.
3. Secure frames to wall system per manufacturer's standard details and as shown on Drawings.

END, SECTION 08 11 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all vinyl windows complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 06 10 00: Rough Carpentry.
2. Section 06 20 00: Finish Carpentry.
3. Section 07 60 00: Flashing & Sheet Metal.
4. Section 07 92 00: Joint Sealants.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS
Conform to American Architectural Manufacturers Association (AAMA) certification AAMA 101V-86.

1.6. SUBMITTALS
1. Submit shop drawings, manufacturer's data for review and samples for color selection.
2. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING
Store materials off floor in a dry area inside the building.

1.8. WARRANTY
Furnish a written warranty to the Owner for a period of (10) years, minimum, from the date of substantial completion, against failure of the hermetic seal of insulated glass.

## 2. PRODUCTS

2.1. MANUFACTURER
Milgard, or equal.

2.2. SLIDING WINDOWS
1. Series: Tuscany, 8120T, or equal.
2. U-Value: 0.31.
3. SHGC: 0.28.
4. Glazing: Insulated, clear glass, Low-E with argon gas.
5. Frame Style: 1 1/4" nail-on fin with 1 3/8" setback – verify to match existing.
6. Frame Color: White.
7. Provide standard screens at all vent units.

2.3. ACCESSORIES

1. Provide necessary components that may be required to complete the installation, such as compensating channels, angles, sill flashings, etc.
2. Provide necessary metal siding trim pieces for proper installation – match existing.
3. Provide finish or color to match frame color, typical.

## 3. EXECUTION

3.1. PREPARATION

Cut new opening in existing building and prep rough opening as required to match existing windows.

3.2. INSTALLATION

1. Erect frames level, plumb and properly aligned. Do not attach nailing flange to rough opening at head. Provide full support beneath entire length of window sill.
2. Trim interior and exterior corners, as required, to avoid interference with rough opening and interior and/or exterior finish installation.
3. Provide protection of exposed surfaces of frame and glass from damage until final completion and acceptance of the work.
4. Remove protective material, labels, etc. and leave exposed work clean, free of scratches, abrasions and other imperfections.

END, SECTION 08 53 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all finish hardware complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 08 11 00: Metal Doors & Frames.

1.4. QUALITY ASSURANCE

1. Manufacturer: Engage qualified manufacturers with a minimum of 5 years of documented experience in producing hardware and equipment like that indicated for this Project and that have a proven record of successful in-service performance.
2. Supplier: Shall be an experienced commercial door hardware distributor with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying
3. Installer: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Installers shall have a minimum of (3) years experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
4. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
5. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARD

1. ANSI A117.7; Accessible and Usable Buildings and Facilities.
2. NFPA 70: National Electrical Code.
3. NFPA 80: Fire Doors and Windows.
4. NFPA 101: Life Safety Code.
5. NFPA 105: Installation of Smoke Door Assemblies.
6. ANSI/BHMA – A156 Series: Certified Product Standards.
7. UL 10C: Positive Pressure Fire Tests of Door Assemblies.
8. ANSI/UL 294: Access Control System Units.
9. UL 305: Panic Hardware.
10. ANSI/UL 437: Key Locks.

1.6. SUBMITTALS

1. General: See Section 01 33 00 for Submittals.
2. Manufacturers Data: Submit (1) copy of manufacturers data for each item of finish hardware to be used to assist Architect in reviewing schedule.

a) Include installation details, material descriptions, dimensions of individual components and profiles, operational descriptions, and finishes.

3. Hardware Schedule: Submit fully detailed hardware schedule for review.
   a) Indicate complete designation of every item required for each door or opening.
   b) Schedule shall be prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams.
   c) Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
   d) Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
   e) Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instruction. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

1.7. PRODUCT HANDLING

1. Each item or package is to be individually tagged with identification related to final hardware schedule.
2. Provide a locked room at the jobsite for storing finish hardware.

1.8. COORDINATION

1. Templates: Obtain and distribute to the parties' involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
2. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications

1.9. WARRANTY

1. All finish hardware items furnished in this Section shall carry a warranty against defects in workmanship and operation for a period of (1) year from the date of substantial completion of the project, backed by a factory warranty of the hardware manufacturer.
2. Special Warranty Periods:
   a) Ten years for mortise locks and latches.
   b) Five years for exit hardware.
   c) Five years for door closers.
   d) Fifteen years for manual overhead door closer bodies.
   e) Two years for electromechanical door hardware, unless noted otherwise.
3. Make minor adjustments as required during the (1) year period.

1.10. KEYING

1. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
   a) Function of building, purpose of each area and degree of security required.
   b) Plans for existing and future key system expansion.
   c) Requirements for key control storage and software.
   d) Installation of permanent keys, cylinder cores and software.
   e) Address and requirements for delivery of keys.

2. Cylinders:
   a) Manufacture: Match lockset manufacturer.
   b) All cylinders shall be of the interchangeable core type.
   c) Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
3. Keying System:
   a) Each type of lock and cylinders to be factory keyed.
   b) Allow for (3) levels of keying (change, master & grand master).
   c) Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
4. Keys Required:
   a) Change Keys: (2) per cylinder.
   b) Master Keys: (5) per Master Key Level/Group.
   c) Construction Keys: (10).
   d) Keys shall be stamped: "DO NOT DUPLICATE" on the key bow.
5. Key Control:
   a) Provide key control cabinet and system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity.
   b) Cabinet Manufacture: Lund Equipment, MMF Industries, Telkee, or equal.

## 2. PRODUCTS

2.1. GENERAL
1. Furnish all hardware with suitable fastenings required for the complete Work, in accordance with requirements of the Drawings and Specifications.
2. Quantities listed in the Finish Hardware Schedule, in each instance, are for the Contractor's convenience only and are not guaranteed.
3. Furnish items not specifically mentioned, but necessary to complete the Work of type, finish and quality matching the items specified, all subject to approval of the Architect.

2.2. FINISH
1. General: Satin Stainless Steel, 630.
2. Flat Goods: Satin Chromium Plated, 626.
3. Closers: Manufacturer’s standard finish system.

2.3. STANDARD BUTTS
1. Manufacturer Listed: Hager.
2. Acceptable Substitutions: McKinney, Stanley.
3. Sizes:
   b) 1 3/4 inch exterior/vestibule doors: 5.0" x 4.5".
   c) 1 3/4 inch interior doors up to and including 36 inches: 4.5" x 4.5".
   d) 1 3/4 inch interior doors over 36 inches: 5.0" x 4.5".
   **NOTE**: Butt sizes are to be modified if door trim interferes with the fullest possible degree of opening for doors.
4. Quantity: (3) butts up to and including (90) inches in height. For doors over (90) inches in height, supply (1) additional butt for each additional (30) inches in height, or fraction thereof.
5. For unusual size or weight doors, furnish type, size and quantity recommended by the butt manufacturer.

2.4. CYLINDRICAL LEVER LOCKSETS
1. Grade 1 – Heavy Duty.
2. Manufacturer Listed: Schlage “ND mechanical Series”.

3. Acceptable Substitutions: Corbin Russwin, Sargeant, PDQ, or equal.
4. Levers: Furnish with solid cast levers, standard 2 3/4” backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt
5. Design: Rhodes.
6. Backset: 2 3/4 inch.
7. Provide curved lip strikes of minimum length to protect trim.

2.5. MORTISE LEVER LOCKSETS

1. Certified Security Grade 1. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body
2. Manufacturer Listed: Corbin-Russwin “ML2000 Series”. Privacy indicator Vacant/Occupied.
3. Acceptable Substitutions: None.
4. Design: Lever – DSA.
5. Backset: 2 3/4 inch.
6. Provide curved lip strikes of minimum length to protect trim.

2.6. CYLINDERS

1. Manufacturer Listed: Schlage.
2. Acceptable Substitutions: Corbin Russwin, Sargeant, PDQ, or equal.

2.7. DOOR CLOSERS

1. ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.
2. Size: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1
3. Spray closers to match adjacent hardware.
4. Whether specified or not, provide the proper feet to suit the conditions and the proper length arm to allow fullest degree of opening for doors.
5. Provide drop plates where required.
6. Contractor shall install all the screws required for the foot.
7. Provide special closer mounting as required where interference with weatherstrip or sound seal occurs.
8. Opening resistance shall conform to State Barrier-Free Regulations & ADA
9. Manufacturer Listed: LCN
10. Acceptable Substitutions: Russwin/Corbin, Dorma, Norton.

2.8. DOOR PROTECTIVE TRIM

1. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
2. Plates shall be mounted with countersunk screws of matching finish.
3. Manufacturer Listed: Trimco.
4. Acceptable Substitutions: Cipco, Quality.

2.9. STOPS & HOLDERS

1. Manufacturer Listed: Trimco.
2. Acceptable Substitutions: Glynn-Johnson.

3. There shall be stops to protect all walls, cabinet work or hardware operation. Wall stops shall be used wherever possible, unless otherwise called for in hardware types. Where floor stops are used, they shall be installed no farther than (8) inches from the latch edge of the door.

2.10. ARCHITECTURAL SEALS

1. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
2. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer
3. Where it occurs, weatherstrip shall be applied to both sides of a mullion.
4. All (20) minute labeled doors shall have "S88D" door seal.
5. Manufacturer Listed: Pemko.
6. Acceptable Substitutions: Reese, National Guard Products.

2.11. DOOR SILENCERS

1. Manufacturer Listed: Ives.
2. Acceptable Substitutions: None.
3. Quantity: Furnish (3) for each single door frame and (4) for each pair frame.
4. Type: "SR64" for metal frame, "SR65" for wood frame.

2.12. DOOR HARDWARE GROUPS

1. The hardware sets represent the design intent and direction of the owner and architect based on drawings dated 2/10/22. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware, and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
2. Quantities listed are for each pair of doors, or for each single door.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

HW-1 (102, 103, 104, 105B, 106B, 107, 112, 203, 206, 207

| | | | |
|---|---|---|---|
| 1 | ea | lockset | ND50PD |

HW-2 (108, 110)

| | | | |
|---|---|---|---|
| 1 | ea | lockset | ML2060, M19V |
| 1 | ea | kickplate | K6000-12” |

Re-use other existing hardware.

HW-3 (115)

| | | | |
|---|---|---|---|
| 3 | ea | butts | BB1168 |
| 1 | ea | lockset | ND50PD |
| 1 | ea | closer | 4010 RA |
| 1 | ea | kickplate | K6000-12” |
| 1 | ea | floor stop | 1214 |

HW-4 (117, 118, 119)

| | | | |
|---|---|---|---|
| 3 | ea | butts | BB1279 |
| 1 | ea | lockset | ML2060, M19V |
| 1 | ea | closer | 4110 PA, Cush-N-Stop (90°) at Doors 117 and 118 only. |
| 1 | ea | kickplate | K6000-12” |
| 1 | ea | wall stop | 1270CV at Door 119 only |

HW-5 (204, 205)

| | | | |
|---|---|---|---|
| 3 | ea | butts | BB1168 |
| 1 | ea | lockset | ND50PD |
| 1 | ea | closer | 4010 RA |
| 1 | ea | kickplate | K6000-12” |
| 1 | ea | wall stop | 1270CV |

## 3. EXECUTION

3.1. EXAMINATION

1. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
2. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings, and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2. PREPARATION

1. Provide solid blocking for all wall stops.
2. Check all conditions and use fastening devices as needed to secure or anchor all hardware as per manufacturers published templates. Self-tapping sheet metal screws are not acceptable.
3. The Contractor shall be responsible for drilling wood or metal with the recommended hole sizes.

3.3. INSTALLATION

1. Mount Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
   a) Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames”.
   b) DHI TDH-007-20: Installation Guide for Doors and Hardware.
   c) Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
2. Install each hardware item in compliance with manufacturers instructions. Whether cutting and fitting are required to install hardware on surfaces which will be painted or finished later, install each item completely and then remove and store in a secure place. After completion of the finishes, reinstall each item.
3. Do not install surface mounted items until finishes have been completed on the substrate.
4. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation
5. Adjust and check each operating item of hardware and each door to insure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly.
6. At existing doors to receive new locksets, match existing backset and verify existing lock prep is compatible with new lockset.

3.4. ADJUSTMENT & CLEANING

1. Whenever hardware installation is made more than (1) month prior to acceptance or occupancy, make a final check and adjustment of all hardware items during the week prior to acceptance or occupancy.
2. Clean and lubricate operating items as necessary to restore proper function and finish of hardware and doors.
3. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

4. Make minor adjustments as required during the warranty period.
5. Instruct Owner's personnel in proper adjustment and maintenance of hardware and hardware finishes.
6. Remove all protective plastic film on exposed surfaces.

END, SECTION 08 70 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all glazing complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 08 11 00: Metal Doors & Frames.
2. Section 08 53 00: Vinyl Windows.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS
Conform to Federal Specification DD-G-451d, ASTM C1036-85 and ANSI Z97.1.

1.6. SUBMITTALS
1. Submit manufactures data and shop drawings for review.
2. Submit pattern and/or color samples for selection.
3. See Section 01 33 00 for Submittals.

1.7. SAFETY GLAZING
1. Provide glazing safety-rated for impact typically, adjacent to stairways, egress routes, doors, sidelites adjacent to doors, and areas closer than (18) inches to finish floor.
2. Conform to International Building Code, Section 2406.

## 2. PRODUCTS

2.1. TEMPERED GLASS
1. General: Provide Vitro Architectural Glass "Herculite", or equal, clear, 1/4 inch thickness, heat-treated glass, complying with ASTM C 1048.
2. Heat treat glass where necessary to resist thermal stresses induced by differential shading of individual glass lites and for all lites (35) square feet and greater.

2.2. SLIDING RECEPTION WINDOW HARDWARE
Provide Knape & Vogt “P992 2C 36 or 48 or 60 Roll-Ezy”, or equal, ball bearing track assembly.

2.3. GLAZING ACCESSORIES
Provide necessary setting blocks, glazing tapes and sealants to complete installation of materials in this Section.

## 3. EXECUTION

3.1. PREPARATION

1. Responsible trades furnishing products requiring glazing shall provide frames, trim, etc. that are plumb, square and in proper alignment.
2. Remove all rivet, screw, bolt or nail heads, welding fillets and other projections from frame rabbets.
3. Prime paint or seal surfaces as necessary.
4. Clean glazing channel sufficiently to insure proper installation of glazing materials.

3.2. INSTALLATION

1. Install glazing materials required by Drawings according to manufacturers written instructions. Use techniques common to accepted industry standards.
2. Trim all tapes and sealants flush with stops. Check and trim again, if required, (1) week prior to final acceptance.
3. Protect glazing from damage. Do not attach to or mark glazing with materials that will permanently mar surfaces. Replace all broken or damaged materials.

END, SECTION 08 80 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all gypsum wallboard and accessories complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Carpentry.
2. Section 07 90 00: Sealants.
3. Section 09 51 00: Acoustical Ceilings.
4. Section 09 90 00: Painting and Coating.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

Conform to United States Gypsum (USG) "Gypsum Construction Handbook", latest edition and "USG Drywall/Steel Framed Systems, Folder SA-923" and/or "USG Drywall/Wood Frame Systems, Folder SA-924", latest edition.

1.6. SUBMITTALS

1. Submit manufacturer’s data for review.
2. Submit two (2) 2'-0" by 2'-0" samples of gypsum wallboard with sprayed texture (as applicable) for review.
3. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING

1. Deliver materials to, and retain, at the jobsite in unbroken containers.
2. Store materials off floor, dry and protected.
3. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the Work and materials of all other trades.

1.8. JOB CONDITIONS

1. The building shall be enclosed by other trades prior to starting work in this Section.
2. Maintain (60) degrees F. minimum temperature during and after work performed in this Section.
3. Provide adequate heat and properly regulated ventilation.

## 2. PRODUCTS

2.1. WALLBOARD

1. General: Panels shall be four (4) feet wide in lengths as long as practical to minimize joints. Long edges shall be tapered.

2. Standard Fire-Resistant Panels: Provide USG “Sheetrock Firecode X”, or equal, 5/8 inch thickness and fire-resistant panels.
3. Mold-Resistant Panels: Provide USG “Sheetrock Mold Tough Firecode X”, or equal, 5/8 inch thickness, moisture- and mold-resistant panels.

2.2. JOINTING SYSTEM

Provide a jointing system including reinforcing tape, all-purpose compound and finishing compound designed as a system to be used together and as recommended for this use by the wallboard manufacturer.

2.3. TRIM

1. Provide corner beads, edge beads, etc. as required by the Work.
2. Metal trim components, where used, shall be galvanized steel.

2.4. FASTENERS

Provide screws as recommended by wallboard manufacturer in lengths as required by IBC.

2.5. PVA SEALER

Provide a PVA, low-perm, emulsion sealer as manufactured by those approved in Section 09 90 00.

2.6. WALL TEXTURE

Provide a fine, spray texture finish as approved by Architect.

## 3. EXECUTION

3.1. GENERAL

Installation of work in this Section shall conform to manufacturer's written instructions and USG "Gypsum Construction Handbook" and "Folder SA-923 and/or SA-924".

3.2. WALLBOARD

1. Install wallboard with long dimension perpendicular to supports, end joints staggered.
2. Lay out wallboard so end joints on opposite sides of partition do not fall on the same stud.
3. Space screws (6) inches on center at all supported panel edges.
4. At panel interiors, space screws at (12) inches on center.
5. Install trims as required.
6. Use trim to terminate wallboard abutting dissimilar materials.
7. Use trim to finish exposed edge of wallboard (such as at suspended ceilings that extend over the top of partitions, etc.).
8. Install mold-resistant panels behind and adjacent to all plumbing fixtures and where shown on Drawings.
9. Where installing long, continuous runs of gypsum board, provide control joints every (30) feet, or less.
10. Gypsum board joints shall not occur within (12) inches of the corners of door, window or relite frames, unless installing control joints.

3.3. JOINT TREATMENT

1. Level 1: Embed tape in one (1) coat all-purpose compound and spot nails. Provide in all areas that are not exposed to view, such areas above ceilings, mechanical rooms, attics, service corridors, etc. (often referred to as “fire-taping”).
2. Level 3: In addition to Level 1 above, apply (1) separate coat of joint compound over all flat joints and outside corners, (1) separate coat of joint compound over all interior corners and (2) separate coats of joint compound over fastener heads and accessories All joint compound shall be smooth and free of tool marks and ridges. Provide in all areas not applicable to Level 1 requirements.

3.4. EXISTING WALLBOARD

1. Examine all surfaces of existing wallboard within work area.
2. Fill all holes, gouges, dents, torn face paper, etc. and make necessary repairs to existing wallboard surfaces.

3.5. PENETRATIONS

1. Board Prep: Drill wallboard with hole saw bit or router bit. Do not punch holes in wallboard with hammer.
2. Fully pack all-purpose compound around all penetrations through wallboard.
3. Provide Fire Stop System as required at fire rated assemblies (See Section 07 90 00).

3.6. PVA SEALER

Apply one (1) coat, low-perm primer/sealer according to manufacturer's written instructions over all gypsum board surfaces.

3.7. WALL TEXTURE

1. Install machine-applied wall texture over previously sealed wallboard surface, matching approved texture sample.
2. Mask adjacent surfaces not to receive texture.

3.8. CLEANING UP

1. Remove compound droppings, wall texture over spray, and other debris off floor.
2. Clean adjacent surfaces ready for work of following trades.

END, SECTION 09 29 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all acoustical treatment complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 07 21 00: Building Insulation.
2. Section 09 29 00: Gypsum Board.
3. Section 23 00 00: Heating, Ventilating & Air Conditioning.
4. Section 26 50 00: Lighting.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. Conform to ASTM C636.
2. Conform to USG “Seismic Technical Guide (SC2496)”, latest edition.

1.6. SUBMITTALS

1. Submit manufacturers data and samples of each product for review.
2. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING

1. Deliver materials to, and retain, at the job site in unbroken containers.
2. Store materials off floor, dry and protected.
3. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the Work and materials of all other trades.

## 2. PRODUCTS

2.1. SUSPENDED PANEL CEILING

1. Standard Lay-in Panel: Provide Armstrong “Cortega, 747”, or equal, (24) inches x (48) inches x 5/8 inch thickness with square edge. White color.
2. Suspension System: Provide USG/Donn "DX", or equal, double web system. White color

2.1. ACOUSTICAL UNDERLAYMENT

1. Underlayment: Provide Acoustical Solutions “Iso-Step Floor Underlayment”, or equal.
2. Material: 92% resilient recycled rubber.
3. Thickness: 10 mm (3/8”).
4. Density: 0.72g/cubic cm, minimum (ASTM D297).
5. Tensile Strength: 80 psi, minimum (ASTM D412, Die C).
6. Tear Strength: 30 ppi, minimum (ASTM D624).

## 3. EXECUTION

3.1. SURFACE CONDITIONS

1. Prior to commencing with the Work in this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly proceed.
2. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved.
3. Proceeding with installation of the Work in this Section constitutes acceptance of surface conditions.

3.2. GENERAL

1. Install all materials in accordance with ASTM C636.
2. Keep hands clean while installing materials to avoid soiling finished surfaces.
3. Lay out tile/panel modules so that no less than 1/2 a tile or panel width occurs at perimeter walls unless shown otherwise on Drawings.

3.3. SUSPENDED CEILING INSTALLATION

1. Install ceiling system square and level within 1/8 inch in (12) feet tolerance when measured in any direction.
2. Provide No. (12) gauge pre-stressed galvanized steel hanger wires spaced (4) feet, maximum, on center each way, supported from suitable structure above.
3. Lighting fixtures are to be individually supported from the structure above by electrical trade.
4. Drop in all lay-in tiles, properly seated, and aligned.

3.1. ACOUSTICAL UNDERLAYMENT

1. Install in strict accordance with manufacturer's written instructions.
2. Install underlayment over substrate with adhesive recommended by manufacturer.
3. Install new flooring over underlayment with adhesive compatible to both materials and as recommended by both manufacturers.

3.2. CLEANING & REPLACING

1. Replace dented and broken tiles and soiled tiles that cannot be repaired with simple paint touch up.
2. Touch up all minor scratches and abrasions with paint as recommended by tile/panel manufacturer.
3. Clean all soiled grid pieces exposed to view.

END, SECTION 09 51 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all resilient flooring, complete in place, as indicated on the Drawings, specified herein, or otherwise needed for a complete and proper installation of the work in this Section.

1.3. RELATED WORK
1. Section 09 68 13: Tile Carpeting.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS
1. Submit samples for review and color selection.
2. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING
1. Deliver materials to the jobsite and store in their original unopened containers with all labels intact and legible at time of use. Store in strict accordance with the manufacturer's recommendations.
2. Use all means necessary to protect materials of this Section before, during and after installation and to protect installed work and materials of all other trades.

1.7. WARRANTY
Luxury vinyl tile flooring manufacturer shall furnish written (15) year commercial limited warranty and commercial limited underbed bond

1.8. JOB CONDITIONS
1. Maintain a minimum temperature of 70 degrees F. for (48) hours before, during and 48 hours after installation.
2. Materials shall be stored in workspace (48) hours before installation.

1.9. PROTECTION
Wait (24) hours before walking on newly installed flooring.

1.10. EXTRA STOCK
Furnish one unopened carton of floor tile from the same "run" as that installed.

## 2. PRODUCTS

2.1. LUXURY VINYL TILE
1. General: Provide products manufactured by Shaw Floors.
2. Tile Style: “Uncommon Ground 6” 0188V, LVT with ExoGuard finish (polish-optional).

3. Class-ASTM F1700: Class III, Type B
4. Nominal Size: 6” x 36”.
5. Overall Thickness: 0.118 in.
6. Wear Layer: (20) mil.
7. Construction: Heavy commercial.
8. Edge: Squared.
9. Installation: Dry Back - direct glue down.
10. Installation Method: Match existing.

2.2. RUBBER BASE

1. Provide continuous Roppe Rubber Corp., or equal, extruded rubber cove base 1/8 inch thickness with 5/8 inch standard toe base.
2. Provide (4) inches high unless shown otherwise on Drawings.

2.3. ACCESSORIES

Provide tile/carpet joiner and other miscellaneous accessories needed for a complete, durable and finished installation.

2.4. ADHESIVES

1. Provide the necessary adhesives required for all materials in this Section as recommended by material manufacturers and as required for manufacturer’s warranty compliance.
2. Adhesives shall contain no solvents, known carcinogens or calculated VOC’s.
3. Adhesives shall be low in odor and shall conform to all applicable environmental air quality regulations.

## 3. EXECUTION

3.1. SURFACE PREPARATION

1. Verify on site, existing flooring materials that will need to be removed to complete installation of products in this Section.
2. Remove existing rubber base and flooring as necessary. Dispose all debris off site.
3. Remove all adhesive residue.
4. Grind high spots and fill low spots as required.
5. Clean floor substrate to remove any items that would adversely affect the bond of the adhesive.

3.2. INSPECTION

1. Examine the areas and conditions under which the work of this Section will be performed.
2. Measure slab moisture in conformance with LVT manufacturer’s written instructions.
3. Correct conditions detrimental to the proper and timely completion of the Work.
4. Do not proceed with installation until unsatisfactory conditions have been corrected.
5. Proceeding with installation of work in this Section constitutes acceptance of the floor substrate surface.

3.3. FLOORING INSTALLATION

1. Install flooring in strict compliance with manufacturer's written instructions.
2. Butt all tiles tightly, in even, straight, and parallel lines.
3. Scribe tightly as necessary around obstructions.
4. All cut edges shall be placed against walls.
5. Confirm installation method to match existing.

3.4. BASE INSTALLATION

1. Install rubber base in strict compliance with manufacturer’s written instructions, using rolled material.

2. Install rubber base around base cabinets, typically, where they occur.

3.5. CLEANING UP

Remove adhesive from finished surfaces of the Work.

END, SECTION 09 65 19

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all carpeting and accessories complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 09 51 00: Acoustical Underlayment.
2. Section 09 65 19: Resilient Tile Flooring.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS
Conform to Carpet & Rug Institute “Standard for Installation of Commercial Textile Floorcovering Materials”, latest edition.

1.6. SUBMITTALS
1. Submit samples for review and color selection.
2. Submit manufacturer’s data on adhesives.
3. Submit manufacturer’s approved adhesive listing.
4. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING
Use all means necessary to protect the materials of this Section before, during and after installation and to protect the work and materials of all other trades.

1.8. EXTRA STOCK
Furnish additional carpet tiles equivalent to (10) percent of the original installed amount of each carpet tile, from the same dye lot, as those installed.

1.9. WARRANTY
1. Carpet tile manufacturer shall furnish written, non-prorated warranty to Owner covering Stain Removal, Commercial Wear, Edge Ravel, Delamination, Colorfastness to Light, Static Protection and Dimensional Stability for the lifetime of the carpet tile.
2. Carpet tile installer shall furnish written, non-prorated warranty to Owner covering installation for a period of (2) years from date of substantial completion.

## 2. PRODUCTS

2.1. WOOD UNDERLAYMENT
At existing wood decking, provide Moreland Company “Ultraply XL”, or equal, 1/4” thickness, (5) ply, solid veneer core with marine glue and Lifetime Warranty.

2.2. STANDARD TILE CARPETING

1. Provide Patcraft “Construkt Collection, Studio”, or equal.
2. Carpet tile substitutions shall conform to the following requirements:
   a) Construction: Multi-Level Pattern Loop.
   b) Pile Fiber: Eco Solution Q SD Nylon.
   c) Dye Method: 100% Solution Dyed.
   d) Yarn Weight: (17) oz per square yard.
   e) Gauge: 1/12.
   f) Stitches Per Inch: 10.
   g) Density: 5,058.
   h) Product Size: 24” x 24”.
   i) Traffic Class: Heavy (TARR).
   j) Primary Backing: Non-Woven Synthetic.
   k) Secondary Backing: “EcoWorx” Tile.
   l) Static Control: less than 3.5 kV (AATCC-134).
   m) Flooring radiant panel: Class 1 (ASTM E-648).
   n) NBS Smoke: less than 450 (ASTM E-662.
   o) Carpet tile shall be low odor and shall conform to all applicable environmental air quality regulations.

2.3. BASE

1. Provide Roppe Rubber Corp., or equal, extruded rubber cove base 1/8 inch thickness with 5/8 inch standard toe base.
2. Provide (4) inches high, unless shown otherwise on Drawings, in continuous lengths.

2.4. CARPET ACCESSORIES

Provide necessary vinyl carpet bar at carpet edges and/or transition strips as required, same manufacturer as base and stringer trim.

2.5. ADHESIVES

1. General: Adhesives and sealers shall contain no solvents, known carcinogens or calculated VOC’s. Adhesives and sealers shall be low odor and shall conform to all applicable environmental air quality regulations.
2. Adhesives: Provide necessary releaseable adhesives required for all materials in this Section as recommended by material manufacturers.

## 3. EXECUTION

3.1. EXISTING CARPET DEMOLITION

This work will be performed under separate contract for asbestos abatement.

3.2. EXISTING BASE DEMOLITION

Remove existing wall base and dispose all debris off site.

3.3. SURFACE PREPARATION

1. Clean floor substrate to remove any items that would adversely affect the bond of the adhesive.
2. Scrape adhesive residue off walls, as required. Repair and/or patch existing wall finish damaged during base demolition, as required.

3.4. INSPECTION

1. Examine the areas and conditions under which work of this Section will be performed.
2. Correct conditions detrimental to the proper and timely completion of the Work.
3. Do not proceed with installation until unsatisfactory conditions have been corrected.

4. Proceeding with installation of work in this Section constitutes acceptance of the floor substrate surface.

3.5. WOOD UNDERLAYMENT INSTALLATION

1. Provide at all floors with wood substrate.
2. Install with fasteners of type, diameter, length and spacing as recommended by underlayment manufacturer and flooring manufacturer.
3. Fill underlayment joints and spot fasteners as recommended by underlayment manufacturer and flooring manufacturer. Make sure the filling material is fully dry before installing finish flooring. Correct all conditions that will telegraph through flooring.
4. Install underlayment immediately prior to installation of finish flooring to prevent job site influenced damage.

3.6. FLOORING INSTALLATION

1. Install carpet tile according to manufacturers written instructions. Scribe the carpet accurately to all vertical surfaces.
2. Carpet tile must be snugly joined together. Continually check that modules are being placed together with correct firmness. When measuring the distance along (10) modules, the dimensional gain over (10) modules shall not exceed 1/4 inch. Prevent pile yarns from becoming entrapped in joints.
3. Control Grid: Throughout the installation, a control grid should be installed at regular (15) feet intervals to keep the modules from shifting. A control grid consists of a row of modules anchored in place with the same adhesive used to align the center rows. Adhesive must always be placed around the perimeter of the area. All cut modules should be installed over adhesive.
4. All cut edges shall be placed against walls.
5. Provide new termination strip at top of stair.

3.7. BASE INSTALLATION

1. Install rubber base in strict compliance with manufacturer’s written instructions, using rolled material.
2. Install rubber base around base cabinets, typical, where they occur.

3.8. CLEANING UP

1. Dirt, spots and smears shall be removed at once with cleaner recommended by carpet tile manufacturer.
2. If cleaning is unsatisfactory to the Architect, carpet shall be replaced.
3. Clean any adhesive from finished wall surfaces.

3.9. PROTECTION

Provide a heavy, non-staining paper or plastic walkway as required over carpet tiles in direction of foot traffic, maintaining intact until carpeted space is accepted by the Owner.

END, SECTION 09 68 13

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all pre-finished, fiberglass reinforced plastic (FRP) panels and accessories complete, in place, as shown on the Drawings, specified herein and needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 06 10 00: Rough Carpentry (blocking).
2. Section 10 26 00: Wall Protection Systems (outside corner trim).

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS
1. Submit manufacturer's data and samples for review and color selection.
2. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING
1. Store in dry location, off floor, stacked on solid and flat surface to minimize distortion.
2. Panels should be acclimated at least (24) hours in temperature and humidity conditions approximating the operating environment of the finished room.

## 2. PRODUCTS

2.1. MANUFACTURER
Provide all products from Crane Composites, or equal.

2.2. WALL PANELS
1. Provide “Designs – Classics Collection” smooth texture, 0.075 inch thickness, “Canvas” pattern.
2. Fire Rating: Class C per ASTM E-84.

2.3. MOLDINGS & TRIM
1. General: Provide standard, tims and moldings for inside corners, edge trims and butted joints as supplied by panel manufacturer for specific panel type. All panel edges shall be finished with an appropriate trim.
2. Designs: Provide “Aluminum” trims.
3. All outside corners shall be protected by corner guards specified in Section 10 26 00.

2.4. ADHESIVES & SEALANTS
1. General: Adhesives and sealants shall contain no solvents, known carcinogens or calculated VOC’s. Adhesives and sealants shall be low odor and shall conform to all applicable environmental air quality regulations.

2. Use only high-quality construction grade adhesives and clear silicone sealant in accordance with manufacturer's written installation procedures.

## 3. EXECUTION

3.1. WALL PREPARATION

1. Sub walls must be flat, clean, dry, and free of all dirt dust or grease.
2. Gypsum board shall be primed and sealed.

3.2. INSTALLATION

1. Expansion: Leave not less than 1/4 inch gap at ceiling and floor, 1/8 inch gap between wall panels for normal expansion and contraction. Allow not less than 1/8 inch gap around pipes, electrical fittings, and other projections. Fill gaps with flexible, silicone-based sealant to complete moisture seal.
2. Provide uniform distribution of adhesive at panel back. Adhere panel to substrate with no bubbles, using an appropriate roller.
3. Sealing: Seal all corner and butt seams and base junctures.
4. Panel Base: Bottom of panel trim shall abut top of rubber base, typical.

END, SECTION 09 77 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Prepare, paint and finish all exterior and interior exposed surfaces listed on the Painting Schedules in Part Two of this Section, as required on the Drawings, specified herein and needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 09 29 00: Gypsum Board (primer/sealer).
2. Priming or priming and finishing of certain surfaces are specified to be factory performed or installer performed under pertinent other Sections.

1.4. QUALITY ASSURANCE

1. Manufacturer: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect.
2. Installer: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
3. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.
4. Special Inspection: See Section 01 45 23 for non-destructive measuring of dry film thickness.

1.5. SUBMITTALS

1. Submit complete and detailed material list, by product trade name and number, of all materials proposed for use in this Section (no substitutions will be permitted after Architect's review of material list).
2. Submit samples for color selection.
3. Submit draw-down samples for color verification.
4. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING

1. Deliver materials to, and retain, at the jobsite in unbroken containers with the manufacturer's original labels thereon.
2. Mix and store materials in a safe and approved location, taking extraordinary care to prevent fire.
3. Open cans of material only as needed.
4. Keep rubbing cloths and rags in tightly closed, metal containers or remove from building at the close of each day's work.
5. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the Work and materials of all other trades.

1.7. JOB CONDITIONS

1. Apply materials in strict accordance with manufacturer's written instructions as to surface temperature, surrounding air temperature and relative humidity.
2. Do no work when dust or insects are present.

1.8. EXTRA STOCK

1. Furnish one unopened gallon of each type and color of paint and stain used, properly labeled.

2. Provide Owner with a complete list of all painting materials and colors used including manufacturer and color code identification number and/or formula.

1.9. COLOR ALLOWANCE

1. Interior: Make allowance in bid for metal doors and frames painted different colors. Make allowance in bid for (2) wall accent colors totaling (30) percent of total wall area.

## 2. PRODUCTS

2.1. PAINT COORDINATION

1. Provide finish paints that are compatible with prime paints used.
2. Review other Sections of these Specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates.
3. Provide barrier coats over incompatible primers or remove and reprime as required.

2.2. MATERIAL QUALITY

1. Provide the best quality grade of the various types of coatings as regularly manufactured by approved painting materials manufacturers. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable.
2. Provide undercoat paint produced by the same manufacturer as the finish coats. Use only thinners approved by the paint manufacturer and use only within recommended limits.
3. Provide paints of durable and washable quality.
4. All materials shall be low odor and shall conform to all environmental air quality regulations.

2.3. ACCEPTABLE MANUFACTURER

Benjamin-Moore, Cowman & Campbell, DuPont, ICI/Devoe, Jarvie Paint Manufacturing Co., Kelly-Moore, Miller Paint, Preservative Paint Co., Parker, PPG Industries, Pratt & Lambert, Rodda, Rudd Paint & Varnish Co., Olympic Stain Products Co., Rez Co., Sherman-Williams, Tnemec Co. or approved.

2.4. PAINT SHEEN

The following painting schedules utilize the following ascending order of gloss levels:

1. Level 1: traditional matte – flat.
2. Level 2: high side flat (velvet-like).
3. Level 3: traditional eggshell.
4. Level 4: satin-like.
5. Level 5: traditional semi-gloss.
6. Level 6: traditional gloss.
7. Level 7: high gloss.

2.5. EXTERIOR PAINTING SCHEDULE

1. Painted Metal Siding Trim:
   one (1) base coat SW “SuperPaint” exterior satin acrylic with Flood “E-B Emulsa Bond” acrylic-based coating additive. (1.5) mils minimum dry film thickness.
   one (1) finish coat SW “SuperPaint” exterior acrylic, Level 4. (1.5) mils dry film thickness.

2.6. INTERIOR PAINTING SCHEDULE

1. Existing Concrete Block:
   one (1) coat concrete/masonry acrylic primer. (1.5) mils minimum dry film thickness.
   two (2) coats acrylic, Level 4. (1.5) mils minimum dry film thickness each coat.

2. Existing Gypsum Board:
   two (2) coats acrylic, Level 4. (1.6) minimum dry film thickness each coat.

3. New Gypsum Board:
   one (1) coat primer/sealer. (1.5) mils minimum dry film thickness.
   two (2) coats acrylic, Level 4. (1.6) mils minimum dry film thickness each coat.

4. Existing Miscellaneous Metal:
   two (2) coats alkyd enamel, Level 5. (1.6) mils minimum dry film thickness each coat.

5. Metal Doors & Frames & Miscellaneous Metal:
   one (1) coat acrylic primer (touch up if pre-primed). (1.5) mils minimum dry film thickness.
   two (2) coats alkyd enamel, Level 5. (1.6) mils minimum dry film thickness each coat.

6. Door Relite Frames:
   touch up primer.
   two (2) coats alkyd enamel, Level 5.

## 3. EXECUTION

3.1. SURFACE CONDITIONS

1. Prior to commencing with the Work in this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly proceed.
2. Verify that painting may be completed in strict accordance with the original design and with the manufacturer's recommendations.
3. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved.
4. Proceeding with installation of the Work in this Section constitutes acceptance of surface conditions.

3.2. SURFACE PREPARATION

1. Fill all holes, gouges, dents, etc. in existing miscellaneous woodwork, drywall and CMU.
2. Perform all preparation and cleaning procedures in strict accordance with the paint manufacturer's recommendations.
3. Remove all removable items which are in place and are not scheduled to receive paint finish or provide surface-applied protection prior to surface preparation and painting operations. Following completion of painting in each space or area, reinstall the removed items by using workers skilled in the necessary trades.
4. Clean each surface to be painted prior to applying paint or surface treatment.

3.3. ADJACENT EQUIPMENT & FINISH PROTECTION

1. Use tarpaulins or drop cloths when working above or adjacent to surface mounted or free-standing equipment.
2. Provide ample masking of adjacent surface mounted equipment to contain overspray.

3.4. APPLICATION OF PAINT & FINISH

1. Prior to application of paints, provide moisture tests with results satisfactory to written manufacturer’s requirements.
2. Apply paint and finish materials by accepted and approved trade practice. Workmanship to be highest quality, performed by skilled mechanics.
3. Apply additional coats when undercoats or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance. Allow ample time between coats for thorough drying, not less than manufacturer's recommended minimum time. Sandpaper interior, smooth wood surfaces between coats.

4. Cut sharp lines against glass, different materials and different colors. Spread material evenly, without runs or sags.
5. Paint and finish doors prior to hanging and installing finish hardware.
6. Apply putty, matching finish color, to set nails at all woodwork.
7. When painting a wall and/or ceiling patch, paint wall and/or ceiling between natural break points such as corners, door frames, etc. that occur on each side of the patch.
8. At all doors, regardless of material, provide same finish on top and bottom edges as specified.
9. At exterior doors and frames, the same finish shall be applied at all the interior facing surfaces.

3.5. CLEANING GLASS

1. Under this Section, remove paint and paint splatters from all glass surfaces.
2. Take care not to scratch glass during paint removal.

END, SECTION 09 90 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide wall protection systems where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Carpentry (blocking/backing).
2. Section 09 77 00: Pre-Finished FRP Panels.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. All materials in this Section shall be UL Classified.
2. All materials in this Section shall conform to NFPA Class A fire rating.

1.6. SUBMITTALS

1. Submit manufacturer's data and samples for review and color selection.
2. See Section 01 33 00 for Submittals.

1.7. PRODUCT HANDLING

Store in factory shipping containers off floor, on edge in dry location.

1.8. WARRANTY

Provide manufacturer’s standard warranty against materials and manufacturing defects for a period of (3) years from the date of substantial completion.

## 2. PRODUCTS

2.1. MANUFACTURER

1. The following products, manufactured by InPro Corporation, IPC Door and Wall Protection Systems, are specified below to establish a standard of quality.
2. Substitutions of equal products are encouraged.

2.2. END WALL PROTECTOR

1. Stainless Steel: Provide (2) inches wing size, (16) gauge, No. 4 Satin Finish, Type 430 x (48) inches high.
2. Fasteners: Provide panhead self-tapping screws and pre-drilled holes.

2.3. CORNER GUARDS

1. Stainless Steel: Provide 1 1/2 inches wing size, (16) gauge, No. 4 Satin Finish, Type 430 x (48) inches high.
2. Fasteners: Provide panhead self-tapping screws and pre-drilled holes.
3. At ends of wings, provide slight wall return to compensate for drywall corner bead.

## 3. EXECUTION

3.1. GENERAL

1. Locate components where indicated on the Drawings, using mounting methods according to manufacturer's standard details for the appropriate substrate and in compliance with the manufacturer's written instructions.
2. Install components level, plumb and at the height indicated on the Drawings, with surfaces free from distortion or other defects in appearance.
3. Drive screw fasteners into wall studs or solid blocking, typical.

3.2. GUARD INSTALLATION

1. Install bottom of guard at top elevation of rubber wall base, typical.
2. Install with type and length of fasteners as recommended by manufacturer.
3. At top of guard, fill gap with sealant and tool smooth.

END, SECTION 10 26 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide toilet room accessories where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Carpentry (blocking/backing).
2. Section 06 40 00: Architectural Woodwork.
3. Section 22 40 00: Plumbing Fixtures & Trim.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS

1. Submit manufacturer's data for review.
2. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING

Store in factory shipping containers off floor, on edge in dry location.

## 2. PRODUCTS

2.1. ACCESSORIES

Provide the following products of Bobrick Washroom Equipment Co., or equal:

1. Surface Towel Dispenser: B-262.
2. Surface Toilet Tissue Dispenser: B-2840.
3. Surface Toilet Seat Cover Dispenser: B-221.
4. Surface Grab Bar: B-6806.

2.2. CUSTOM MIRROR

1. General: Provide clear-glass mirrors, nominal (4) mm thickness of No. 1 mirror glazing quality, conforming to ASTM C-1503.
2. Frame: Provide 1/2" x 1/2" x 3/8” channel frame, Type 430 stainless steel with bright-polished finish. Provide intermediate mullions as indicated by mirror size.
3. Back: Provide galvanized steel back.
4. Warranty: Warranted against silver spoilage for (15) years.
5. Mounting: Provide concealed wall hanging method with theft-resistant mounting.

## 3. EXECUTION

3.1. GENERAL

1. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
2. Provide necessary blocking and backing in wall construction to adequately support the work of this Section.

3.2. INSTALLATION

1. Install all work in this Section level, plumb and rigid in strict accordance with manufacturers written instructions.
2. Mount all accessories so the farthest operating part is within (40) inches of the finish floor, unless noted otherwise.

END, SECTION 10 23 13

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide lockers where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Framing (backing).

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS

1. Submit manufacturer's data for review.
2. Submit samples for review and color selection.
3. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING

Store in factory shipping containers off floor, in dry location.

## 2. PRODUCTS

2.1. WARDROBE LOCKERS

1. Manufacturers: List Industries Inc., Lyon Metal Products Inc., Medart Inc., Republic Systems Co. Inc., or equal.
2. Style: (3) tier at Dispatch-115 and (4) tier at Driver Lounge-106 with standard louver arrangement. Provide number plates for each locker door.
3. Size: (12) inches wide x (12) inches deep x (72) inches high.
4. Handle: Standard chrome padlock attachment which serves as door pull. Padlocks are not in Contract.
5. Hinges: Provide (5) knuckle security -the number dependent on locker height.
6. Top: Provide individual sloping tops or continuous sloping hood.
7. Base: Provide standard (6) inches high legs with closed front and end bases.
8. End Panels: At all exposed to view ends, provide end finishing panels that have no exposed bolt heads.
9. Hooks: Provide standard (1) single prong hooks.
10. Fillers: Provide end fillers (top, face, and base) as required.

2.2. OTHER MATERIALS

Provide end fillers, anchors, fasteners, and other materials not specifically described but required for a complete and proper installation.

## 3. EXECUTION

3.1. SURFACE CONDITIONS

1. Examine the areas and conditions under which work of this Section will be performed.
2. Correct conditions detrimental to timely and proper completion of the Work.
3. Do not proceed until unsatisfactory conditions are corrected.

3.2. INSTALLATION

1. Install the work of this Section where shown on the Drawings and in strict accordance with the manufacturers written instructions.
2. All floor and wall finishes shall be completed prior to work commencing in this Section.
3. Extend all fillers to walls, typical, as applicable.
4. Securely anchor lockers to floors and walls as recommended by manufacturer.

END, SECTION 10 51 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide all horizontal louver blinds and accessories complete, in place, as shown on the Drawings, specified herein, and needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 06 10 00: Rough Carpentry (blocking/backing).

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS
1. Submit samples for review and color selection.
2. Submit manufacturer's data for review.
3. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING
Use all means necessary to protect the materials of this Section before, during and after installation and to protect the work and materials of all other trades.

1.7. WARRANTY
Provide manufacturers lifetime limited warranty.

## 2. PRODUCTS

2.1. MANUFACTURER & MODEL
Provide Graber "Supreme", or equal, (1) inch horizontal louver blinds.

2.2. CONSTRUCTION
1. Headrail: Shall be of .025 inches thickness Tomized steel, 1.475 inches high x 1.625 inches wide with a crowned underside profile to prevent light leakage. Headrail shall be of valence-free design and shall be coated with a baked-on finish. All headrail detailing shall be high-density polyethylene. All hardware shall be enclosed in the metal headrail.
2. Installation Brackets: Shall be a combination of 0.048 inches and 0.036 inches thick tempered and electroplated steel designed to minimize light gaps. Brackets shall consist of (2) interconnecting pieces (one of the pieces is designed for concealed ceiling mount, the other piece interconnects with the previous ceiling mount piece to convert the bracket for wall mount). Intermediate brackets shall be installed with blinds over (60) inches wide and under (80) inches long, or over (55) inches wide and over (80) inches long.
3. Cord Lock: Shall be .042 inches thick Tomized steel and shall be securely attached to headrail. It shall be "crash-proof" type with sufficient sensitivity to lock slats at desired height upon release of cords.

4. Ladders: Provide braided polyester yarn dyed to Levolor color standard. Ladders shall support the slats without visible distortion. Distance between slats shall not exceed 19.5mm (nominally 15.7 slats per vertical foot). Distance between ladders shall not exceed (23) inches for blinds up to (80) inches long. For blinds over (80) inches long, distance between ladders shall not be greater than (22) inches. Distance between end ladder and end of slat shall not exceed (7) inches.
5. Slats: Shall be of 5000 series magnesium aluminum alloy only, not to include reprocessed metals. Slats shall be nominally (1) inches wide and .0075 inches ± .0003 inches (prior to coating); after coating the thickness of the slats shall be .008 inches. Slats shall be unperforated and have feature that disrupts the natural static attraction of airborne dust particles.
6. Lift Cords: Shall be braided of high strength, 1.4mm diameter polyester fiber with a high tenacity polyester core, (34) picks per inch, (16) carrier smooth braids. Cord shall be of sufficient length equalized to properly control raising and lowering of blind and spaced not over (46) inches between cords.
7. Bottomrail: Shall be of 0.029 inches thick Tomized steel and shall be fully enclosed with color compatible flexible PVC bottom bumper and high-density polyethylene end caps designed to prevent bottomrail from marring windowsill and/or mullions. End caps shall provide hold-down capability designed to prevent bottom bar sway in windy exposures.

2.3. FASTENERS

Provide fasteners as recommended by blind manufacturer.

## 3. EXECUTION

3.1. SURFACE CONDITIONS

Examine the areas and conditions under which work of this Section will be performed. Do not proceed until unsatisfactory conditions are corrected.

3.2. INSTALLATION

1. Install blinds in strict accordance with manufacturer's written instructions.
2. Anchor all components firmly into position, plumb, level and in perfect operating condition.
3. Provide ceiling mount within window recess.
4. Upon completion of blind installation, put each operating component through at least (5) complete cycles, making necessary adjustments to achieve optimum operation.
5. Touch up scratches as required.
6. Cut excess cords, ladders, etc. and conceal from view as required.

END, SECTION 12 21 13

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

Provide all manufactured cabinets shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK

1. Section 06 10 00: Rough Carpentry.
2. Section 06 20 00: Finish Carpentry.
3. Section 06 40 00: Architectural Woodwork.

1.4. QUALITY ASSURANCE

1. Manufacturer: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect.
2. Installer: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
3. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS

1. Submit manufacturer's data and shop drawings for review.
2. Submit samples of plastic laminate for color selection.
3. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING

1. Stack level, off floor in shop and in building after delivery.
2. Use all means necessary to protect materials of this Section before, during and after installation and to protect installed work and materials of all other trades.

1.7. JOB CONDITIONS

1. All drywall and other "wet" work shall be completed not less than ten (10) days prior to delivery of architectural woodwork to the jobsite.
2. Building shall be dry to approved condition and continuously heated to 65 degrees F. minimum not less than ten (10) days before materials included in this Section are placed therein. Maintain this same minimum temperature through completion and acceptance of entire project.

## 2. PRODUCTS

2.1. LAMINATED WOOD CABINETS

1. Manufacturer: Cabinet Makers Inc., Genothen, Master Millwork Inc., Valley Cabinets & More Inc., Viking Cabinets Inc. or equal.
2. Design Style: Full overlay style with 3mm PVC edgebanding.
3. Exposed Finish: Provide high-pressure, standard pattern laminate, .028 inches minimum thickness, meeting NEMA LD-3 standards.

4. Semi-Exposed Finish: Provide low-pressure, thermofused melamine or polyester laminate, meeting ALA standards. At top surface of adjustable shelves and cabinet bottoms, provide high-pressure laminate.
5. Laminate Core Material: Provide hardwood plywood, meeting ANSI-HPVA standards.
6. Hardware: Provide manufacturer's standard hardware and necessary fasteners for a complete installation including the following requirements:
   a) Pulls: Provide satin finish, anodized aluminum wire pulls with three (3) inch screw hole spacing.
   b) Drawer Guides: Shall be full extension. Provide 80 pound load rated, 160 pound minimum for file drawers.
   c) Hinges: Provide concealed, three-way adjustable, self-closing hinges.

## 3. EXECUTION

3.1. FIELD MEASURE

Prior to ordering, field measure all locations to receive work in this Section and verify that actual job conditions match those shown on shop drawings.

3.2. LAMINATED WOOD CABINET INSTALLATION

1. Install cabinets to true horizontal and plumb lines, in perfect alignment with no distortions. Provide concealed shims as required.
2. Connect adjacent cabinets tightly together. Securely anchor woodwork to structure and/or backing.
3. Provide backer rod and sealant to fill gap between cabinet ends and wall. If gap is greater than 3/16”, provide closure trim matching color and finish of finished cabinet end.
4. Adjust cabinet door and drawer front spacing alignment so that all spaces are equal and uniform in width. Adjust cabinet doors so they seat uniformly to cabinet when in closed position. Adjust operation of drawers.

END, SECTION 12 30 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: Fire suppression system shall be designed and executed by fire suppression subcontractor.
2. Assess existing conditions, design, fabricate, install, and secure required permits and approvals necessary to modify the existing automatic fire sprinkler as needed for a complete and proper installation in accordance with pertinent requirements of the Fire Rating Bureau and all governmental agencies having jurisdiction.
3. The systems shall include the following:
   a. Automatic wet pipe fire sprinkling.
4. Coverage: It is the intention of this section to describe systems that will supply complete sprinkler coverage of the entire facility. This shall include, but not be limited to, the following areas:
   a. All occupied building spaces.
   b. All ceiling spaces as required by NFPA 13.
   c. All combustible void spaces, roof overframing, and other spaces including interstitial spaces, catwalk spaces and loft areas and other areas as required by NFPA 13.
   d. All chases and shafts.
   e. All overbuilt areas.
   f. In areas where local codes require coverage be either by fire sprinklers or heat detectors, the coverage shall be provided by fire sprinklers. It should be noted that these requirements are more than the requirements of NFPA 13 and shall be provided as part of the contract.

1.3. RELATED WORK

1. Section 07 90 00: Joint Sealants
2. Section 22 30 00: Plumbing Systems.
3. Section 26 00 00: Electrical General Provisions.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.
3. Only contractors and workmen experienced in, and regularly engaged in, the installation of fire sprinkler systems shall be permitted to install the specified system(s). The sprinkler contractor shall meet all legal requirements required by the State of Washington (See Chapter 212-80 WAC) and shall be licensed to prepare sprinkler drawings and install fire protection systems.
4. The Fire Sprinkling System Designer shall be licensed with the State of Washington as a Fire Sprinkling Engineer.

1.5. REFERENCE STANDARDS

1. NFPA Pamphlet No. 13, "Standards for Sprinkler System Installations".
2. Underwriters Laboratories approved fire protection equipment list.
3. Pertinent recommendations of Washington Surveying and Rating Bureau.
4. Pertinent recommendations of company insuring premises.

1.6. SUBMITTALS

1. Submit manufacturer's data for all items furnished under this Section and fire sprinkler system shop drawing for review. At locations where fire sprinkler piping is exposed, consult with Architect and discuss aesthetic considerations prior to preparation of submittal. Final submittal shall show exposed fire sprinkler piping in sufficient scale and detail to show relationship with other exposed building elements such as structure, lighting, etc.
2. Submit preliminary layout showing only head locations for review by Architect/Engineer. Furnish additional heads, which may be required for coordinated ceiling pattern without added cost, even though number of heads may exceed minimum code requirements. At 2 x 4 grid ceilings, heads shall be located along tile centerline and a minimum of 2" from any grid member.
3. After sprinkler head location review by Architect, submit shop drawings stamped by a licensed individual (minimum of NICET Level III or Registered Fire Protection Engineer in State of Washington), of entire sprinkler system, to Architect for review. After Architects comments have been addressed submit shop drawings to Building Department/Fire Marshal for approval. Completion of shop drawings shall be done so that Fire Marshal can review fire alarm shop drawings with fire sprinkler shop drawings, as applicable. Coordinate as required with fire alarm sub-contractor, as applicable.
4. Obtain and submit from each authority having jurisdiction written certification that the permanent installation has been inspected by the authority and that it complies with all details of the authority's published regulations and requirements
5. Submit marked-up record prints and equipment, maintenance and operating instruction manuals, complete, in final form.
6. See Section 01 33 00 for Submittals.
7. See Section 01 77 00 for Closeout.

1.7. ELECTRICAL INTERFACE

Maintain all existing electrical wiring connections to flow switches, tamper switches, etc.

1.8. TESTS, ADJUSTMENTS, GUARANTEE

1. All fire sprinkler equipment work shall be thoroughly and systematically tested, both during construction and after completion, in a manner duplicating regular service.
2. Tests shall be maintained until approved.
3. Comply with all governmental agency requirements for inspections.
4. Promptly correct all defects and imperfections that may show up.
5. This Subcontractor shall guarantee entire system modifications and all parts thereof for minimum period of (1) year from date of final acceptance and shall repair or replace any part which shows signs of failure in that time, if such failure, in the opinion of the Architect, is due to imperfections in materials or to improper workmanship.

## 2. PRODUCTS

2.1. GENERAL

1. All equipment furnished shall conform to the above-mentioned codes and shall be essentially standard equipment of the manufacturer.
2. Re-use existing components to the greatest extent possible, remaining in compliance with current codes.
3. New materials shall match or be totally compatible with existing components.

2.2. PIPING

1. Mains & Runouts: Match existing.
2. Sprinkler Head Drops: Match existing

2.3. SPRINKLER HEADS
1. Match existing.
2. Extended coverage sprinklers may be used subject to AHJ.

2.4. ESCUTCHEONS
Provide self-adjusting type, spring-loaded, or friction fit on each pendant sprinkler head fitting against ceiling.

## 3. EXECUTION

3.1. DESIGN, LAYOUT & PERMITS
1. Assess existing system.
2. Design complete fire sprinkler system modifications as required by plan modifications in strict compliance with all applicable codes.
3. Layout fire sprinkler system modifications in coordination with all other trades. Notify Architect immediately if any conflicts appear.
4. Furnish shop drawing to all agencies that require plan reviews. Secure and pay for all permits required to complete the work.

3.2. INSTALLATION
1. Run piping concealed above furred ceilings to minimize obstructions. Expose only heads. Only sprinkler piping specifically called out on submittal drawings as being exposed shall be below ceiling construction.
2. The installer of the fire protection (sprinklers) shall be familiar with the architectural construction of the building. The installer shall review all contract documents. Sprinkler piping shall not:
   a. Reduce headroom to less than 7'-0".
   b. Project into any catwalk, passageway, ladder run, access or egress.
   c. Interfere with electrical equipment or access to mechanical units (including filters). Sprinkler piping which, in the opinion of the architect, does not comply with any of the above shall be relocated in a manner which is acceptable to the architect. Such relocation may be directed during shop drawing review and/or during construction. If doubt should exist as to the compliance of the above, the contractor or installer shall review the situation with the architect prior to rough-in.
3. No fire protection work shall be done without approved shop drawings.

3.3. TESTING & ACCEPTANCE
1. Perform necessary tests, adjusting as required and secure all necessary approvals.
2. Secure a letter of final acceptance for all system modifications from the agency having jurisdiction and forward an digital copy of the letter to the Architect.

END, SECTION 21 00 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: Plumbing system modifications shall be designed and executed by the plumbing subcontractor.
2. Assess existing conditions and provide complete design, secure all needed permits and approvals and provide all plumbing work consisting of: furnishing, installing, testing and placing, in satisfactory operation, all equipment, materials, devices and appurtenances, unless specifically excluded, necessary to provide a complete plumbing system modification according to the intent of the Drawings and Specifications.

1.3. RELATED WORK

1. Section 01 73 29: Cutting & Patching.
2. Section 07 90 00: Joint Sealants.
3. Section 22 40 00: Plumbing Fixtures & Trim.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC), Uniform Plumbing Code (UPC), or International Plumbing Code (IPC). and all other relevant codes that govern work in this Section and all related Sections.
3. Without additional cost to the Owner, provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

1.5. REFERENCE STANDARDS

In addition to all applicable codes, conform to the following:

1. ASTM: American Society for Testing and Materials, as noted hereinafter.
2. IAPMO: International Association of Plumbing and Mechanical Officials, installation standards.

1.6. SUBMITTALS

1. Submit manufacturers data for all items furnished under this Section and plumbing system shop drawing for review.
2. See Section 01 33 00 for Submittals.
3. Submit marked-up record prints and equipment, maintenance and operating instruction manuals, complete, in final form.
4. See Section 01 77 00 for Closeout.

1.7. INTENT OF CONTRACT DOCUMENTS

1. Specifications: The specifications denote the materials to be used on the Project and the general methods of installation. All installations shall be made in strict accordance with manufacturers' published recommendations and details and all applicable codes.
2. Drawings: Drawings do not attempt to show complete details of building construction which affect plumbing installations and show only approximate locations of fixtures and equipment. The Drawings shall not be construed to be a substitute for the system design, which is the

responsibility of this Subcontractor. This Subcontractor shall thoroughly examine the Architectural, Plumbing, HVAC and Structural Drawings, as well as the existing site and structures prior to Bid. All measurements shall be taken from the building and/or site and checked against these Drawings. Any conflict shall be reported immediately to the Architect for adjustment before proceeding with the Work. Failure to follow this instruction shall be considered sufficient cause for this Subcontractor to alter his/her Work at his/her own expense, as directed by the Architect.

1.8. TESTS, ADJUSTMENTS, GUARANTEE

1. All plumbing work modifications shall be thoroughly and systematically tested, both during construction and after completion, in a manner duplicating regular service.
2. Tests shall be maintained until approved.
3. Comply with all governmental agency requirements for inspections.
4. Promptly correct all defects and imperfections that may show up.
5. This Subcontractor shall guarantee entire system modifications and all parts thereof for a minimum period of (1) year from date of final acceptance and shall repair or replace any part which shows signs of failure in that time, if such failure, in the opinion of the Architect, is due to imperfections in materials or to improper workmanship.

1.9. OWNER INSTRUCTIONS

1. Owner or his/her appointed representative shall be given complete instructions in use and operation of plumbing systems and components.
2. Operation and Maintenance Manuals shall be available prior to the time of instruction.

## 2. PRODUCTS

2.1. GENERAL

1. All materials shall be new, free from defects and of the quality specified herein.
2. Materials shall be designed to ensure satisfactory operation and rated life in the prevailing environmental conditions where they are being installed.
3. The materials furnished shall be the latest standard design products of manufacturers regularly engaged in their production.
4. All systems specified herein or required by the Contract Documents shall be complete and operational in every detail, except where specifically noted otherwise.

2.2. DOMESTIC WATER PIPING & FITTINGS

1. Inside Building Lines – PEX: Provide Uponor “Wirsbo AQUAPEX”, or equal, crosslinked polyethylene tubing, conforming to ASTM F877, SDR 9, inside building lines and extended 5'-0" outside building line. Cold water piping shall be blue color and hot water piping shall be red color. Provide Uponor “Wirsbo ProPEX fittings, conforming to ASTM F1807, as required for specific applications. All piping stub outs shall be ProPEX sweated copper.
2. Inside Building Lines – Copper: Provide Type “L” tubing (ASTM B88-95a) seamless copper. Provide wrought copper solder-type pressure fittings (ANSI B16.22), or Viega “ProPress Fitting Systems”, or equal, copper press fittings (ANSI B88 or B75).
3. Solder: Provide Lucas-Milhaupt Warwick LLC “Silvabrite 100”, or equal, ASTM B32 Grade E, Alloy Grade E, 100 percent lead-free and antimony-free. Use only non-corrosive, water-flushable flux.
4. Solvent Cement: Provide as recommended by pipe manufacturer.

2.3. DRAIN, WASTE & VENT PIPING & FITTINGS

1. Inside Building Lines – Above Floor (PVC): Provide PVC, DWV Schedule 40, cellular core pipe with solvent welded fittings. Pipe and fittings shall be produced by a single manufacturer. Pipe shall conform to ASTM F891 and fittings to ASTM F409.

2. Inside Building Lines – Below Slab (PVC): Provide PVC, Schedule 40, solid core pipe with solvent welded fittings. Pipe and fittings shall be produced by a single manufacturer. Pipe shall conform to ASTM D2665 and fittings to ASTM D2665. Extend pipe to 5'-0" outside building lines. **Note: Waste piping serving kettle drains shall not be PVC.**
3. Inside Building Lines – Above Grade (cast iron no-hub): Provide no-hub, service weight, cast iron pipe labeled with the CI mark of quality and permanence as illustrated in latest standards of Cast Iron Soil Pipe Institute Standard 301, ASTM A888 or ASTM A74 and no-hub drainage pattern fittings. Couplings for joining pipe shall be (3) inches wide for nominal pipe sizes 1 1/2 to 4 inches in diameter, (4) inches wide for nominal pipe sizes 5 to 10 inches in diameter and 5 5/8 inches wide for pipe sizes 12 and 15 inches in diameter. Shields shall have a minimum thickness of .015 inches, (28) gauge, Type 304 stainless steel. Worm drive clamps shall be Type 304 stainless steel with a minimum clamp torque of (80) in/lbs. Sealing gasket shall be neoprene comforning to ASTM C564.
4. Inside Building Lines – Below Grade (cast Iron no-hub): Same specification above, except for minimum clamp torque of 125 in/lbs.
5. Inside Building Lines – Below Grade (hub & spigot): Provide service weight, cast iron soil pipe with weight per foot and maker's name clearly stamped or cast on each length, in conformance with ASTM A74 and CISPI HS-74 using push-on rubber gasketed joint to affect a watertight seal in conformance with ASTM C564-97.
6. Solvent Cement: Provide as recommended by pipe manufacturer in conformance with ASTM D2564. Primer, if required, shall be in conformance with ASTM F656.

2.4. VALVES

1. General: Provide factory-fabricated products suited to specific applications as manufactured by Crane, or equal. Provide same size as connecting pipe size and ends suitable for piping material.
2. 2-Inch and smaller: Provide lead-free, brass ball, full port valve with chrome-plated ball and blow-out proof stem. Provide stainless steel handle for below grade applications. Provide galvanized steel handle for all other applications.

2.5. INSULATION

1. At all domestic water piping inside building lines, provide (1) inch thickness Owens/Corning Fiberglas "25 ASJ/SSL", or equal, factory molded with factory applied jackets.
2. At pipe fittings and valves, provide one-piece, compressed fiberglass blanket and pre-molded PVC cover with thickness equal to adjoining pipe insulation.
3. Where domestic water piping is totally encased with floor or wall cavity insulation, omit pipe insulation.

2.6. HANGERS, ANCHORS & GUIDES

1. Structural Attachment: Provide to suit existing, specific structural members. Provide lag bolts into wood members. Provide "Parabolt", or equal, existing concrete/masonry fasteners (do not use powder driven fasteners). Utilize fasteners in single shear application, rather than tension.
2. Intermediate Hangers: Provide continuous threaded rod. Do not use chain, wire or perforated metal tape.
3. Insulated Pipe: Provide Fee and Mason "Auto-Grip Insul-Speed, or equal, hangers, size to fit outside diameter of insulation.

2.7. FLOOR DRAINS

1. Provide Sioux Chief "Finish Line", or equal, adjustable (after-pour), Schedule 40 floor drain with hub connection.
   a. Strainer: 5 1/2 diameter bronze.
   b. Coring Plug: High-impact polymer.
   c. Head Adapter/Coring Sleeve: ABS.

   d. Base Adapter: ABS or PVC.
   e. Strainer Load Rating: Pedestrian traffic.
2. Provide trap primer connection and automatic trap primer.

2.8. CLEAN OUTS
1. Floor: Provide Souix Chief "FinishLine 834 Series", or equal, adjustable on-grade cleanout.
   a. Ring/Cover: Nickel-bronze, round.
   b. Coring Plug: High-impact polymer.
   c. Head Adapter/Coring Sleeve: Gray ABS.
   d. Base Adapter: ABS or PVC.
   e. Cleanout Plug: Polypropylene.
   f. Strainer Load Rating: 4,000 lbs. (medium duty).
2. Wall: Provide Zurn "Z-1441", or equal, cast iron body cleanout with ABS plug and round, smooth stainless steel access cover with securing screw.

## 3. EXECUTION

3.1. DESIGN & LAYOUT
1. Assess existing system conditions and design complete plumbing system modifications in strict compliance with all applicable codes
2. Layout plumbing system modifications in coordination with all other trades, using only the minimum number of bends to produce a satisfactorily functioning system.
3. Lay out piping to fall within partition, wall, or roof/ceiling cavities. Notify the Architect immediately if any conflicts appear.
4. Verify initial delivery water pressure with supplying utility and provide pressure reducing valve where conditions require installation.
5. When modifying existing system, verify existence of original drawings and consult as necessary to better comprehend existing system.

3.2. TRENCHING & BACKFILLING
1. Perform all necessary trenching and backfilling associated with the work in this Section.
2. Trenching: Trench bottoms shall be accurately graded to provide uniform undisturbed bedding for each section of pipe, along its entire length. Provide (6) inches depth sand bedding in rocky soil.
3. Structural Slab Backfilling: Cover below slab piping with pea gravel backfill to avoid loading piping if the substrate settles away from the bottom of the structural slab.
4. Detectable Warning Tape: Conform to Section 31 20 00 regarding specific warning tape requirements.

3.3. INSTALLATION
1. Install complete and operational plumbing system modifications in strict compliance with all applicable codes, utilizing industry-accepted methods and maintaining first-class workmanship.
2. Grading: Run horizontal sanitary and storm drainage piping at a uniform grade of 1/4 inch per foot, minimum, unless shown otherwise. Run horizontal domestic water piping with an adequate pitch upwards in the direction of flow to allow complete drainage of system.
3. Sleeves: Cast pipe sleeves in concrete walls, floors, etc. For uninsulated pipe, provide a minimum clearance of 1/2 inch between sleeve and pipe. For insulated pipe, provide a minimum clearance of 1/2 inch between sleeve and pipe insulation. Caulk the space between sleeve and pipe or pipe insulation with noncombustible, permanently plastic, waterproof, non-staining compound.
4. Pipe Supports: Support all piping in a code accepted and industry standard manner. Provide insulation continuously through pipe supports. Support all below-slab piping from structural slab

above with stainless steel or hot-dipped galvanized steel products. “Plumbers Tape” is not acceptable.

5. Valves: Locate and arrange so as to give complete regulation to and allow proper maintenance for apparatus, equipment and fixtures. Provide valves in at least the following locations:
   a) In branches and/or headers of water piping serving a group of fixtures.
   b) On both sides of apparatus and equipment.
   c) Main shutoff for system.
   d) For flushing and sterilizing system.

   Locate valves for easy accessibility and maintenance.
6. Backflow Prevention Devices: Verify there is an existing device. If no device is present, provide as required by all applicable codes and AHJ. The Plumbing Subcontractor is responsible for confirming the requirements of AHJ.
7. Cleanouts: Provide accessible cleanouts as required to adequately service system. Verify proposed cleanout locations with Architect.
8. Modifying Existing System: At time of rough-in connection provide temporary valve to verify adequate available flow as well as adequate pressure for each fixture. Cut and cap piping to all existing fixtures scheduled to be removed, typical. Capped piping shall be below and/or behind finished surfaces.

3.4. DISINFECTING SYSTEM

1. Disinfect hot and cold domestic water system using a method approved by the AHJ. Upon completion of disinfecting, secure and submit Certificate of performance stating system capacity, disinfectant used, time and rate of disinfectant applied and resultant residuals in ppm at completion.
2. When disinfecting operation is completed, and after final flushing, secure an analysis by a laboratory approved by the AHJ, based on water samples from the system, showing test negative for coli-aerogene organisms. Provide a total plate count of less than 100 bacteria per cc, or equal to the control sample.
3. If analysis results are not satisfactory, repeat the disinfecting procedures and retest until specified standards are achieved.

END, SECTION 22 30 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS
Conform to:
1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION
Provide plumbing fixtures and trim, complete, in place, where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.3. RELATED WORK
1. Section 22 30 00: Plumbing Systems.

1.4. QUALITY ASSURANCE
1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Building Code (IBC), Uniform Plumbing Code (UPC), or International Plumbing Code (IPC), and all other relevant codes that govern work in this Section and all related Sections.

1.5. SUBMITTALS
1. Submit manufacturers' data on each product and item for review.
2. See Section 01 33 00 for Submittals.

1.6. PRODUCT HANDLING
1. Deliver materials to, and retain, at the jobsite in unbroken containers.
2. Store materials off floor, dry and protected.
3. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the Work and materials of all other trades.

## 2. PRODUCTS

2.1. TOILETS
1. See Plumbing Fixture Schedule.
2. Provide white vitrious china with trap ways no less than 2 1/8 inches in diameter, fully glazed, and water surface area no less than (10 inches by (12) inches, designed for 1.28-gallon flush.
3. Flush Valve: 1.28 gallon per flush with ADA compliant design.
4. Seat: Provide white open front, matching bowl size, solid plastic with no cover. Provide integrally molded bumber, stainless steel pintles, self-sustaining check hinge and antimicrobial and fire retardant treated compound plastic.

2.2. LAVATORIES – VANITY MOUNTED
1. See Plumbing Fixture Schedule.
2. Provide white vitrious china with (4) inch centers hole punch, ADA compliant.
3. Faucet: Provide lead-free brass materials and construction conforming with NSF Standard 61, Section 9. Provide compression type operating cartridges that closes with water pressure or a ceramic disc type. Provide ADA compliant.
4. Mixing Device: Provide an ASSE 1070 approved temperature mixing device near the lavatory per the following criteria: single lavatories – provide Lawler Model TMM 1070, or equal, for grouped lavatories (up to five) – provide Lawler Model 570, or equal.

5. Supply Kit: Provide chrome-plated brass wall stops with full-turn brass stem certified to 200 psi line pressure, 1/2 inch inlet and 3/8 inch or 1/2 inch outlet. Provide IPS or compression fittings. Provide loose key pattern with shield. Exposed stops shall have polished finish.
6. Drain: Provide chrome-plated drain assembly with cast brass, open grid strainer, offset type, (17) gauge, 1 1/4 inch tail piece.
7. P-Trap: Provide 1 1/4 inch x 1 1/2 inch chrome-plated body cast body j-bend trap with (17) gauge wall bend, vandal-resistant construction guaranteed to withstand 300 ft/lb horizontal or vertical blow.
8. Piping Insulation: Provide white seamless and antimicrobial closed cell vinyl insulation system conforming to ADA requirements. Cover hot and cold angle stops, water supplies, lavatory drain and p-trap assembly secured without exposed plastic ties.

2.3. SINKS

1. See Plumbing Fixture Schedule
2. Provide (18) gauge, Type 302 stainless steel, single double compartment, and self-rimming.
3. Faucet: Provide lead-free brass materials and construction conforming with NSF Standard 61, Section 9. Provide ADA compliant.
4. Supply Kit: Provide chrome-plated brass wall stops with full-turn brass stem certified to 200 psi line pressure, 1/2 inch inlet and 3/8 inch or 1/2 inch outlet. Provide IPS or compression fittings. Provide loose key pattern with shield. Exposed stops shall have polished finish.
5. Trap: Provide 1 1/2 inch x 1 1/2 inch chrome-plated cast trap with (17) gauge tubing waste to wall, cleanout plug and chrome-plated cast brass set screw escutcheon.
6. Drain: Provide 3 1/2 inch drain fitting Type 304 stainless steel body, strainer basket and tailpiece.

2.4. TRIM

1. General: Provide brass with chromium over nickel finish, unless noted otherwise. Faucet handles may be Fed. Spec. grade zinc-aluminum.
2. Stops: Provide at each water connection to each fixture, except where fitting has integral stops.
3. Toilet: Provide toilet bolts with vitreous caps.
4. Escutcheons: Provide at each point where pipe or other fittings enter wall at fixture. Escutcheons shall have polished chrome finish.
5. Vacuum Breaker: Provide on water supply to each fixture which has a water connection located below the rim, or a hose attachment. Vacuum breaker shall have flow-through pattern.
6. Sealant: Provide DAP “KWIK Seal Ultra”, or equal, advanded kitchen and bath sealant 100% waterproof with lifetime mold and mildew resistance guarantee. Provide white color for all white fixtures and clear for all other fixtures, unless noted otherwise.
7. Provide Truebro “Lav Guard,” or equal, protective, insulated, molded covers at exposed undersink hot and cold water supply and stop and drain piping.

2.5. PLUMBING FIXTURE SCHEDULE

General: The following schedule lists specific manufacturers and model numbers in order to establish a standard of quality. Substitutions of equal products are permitted.

**T-1** Toilet (ADA) Flush Valve

| | |
|---|---|
| manufacturer: | Kohler |
| manufacturer no.: | K-96057-0 |
| color: | white |
| seat: | K-4731-GC-0 |
| flush valve | Sloan, Royal, 111-1.28 |
| remarks: | |

**L-1** Lavatory-Vanity Mounted

| | |
|---|---|
| manufacturer: | Kohler |
| manufacturer no.: | K-2196-4 |
| color: | white |
| drain: | K-7715 |
| faucet: | K-15598-F5-CP |
| remarks: | |

**S-1** Sink-Driver Lounge

| | |
|---|---|
| manufacturer: | Elkay |
| manufacturer no.: | LR2522, (3) holes |
| color: | stainless steel |
| drain: | LK35 |
| faucet: | LK1000 |
| remarks: | |

**S-2** Sink-Hall

| | |
|---|---|
| manufacturer: | Elkay |
| manufacturer no.: | BLR1516 (2) holes |
| color: | stainless steel |
| drain: | LK35 |
| faucet: | LK2477CR |
| remarks: | |

## 3. EXECUTION

3.1. INSTALLATION

1. Install fixtures in first-class manner with proper connections to supply and waste systems.
2. See that proper grounds are set to form a secure base for each fixture and an absolute rigid setting.
3. Where plumbing fixtures abut walls, floors, and countertops, seal all joints.
4. Where fixtures are to be removed, cut, and cap all service piping behind finished wall surfaces and/or below finished floor surfaces. Coordinate with General Contractor to patch walls and floors as required to match adjacent surfaces and finishes.

3.2. ADJUST & CLEAN

1. Remove all labels and clean all fixtures, fittings, and traps.
2. Secure all escutcheons against wall.

END SECTION 22 40 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: HVAC system shall be designed and executed by the HVAC subcontractor.
2. Assess existing conditions and provide complete design, secure all needed permits and approvals and provide all heating, ventilating and air conditioning (HVAC) modifications consisting of: furnishing, installing, testing and placing, in satisfactory operation, all equipment, materials, devices and appurtenances, unless specifically excluded, necessary to provide a complete HVAC system modification according to the intent of the Drawings and Specifications.

1.3. RELATED WORK

1. Section 01 73 29: Cutting & Patching.
2. Section 07 21 00: Building Insulation.
3. Section 07 90 00: Joint Sealants.
4. Section 26 00 00: Electrical General Provisions.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Mechanical Code (IMC) and all other relevant codes that govern work in this Section and all related Sections.
3. Without additional cost to the Owner, provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

1.5. REFERENCE STANDARDS

1. ASTM: American Society for Testing and Materials, as noted hereinafter.
2. NBFU: National Board of Fire Underwriters.
3. NEMA: National Electric Manufacturers Association.
4. NFPA: National Fire Protection Association.
5. SMACNA: Sheet Metal and Air Conditioning Contractors National Association, Inc.
6. UL: Underwriters Laboratories, Inc.

1.6. SUBMITTALS

1. Submit manufacturer's data for all items furnished under this Section and HVAC system shop drawing for review.
2. See Section 01 33 00 for Submittals.
3. Submit marked-up record prints and equipment, maintenance and operating instruction manuals, complete, in final form.
4. See Section 01 77 00 for Closeout.

1.7. INTENT OF CONTRACT DOCUMENTS

1. Specifications: The specifications denote the materials to be used on the Project and the general methods of installation. All installations shall be made in strict accordance with manufacturers' published recommendations and details and all applicable codes.

2. Drawings: Drawings do not attempt to show complete details of building construction which affect HVAC installations and show only approximate locations of fixtures, outlets, and equipment and the general requirements as to location of ductwork, etc. This Subcontractor shall thoroughly examine the Architectural, Plumbing, HVAC and Structural Drawings, as well as the existing site and structures prior to Bid. All measurements shall be taken from the building and/or site and checked against these Drawings. Any conflict shall be reported immediately to the Architect for adjustment before proceeding with the Work. Failure to follow this instruction shall be considered sufficient cause for this Subcontractor to alter his/her Work at his/her own expense, as directed by the Architect.

1.8. TESTS, ADJUSTMENTS, GUARANTEE

1. All HVAC work shall be thoroughly and systematically tested, both during construction and after completion, in a manner duplicating regular service. Tests shall be maintained until approved. Comply with all governmental agency requirements for inspections. Promptly correct all defects and imperfections that may show up.
2. This Subcontractor shall guarantee entire system and all parts thereof for minimum period of (1) year from date of final acceptance and shall repair or replace any part which shows signs of failure in that time, if such failure, in the opinion of the Architect, is due to imperfections in materials or to improper workmanship.

1.9. OWNER INSTRUCTIONS

1. Owner or his/her appointed representative shall be given complete instructions in use and operation of HVAC systems and components.
2. Operation and Maintenance Manuals shall be available prior to the time of instruction.

## 2. PRODUCTS

2.1. GENERAL

1. All materials shall be new, free from defects and of the quality specified herein. Materials shall be designed to ensure satisfactory operation and rated life in the prevailing environmental conditions where they are being installed. All materials shall be listed by UL, or any other **approved** testing laboratory, for use under these conditions. The materials furnished shall be the latest standard design products of manufacturers regularly engaged in their production.
2. This Specification generally may list only one make and model number for each item of equipment or material required for the Project. This is not intended to be restrictive, but is intended to indicate the standard of quality, design and features required, physical size, electrical power requirements and performance.
3. All systems specified herein or required by the Contract Documents shall be complete and operational in every detail.

2.2. GENERAL EXHAUST

1. Provide Broan, or equal, exhaust fans properly sized for specific conditions and applications.
2. The sound level for exhaust fans shall not exceed 3.5 sones.

## 3. EXECUTION

3.1. DESIGN & LAYOUT

Assess existing conditions and design complete and fully operational HVAC system modifications in strict compliance with all applicable codes.

3.2. GENERAL INSTALLATION

1. Provide all HVAC system modifications in strict compliance with all applicable codes according to approved shop drawing(s), utilizing industry-accepted methods and maintaining first-class workmanship
1. Arrange with Electrical Subcontractor to provide electrical circuits to all equipment in this Section.
2. Fit surface-mounted items tight without overhanging edges, protruding corners, or raw, exposed edges, to leave a finished appearance.
3. Eliminate noise and vibration and assure proper function of all controls and maintenance of temperature and operation in accordance with the approved design.

3.3. DESIGN CONCEPT – GENERAL EXHAUST

1. Service Area: Provide in Rest Room-111.
2. Controls: Exhaust fans shall turn on and operate by an occupancy sensor switch with (20) minute timer.
3. Provide rigid metal ductwork – insulate where ducts pass through un-heated spaces as required by energy code.
4. Extend ductwork to exterior, providing a backdraft damper and weatherproof hood, typical.

3.4. DEMONSTRATION & INSTRUCTION

1. Make a final check of system operation with Owner's personnel present and before date of substantial completion.
2. Determine that the system is operating properly.
3. Instruct Owner's personnel in proper use, operations, and regular maintenance of HVAC system.

3.5. CLEAN UP

1. Remove all debris from work in this Section and dispose off site.
2. Pay particular attention to removal of metal shavings, sheet metal "pigtails" and loose screws off of equipment and roof membrane. Arrange with roofing subcontractor and pay for all puncture repairs from above debris.
3. Leave all finished surfaces clean and free from imperfectioins and protect as necessary until final acceptance.

END, SECTION 23 00 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: Electrical system shall be designed and executed by the electrical subcontractor.
2. Assess existing and proposed project conditions and provide complete design, secure all needed permits, approvals and provide all electrical work consisting of: furnishing, installing, testing and placing, in satisfactory operation, all equipment, materials, devices and appurtenances, unless specifically excluded, necessary to provide a complete electrical system modification according to the intent of the Drawings and Specifications.

1.3. RELATED WORK

1. Section 01 73 29: Cutting & Patching.
2. Section 07 90 00: Joint Sealants.
3. Section 23 00 00: HVAC.
4. Section 26 50 00: Lighting Fixtures
5. Section 28 46 00: Fire Detection & Alarm.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the National Electrical Code (NEC), International Building Code (IBC) and all other relevant codes that govern work in this Section and all related Sections.
3. Without additional cost to the Owner, provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

1.5. REFERENCE STANDARDS

1. ASTM: American Society for Testing and Materials, as noted hereinafter.
2. NFBU: National Board of Fire Underwriters.
3. NEMA: National Electric Manufacturers Association.
4. NFPA: National Fire Protection Association.
5. UL: Underwriters Laboratories, Inc.

1.6. SUBMITTALS

1. Submit manufacturer's data for all items furnished under this Section and electrical system shop drawing for review.
2. Submit marked-up record prints and equipment, maintenance and operating instruction manuals, complete, in final form.
3. Submit Electrical Inspectors certificate of acceptance of the Work.
4. See Section 01 33 00 for Submittals.
5. See Section 01 77 00 for Closeout.

1.7. INTENT OF CONTRACT DOCUMENTS

1. Specifications: The specifications denote the materials to be used on the Project and the general methods of installation. All installations shall be made in strict accordance with manufacturers' published recommendations and details and all applicable codes.
2. Drawings: Electrical Drawings do not attempt to show complete details of building construction which affect electrical installations and show only approximate locations of fixtures, outlets, and equipment and the general requirements as to location of conduit, etc. The Drawings shall not be construed to be a substitute for the system design, which is the responsibility of this Subcontractor. This Subcontractor shall thoroughly examine the Architectural, Plumbing, HVAC and Structural Drawings, as well as the existing site and structures prior to Bid. All measurements shall be taken from the building and/or site and checked against these Drawings. Any conflict shall be reported immediately to the Architect for adjustment before proceeding with the Work. Failure to follow this instruction shall be considered sufficient cause for this Subcontractor to alter his/her Work at his/her own expense, as directed by the Architect.

1.8. TESTS, ADJUSTMENTS, GUARANTEE

1. All electrical work shall be thoroughly and systematically tested, both during construction and after completion, in a manner duplicating regular service. Tests shall be maintained until approved. Comply with all governmental agency requirements for inspections. Promptly correct all defects and imperfections that may show up.
2. This Subcontractor shall guarantee entire system modification and all parts thereof for minimum period of (1) year from date of final acceptance and shall repair or replace any part which shows signs of failure in that time, if such failure, in the opinion of the Architect, is due to imperfections in materials or to improper workmanship.

## 2. PRODUCTS

2.1. GENERAL

1. All materials shall be new, free from defects and of the quality specified herein.
2. Materials shall be designed to ensure satisfactory operation and rated life in the prevailing environmental conditions where they are being installed.
3. All materials shall be listed by UL, or any other approved testing laboratory, for use under these conditions.
4. The materials furnished shall be the latest standard design products of manufacturers regularly engaged in their production.
5. This Specification may generally lists only one make and model number for each item of equipment or material required for the Project. This is not intended to be restrictive, but is intended to indicate the standard of quality, design and features required, physical size, electrical power requirements and performance.
6. All systems specified herein or required by the Contract Documents shall be complete and operational in every detail, except where specifically noted otherwise.

2.2. CONDUIT

1. Concealed: Provide hot-dipped galvanized or sherardized rigid steel for runs in earth, concrete or wet locations. Assemble rigid steel conduit terminations with locknuts and bushings. Provide electrical metallic tubing for all conduit runs not required or specified to be rigid steel. Assemble EMT with watertight compression fittings for one (1) inch conduit and smaller. Larger than one (1) inch fittings may be set screw type. Provide couplings, adapters, elbows, fittings, etc. required for a complete system.
2. Exposed (in finished office areas only): Where applicable codes will allow, provide Wiremold, or equal, surface metal raceway with snap-in cover and manufactured connectors. Consult Architect where color choice is available.

3. Support: Conduit shall be supported at intervals of not more than ten (10) feet and within two (2) feet of outlets or wiring enclosures with galvanized steel straps. Where applicable, support all below-slab conduit from structural slab above with stainless steel or hot-dipped galvanized steel products. “Plumbers tape” is not acceptable.
4. Continuity: Conduits shall be assembled continuous and secured to boxes, panels, etc., with appropriate fittings to maintain electrical continuity.

2.3. BOXES
1. Metal - Concealed: Provide galvanized, code-gauge pressed steel with knockouts as required. Size, depth and shape best suited to the location and intended service.
2. Metal - Exposed: Provide to match code-approved conduit.

2.4. CONDUCTORS
1. Provide minimum size No. 12 AWG, copper, insulated for 600 volts.
2. Use THW or THHN, unless required otherwise by code.
3. MC Cable: Provide where non-metallic sheathed cable is not allowed, but MC cable is permitted.

2.5. WIRING DEVICES, OUTLETS & PLATES
1. General: Provide "specification grade", unless noted otherwise, and the product of a nationally recognized manufacturer regularly engaged in their production. All wiring devices furnished under this Section shall be the product of a single manufacturer.
2. Color: Switch handles and receptacles: verify with Architect. Cover plates: verify with Architect.
3. Switches: Provide 20-amp, quiet type.
4. Receptacles: Provide 15-amp, duplex, NEMA 5-15R configuration.
5. Voice/Data: Provide standard four (4) inch square box and blank cover plate. Provide 3/4 inch conduit with nylon pull cord and extend to accessible space above ceiling or to home.
6. Thermostat: Verify requirements with HVAC Subcontractor. Provide box and extend conduit to accessible space above ceiling or to home.
7. Special Purpose: Verify requirements of equipment, fixture or appliance and provide all necessary components.

## 3. EXECUTION

3.1. DESIGN & LAYOUT
1. When applicable, calculate service load capacity. Design complete electrical system modifications in strict compliance with all applicable codes.
2. Layout electrical system modifications in coordination with all other trades. Notify Architect immediately if any conflicts appear. All conduit runs shall be parallel to structural elements. At all exposed conduit runs, obtain Architect's approval of intended layout prior to installation.
3. When modifying existing system, verify existence of original drawings and consult as necessary to better comprehend existing system.

3.2. INSTALLATION
1. Install complete and operational electrical system modifications in strict compliance with all applicable codes, utilizing industry-accepted methods and maintaining first-class workmanship.
2. Electrical enclosures shall fit neatly without gaps, openings or distortion. Properly and neatly close all unused openings with approved covers.
3. All boxes, etc. shall be installed plumb and level.
4. Fit surface devices and outlets with neat, appropriate trims, plates or covers without overhanging edges, protruding corners or raw, exposed edges, to leave a completely finished appearance.

5. At remodeled areas, verify existing conditions and perform all required modifications to maintain continuity and operation of existing systems. Remove all existing, unused materials, typical.
6. All electrical work shall be grounded in strict accordance with latest requirements of all applicable codes and P.U.D. standards. Connect receptacle grounding screw to outlet box with jumper wire, typically.
7. Support all conduit and conductors in a code accepted and industry standard manner. Where applicable, support all below-slab piping from structural slab above with stainless steel or hot-dipped galvanized products.
   Review complete set of Drawings to identify and provide power service and make all connections to:HVAC equipment provided under Section 23 00 00. Electrical Subcontractor shall coordinate required installation with appropriate subcontractors.
8. Provide conduit and boxes for:
   a. HVAC controls provided under Section 23 00 00.
   b. Fire Detection and Alarm System provided under Section 28 46 00.
   Electrical Subcontractor shall coordinate required installation with appropriate subcontractors.
9. Where applicable, provide conduit and boxes for data systems and/or CCTV systems provided by others under separate contract. Electrical Subcontractor shall coordinate required installation with separate system subcontractors.

3.3. MOUNTING HEIGHTS

Provide the following mounting heights above finished floor unless shown otherwise on the Drawings:

1. Switches: 40 inches to center line, set vertically.
2. Receptacles: 18 inches to center line, set vertically, unless shown otherwise.
3. Voice/Data: 18 inches to center line, set vertically.
4. Thermostat: 40 inches to center line, set horizontally.

END SECTION 26 00 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: Provide complete design and provide all electrical work, including materials, labor, equipment, and testing, necessary to provide complete occupant, time switch, light reduction and daylighting control systems.
2. Provide lighting fixtures as shown on the Drawings, specified herein and required for a complete system.
3. Lighting fixtures shall be complete and fully operational.

1.3. RELATED WORK

1. Section 26 00 00: Electrical General Provisions.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the National Electrical Code (NEC), International Building Code (IBC), and all other relevant codes that govern work in this Section and all related Sections.

1.5. REFERENCE STANDARDS

1. ASTM: American Society for Testing and Materials, as noted hereinafter.
2. NFBU: National Board of Fire Underwriters.
3. NEMA: National Electric Manufacturers Association.
4. NFPA: National Fire Protection Association.
5. UL: Underwriters Laboratories, Inc.
6. Chapter 51-11C WAC: Washington State Energy Code, Commercial Provisions.

1.6. SUBMITTALS

1. Submit manufacturer's data for all items furnished under this Section for review.
2. See Section 01 33 00 for Submittals.

1.7. WARRANTY

1. General: Furnish written warranty to Owner to cover the following items for the periods noted after date of substantial completion.
2. LED Exit Signs: Parts and labor for full replacement of defective units not less than (5) years.
3. LED Fiixtures: Repair or replacement of defective electrical parts and labor, including light source and power supplies not less than (3) years.
4. Emergency Lighting Batteries: Not less than (10) years. Full warranty shall apply for first year and prorated for the remaining (9) years.
5. Exit Sign Batteries: Not less than (7) years. Full warranty shall apply for first year and prorated for the remaining (6) years.

1.8. PRODUCT HANDLING

1. Deliver materials to, and retain, at the jobsite in unbroken containers.
2. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the Work and materials of all other trades.

## 2. PRODUCTS

2.1. GENERAL

All lighting fixtures shall be complete with all required suspension accessories, canopies, lamps, sockets, reflectors, diffusing material, plaster frames, recessing boxes and shall be completely wired and assembled.

2.2. LIGHTING FIXTURE SCHEDULE

General: The following schedule lists specific manufacturers and model numbers in order to establish a standard of quality. Substitutions of equal or better products are permitted. Verify proper voltage, typical, to all fixtures.

**CS-1**

| | |
|---|---|
| mfr.: | Lithonia |
| mfr. no.: | FMLRL 11 14840 |
| mounting: | ceiling, surface |
| lamps: | LED, 16W |
| remarks: | |

**WS-1**

| | |
|---|---|
| mfr.: | Lithonia |
| mfr. no.: | FMVCCLS 36IN MVOLT 30K35K40K 90CRI KR |
| mounting: | wall, surface |
| lamps: | LED, 27W |
| remarks: | |

**R-1**

| | |
|---|---|
| mfr: | Lithonia |
| mfr no.: | WF4 LED 30K40K50K MVOLT 90CRI MW |
| mounting: | ceiling, recessed |
| lamps: | LED, 10.5W |
| remarks: | |

**EX-1**

| | |
|---|---|
| mfr: | Lithonia |
| mfr no: | LQM S W 3 R 120/277 EL N M6 |
| mounting: | surface, wall |

**EM-1**

| | |
|---|---|
| mfr: | Lithonia |
| mfr no.: | EU2C M6 |
| mounting: | surface, wall |
| heads: | none |
| remarks: | |

**EMX-1**

| | |
|---|---|
| mfr: | Lithonia |
| mfr no.: | LHQM LED R M6 |
| mounting: | surface, wall |
| heads: | LRD, 4.3W |
| remarks: | |

2.3. LAMPS

1. Manufacturer: General Electric, Westinghouse, Sylvania, Philips, or equal.
2. LED: Provide minimum CRI of 80, unless noted otherwise. LED modules/arrays shall deliver at lease 70% of initial lumens, when installed insitu for a minimum of 35,000 hours. Color temperature variation shall not exceed +/- 100 degrees Kelvin at installation, and +/- 200 degrees Kelvin over the life of the module.

2.4. OCCUPANCY SENSORS

1. General: The occupancy sensor system shall sense the presence of human activity within the desired space and fully control the on/off function of the loads automatically. Sensors shall turn on the load within (2) feet of entrance and shall not initiate “on” outside of entrance.
2. Manufacturer: Hubble, Leviton, Lutron, or equal.
3. Sensors: Provide wall switch, ceiling-mounted and wall mounted sensors as required for complete and fully operational system. Provide relays when required. Time delay and sensitivity adjustments shall be recessed and concealed behind hinged door. Sensors shall be dual voltage and have a LED motion indicator.
4. Provide for the following spaces: pre-set time delay of (30) minutes, be manual on or shall be controlled to automatically turn the lighting on to not more than (50) percent power and incorporate a manual control to allow occupants to turn lights off.
   a. Toilet-117, 118, and 119.

b. Restroom-120.

## 3. EXECUTION

3.1. CEILINGS

1. Prior to ordering any fixtures, this Subcontractor is to verify all ceiling (and soffit) types with the latest Architectural Drawings.
2. Any inconsistency or possible conflict is to be resolved before fixtures are ordered, or this Subcontractor shall be held responsible for any error resulting from his/her failure to exercise such precaution.

3.2. FIXTURE INSTALLATION

1. Coordinate efforts with all trades necessary to avoid conflict due to service space limitations.
2. Locate outlets symmetrical with acoustical tile or as directed.
3. Install fixtures according to manufacturer's written instructions. Installing mechanics shall wash their hands prior to and during installation or wear cotton gloves to minimize soiling. Remove all labels and marks from exposed parts of fixtures.
4. Lighting fixtures installed in suspended ceilings shall be supported from the ceiling with either of the following methods:
   a. Provide ERICO “Caddy SFCLT”, or equal, seismic fixture clamps that attach fixtures securely to the ceiling T-bar members, preventing the T-bar from twisting and disconnecting (ICC Report ESR-1943).
   b. Independently supported from the building structure. Supports may be galvanized wire, not smaller than No. 12 gauge, securely twisted, wrapped, and fastened.
5. Fixtures installed in areas where direct contact with ceiling insulation is likely are to be provided with appropriate labels.

3.3. OCCUPANCY SENSORS

1. Provide complete design, layout, and specific device selection(s) to provide a system in full compliance with WA State Energy Code.
2. Install devices in strict accordance with approved shop drawings and manufacturer’s written instructions.

3.4. DEMONSTRATION & INSTRUCTION

1. Make a final check of system operation with Owner’s personnel present and before date of substantial completion.
2. Determine that system is operating properly.
3. Instruct Owner’s personnel in proper use, operations, and regular maintenance of lighting system.
4. Confer with Owner on requirements for a complete lighting system maintenance program.

3.5. CLEAN UP

During final clean up of building, all fixtures and lenses shall be washed, and lamps cleaned.

END, SECTION 26 50 00

## 1. GENERAL

1.1. GENERAL REQUIREMENTS

Conform to:

1. Division 00 00 00: Procurement & Contracting Requirements.
2. Division 01 00 00: General Requirements.

1.2. DESCRIPTION

1. Subcontractor Design/Build: Fire Detection and Alarm System shall be designed and executed by the electrical subcontractor and sub-subcontractor as applicable.
2. Assess existing system and identify conditions where modifications are required due to floor plan changes
3. Provide complete design, secure all needed permits and approvals, and provide all electrical work consisting of furnishing, installing, testing, and placing, in satisfactory operation, all equipment, materials, devices and appurtenances, unless specifically excluded, necessary to provide a complete fire detection and alarm system modification according to the intent of the Drawings and Specifications.

1.3. RELATED WORK

1. Section 21 00 00: Fire Suppression.
2. Section 26 00 00: Electrical General Provisions.

1.4. QUALITY ASSURANCE

1. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
2. The Contractor and all related subcontractors shall possess industry standard understanding of the latest editions of the International Fire Code (IFC), International Building Code (IBC), and all other relevant codes that govern work in this Section and all related Sections.
3. Without additional cost to the Owner, provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.
4. Comply with NEC as applicable to construction and installation of fire alarm and detection system components and accessories. Components and systems UL shall be listed and labeled for fire alarm systems and fire alarm and detection systems and accessories, and FM approved. Comply with applicable State and local requirements.
5. Fire Alarm and Detection System Support.
   a. Contractor’s factory trained technical representative shall respond to job site within (24) hour period for emergencies relating to the system.
   b. Emergency response is defined as having a technician actively troubleshoot and correct problems at job site.

1.5. REFERENCE STANDARDS

1. NFPA 70: National Electrical Code (NEC).
2. NFPA 72: National Fire Alarm Code.
3. UL 268: Underwriters Laboratories, Inc. – Standard for Smoke Detectors for Fire Alarm Signaling Systems.

1.6. SUBMITTALS

1. Submit manufacturer's data for all items furnished under this Section and fire alarm system shop drawing for review.
2. See Section 01 33 00 for Submittals.

3. Submit approved manufacturer's data and fire alarm system shop drawing to Authority Having Jurisdiction (AHJ) for plan review. Verify AHJ requirements. Provide all information required by examiner to complete review. Make necessary corrections and/or modifications to fire alarm and detection system design as required to obtain approval. Owner will pay for plan review fee.
4. Submit marked-up record prints and equipment, complete, in final form. Submit Electrical Inspectors certificate of acceptance of the Work. See Section 01 77 00.

## 2. PRODUCTS

2.1. GENERAL

1. All materials shall be new, free from defects and of the quality specified herein. Materials shall be designed to ensure satisfactory operation and rated life in the prevailing environmental conditions where they are being installed.
2. All new materials shall match or be totally compatible with existing components.
3. All materials shall be listed by UL, or any other **approved** testing laboratory, for use under these conditions.
4. The materials furnished shall be the latest standard design products of manufacturers regularly engaged in their production.
5. All systems specified herein or required by the Contract Documents shall be complete and operational in every detail, except where specifically noted otherwise.

2.2. MANUFACTURER

Approved manufacturers shall be nationally recognized and regularly engaged in the production of fire alarm systems and components, such as: Edwards Signaling, Notifier, SimplexGrinnell or equal.

2.3. SYSTEM COMPONENTS

1. Power Requirements: 120V AC dedicated circuit for control panel. Include sufficient battery capacity to operate entire system upon loss of normal 120V power in normal supervisory mode for a period of (60) hours with (5) minutes of alarm operation at end of this period. System shall automatically transfer to standby batteries upon power failure. Battery charging and recharging operations shall be automatic. Circuits requiring system operating power shall be 24V DC. Include individual fuses at control panel.
2. Heat Detectors: Provide addressable, analog thermal detectors - combination 135 degrees F fixed temperature and 15 degrees F (or more) per minute rate-of-rise detectors. Provide built-in test switch and LEDs to indicate alarm condition and polling. Thermal head shall plug into base.
3. Smoke Detectors: Provide photoelectric type that operate on the light scanner principle with plug-in base and visual indication of detector actuation.
4. Alarm Strobe/Horns: Electronic strobe horns shall be UL listed for fire protective service and shall be solid state construction with broadband horn sound output of (96) dBA (103 peak dBA) at (10) feet in an anechoic chamber and 8,000 peak candlepower at (1) flash per second. Include screw terminals for in/out field wiring of up to No. 12 gage wire. Include adjustable dip switches for variable sounds and volume. Multiple strobes visible in a single room shall be coordinated to flash simultaneously.
5. Alarm Strobe: Strobes shall be UL listed for fire protective services. Provide stobes with 12,000 peak candlepower output at approximately (50) flashes per minute. Include screw terminals for in/out field wiring. Multiple strobes visible in a single room shall be coordinated to flash simultaneously.
6. Low-voltage Conductor: Provide minimum size No. 16 THHN stranded copper, insulated.

## 3. EXECUTION

3.1. DESIGN & LAYOUT

1. Assess existing system and identify conditions where modifications are required due to floor plan changes.
2. Design complete fire alarm and detection system modification in strict compliance with all applicable codes and in accordance with manufacturer's written instructions.
3. Layout fire alarm and detection system in coordination with all other trades.
4. Notify Architect immediately if any conflicts appear.
5. All conduit runs shall be parallel to structural elements.
6. At all exposed conduit runs, obtain Architect's approval of intended layout prior to installation.

3.2. INSTALLATION

1. Install complete and operational fire alarm system modification in strict compliance with all applicable codes and in accordance with manufacturer's written instructions, utilizing industry-accepted methods and maintaining first-class workmanship.
   a. Alarm strobe/horns shall be installed within all common-use areas.
   b. Alarm horns shall be installed within all common-use areas that are somewhat confined.
   c. Provide smoke detector at control panel location.
2. Electrical enclosures shall fit neatly without gaps, openings, or distortion.
3. Properly and neatly close all unused openings with approved covers.
4. All devices shall be installed plumb and level.
5. Install all wire in metallic conduit.
6. Label junction boxes for fire alarm with minimum 1/4 inch letters: "FIRE ALARM".
7. Maintain wiring color code throughout installation. Include color code identification in the O and M Manual.

3.3. MANUFACTURER'S FIELD SERVICES

1. Include services of certified technician to supervise installation, adjustments, final connections and system testing.
2. Include operations and maintenance instructions for the Owner of system equipment, including trouble shooting procedures.
3. Test completed fire alarm and detection system in accordance with NFPA 72 in presence of the Owner and the AHJ.
4. Upon completion of successful test, certify in writing to the Owner that system has been successfully tested and accepted by AHJ. Include field test results in the O and M Manual.

3.4. MOUNTING HEIGHTS

Provide the following mounting heights above finished floor unless shown otherwise on the Drawings:

1. Alarm Signal Devices: Approximately (80) inches to centerline.

END, SECTION 28 46 00

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CONSULTING SERVICES, LLC LLC

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# Hazardous Material Survey (ACM and Pb)

**Report Date:** May 31, 2023

**Property Inspected:** Grays Harbor Transit
705 30th Street
Hoquiam, WA 98550
Parcel Number: 052208000600

**Report Commissioned by:** Grays Harbor Transit
Greg Fountain
705 30th Street
Hoquiam, WA 98550

## Property Inspected and Report Created By:

Gary Randall
AHERA Certification 188097
Good Through March 1, 2024

# Table of Contents

Grays Harbor Transit
705 30th Street
Hoquiam, WA 98550
Parcel# 052208000600

# 1.0 Scope of Work

On May 25, 2023, Gary Randall, an accredited AHERA Building Inspector for EnviroTech Consulting Services LLC (ETCS), conducted a targeted asbestos-containing materials and lead-based paint sampling of the **Grays Harbor Transit Main Office** located at **705 30th St., Hoquiam, WA 98550 Parcel# 052208000600.**

This structure is a 4,700-square-foot commercial building. This structure is used as the main office for the Grays Harbor Transit. The Grays Harbor County Assessor lists the year of construction as 1978. Mr. Fountain requested this survey in preparation for remodeling. This survey covers only the areas that will be disturbed during the planned remodel.

The exterior of this structure is sided with non-suspect painted steel panels and brick. The interior walls are painted, textured gypsum wallboard and the ceilings are a mix of wood planks and acoustic ceiling panels. The floors are a mix of glue-down carpet and sheet vinyl.

This structure does not have a crawlspace or attic.

Samples were collected from all suspect building materials. In addition, paint chip samples were collected from the interior walls. All samples were submitted for laboratory analysis.

The following suspect materials were investigated:

- **Asbestos-Containing Building Materials (ACM)**
- **Lead-Based Paint (Pb)**

Field inspection, data collection, and report generation were based on the following Scope of Work:

- Perform a visual inspection of the subject property to identify and inventory all accessible suspect asbestos-containing materials.
- Bulk sampling and analysis of identified suspect asbestos-containing materials.
- Provide quantity estimates of asbestos-containing materials.
- Provide a written report including sample descriptions, sample locations, and sample location drawings.

The survey was intended to identify any possible asbestos-containing materials (ACM) which may be disturbed during demolition, remodeling, or maintenance activities per 40 CFR 61 Subpart M and to maintain compliance with WAC 296-62-07721 and current applicable Olympic Region Clean Air Agency (ORCAA) regulations. ETCS has made a best-effort attempt to identify materials which may be disturbed. In addition, this asbestos survey meets the U.S. EPA's "Good Faith" asbestos inspection requirements.

Suspect (ACM) within the structure were identified and classified as either a **Surfacing Material**, **Thermal System Insulation**, or **Miscellaneous Materials**.

- **Surfacing Materials** are those which are either spray-applied or troweled-on for acoustical, decorative, or fireproofing purposes.
- **Thermal System Insulation** (TSI) inhibits heat transfer or prevents condensation on pipes, boilers, tanks, ducts, and various other components.
- **Miscellaneous Materials** include all other materials not included in the above

categories, such as floor tiles, ceiling tile, roofing felt, cementitious materials, wallboard systems, and products such as caulking, mastics, and putties.

Nineteen (19) Suspected **Miscellaneous** and **Surfacing** building materials were collected and submitted for laboratory analysis.

Five (5) interior paint samples were collected and submitted for laboratory analysis.

## Limitations of the Assessment

This targeted assessment was limited to the referenced buildings and did not include areas beyond the "footprint" of the buildings. This report's conclusions are professional opinions based solely upon visual site observations and analytical data interpretation, as described in this report.

Typical construction techniques can render portions of the building inaccessible. As a result, additional asbestos-containing building materials (ACBM) may be present inaccessible areas (i.e., within wall and ceiling cavities). Suspect ACBM within inaccessible areas should be presumed to contain asbestos until characterized. The opinions presented herein apply to the site conditions existing at the time of investigation and interpretation of current asbestos regulations. Recommendations provided may not apply to future conditions that exist at the site mentioned above.

## Survey Methodology

The supporting documentation provided within this survey report includes a material summary table and appendices that include building drawings, lab analytical reports, the chain of custody forms, and inspector certifications.

# 2.0 Asbestos Containing Materials (ACM) Summary

Bulk samples collected by ETCS were submitted to Washington Asbestos Testing LLC, 11200 Kirkland Way #340A, Kirkland, WA 98033, for sample analysis using polarized light microscopy (PLM) with dispersing staining in accordance with U.S. EPA method 600/R93- 166 as specified in 40 CFR Chapter I (7-1-93 edition) Part 763, Subpart F, Appendix A, pages 499-504. Polarizing light microscopy quantifies asbestos concentrations between 100% - 1% detection levels. Levels below 1% can be stated as None Detected (ND).

Samples containing more than one separable layer of material, the report will include findings for each layer (labeled 1 for layer one, 2 for layer two, etc.) and a total percentage for the entire sample. The asbestos concentration is determined by visual estimation.

For those samples with asbestos concentrations between one and ten percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos. Point counting will only be performed at the owner's or owner's agent request.

The following suspect materials were found to contain asbestos:

**Asbestos Detected**

Grays Harbor Transit
705 30th Street
Hoquiam, WA 98550
Parcel# 052208000600

| Sample # | Collection Location | Layer # | Description of Material | Type | % ACM | Type | Total* |
|---|---|---|---|---|---|---|---|
| 10 | Kitchen Floor | 2 | Gray Sheet Vinyl W/white/gray fibrous material backing | Miscellaneous | 45% Chrysotile | Friable | 182 SF |
| 10 | Kitchen Floor | 3 | Yellow mastic | Miscellaneous | 2% Chrysotile | Non-Friable | 182 SF |
| 19 | 2nd Floor Office Floor | 2 | Gray Sheet Vinyl W/white/gray fibrous material backing | Miscellaneous | 45% Chrysotile | Friable | 150 SF |
| 19 | 2nd Floor Office Floor | 3 | Yellow mastic | Miscellaneous | 2% Chrysotile | Non-Friable | 150 SF |

**All measurements provided are approximations, and drawings are not to scale.*

**Paint Sample Results**

| Sample Number | Sample Collection Location | Homogeneous Material Description | Lead Content (% by Weight)** |
|---|---|---|---|
| L1 | Conference RM S Wall | Dark Gray Paint | <0.008% |
| L2 | Conference RM E Wall | Light Gray Paint | <0.008% |
| L3 | Kitchen S Wall | Cream Paint | <0.008% |
| L4 | Dispatch S Wall | Dark Gray Paint | <0.008% |
| L5 | 2nd Floor Office E Wall | Green Paint | <0.008% |

** Paint containing lead equal to or in excess of 1.0 milligrams per square centimeter or 0.5% by weight is lead-based paint and is considered regulated material.

# 3.0 Assessment and Recommendations

## Assessment

The ACM identified in the subject structure falls into the **Miscellaneous Categories**. The asbestos-containing building material (ACBM) found in this structure:

a. The gray sheet vinyl flooring and the yellow mastic used to attach it to the underlayment. This asbestos-containing sheet vinyl and mastic are installed throughout this structure's 1st and 2nd floors, including the kitchen and 2nd-floor office.

## Recommendations

All material in this structure with an asbestos content >1% is regulated material and must be abated before any demolition or remodeling activity that may disturb these materials. A Washington State Certified Abatement Contractor must conduct the abatement of ACM. The owner or the owner's contractor must not disturb the ACM.

**A copy of this report must be provided to any employee or contractor conducting renovation or demolition activities at this structure**.

# 4.0 Statement of Compliance

In accordance with WAC 296-62-07721 and current applicable ORCCA regulations, EnviroTech Consulting Services LLC performed an Asbestos Building Survey at **Grays Harbor Transit, 705 30th St., Hoquiam, WA 98550, Parcel# 052208000600.**

A Washington State Certified Asbestos Abatement Contractor must conduct the abatement of asbestos-containing materials. Should employees or contract personnel encounter any suspect asbestos-containing materials, it is their responsibility to:

1. Contact a representative of the owner.
2. Consult the inspection report to determine whether the suspect material contains asbestos.
3. Ensure that all employees and contractors are informed and advised of the location and type of materials that contain asbestos.

The following asbestos-containing materials were identified at the subject property:

**Asbestos Detected**
Grays Harbor Transit
705 30th Street
Hoquiam, WA 98550
Parcel# 052208000600

| Sample # | Collection Location | Layer # | Description of Material | Type | % ACM | Type | Total* |
|---|---|---|---|---|---|---|---|
| 10 | Kitchen Floor | 2 | Gray Sheet Vinyl W/white/gray fibrous material backing | Miscellaneous | 45% Chrysotile | Friable | 182 SF |
| 10 | Kitchen Floor | 3 | Yellow mastic | Miscellaneous | 2% Chrysotile | Non-Friable | 182 SF |
| 19 | 2nd Floor Office Floor | 2 | Gray Sheet Vinyl W/white/gray fibrous material backing | Miscellaneous | 45% Chrysotile | Friable | 150 SF |
| 19 | 2nd Floor Office Floor | 3 | Yellow mastic | Miscellaneous | 2% Chrysotile | Non-Friable | 150 SF |

**All measurements provided are approximations, and drawings are not to scale.*

## Paint Sample Results

| Sample Number | Sample Collection Location | Homogeneous Material Description | Lead Content (% by Weight)** |
|---|---|---|---|
| L1 | Conference RM S Wall | Dark Gray Paint | <0.008% |
| L2 | Conference RM E Wall | Light Gray Paint | <0.008% |
| L3 | Kitchen S Wall | Cream Paint | <0.008% |
| L4 | Dispatch S Wall | Dark Gray Paint | <0.008% |
| L5 | 2nd Floor Office E Wall | Green Paint | <0.008% |

** Paint containing lead equal to or in excess of 1.0 milligrams per square centimeter or 0.5% by weight is lead-based paint and is considered regulated material.

I Hereby Attest:

The inspection report has been made available to me. I will inform all subcontractors of the location and types of materials containing asbestos. I am authorized to sign on behalf of my company.

Contractor:_____ Owner Rep: _____

Print Name:_____ Print Name: _____

Signature:_____ Signature:_____

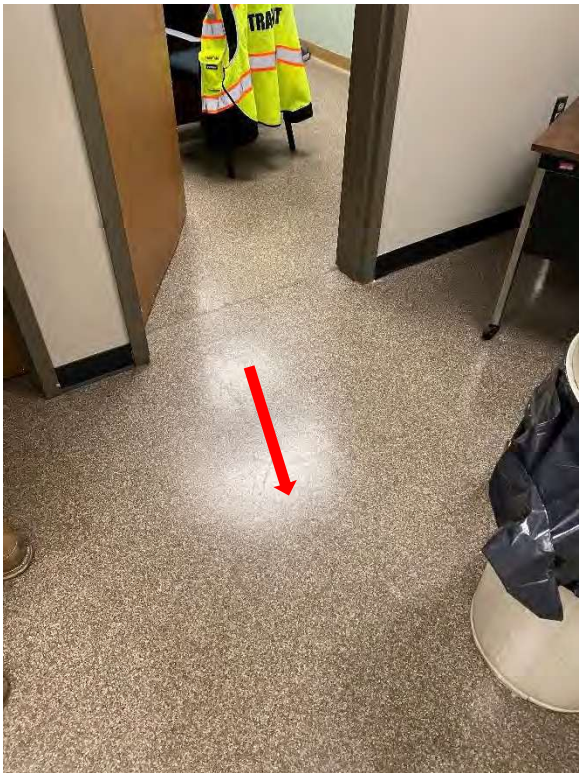
Title:_____ Title: _____

Date:_____ Date:_____

# Photos

The gray sheet vinyl flooring and the yellow mastic used to attach it are asbestos-containing.

The gray sheet vinyl flooring and the yellow mastic used to attach it are asbestos-containing.



The gray sheet vinyl flooring and the yellow mastic used to attach it are asbestos-containing.

**Appendix (A)**

Batch# : WATK2303874

11200 Kirkland Way #340A
Kirkland, WA 98033
(425) 658-7286
WATestingLLC.com

**BULK ASBESTOS TEST** X **POINT COUNT (400/600/1000)** ____ **TAPE** ____ **LEAD** ____ **MOLD** ____

**Client Name:** EnviroTech Consulting Services, LLC

**Address:** P.O. Box 658 **City:** Aberdeen **ST:** WA ZIP: 98520

**Phone #:** (360) 533-8117

**Project Manager:** Gary Randall **Email:** results@envirotechcs.com

**Project Location/Job Name:** GH Transit - Parcel #052208000600

Address: 705 30th St City: Hoquiam ST: WA Zip: 98550

**SAMPLES: Turn Around Time:** 2 Day **Number of samples:** 19

**Condition:** Good ____ Damaged ____ Severe Damage ____

| SEQ# | Sample Location | Sample Description | SEQ# | Sample Location | Sample Description |
|---|---|---|---|---|---|
| 1 | Conference RM E Wall | GWB W/Tex, JC | 21 | | |
| 2 | Conference RM E Wall | GWB W/Tex, JC | 22 | | |
| 3 | 1st Floor Hallway W Wall | GWB W/Tex, JC | 23 | | |
| 4 | Conference RM E Wall | Brn Mastic | 24 | | |
| 5 | 1st Floor Hallway W Wall | Blk Mastic | 25 | | |
| 6 | Conference RM Floor | Brn Mastic | 26 | | |
| 7 | Kitchen Ceiling | Wht-Gry ACP | 27 | | |
| 8 | Kitchen Ceiling | Blk Tar Paper | 28 | | |
| 9 | Kitchen S Wall Cove Base | Yel Mastic | 29 | | |
| 10 | Kitchen Floor | Gry SV W/Wht Backing | 30 | | |
| 11 | Drivers Locker RM N Wall | Blk Mastic | 31 | | |
| 12 | Drivers Locker RM N Wall | GWB W/Tex, JC | 32 | | |
| 13 | Drivers Locker RM N Wall | GWB W/Tex, JC | 33 | | |
| 14 | 2nd FL Office E Wall | Brn-Blk Mastic | 34 | | |
| 15 | 2nd FL Office E Wall | GWB W/Tex, JC | 35 | | |
| 16 | 2nd FL Hallway W Wall | GWB W/Tex, JC | 36 | | |
| 17 | 2nd FL Office E Wall | GWB W/Tex, JC | 37 | | |
| 18 | 2nd FL Office Ceiling | Wht-Wht ACP | 38 | | |
| 19 | 2nd FL Office Floor | Gry SV W/Wht Backing | 39 | | |
| 20 | | | 40 | | |

| | Print Name | Signature | Company Name | Date | Time |
|---|---|---|---|---|---|
| **Sampled** | Gary Randall | | ETCS | 5/25/2023 | 12:10 PM |
| **Relinquished** | Gary Randall | | ETCS | 5/25/2023 | 3:45 PM |
| **Delivered** | USPS | | USPS | | |
| **Received** | | | WAT | 5/26/23 | 10:30 |
| **Analyzed** | | | WAT | 5/26/23 | 4:30 |
| **Reported** | | | WAT | 5/30/23 | 9:05 |

**How would you like to be notified?** **Email** X **Phone** ____

Washington Asbestos Testing LLC guarantees the test results provided are of a precision normal with the type of methods recognized in asbestos analysis. Washington Asbestos Testing LLC accepts no legal responsibility for the purpose for which the client uses the test results. By signing on this Chain of Custody form the client agrees to relieve Washington Asbestos Testing LLC of any and all liability that may arise from the test results.

Washington Asbestos Testing LLC
11200 Kirkland Way Ste. 340A, Kirkland, WA 98033 • (425) 658-7286
12811 8th Ave W Ste. B101, Everett, WA 98204 • (425) 374-8706
watestingllc.com

NVLAP Lab Code 600040-0

**Batch #:** WATK2303874

**Asbestos Analysis of Bulk Materials by App. E to Sub. E of 40 CFR Part 763 and EPA 600/R-93/116 Methods Using Polarized Light Microscopy**

Attn: **Gary Randall**
**EnviroTech Consulting Services, LLC**
**PO BOX 658, Aberdeen, WA 98520**

Project: **GH Transit - Parcel #052208000600**
**705 30th St, Hoquiam, WA 98550**

Office Phone: (360) 533-8117
Date Received: 5/26/2023
Date Analyzed: 5/26/2023
Samples Received: 19
Samples Analyzed: 19

**Analyzed By** David Henry

**Approved By** _____
Approved Signatory (If Necessary)

| SEQ# | SAMPLE ID | LAYER | DESCRIPTION | % | NON-ASBESTOS FIBERS | % | NON-FIBROUS | % | ASBESTOS TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Conference RM E Wall | 1 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 2 | White compact powdery joint compound with paper | 35% | Cellulose | 65% | Non-fibrous (Other) | | None Detected |
| | | 3 | White chalky material with paper | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 2 | Conference RM E Wall | 1 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 2 | Metal sheet | | None Detected | 100% | Non-fibrous (Other) | | None Detected |
| 3 | 1st Floor Hallway W Wall | 1 | Brown mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 3 | White chalky material with paper | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 4 | Conference RM E Wall | 1 | Black rubbery material | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | Yellow mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 3 | Brown mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 4 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| 5 | 1st Floor Hallway W Wall | 1 | Black rubbery material | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | Yellow mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 3 | Black/brown mastic with paint | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| 6 | Conference RM Floor | 1 | Brown mastic | 3% | Synthetic, Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 2 | Gray cementitious material with sand | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| 7 | Kitchen Ceiling | 1 | White-gray fibrous material with paint, glass beads, and perlite | 65% | Cellulose, Glass | 35% | Non-fibrous (Other) | | None Detected |
| 8 | Kitchen Ceiling | 1 | Black asphaltic fibrous material | 70% | Cellulose | 30% | Non-fibrous (Other) | | None Detected |
| 9 | Kitchen S Wall Cove Base | 1 | Tan rubbery material | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | Trace yellow mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |

## Appendix (B)

Washington Asbestos Testing LLC
11200 Kirkland Way Ste. 340A, Kirkland, WA 98033 • (425) 658-7286
12811 8th Ave W Ste. B101, Everett, WA 98204 • (425) 374-8706
watestingllc.com

NVLAP Lab Code 600040-0

**Batch #:** WATK2303874

**Asbestos Analysis of Bulk Materials by App. E to Sub. E of 40 CFR Part 763 and EPA 600/R-93/116 Methods Using Polarized Light Microscopy**

Attn: **Gary Randall**
**EnviroTech Consulting Services, LLC**
**PO BOX 658, Aberdeen, WA 98520**

Project: **GH Transit - Parcel #052208000600**
**705 30th St, Hoquiam, WA 98550**

Office Phone: (360) 533-8117
Date Received: 5/26/2023
Date Analyzed: 5/26/2023
Samples Received: 19
Samples Analyzed: 19

**Analyzed By** David Henry

**Approved By** _____
Approved Signatory (If Necessary)

| SEQ# | SAMPLE ID | LAYER | DESCRIPTION | % | NON-ASBESTOS FIBERS | % | NON-FIBROUS | % | ASBESTOS TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 10 | Kitchen Floor | 1 | Gray sheet vinyl | | None Detected | 100% | Non-fibrous (Other) | | None Detected |
| | | 2 | White/gray fibrous material | 25% | Cellulose | 30% | Non-fibrous (Other) | 45% | Chrysotile |
| | | 3 | Yellow mastic | 2% | Cellulose | 96% | Non-fibrous (Other) | 2% | Chrysotile |
| 11 | Drivers Locker RM N Wall | 1 | Black rubbery material | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | Yellow mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 3 | Brown paper with paint | 75% | Cellulose | 25% | Non-fibrous (Other) | | None Detected |
| 12 | Drivers Locker RM N Wall | 1 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| 13 | Drivers Locker RM N Wall | 1 | Brown mastic | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 2 | Trace white compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 3 | White chalky material with paper | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 14 | 2nd FL Office E Wall | 1 | Tan rubbery material | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | Brown-black mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| 15 | 2nd FL Office E Wall | 1 | Brown mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 3 | White chalky material with paper | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 16 | 2ND FL Hallway W Wall | 1 | Brown mastic | 2% | Cellulose | 98% | Non-fibrous (Other) | | None Detected |
| | | 2 | White chalky material with paper and paint | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 17 | 2nd FL Office E Wall | 1 | White compact powdery texture with paint | 3% | Cellulose | 97% | Non-fibrous (Other) | | None Detected |
| | | 2 | White compact powdery joint compound with paper | 35% | Cellulose | 65% | Non-fibrous (Other) | | None Detected |
| | | 3 | White chalky material with paper | 20% | Cellulose | 80% | Non-fibrous (Other) | | None Detected |
| 18 | 2nd FL Office Ceiling | 1 | White/gray fibrous material with paint, glass beads, and perlite | 65% | Cellulose, Glass | 35% | Non-fibrous (Other) | | None Detected |

**Appendix (B)**

Washington Asbestos Testing LLC
11200 Kirkland Way Ste. 340A, Kirkland, WA 98033 • (425) 658-7286
12811 8th Ave W Ste. B101, Everett, WA 98204 • (425) 374-8706
watestingllc.com

NVLAP Lab Code 600040-0

**Batch #:** WATK2303874

**Asbestos Analysis of Bulk Materials by App. E to Sub. E of 40 CFR Part 763 and EPA 600/R-93/116 Methods Using Polarized Light Microscopy**

Attn: **Gary Randall**
**EnviroTech Consulting Services, LLC**
**PO BOX 658, Aberdeen, WA 98520**

Project: **GH Transit - Parcel #052208000600**
**705 30th St, Hoquiam, WA 98550**

Office Phone: (360) 533-8117
Date Received: 5/26/2023
Date Analyzed: 5/26/2023
Samples Received: 19
Samples Analyzed: 19

**Analyzed By** David Henry

**Approved By** _____
Approved Signatory (If Necessary)

| SEQ# | SAMPLE ID | LAYER | DESCRIPTION | % | NON-ASBESTOS FIBERS | % | NON-FIBROUS | % | ASBESTOS TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 19 | 2nd FL Office Floor | 1 | Gray sheet vinyl | | None Detected | 100% | Non-fibrous (Other) | | None Detected |
| | | 2 | White/gray fibrous material | 25% | Cellulose | 30% | Non-fibrous (Other) | 45% | Chrysotile |
| | | 3 | Yellow mastic | 2% | Cellulose | 96% | Non-fibrous (Other) | 2% | Chrysotile |
| | | 4 | Brown wood debris | 5% | Cellulose | 95% | Non-fibrous (Other) | | None Detected |

OrderID: 092311671

**Appendix (A)**

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

# Lead Chain of Custody

EMSL Order Number / Lab Use Only

092311671

EMSL Analytical, Inc.

PHONE: (800) 220-3675
EMAIL: CinnaminsonLeadLab@emsl.com

| Customer Information | | Billing Information | |
|---|---|---|---|
| Customer ID: | ETCS25 | Billing ID: | ETCS25 |
| Company Name: | EnviroTech Consulting Services, LLC | Company Name: | EnviroTech Consulting Services, LLC |
| Contact Name: | Gary Randall | Billing Contact: | Gary Randall |
| Street Address: | P.O. Box 658 | Street Address: | P.O. Box 658 |
| City, State, Zip: | Aberdeen, WA 98520 | City, State, Zip: | Aberdeen, WA 98520 |
| Country: | USA | Country: | USA |
| Phone: | 360-581-5501 | Phone: | 360-581-5501 |
| Email(s) for Report: | results@envirotechcs.com | Email(s) for Invoice: | Accounting@envirotechcs.com |

**Project Information**

| | | | |
|---|---|---|---|
| Project Name/No: | GH Transit | Purchase Order: | |
| EMSL LIMS Project ID: (If applicable, EMSL will provide) | | US State where samples collected: | WA |
| State of Connecticut (CT) must select project location: | ☐ Commercial (Taxable) ☐ Residential (Non-Taxable) | | |
| Sampled By Name: | Gary Randall | Sampled By Signature: | |
| No. of Samples in Shipment | 5 | | |

**Turn-Around-Time (TAT)**

☐ 3 Hour ☐ 6 Hour ☑ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

| MATRIX | METHOD | INSTRUMENT | REPORTING LIMIT | SELECTION |
|---|---|---|---|---|
| CHIPS ☑ % by wt. ☐ ppm (mg/kg) ☐ mg/cm² *Reporting Limit based on a minimum 0.25g sample weight. **Not appropriate for Ceramic Tiles - XRF is recommended | SW 846-7000B | Flame Atomic Absorption | 0.008% (80ppm) | ☑ |
| | SW 846-6010D* | ICP-OES | 0.0004% (4ppm) | ☐ |
| AIR | NIOSH 7082 | Flame Atomic Absorption | 4µg/filter | ☐ |
| | | | | |
| | NIOSH 7300M / NIOSH 7303M | ICP-OES | 0.5µg/filter | ☐ |
| | NIOSH 7300M / NIOSH 7303M | ICP-MS | 0.05µg/filter | ☐ |
| WIPE ☐ ASTM ☐ NON-ASTM *If no box is checked, non-ASTM Wipe is assumed | SW 846-7000B | Flame Atomic Absorption | 10µg/wipe | ☐ |
| | SW 846-6010D* | ICP-OES | 1.0µg/wipe | ☐ |
| TCLP | SW 846-1311 / 7000B / SM 3111B | Flame Atomic Absorption | 0.4 mg/L (ppm) | ☐ |
| | SW 846-1311 / SW 846-6010D* | ICP-OES | 0.1 mg/L (ppm) | ☐ |
| SPLP | SW 846-1312 / 7000B / SM 3111B | Flame Atomic Absorption | 0.4 mg/L (ppm) | ☐ |
| | SW 846-1312 / SW 846-6010D* | ICP-OES | 0.1 mg/L (ppm) | ☐ |
| TTLC | 22 CCR App. II, 7000B | Flame Atomic Absorption | 40mg/kg (ppm) | ☐ |
| | 22 CCR App. II, SW 846-6010D* | ICP-OES | 2mg/kg (ppm) | ☐ |
| STLC | 22 CCR App. II, 7000B | Flame Atomic Absorption | 0.4 mg/L (ppm) | ☐ |
| | 22 CCR App. II, SW 846-6010D* | ICP-OES | 0.1 mg/L (ppm) | ☐ |
| Soil | SW 846-7000B | Flame Atomic Absorption | 40mg/kg (ppm) | ☐ |
| | SW 846-6010D* | ICP-OES | 2mg/kg (ppm) | ☐ |
| Wastewater | SM 3111B / SW 846-7000B | Flame Atomic Absorption | 0.4 mg/L (ppm) | ☐ |
| Unpreserved ☐ Preserved with HNO3 ☐ PH<2 | EPA 200.7 | ICP-OES | 0.020 mg/L (ppm) | ☐ |
| Drinking Water | EPA 200.5 | ICP-OES | 0.003 mg/L (ppm) | ☐ |
| Unpreserved ☐ Preserved with HNO3 ☐ PH<2 | EPA 200.8 | ICP-MS | 0.001 mg/L (ppm) | ☐ |
| TSP/SPM Filter | 40 CFR Part 50 | ICP-OES | 12 µg/filter | ☐ |
| Other: | | | | ☐ |

| Sample Number | Sample Location | Volume / Area | Date / Time Sampled |
|---|---|---|---|
| L1 | Conference RM S Wall | 3.65 SQ IN | 5/25/23 10:30 AM |
| L2 | Conference RM E Wall | 4.31 SQ IN | 5/25/23 10:35 AM |
| L3 | Kitchen S Wall | 2.5 SQ IN | 5/25/23 10:45 AM |
| L4 | Dispatch S Wall | 2.0 SQ IN | 5/25/23 11:05 AM |
| L5 | 2nd Floor Office E Wall | 4.49 SQ IN | 5/25/23 11:10 AM |

| | | | |
|---|---|---|---|
| Method of Shipment: | USPS Priority Mail | Sample Condition Upon Receipt: | |
| Relinquished by: | Gary Randall | Date/Time: 5/25/23 3:45 | Received by: CY USPS |
| Date/Time: 5/27/23 11:45 | | | |
| Relinquished by: | | Date/Time: | Received by: |
| Date/Time | | | |

Controlled Document - COC-25 Lead R17 05/09/2022

*6010C Available Upon Request

☑ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

**EMSL Analytical, Inc**
**464 McCormick Street, San Leandro, CA 94577**
Phone/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com sanleandrolab@emsl.com

| | |
|---|---|
| EMSL Order: | 092311671 |
| CustomerID: | ETCH25 |
| CustomerPO: | |
| ProjectID: | |

Attn: **Gary Randall**
**EnviroTech Consulting Services, LLC**
**P.O. Box 658**
**Aberdeen, WA 98520**

| | |
|---|---|
| Phone: | (360) 533-8117 |
| Fax: | (360) 537-4972 |
| Received: | 5/27/2023 11:45 AM |
| Collected: | 5/27/2023 |

Project: **GH TRANSIT**

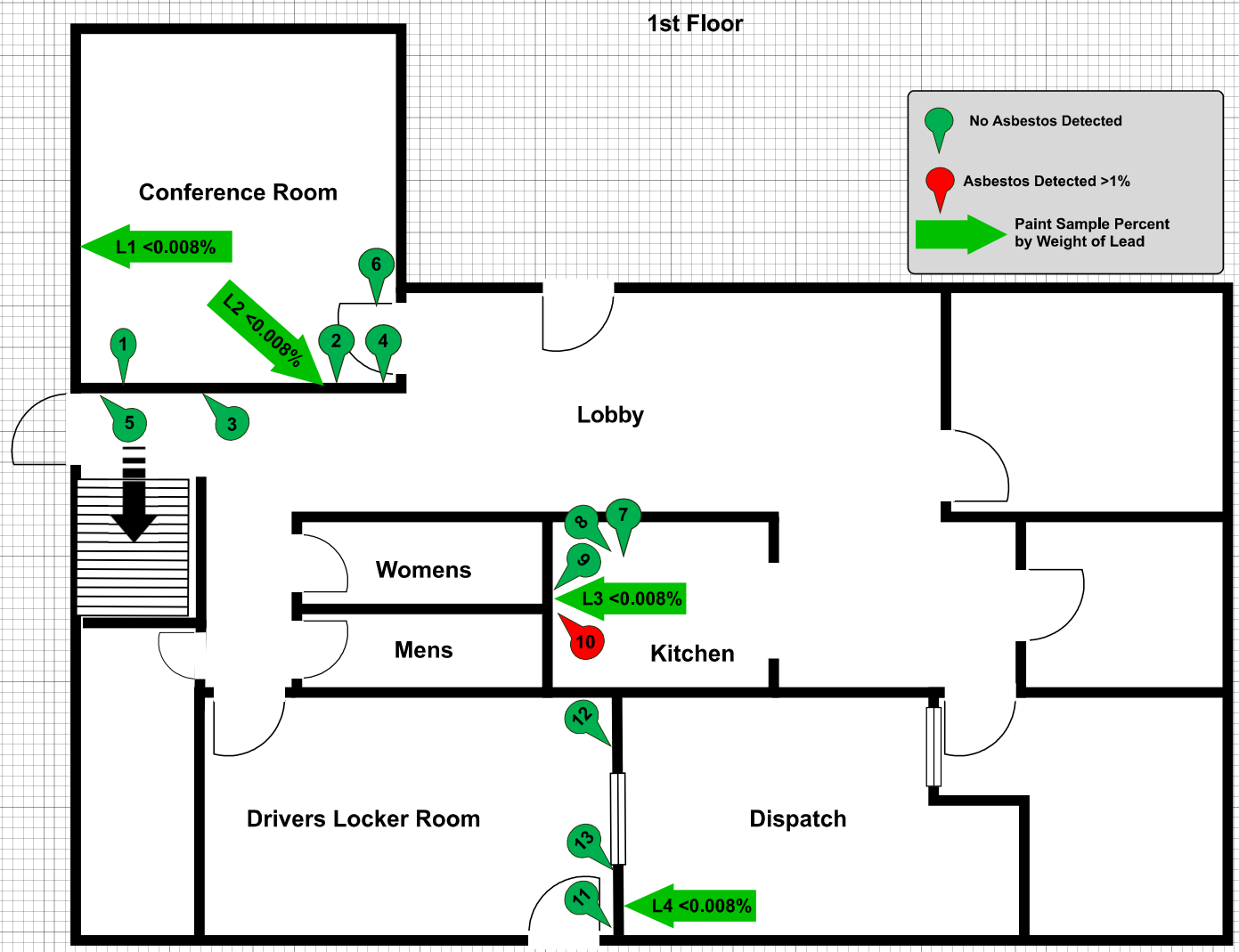
## Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

| *Client Sample Description* | *Lab ID* | *Collected* | *Analyzed* | *Weight* | *Lead Concentration* |
|---|---|---|---|---|---|
| L1 | *092311671-0001* | 5/27/2023 | 5/30/2023 | 0.252 g | <0.0080 % wt |
| | Site: CONFERENCE RM S WALL | | | | |
| L2 | *092311671-0002* | 5/27/2023 | 5/30/2023 | 0.2518 g | <0.0080 % wt |
| | Site: CONFERENCE RM E WALL | | | | |
| L3 | *092311671-0003* | 5/27/2023 | 5/30/2023 | 0.2579 g | <0.0080 % wt |
| | Site: KITCHEN S WALL | | | | |
| L4 | *092311671-0004* | 5/27/2023 | 5/30/2023 | 0.2527 g | <0.0080 % wt |
| | Site: DISPATCH S WALL | | | | |
| L5 | *092311671-0005* | 5/27/2023 | 5/30/2023 | 0.2568 g | <0.0080 % wt |
| | Site: 2ND FLOOR OFFICE E WALL | | | | |

Cecilia Yu, Laboratory Manager
or other approved signatory

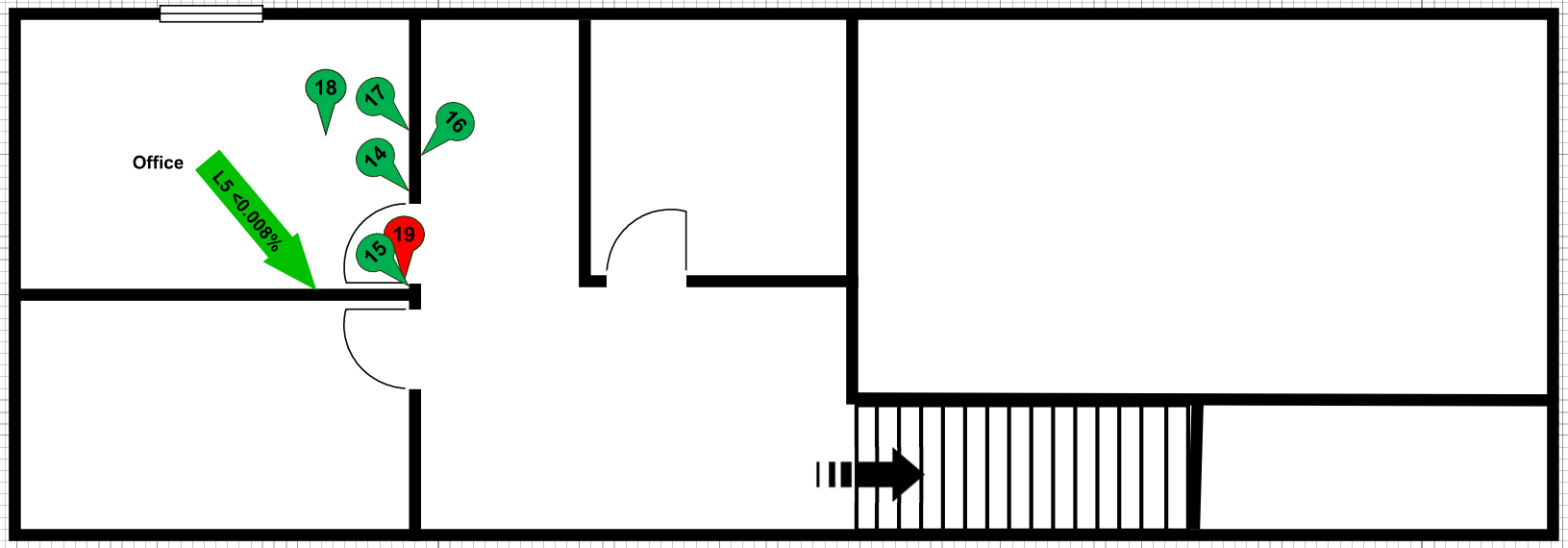

* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Analytical, Inc San Leandro, CA AIHA LAP, LLC-ELLAP Accredited #101748

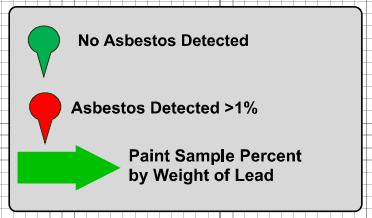
Initial report from 05/30/2023 11:06:29




| | | | | |
|---|---|---|---|---|
| Site: 705 30th St, Hoquiam, WA 98550 | Owner: GH Transit | Project Name: GH Transit | | EnviroTech Consulting Services, LLC<br>P.O. Box 658<br>Aberdeen, WA 98520<br>(360) 533-8117<br>EnviroTechCS.com |
| Title: Appendix C<br>Sample Collection Map | Scale: Not To Scale | Date: 05/28/2023 | Rev: A | |

## 2nd Floor




| | | | | |
|---|---|---|---|---|
| Site: 705 30th St, Hoquiam, WA 98550 | Owner: GH Transit | Project Name: GH Transit | | EnviroTech Consulting Services, LLC<br>P.O. Box 658<br>Aberdeen, WA 98520<br>(360) 533-8117<br>EnviroTechCS.com |
| Title: Appendix C<br>Sample Collection Map | Scale: Not To Scale | Date: 05/28/2023 | Rev: A | |

N

# Certificate of Completion

This is to certify that

## Gary A. Randall

has satisfactorily completed
4 hours of online refresher training as an

AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)
EPA Provider # 1085

188097
Certificate Number

Instructor: Andre Zwanenburg

Mar 1, 2023 Expires in 1 year.
Date(s) of Training
Exam Score: N/A
(if applicable)

terracon
Facilities
Environmental
Geotechnical
Materials

TERRACON TRAINING - FORMERLY ARGUS PACIFIC / 21905 64TH AVE W, SUITE 100 / MOUNTLAKE TERRACE, WASHINGTON 98043 / 206.285.3373 / ARGUSPACIFIC.COM

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ilac-MRA

# Certificate of Accreditation to ISO/IEC 17025:2017

**NVLAP LAB CODE: 600040-0**

**Washington Asbestos Testing LLC**
Kirkland, WA

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:*

**Asbestos Fiber Analysis**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2022-10-01 through 2023-09-30
*Effective Dates*

*For the National Voluntary Laboratory Accreditation Program*

# AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

## EMSL Analytical, Inc.

### 464 McCormick Street, San Leandro, CA 94577

**Laboratory ID: LAP-101748**

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

### LABORATORY ACCREDITATION PROGRAMS

| | | |
|---|---|---|
| ☑ | **INDUSTRIAL HYGIENE** | Accreditation Expires: June 01, 2024 |
| ☑ | **ENVIRONMENTAL LEAD** | Accreditation Expires: June 01, 2024 |
| ☑ | **ENVIRONMENTAL MICROBIOLOGY** | Accreditation Expires: June 01, 2024 |
| ☐ | **FOOD** | Accreditation Expires: |
| ☐ | **UNIQUE SCOPES** | Accreditation Expires: |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Cheryl O. Morton

*Cheryl O Morton*
*Managing Director, AIHA Laboratory Accreditation Programs, LLC*

Revision20: 06/07/2022

Date Issued: 06/09/2022

# AIHA Laboratory Accreditation Programs, LLC

## SCOPE OF ACCREDITATION

**EMSL Analytical, Inc.**
464 McCormick Street, San Leandro, CA 94577

**Laboratory ID: LAP-101748**
Issue Date: 06/09/2022

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

### Environmental Lead Laboratory Accreditation Program (ELLAP)

### Initial Accreditation Date: 02/01/2020

| Component, parameter or characteristic tested | Technology sub-type/Detector | Method | Method Description *(for internal methods only)* |
|---|---|---|---|
| Airborne Dust | AA | NIOSH 7082 | |
| Paint | AA | EPA SW 846 7000B | |
| | | EPA SW-846 3050B | |
| Settled Dust by Wipe | AA | EPA SW 846 7000B | |
| | | EPA SW-846 3050B | |
| Soil | AA | EPA SW 846 7000B | |
| | | EPA SW-846 3050B | |

A complete listing of currently accredited ELLAP laboratories is available on the AIHA LAP, LLC website at: http://www.aihaaccreditedlabs.org