

**PROJECT MANUAL  
FOR**

**RENTON REGIONAL FIRE AUTHORITY  
STATION 13 IT / ADMIN OFFICE TENANT IMPROVEMENT**

**18002 108<sup>th</sup> Avenue SE  
Renton, Washington 98055**

**October 21, 2022**

**Owner: Renton Regional Fire Authority  
18002 108<sup>th</sup> Avenue SE  
Renton, Washington 98055  
Contact: Mark Seaver  
(425) 276-9503**

**Architect: Broderick Architects  
55 South Atlantic Street, Suite 301  
Seattle, Washington 98134  
Contact: Kevin Broderick  
(206) 682-7525**

**BIDDER'S NAME \_\_\_\_\_**

**RENTON REGIONAL FIRE AUTHORITY**

**RENTON, WASHINGTON**

**SPECIAL PROVISIONS**

**FOR**

**STATION 13 IT / ADMIN OFFICE TENANT IMPROVEMENT**

**BIDS MUST BE RECEIVED**

**BY 11:00 A.M. On November 17th, 2022**

**BIDS MUST BE MAILED OR HAND DELIVERED TO:**

**RENTON REGIONAL FIRE AUTHORITY  
18002 108<sup>th</sup> Avenue SE  
RENTON, WASHINGTON 98055  
ATTENTION: MARK SEAVER  
PROJECT COORDINATOR  
RENTON REGIONAL FIRE AUTHORITY**

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## **Renton Regional Fire Authority**

### **Project: Station 13 IT / Admin Office Tenant Improvement**

#### **INSTRUCTIONS TO BIDDERS**

Renton Regional Fire Authority “Renton RFA” is seeking bids on the Station 13 IT / Admin Office Tenant Improvement project as more specifically described below. There is a Pre-Bid walkthrough of the project on Thursday November 10<sup>th</sup>, 2022, at 11:00AM.

#### **1. Identification of Owner.**

RENTON REGIONAL FIRE AUTHORITY “Owner” is the entity issuing this invitation for bids. Owner is a municipal corporation and a political subdivision of the State of Washington.

Owner mailing address is:     Renton Regional Fire Authority  
  Attn: Mark Seaver  
  18002 108<sup>th</sup> Avenue SE  
  Renton, WA 98055

The business telephone number is: (425) 276-9503.

Owner representative for all matters relating to this invitation for bids is Mark Seaver.

#### **2. Definitions.** The following terms shall have the meaning set forth below when used in this instrument:

**2.1. Project:** Station 13 IT / Admin Office Tenant Improvement Project. This project involves the interior 1,110 square foot tenant improvement including developing open office space in an existing storage area, new lighting, flooring and paint, a new exterior door an exterior pre-fabricated metal stair at the second floor at Station 13. The Contract will be with the Renton Regional Fire Authority.

**2.2. Bidder.** Any person or entity that submits a qualified bid in response to the invitation for Bids by Owner.

**2.3. Bid or Bid Proposal.** Any Bid submitted to Owner in response to the invitation for Bids issued by Owner that complies with the bid requirements.

**2.4. Owner or Contracting Agency.** RENTON REGIONAL FIRE AUTHORITY.

**2.5. Contractor.** The bidder awarded a contract by the Owner.

**2.6. Contract Documents.** The Contract Documents are identified as Follows:

- 2.6.1. Contract Form:** The successful Bidder shall execute the form of Agreement attached as Exhibit A.
- 2.6.2. Statement of Qualifications.** See Exhibit B.
- 2.6.3. Bid Form.** See Exhibit C.
- 2.6.4. Minimum Wage/Non Collusion Affidavit.** See Exhibit D.
- 2.6.5. Certification of Compliance with Wage Payment Statutes.** See Exhibit E.
- 2.6.6. General Conditions.** See Exhibit F.
- 2.6.7. Prevailing Wage Rates.** See Exhibit G.
- 2.6.8. Certification of Compliance with Contractor Training Requirements.** See Exhibit H.
- 2.6.9. Payment and Performance Bond Form.** See Exhibit I.
- 2.6.10. Drawings & Technical Specifications.** Drawings available from Broderick Architects.
- 3. Invitation for Bids.** Owner will accept Bid Proposals for the Project as follows:
- 3.1. Time.** Bid Proposals must be received by Owner by 11:00 a.m. on Thursday, November 17<sup>th</sup>, 2022.
- 3.2. Place.** Bid Proposals must be delivered to:
- Renton Regional Fire Authority  
Attn: Mark Seaver  
18002 108<sup>th</sup> Avenue SE  
Renton, WA 98055
- 3.3. Bid Review and Award.** Bids will be reviewed at 11:00 a.m. on November 17<sup>th</sup>, 2022, at Renton Regional Fire Authority, 18002 108<sup>th</sup> Avenue SE, Renton, Washington 98055. Owner reserves the right to postpone the date and time for Bid review. Notification to Bidders will be by addenda. Subject to Paragraph 4, the Renton RFA will award a contract within 90 days of bid opening.
- 4. Acceptance - Rejection of Bids.** Owner reserves the right to reject any or all Bids, to waive minor irregularities in any Bids or in the bidding procedure, and to accept any Bid presented which meets or exceeds these specifications and which the Renton RFA Governance Board of the Owner deems to be in the best interest of Owner.
- 5. Plans, Instructions to Bidders and Specifications.**

- 5.1. Bid Documents (Project Manual and/or Working Drawings) hard copies can be obtained from Broderick Architects at 206-682-7525 for a nonrefundable fee of \$40.00 per set.
6. **Inquiries/Addenda/Document Interpretations.** If any person contemplating submitting a Bid for construction of the work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies in or omissions from any part of the proposed Contract Documents, the prospective Bidder may submit to Owner a written request for interpretation in accordance with the following:
- 6.1. Direct written questions to Kevin Broderick, Broderick Architects: 55 South Atlantic Street, Suite 301 Seattle, Washington 98134, kevin@broderickarchitects.com.
- 6.2. Addenda will be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Price.
- 6.3. Final Addenda will be issued on November 15<sup>th</sup>, 2022. No further requests for information or clarification can be addressed after the Final Addendum.
- 6.4. Interpretation or correction of proposed Contract Documents will be made only by addendum and will be mailed or delivered to each general contract Bidder of record. Owner will not be responsible for any other explanations or interpretations of the proposed Contract Documents.
7. **Contents of Bid Proposal.** All Bid Proposals shall contain or be accompanied by the following:
- 7.1. **Proposal.** A written proposal to construct the Project described in the plans and specifications in accordance with the instructions to Bidders submitted on the Bid Form contained in the Bid Documents.
- 7.2. **Price.** The total Bid price in the manner specified in the Bid Form.
- 7.3. **Bid Bond.** A Bid bond as required by Paragraph 9.
- 7.4. **Qualification of Bidder.** Satisfactory evidence of the Bidder's qualifications as described in Paragraph 14.
- 7.5. **Authority.** The Bid must be signed by an authorized representative of the Bidder in the manner specified in the Bid Form. The Bidder shall provide with the Bid Proposal, proof of such representative's authority to contractually bind the Bidder.
- 7.6. **Subcontractor List.** Within ten business days after bid submittal deadline, provide Owner with a Subcontractor List that includes the names of any subcontractors that will be used on the project and a copy of the listed subcontractors' Contractors License for the State of Washington and a copy of their L&I certificate of coverage or Extraterritorial Certificate. If the bid exceeds \$1,000,000 the bidder must comply with the subcontractor listing requirements contained in RCW 39.30.060.

- 8. Bid Marking.** All Bidders must submit one copy of the executed offer on the Bid Forms provided, signed and sealed in a closed opaque envelope, clearly identified with Bidder's name, project name and Owner's name on the outside.
- 9. Bid Bond.** The Bidder shall provide with its Bid Proposal a bid bond or certified check payable to Owner in the amount of 5% of the total Bid amount.
- 10. Return of Bid Bond.** After the Bids have been tabulated and compared, Owner shall return the bid bond or certified check accompanying each of the proposals as in its judgment will not be further considered. All other bid bonds or certified checks shall be held until the contract has been executed and the performance bond supplied at which time they shall be returned to the appropriate Bidders.
- 11. Withdrawal/Modification of Bids.** A Bidder may, without prejudice to the Bidder, withdraw, modify, or correct a proposal after it has been deposited with Owner, provided the request is filed with Owner, in writing, before the time set for reviewing the Bid Proposals. The original proposal, as modified by such writing, shall be considered as a proposal submitted by the Bidder.
- 12. Material Considerations.** Each of the requirements contained in this document are material and the failure of a Bidder to comply with each requirement will constitute grounds for the rejection of the Bid in the discretion of the Board of Commissioners.
- 13. Errors and Discrepancies.** Minor items of work or material omitted from the original description and scope of work, but inferable from information shown or obviously necessary for proper completion and operation of the work with accepted good practice shall be provided and/or performed by the Contractor at no additional cost to Owner.
- 14. Offer Irrevocable - Time Period.** All Bid Proposals shall be deemed to be offers to enter into a contract and shall be irrevocable for a period of ninety (90) days from the date of opening of the Bids.
- 15. Execution of Contract.** The successful Bidder shall, within ten calendar days after receiving Notice of Award, execute the Contract included in the Contract Documents.
- 16. Proof of Competency of Bidder.** It is the intent of the Owner to award a contract to the low responsible bidder. Before award, the Bidder must meet the following Bidder responsibility criteria to be considered a responsible Bidder. The Bidder may be required by the Owner to submit documentation demonstrating compliance with the criteria. The Bidder must:
  - 16.1.** At the time of Bid submittal, have a current certificate of registration in compliance with chapter 18.27 RCW proof of which must be submitted with the Bid Proposal;
  - 16.2.** Have a current Washington State unified business identifier number;
  - 16.3.** Have industrial insurance coverage for the Bidder's employees working in Washington as required in Title 51 RCW; an employment security Owner number



as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW; and

**16.4.** Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).

**17. Project Timeline.** Time is of the essence and the contractor must be able to complete the Project within **90 calendar days** after notice to proceed, which shall be issued at the discretion of the Owner, including an onsite construction period of 90 consecutive calendar days maximum, measured from date of mobilization to date of substantial completion. A contract will not be awarded until the Renton Regional Fire Authority is satisfied that the successful bidder is reasonably familiar with the class of work contemplated and has the necessary capital, tools, and experience to satisfactorily perform the work within the time stated. Completion of the work within the time stated is essential and prior commitments of the bidder, failure to complete other work on time, or reasonable doubt as to whether the bidder would complete the work on time may be cause for rejection of any bid. The Renton Regional Fire Authority further reserves the right to award the contract for the work subject to budget restraints, successful completion of financing arrangements, or upon obtaining all licenses to construct from adjacent property owners. The Renton Regional Fire Authority may be in the process of procuring licenses and right-of-way at this time and it may be necessary to eliminate portions of the project. Any such licenses and/or rights of way are listed in the Special Provisions.

**18. Liquidated Damages.** If the Project is not completed within the specified time period, because of difficulty in computing the actual damages to Owner arising from any delay in completing this Contract, it is determined in advance and agreed by the parties that the Contractor shall pay Owner the amount of \$200.00 per calendar day that the work remains uncompleted after expiration of the specified time for completion. The parties agree that this amount represents a reasonable forecast of the actual damages that Owner will suffer by failure of the Contractor to complete the work within the agreed time period. The execution of the Contract shall constitute acknowledgment by the Contractor that the Contractor has ascertained and agrees that Owner will suffer actual damages in the above amount for each day during which the completion of the work is delayed beyond the agreed completion date.

**19. Guaranty.** The Contractor shall and does hereby guarantee for a period of one (1) year from date of acceptance by the Owner all materials, workmanship and equipment installed under this contract to be as specified and of a good quality. Should any defect develop due to faulty material or workmanship within the guarantee period, the Contractor shall correct the defect and make good all damages that may have been caused by the defect. This work shall be done promptly and without cost to Owner and at the entire expense of the Contractor. The Contractor shall provide to Owner all manufacturer warranties at the completion of the work.

**20. Bonds.** The successful Bidder shall secure and post a Labor and Materials Payment Bond and Performance Bond substantially in the form included as Exhibit I within 10 calendar days of receiving Notice of Award. Costs of such bonds shall be included in the Bid price.

- 21. Proof of Insurance and Bonds.** At or prior to delivery of the signed contract, the Bidder to whom the contract is awarded shall deliver to Owner applicable Certificates of Insurance and endorsements as are required by Owner.
- 22. Approval of Bonds and Insurance.** Certificates of Insurance and endorsements shall be approved by Owner before the successful Bidder may proceed with the work. Failure or refusal to provide Certificates of Insurance and endorsement in a form satisfactory to Owner shall subject the successful Bidder to loss of time from the allowable construction period equal to the time delay in furnishing the required material.
- 23. Prevailing Wages.** The Contractor shall pay prevailing wages as currently published by the Washington State Office of Labor and Industries and shall comply with chapters RCW 39.12 and RCW 49.28. A Notice of Intent to Pay Prevailing Wages and prevailing wage rates for the Project must be posted for the benefit of workers. At the conclusion of the Contract, the Contractor and its subcontractors shall submit Affidavits of Wages Paid to the Office of Labor and Industries for certification by the director. Final payment on the Contract shall be withheld until certification by the director has been received by Owner that the prevailing wage requirements of the law have been satisfied. The Contractor hereby certifies that it has not been cited for two violations within the last five (5) years, and is thus not prohibited from bidding on public works contracts. The Contractor further assures Owner that it will use no sub-contractor who is thus prohibited.
- 24. Retained Percentage.** Owner shall withhold a sum not to exceed 5% (or 10% if performance bonds are waived) of each payment of the contract price in accordance with chapter 60.28 RCW. Such funds shall be retained by Owner unless, prior to any payment to the Contractor by Owner, the Contractor advises Owner of the manner in which the Contractor wishes such funds held in accordance with the Contract Documents. Such funds shall be retained, held and released in accordance with the statutory requirements.
- 25. Laws and Regulations.** The Bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they shall be deemed to be included in the Contract the same as though written out in full therein. Bidders are advised that if successful, they will be required to meet all applicable federal, state, and local laws pertaining to permits, licenses, fees and taxes, as well as laws pertaining to employment and wages. Bidders are responsible for determining the extent and applicability of such laws.

## EXHIBIT A

### PUBLIC WORKS CONTRACT

This Contract is entered into between RENTON REGIONAL FIRE AUTHORITY, a municipal corporation, referred to as "Owner", and \_\_\_\_\_ referred to as "Contractor."

In consideration of the following terms and conditions and those contained in the documents incorporated by reference and made a part of this Contract, the parties agree as follows:

#### 1. THE WORK

- 1.1. The Contractor shall perform all work and furnish all tools, materials, labor and equipment for the Owner and all work associated with the project entitled: STATION 13 IT / ADMIN OFFICE TENANT IMPROVEMENT.
- 1.2. The Project shall be performed in accordance with this Public Works Contract and the following Contract Documents; Station 13 IT / Admin Office Tenant Improvement Specifications and Drawings Exhibit 1, Contractor's Proposal, Exhibit 2, and all other forms and documents referenced in such documents which are hereby referred to as the Contract Documents and by this reference are made a part of this Contract.
- 1.3. The Contract Documents, shall be read together. Unless otherwise specified in this Agreement. In the event that any of the terms of Contract Documents conflict with each other, the following shall be the order of precedence:
  - 1.3.1. The terms of this Document entitled "Public Works Contract" shall take precedence over the terms of Exhibits 1, and 2. The terms of Exhibit 1 shall take precedence over the terms of Exhibit 2. Any conflicts in the contract documents shall be brought to the attention of the Owner.
- 1.4. The work shall start within 30 calendar days after the date of the written Notice to Proceed, and the interior work be substantially completed within 120 calendar days after the date of the written of the Notice to Proceed, with an onsite construction period of 90 consecutive calendar days maximum, and fully completed within an additional 7 calendar days. If the work is not completed within the times specified, the Contractor agrees to pay to the Owner liquidated damages in accordance with the provisions contained in the Contract Documents. The Contractor shall provide and bear all expense of all equipment, work, and labor of any sort whatsoever that may be required for the materials and for constructing and completing the work provided for in this Contract, except for those noted in the specifications to be furnished by the Owner and installed by Contractor.
- 1.5. The Contractor shall provide and bear all expense of all equipment, work, and labor of any sort whatsoever that may be required for the transfer of materials and for constructing

and completing the work provided for in the Contract Documents and every part thereof, except as mentioned in the specifications to be furnished by the Owner.

- 1.6. Owner agrees to use its best efforts to allow Contractor full access and use of the premises as necessary for Contractor to perform the work with minimal interruption or interference from Owner's personnel and activities.
- 1.7. The Contractor shall guarantee the materials and work for a period of one year after completion of the work.
- 1.8. The Contractor is responsible for complying with all Federal, State, and local regulations affecting the work including but not limited to Chapter 70.86 RCW, Chapter 296-305 WAC and Chapter 294-24 WAC.

## 2. COMPENSATION

- 2.1. The Contractor shall provide monthly statements which shall indicate the percentage of completion of each portion of the work as of the end of the period covered by the statement.
- 2.2. Statements received by the 10th day of the month and approved by the Owner will be processed for payment the same month.
- 2.3. The Owner's representative shall determine the amounts owing to the Contractor based on observations at the site and on evaluations of Contractor's statements and shall issue to the Owner certification for payment.
- 2.4. All progress payments shall be subject to withholding of the retained percentage as provided in the Contract Documents.
- 2.5. Washington State Sales Tax shall be included on each statement submitted by the Contractor.

## 3. CONTRACT SUM

- 3.1. The Owner shall pay the Contractor for the full performance of the Contract the sum of \$ \_\_\_\_\_, which includes **Alternates**. This amount shall be paid through monthly statements as provided in Article 2.
- 3.2. Final payment constituting the entire unpaid balance of the Contract sum, subject to the withholding of retained percentage as provided in the Contract Documents, shall be made by the Owner to the Contractor when:
  - 3.2.1. The work has been completed and approved and accepted by the Owner.
  - 3.2.2. A final statement has been submitted to the Owner by the Contractor.

#### 4. LIQUIDATED DAMAGES

- 4.1. If the work is not completed within the specified time period, because of difficulty in computing the actual damages to the Owner arising from any delay in completing this Contract, it is determined in advance and agreed by the parties that the Contractor shall pay the Owner the amount of \$200.00 per calendar day that the work remains uncompleted after expiration of the specified time for completion. The parties agree that this amount represents a reasonable forecast of the actual damages that the Owner will suffer by failure of the Contractor to complete the work within the agreed time period. The execution of this Contract shall constitute acknowledgment by the Contractor that the Contractor has ascertained and agrees that the Owner will suffer actual damages in the above amount for each day during which the completion of the work is delayed beyond the agreed completion date. In the event of construction delays beyond the control of the Contractor the completion date will be extended by an equivalent number of days provided that the Contractor notifies the Owner of the cause of the delay, in writing, within 24 hours of the beginning of the delay.

#### 5. SUBCONTRACTOR RESPONSIBILITY (RCW 39.06.020)

- 5.1. The Contractor shall include the language of this section in each of its first tier subcontracts and shall require each of its subcontractors to include the same language of this section in each of subcontractor's subcontracts adjusting only as necessary the terms used for the contracting parties. On request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that each subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.
- 5.2. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
- 5.2.1. At the time of Bid submittal, have a current certificate of registration in compliance with chapter 18.27 RCW;
  - 5.2.2. Have a current Washington State unified business identifier number;
  - 5.2.3. Have industrial insurance coverage for the subcontractor's employees working in Washington as required in Title 51 RCW; an employment security Department number as required in Title 50 RCW; a state excise tax registration number as required in Title 82 RCW; an electrical contractor license, if required by Chapter 19.28 RCW; an elevator contractor license, if required by Chapter 70.87 RCW;
  - 5.2.4. Within the three-year period immediately preceding the date of the bid solicitation, not have been 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 to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW; and

5.2.5. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).

## 6. BOND

6.1. Contractor shall provide a performance and payment bond to the Owner in accordance with RCW 39.08.010. Such bonds shall be issued by surety licensed to business in the State of Washington acceptable to Owner in a form substantially in compliance with the form included in the Contract Documents.

## 7. INDEMNIFICATION AND HOLD HARMLESS

7.1. The Contractor shall indemnify, defend and save the Owner and its commissioners, officers, employees and agents harmless from any and all claims and risks and losses, damages, demands, suits, judgments and attorney's fees or other expenses of any kind on account of or relating to injury to or death of any and all persons or on account of all property damage of any kind, or in any manner connected with the work performed under this Contract, or caused in whole or in part by the Contractor, a subcontractor or their property, employees or agents during performance of the work or at any time before final acceptance, except only for those losses resulting from the sole negligence of the Owner with regard to activities within the Contractor's scope of work

7.2. Should a court of competent jurisdiction determine that this Contract is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the Owner, its members, officers, employees and agents, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties.

7.3. In an arbitration or lawsuit with respect to this hold harmless provision, the Contractor shall prepare and defend that lawsuit at its own cost and expense. If judgment is rendered or settlement made requiring payment of damages by the Owner, its officers, agents, employees and volunteers, the Contractor shall pay the same.

## 8. INSURANCE

8.1. The Contractor shall obtain the insurance described in this section from insurers approved by the State Insurance Commissioner pursuant to RCW Title 48. The insurance must be provided by an insurer with a rating of A-VII or higher in the A.M. Best's Key Rating Guide. The Owner reserves the right to approve or reject the insurance provided, based on the insurer (including financial condition), terms and coverage, the Certificate of Insurance, and/or endorsements.

- 8.2. The Contractor shall keep this insurance in force during the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated in Section 8.3.
- 8.3. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Final Completion or earlier termination of this Contract, and the Contractor shall annually provide the Owner with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Owner to assure financial responsibility for liability for services performed.
- 8.4. The Contractor's Automobile Liability, Commercial General Liability and Builders Risk insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect the Owner. Any insurance, self-insurance, or self-insured pool coverage maintained by the Owner shall be excess of the Contractor's insurance and shall not contribute with it.
- 8.5. The Contractor and the Owner waive all rights against each other, any of their Subcontractors, Sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other perils to the extent covered by Builders Risk insurance or other property insurance obtained pursuant to the Insurance Requirements Section of this Contract or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise.
- 8.6. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Owner may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Owner on demand, or at the sole discretion of the Owner, offset against funds due the Contractor from the Owner.
- 8.7. The Contractor's maintenance of insurance, its scope of coverage and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Owner's recourse to any remedy available at law or in equity. All deductibles and self-insured retentions must be disclosed and are subject to approval by the Owner. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.
- 8.8. The Contractor shall provide the Owner and all Additional Insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

- 8.9. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Owner.
- 8.10. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the contract and no additional payment will be made.
- 8.11. All insurance policies, with the exception of Workers Compensation, shall name the following listed entities as additional insured(s):
- 8.11.1. The Owner and its officers, elected officials, employees, agents, and volunteers;
- 8.11.2. The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, whether primary, excess, contingent or otherwise, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor describes limits lower than those maintained by the Contractor.
- 8.12. The Contractor shall furnish the Owner with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsements, evidencing the Automobile Liability and Commercial General Liability insurance of the Contractor before commencement of the work. Before any exposure to loss may occur, the Contractor shall file with the Owner a copy of the Builders Risk insurance policy that includes all applicable conditions, exclusions, definitions, terms and endorsements related to this project. Upon request by the Owner, the Contractor shall furnish certified copies of all required insurance policies, including endorsements, required in this Contract and evidence of all subcontractors' coverage.
- 8.13. The Contractor shall cause each and every Subcontractor to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors. The Contractor shall ensure that the Owner is an additional insured on each and every Subcontractor's Commercial General liability insurance policy using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.
- 8.14. The Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools, Contractor's employee owned tools, machinery, equipment, or motor vehicles owned or rented by the Contractor, or the Contractor's agents, suppliers, contractors or subcontractors as well as to any temporary structures, scaffolding and protective fences.

## 9. TYPES OF INSURANCE REQUIREMENTS

- 9.1. The Contractor's required insurance shall be of the types and coverage as stated below:



- 9.1.1. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01.
- 9.1.2. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations, stop gap liability, personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit using ISO form CG 25 03 05 09 or an endorsement providing at least as broad coverage. There shall be no exclusion for liability arising from explosion, collapse or underground property damage. The Owner shall be named as an additional insured under the Contractor's Commercial General Liability insurance policy with respect to the work performed for the Owner using ISO Additional Insured endorsement CG 20 10 10 01 and Additional Insured-Completed Operations endorsement CG 20 37 10 01 or substitute endorsements providing at least as broad coverage.
- 9.1.3. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
- 9.1.4. Builders Risk insurance covering interests of the Owner, the Contractor, Subcontractors, and Sub-subcontractors in the work. Builders Risk insurance shall be on a special perils policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including flood, earthquake, theft, vandalism, malicious mischief, and collapse. The Builders Risk insurance shall include coverage for temporary buildings, debris removal, and damage to materials in transit or stored off-site. This Builders Risk insurance covering the work will have a deductible of \$5,000 for each occurrence, which will be the responsibility of the Contractor. Higher deductibles for flood and earthquake perils may be accepted by the Owner upon written request by the Contractor and written acceptance by the Owner. Any increased deductibles accepted by the Owner will remain the responsibility of the Contractor. The Builders Risk insurance shall be maintained until the Owner has granted substantial completion of the project. An installation floater may be acceptable in lieu of Builders Risk for renovation projects only if approved in writing by the Owner.

## 10. MINIMUM AMOUNTS OF INSURANCE

10.1. The Contractor shall maintain the following insurance limits:

- 10.1.1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
- 10.1.2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000 each occurrence, \$2,000,000 general aggregate and \$2,000,000 products-completed operations aggregate limit.

10.1.3. Builders Risk insurance shall be written in the amount of the completed value of the project with no coinsurance provisions.

10.1.4. If the Contractor maintains higher insurance limits than the minimums shown above, the Owner shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract or whether any certificate of insurance furnished to the Owner evidences limits of liability lower than those maintained by the Contractor.

## 11. CHANGE ORDERS

11.1. The Owner reserves the right to make, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered. Among others, these changes and alterations may include:

- 11.1.1. Deleting any part of the work,
- 11.1.2. Increasing or decreasing quantities,
- 11.1.3. Altering specifications, designs, or both,
- 11.1.4. Altering the way the work is to be done,
- 11.1.5. Adding new work,
- 11.1.6. Altering facilities, equipment, materials, services, or sites, provided by the Owner.
- 11.1.7. Ordering the Contractor to speed up or delay the work.

11.2. The Owner will issue a written change order for any change. If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Owner may determine to be fair and equitable.

11.3. The Contractor shall proceed with the work upon receiving:

- 11.3.1. A written change order approved by the Owner.

11.4. The Contractor accepts all requirements of a change order by:

- 11.4.1. endorsing it,
- 11.4.2. writing a separate acceptance, or
- 11.4.3. not protesting in the way this section provides.

11.5. A change order that is not protested as provided in this section shall be full payment and final settlement of all claims for contract time and for all costs of any kind, including costs of delays, related to any work either covered or affected by the change. By not

protesting as this section provides, the Contractor also waives any additional entitlement and accepts from the Owner any written or oral order (including directions, instructions, interpretations, and determinations). By failing to follow the procedures of this section, the Contractor completely waives any claims for protested work.

11.6. The Contractor may protest change orders or other claims as provided below:

11.6.1. If the Contractor is in disagreement with anything required in a change order or another written order from the Owner, including any direction, instruction, interpretation, or determination by the Owner, the Contractor shall:

11.6.2. Immediately give a signed written notice of protest to the Owner before doing the work specified in the change order or within fourteen (14) calendar days of the occurrence of an event or events giving rise to a claims, or within fourteen (14) calendar days of the date the Contractor knew or should have known of the facts or events giving rise to a claim, whichever occurs first;

11.6.3. Supplement the written protest within 15 calendar days with a written statement providing the following:

- (a) The date of the protested order or claim
- (b) The nature and circumstances which caused the protest or claim;
- (c) The contract provisions that support the protest or claim;
- (d) The estimated dollar cost, if any, of the protested or claimed work and how that estimate was determined; and
- (e) An analysis of the progress schedule showing the schedule change or disruption if the Contractor is asserting a schedule change or disruption; and

11.7. If the protest is continuing, the information required above, shall be supplemented as requested by the Owner. In addition, the Contractor shall provide the Owner, before final payment, a written statement of the actual adjustment requested. Throughout any protested work, the Contractor shall keep complete records of extra costs and time incurred. The Contractor shall permit the Owner access to these and any other records needed for evaluating the protest as determined by the Owner. The Owner will evaluate all protests provided the procedures in this section are followed. If the Owner determines that a protest is valid, the Owner will adjust payment for work or time. No adjustment will be made for an invalid protest.

FAILURE TO PROVIDE A COMPLETE, WRITTEN NOTIFICATION OF PROTEST OR CLAIM WITHIN THE TIME ALLOWED SHALL BE AN ABSOLUTE WAIVER OF ANY PROTEST OR CLAIMS ARISING IN ANY WAY FROM THE FACTS OR EVENTS SURROUNDING THE UNDERLYING CHANGE ORDER OR CLAIM OR CAUSED BY THAT DELAY.

11.8. In spite of any protest or claim, the Contractor shall proceed promptly with the work as the Owner orders.

## 12. CLAIMS

- 12.1. The Contractor shall give written notice to the Owner of all claims other than change orders within five (5) calendar days of the occurrence of events giving rise to the claim. Any claim for damages, additional payment for any reason, or extension of time, shall be conclusively deemed to have been waived by the Contractor unless a timely written claim is made in strict accordance with the applicable provisions of this Agreement. At a minimum, a Contractor's written claim must include the information required in Section 11.6 regarding protests.
- 12.2. FAILURE TO PROVIDE A COMPLETE, WRITTEN NOTIFICATION OF CLAIM WITHIN THE TIME ALLOWED SHALL BE AN ABSOLUTE WAIVER OF ANY CLAIMS ARISING IN ANY WAY FROM THE FACTS OR EVENTS SURROUNDING THAT CLAIM.
- 12.3. THE CONTRACTOR'S ACCEPTANCE OF FINAL PAYMENT (EXCLUDING WITHHELD RETAINAGE) SHALL CONSTITUTE A WAIVER OF CLAIMS, EXCEPT THOSE PREVIOUSLY AND PROPERLY MADE AND IDENTIFIED BY THE CONTRACTOR AS UNSETTLED AT THE TIME REQUEST FOR FINAL PAYMENT IS MADE.

## 13. TERMINATION

- 13.1. If Contractor breaches any of its obligations under this Contract and fails to cure the same within five (5) days of written notice to do so, the Owner may terminate this Contract, in which case the Owner shall pay the Contractor cost incurred to date of written notice.
- 13.2. The Owner may terminate this Contract upon ten (10) days written notice to the Contractor for any reason and without cause in which case the Owner shall pay the Contractor for costs incurred to the date of written notice.

## 14. CONTRACTOR RECORDS

- 14.1. Contractor agrees to make all project related books and records available to the Owner for inspection, review, photocopying and audit in the event of a Contract related dispute, claim, modification or other Contract related action at reasonable times and at places designated by the Owner.

## 15. DEFECTIVE OR UNAUTHORIZED WORK

- 15.1. The Owner reserves the right to withhold payment from the Contractor for any defective or unauthorized work. Defective or unauthorized work includes, without limitation: work and materials that do not conform to the requirements of this contract, and extra work and materials furnished without the Owner's written approval. If the Contractor is unable, for any reason, to satisfactorily complete any portion of the work, the Owner may complete the work by contract or otherwise, and the Contractor shall be liable to the Owner for any additional costs incurred by the Owner. "Additional costs" means all reasonable costs incurred by the Owner, including legal costs and attorneys' fees, beyond

the maximum contract price under this Agreement. The Owner further reserves the right to deduct the cost to complete the work, including any additional costs, from any amounts due or to become due to the Contractor

## 16. PREVAILING WAGES

16.1. The Contractor shall pay prevailing wages and shall comply with chapter RCW 39.12 and chapter 49.28 RCW. A Notice of Intent to Pay Prevailing Wages and prevailing wage rates for the work must be posted on the work site. At the conclusion of the Contract, the Contractor and its subcontractors shall submit Affidavits of Wages Paid to the Department of Labor and Industries for certification by the director. Final payment on the Contract shall be withheld until certification by the director has been received by the Owner that the prevailing wage requirements of the statute have been satisfied. The Contractor certifies that it has not been cited for two violations within the last five (5) years and is not prohibited from bidding on public works contract. The Contractor further certifies that it will use no sub-contractor who is prohibited.

16.2. Prevailing Wages for the county in which the Project is located can be found at:

<https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>

## 17. RETAINAGE

17.1. Pursuant to RCW 60.28, a sum of 5 percent of the monies earned by the Contractor will be retained from progress estimates. Such retainage shall be used as a trust fund for the protection and payment (1) to the State with respect to taxes imposed pursuant to Title 82 RCW, and (2) the claims of any person arising under the Contract.

17.2. Monies retained under this Section shall be retained in a fund by the Owner unless Contractor elects for an alternative method of holding the retainage as provided under RCW 60.28.

17.3. The Contractor agrees to notify Owner within five (5) days of the receipt of any of the following:

17.3.1. Notification that a lien may be claimed by any person, firm or corporation furnishing materials, supplies or equipment to any subcontractor for work on the project in accordance with RCW 60.28.015.

17.3.2. Notification by the Department of Labor and Industries of any proceedings, complaint or investigation conducted under the provisions of RCW 39.12.065.

17.3.3. The retained percentage may be held by Owner until all claims and proceedings referred to above have been resolved to the satisfaction of Owner.

17.3.4. In the event the retainage is insufficient to cover payment of the items set forth in Section 17.1, Contractor shall be liable for all such insufficiencies and all costs incurred by Owner, including attorney fees, to recover such insufficiencies.

## 18. PROJECT SAFETY.

- 18.1. The Contractor shall be solely and completely responsible for safety conditions on the job site, including the safety of all persons and property during performance of the work. The services of Owner's employees or the Owner's agents or Consultant's personnel in conducting construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing, scaffolding or trenching, or safety measures in, on or near the construction site. The Contractor shall provide safe access for the Owner and its inspectors to adequately inspect the quality of work and the conformance with project specifications.
- 18.2. Contractor is responsible for locating any underground utilities affected by the work and is deemed to be an excavator for purposes of chapter 19.122 RCW. Contractor shall be responsible for compliance with chapter 19.122 RCW, including utilization of the "one call" locator system before commencing any excavation activities. Contractor is also responsible for ensuring adequate trench safety and compliance as required by the Washington State Industrial and Health Act. The Contractor shall be responsible to notify, pay for and coordinate his work with One Call service at 456-8000.
- 18.3. All work shall be performed to comply with all county, state and federal safety regulations. Barricades, signs, guards and warning lights shall be installed around the construction site necessary to protect persons from injury. Security fencing is required until the project site is secure and all openings are lockable.

## 19. DISPUTE RESOLUTION

- 19.1. If the parties are unable to resolve a dispute regarding this Agreement through negotiation, any party may request mediation through a process to be mutually agreed to in good faith between the parties within 30 days of a party notifying the other parties in writing that a dispute exists "Dispute Notice." The participating parties shall share equally the costs of mediation and each participating party shall be responsible for its own costs in preparation and participation in the mediation, including expert witness fees and reasonable attorney's fees.
- 19.2. If a mediation process cannot be agreed upon or if the mediation fails to resolve the dispute then, within 45 calendar days of the Dispute Notice or within 30 days of end of the mediation, either party may submit the dispute to binding arbitration according to the procedures of the Superior Court Rules for Mandatory Arbitration, including the Local Mandatory Arbitration Rules of the Superior Court as amended, located in the county in which the Project is located, unless the parties agree in writing to an alternative dispute resolution process. The arbitration shall be before a disinterested arbitrator selected pursuant to the Mandatory Arbitration Rules with all participating parties sharing equally in the cost of the arbitrator. The location of the arbitration shall be mutually agreed or established by the assigned Arbitrator, and the laws of Washington will govern its proceedings. The prevailing party, in addition to costs, shall be entitled to reasonable attorney's fees as determined by the arbitrator.

- 19.3. Following the arbitrator's issuance of a ruling/award, either party shall have 30 calendar days from the date of the ruling/award to file and serve a demand for a bench trial de novo in the Superior Court of the County in which the Project is located. The court shall determine all questions of law and fact without empanelling a jury for any purpose.
- 19.4. Unless otherwise agreed in writing, this dispute resolution process shall be the sole, exclusive and final remedy to or for either party for any dispute regarding this Agreement, and its interpretation, application or breach, regardless of whether the dispute is based in contract, tort, any violation of federal law, state statute or local ordinance or for any breach of administrative rule or regulation and regardless of the amount or type of relief demanded.
- 19.5. The prevailing party in any action to enforce the terms of this contract, in addition to costs, shall be entitled to reasonable attorney's fees and expenses of arbitration including expert witness fees, paralegal costs and copying costs as determined by the arbitrator or court including costs and fees incurred on appeal.

## 20. SUSPENSION OF THE WORK

- 20.1. The Owner may, at any time suspend the work, or any part thereof, by giving notice to the Contractor in writing. The work shall be resumed by the Contractor within fourteen (14) calendar days after the date fixed in the written notice from the Owner to the Contractor to do so. The Owner shall not reimburse the Contractor for expense incurred by the Contractor in connection with the work under this contract as a result of such suspension.
- 20.2. Suspension of the work by the Owner shall not furnish any ground for claim by the Contractor for damages or extra compensation, but the period of such suspensions shall be taken into consideration in determining the revised date for completion as hereinafter provided. The Contractor shall not suspend work under the contract without the written order of the Owner as stated in the preceding paragraph. The Contractor will be required to work a sufficient number of hours per day in order to complete the project within the days specified. The Owner shall determine the question as to the necessity of discounting any portion of the work by reason of unfavorable weather conditions.
- 20.3. Upon failure of the Contractor to carry out the orders of the Owner or to perform work under the contract in accordance with its provisions, the Owner may suspend the work for such period, as Owner deems necessary. Time lost by reason of such failure or in replacing improper work or materials shall not furnish any ground to the Contractor for claiming an extension of time or extra compensation and shall not release the Contractor from damages of liability from failure to complete the work within the time prescribed.

## 21. USE OF COMPLETED PORTION OF WORK

- 21.1. The Owner shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding that the time may not have expired for completing the entire work. Such taking possession and use shall not be deemed to be

completion of the contract in respect to such work nor shall the same be deemed to be any acceptance of any work not completed in accordance with the Contract Documents.

## 22. AUTHORITY OF OWNER'S CONSULTANT

22.1. The Owner may designate an Architect, Engineer or other consultant as the Owner's Consultant at any time under this Contract. In the event the Owner designates such a Consultant, the Consultant shall have the following express authority plus any additional authority granted by the Owner in writing during the performance of this Agreement by Contractor:

22.1.1. The Consultant shall act as advisor and Consultant to the Owner in matters relating to the contract administration and interpretation, PROVIDED, HOWEVER, nothing contained herein or elsewhere in the Contract Documents shall be construed as requiring the Consultant to direct the method or manner of performing any work by the Contractor under this contract.

22.1.2. It is understood and agreed by and between the parties hereto that the work included in the contract is to be done to the complete satisfaction of the Owner and Consultant and that the decision of the Owner and Consultant as to the true construction and meaning of the contract, plans, specifications and estimates and as to all questions arising as to proper performance of the work shall be final. The Consultant shall determine the unit quantities and the classifications of all work done and material furnished under the provisions of this agreement and Consultant's determination thereof shall be final and conclusive and binding upon the Contractor.

22.1.3. The Consultant shall decide any and all questions that may arise as to the quality or acceptability or materials furnished and work performed and as to the rate of progress of the work, and questions as to acceptable fulfillment and performance of the contract on the part of the Contractor and as to compensation. The decision of the Consultant in such matters shall be final. The Consultant may direct the sequence of conducting work when it is in locations where the Owner is doing work either by contract or by its own forces, or where such other works may be affected by the contract, in order that conflict may be avoided and the work under these specifications be harmonized with that under other contracts, or with specifications be harmonized with that under other contracts, or with other work being done in connection with, or growing out of, operations of the Owner. Nothing herein contained, however, shall be taken to relieve the Contractor of any of its obligations or liabilities under the contract.

22.1.4. The Consultant shall not have authority to waive the obligation of the Contractor to perform the work in accordance with the Contract Documents. Failure or omission on the part of the Consultant to condemn unsuitable, inferior or defective work and /or labor and material or equipment furnished under the contract shall not release the Contractor or Contractor's bond from performing the work in accordance with the Contract Documents.



- 22.1.5. Determination of “OR EQUAL”. The Consultant will be the sole judge in the question of “or equal” of any supplies of materials proposed by the Contractor. The Contractor shall pay to the Owner the cost of test and evaluations by the Consultant to determine acceptability of alternates proposed by the Contractor, in accordance with the established rates of the Consultant for time and expense work, the total cost of which may be offset by the Owner against the contract price.
- 22.1.6. Inspection of Work and Materials: The Consultant will make periodic visits to the job to familiarize Consultant generally with the progress and quality of the work. The Consultant will carry out reasonable inspections of the work to determine if it is proceeding in accordance with the Contract Documents.
- 22.1.7. The Consultant shall at all times have access to the work to observe the progress and quality wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for necessary inspection and testing. If any work should be covered up without approval or consent of the Consultant, it must, if required by the Owner, be uncovered for inspection at the Contractor’s expense. After inspection, the Owner may order a re-examination of questioned work, and if so ordered, the Contractor shall uncover the work. If such work is found by the Consultant to be in accordance with the Contract Documents, the Owner shall pay the cost of re-examination and replacement. If such work be found not in accordance with the Contract Documents, the Contractor shall pay such costs.

## 23. PLANS AND WORKING DRAWINGS

- 23.1. Upon receipt of award of contract, the Contractor shall carefully study and compare all drawings, specifications and other instructions and shall, prior to ordering material or performing work, report in writing to the Owner any error, inconsistency or omission in respect to design, mode of construction or cost which Contractor may discover. If the Contractor, in the course of this study or in the accomplishment of the work, finds any discrepancy between the drawings and the physical condition of the locality as represented in the drawings, or any such errors or omissions in respect to design, mode of construction or cost in the drawings or in the layout as given by points and instructions, it shall be Contractor’s duty to inform the Owner immediately in writing. Any work done after such discovery, until correction of drawings or authorization of extra work is given, if the Owner finds that extra work is involved, will be done at the Contractor’s risk. If extra work is involved, the procedure shall be as provided in changes in the work.
- 23.2. Conformity With and Deviations From Plans and Stakes: The Contractor shall preserve bench marks, reference points and stakes, and in case of destruction or removal thereof for any reason, the Contractor is responsible for the resulting cost for replacement and shall be responsible for any mistakes and loss or damage arising therefrom which may be caused by absence, destruction, removal or disturbance thereof.

## 24. FINAL ACCEPTANCE

24.1. All material and completed work are subject to final inspection by the Owner.

24.2. Completion and/or Correction of Work and Remedies Before Final Payment: If the Contractor should neglect to prosecute the work properly and/or fail to perform any provision of this contract, the Owner after seven (7) calendar days' written notice to the Contractor, may, without prejudice to any other remedy Owner may have, make good such deficiencies and deduct the cost thereof from payments then or thereafter due the Contractor.

24.3. The Contractor shall promptly remove from the construction site all materials condemned by the Owner as failing to conform to the contract, whether incorporated in the work or not; and the Contractor shall promptly replace and re-execute the work in accordance with the intent of the contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement. If the Contractor does not remove such condemned work and material within the period herein above described, the Owner may remove and store any such material at the expense of the Contractor. If the Contractor does not pay the cost of such removal within ten (10) calendar days from the date the notice to the Contractor of the fact of such removal, the Owner may, upon an additional ten (10) calendar days' written notice, sell such materials at public or private sale, and deduct all costs and expenses incurred, including costs of sale, accounting to the Contractor for the net proceeds remaining, and the Owner may bid at any such sale. The Contractor shall be liable to the Owner for the amount of any deficiency from any funds otherwise due the Contractor.

24.4. The Contractor shall bear the risk of loss or damage for all finished or partially finished work until the Owner finally accepts the entire contract.

## 25. SUPERINTENDENT AND SUPERVISION

25.1. The Contractor shall keep on the construction site during progress of the work a competent superintendent and any necessary assistants, all satisfactory to the Owner. The superintendent shall not be changed except with the consent of the Owner, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in Contractor's employ. The superintendent shall represent the Contractor in Contractor's absence and all directions given to the superintendent shall be as binding as though given to the Contractor. Instructions to the Contractor shall be confirmed in writing upon Contractor's request in each case. The Contractor shall give efficient supervision to the work, using Contractor's best skill and attention.

## 26. SEPARATE CONTRACT -INTERFERENCE WITH OTHER CONTRACTORS

26.1. The Owner reserves the right to perform work with its own forces or to let other contracts for work under similar general conditions in connection with this project, of which the work is awarded to one or more contractors under separate contract is a part. The Contractor shall afford the Owner and other contractors' reasonable opportunity for the

introduction and storage of their materials and the execution of their respective work and shall properly connect and coordinate Contractor's work with theirs.

## 27. GENERAL CONTRACTOR RESPONSIBILITIES

- 27.1. Permits, permission under franchises, licenses and bonds of a temporary nature necessary for and during the prosecution of the work, and inspection fees in connection therewith shall be secured and paid for by the Contractor. Where the Owner is required to secure such permits, permission under franchises, licenses and bonds against the Contractor the Owner may offset the costs incurred against the contract price.
- 27.2. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work required by the Contract Documents. If the Contractor observes that the Contract Documents, or any part thereof, are inconsistent or at variance therewith, Contractor shall promptly notify the Owner in writing, and any necessary changes shall be made as provided in the contract for changes in work. If the Contractor performs any work contrary to such laws, ordinances, rules and regulations or prior to obtaining permits, permission under franchises, licenses and/or bonds as required to be furnished by or obtained by the Owner, Contractor does so at Contractor's own risk and without payment or reimbursement from Owner unless Owner shall have given written approval thereof to the Contractor.
- 27.3. The Contractor shall continuously maintain adequate protection of the work from damage and shall protect the Owner's property from injury or loss arising in connection with or during the existence of this contract. Contractor shall make good any such damage, injury or loss, except such as may be directed due to errors in the Contract Documents or caused by agents or employees of the Owner. Contractor shall adequately protect adjacent property from loss or damage occasioned by performance of the work. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

## 28. WARRANTY

- 28.1. Upon acceptance of the contract work, contractor must provide the Owner a one-year warranty bond in a form and amount acceptable to the Owner. The contractor shall correct all defects in workmanship and materials within one (1) year from the date of the Owner's acceptance of the contract work. In the event any parts are repaired or replaced, only original replacement parts shall be used—rebuilt or used parts will not be acceptable. When defects are corrected, the warranty for that portion of the work shall extend for one (1) year from the date such correction is completed and accepted by the Owner. The contractor shall begin to correct any defects within seven (7) calendar days of its receipt of notice from the Owner of the defect. If the contractor does not accomplish the corrections within a reasonable time as determined by the Owner, the Owner may complete the corrections and the contractor shall pay all costs incurred by the Owner in order to accomplish the correction.

## 29. LIMITATION OF ACTIONS

**29.1. CONTRACTOR MUST, IN ANY EVENT, FILE ANY LAWSUIT ARISING FROM OR CONNECTED WITH THIS AGREEMENT WITHIN 120 CALENDAR DAYS FROM THE DATE THE CONTRACT WORK IS COMPLETE OR CONTRACTOR'S ABILITY TO FILE THAT CLAIM OR SUIT SHALL BE FOREVER BARRED. THIS SECTION FURTHER LIMITS ANY APPLICABLE STATUTORY LIMITATIONS PERIOD.**

## 30. MISCELLANEOUS PROVISIONS

30.1. Independent Contractor. The parties intend that the Contract Document will create an independent contractor relationship.

30.2. Nondiscrimination. In the hiring of employees for the performance of work under the Contract Documents the Contractor, its subcontractors, or any person acting on behalf of Contractor shall not, by reason of race, religion, color, sex, age, sexual orientation, national origin, or the presence of any sensory, mental, or physical disability, discriminate against any person who is qualified and available to perform the work to which the employment relates.

30.3. Compliance with Laws. Contractor shall comply with all federal, state and local laws, rules and regulations that are now effective or in the future become applicable to Contractor's business, equipment, and personnel engaged in operations covered by the Contract Documents or accruing out of the performance of those operations.

30.4. Work Performed at Contractor's Risk. Contractor shall take all precautions necessary and shall be responsible for the safety of its employees, agents, and subcontractors in the performance of the contract work. All work shall be done at Contractor's own risk, and Contractor shall be responsible for any loss of or damage to materials, tools, or other articles used or held for use in connection with the work.

30.5. Nonwaiver of Breach. The failure of the Owner to insist upon strict performance of any of the terms and rights contained herein, or to exercise any option herein conferred in one or more instances, shall not be construed to be a waiver or relinquishment of those terms and rights and they shall remain in full force and effect.

30.6. Governing Law. The Contract Documents shall be governed and construed in accordance with the laws of the State of Washington. If any dispute arises between the Owner and Contractor under any of the provisions of the Contract Documents, resolution of that dispute shall be available only through the jurisdiction, venue, and rules of the Superior Court of the County in which the Project is located.

30.7. Written Notice. All communications regarding the contract shall be sent to the parties at the addresses listed on the signature page of the contract, unless otherwise notified. Any written notice shall become effective upon delivery, but in any event three (3) calendar days after the date of mailing by registered or certified mail and shall be deemed sufficiently given if sent to the addressee at the address stated in the contract.

30.8. Assignment. Any assignment of this contract by the Contractor without the written consent of the Owner shall be void.

30.9. Modification. No waiver, alteration, or modification of any of the provisions of the Contract Documents shall be binding unless in writing and signed by a duly authorized representative of the Owner and Contractor.

30.10. Severability. If any one or more sections, sub-sections, or sentences of the contract are held to be unconstitutional or invalid, that decision shall not affect the validity of the remaining portion of the contract and the remainder shall remain in full force and effect.

30.11. Entire Agreement. The written provisions and terms of the Contract Documents, which include these General Conditions as well as the mechanical, electrical, and structural consultants' specifications, provisions, and plans, together with any attached exhibits, supersede all prior verbal statements by any representative of the Owner, and those statements shall not be construed as forming a part of or altering in any manner the Contract Documents. The Contract Documents and any attached Exhibits contain the entire agreement between the parties. Should any language in any Exhibit to the Contract Documents conflict with any language contained in the Contract Documents, the terms of the Contract Documents shall prevail.

**Owner**

**Contractor**

By: \_\_\_\_\_

By: \_\_\_\_\_

Contractor Reg. No. \_\_\_\_\_

UBI Number: \_\_\_\_\_

**Dated:** \_\_\_\_\_

**Dated:** \_\_\_\_\_

## EXHIBIT B - STATEMENT OF CONTRACTOR'S QUALIFICATIONS

Each Contractor submitting a Bid for this Project shall submit, as part of its Bid, the following information:

1. Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_
2. Contractor's Business Name: \_\_\_\_\_
3. Business address: \_\_\_\_\_
4. Business phone: \_\_\_\_\_ Fax: \_\_\_\_\_
5. Contractor Registration-
  - Washington State License Number \_\_\_\_\_ Status: Active Yes:\_\_\_ No:\_\_\_
6. How many years have you been engaged in the contracting business under the present firm name? \_\_\_\_
7. Describe the general character of work performed by your company: \_\_\_\_\_  
\_\_\_\_\_
8. List major contracts completed by your company, including contracting agency, type of work and approximate costs: (Provide at least three contract references with phone numbers- Provide additional pages if needed)
  - a) \_\_\_\_\_
  - b) \_\_\_\_\_
  - c) \_\_\_\_\_
9. Bank references: \_\_\_\_\_
10. State of Washington Excise Tax Registration No.: \_\_\_\_\_
11. Industrial Insurance Account No.: \_\_\_\_\_ Account Current: Yes\_\_\_ No\_\_\_
12. Current UBI Number: \_\_\_\_\_ Account: Open\_\_\_ Closed\_\_\_
13. Employment Security Department (ESD)
  - Number: \_\_\_\_\_
  - Documentation available from ESD: Yes\_\_\_ No\_\_\_
14. Is your company or any company with which the bidder is affiliated, listed on the "Contractors Not Allowed to Bid" list of the Department of Labor and Industries? Yes\_\_\_ No\_\_\_
15. I certify that other contracts now in progress or hereafter obtained will not interfere with timely performance of this project should I be awarded the contract  
  
Company: \_\_\_\_\_  
  
Authorized Signature: \_\_\_\_\_  
  
Print Name and Title: \_\_\_\_\_

## EXHIBIT C - BID PROPOSAL FORM

NOTE TO BIDDER: Use preferably **BLACK** ink for completing this Proposal form.

### PROPOSAL:

To: Renton Regional Fire Authority

Address: 18002 108<sup>th</sup> Avenue SE  
Renton, Washington 98055

Project Title: Station 13 IT / Admin Office Tenant Improvement

Station 13  
18002 108<sup>th</sup> Avenue SE  
Renton, Washington 98055

Bidder's person to contact for additional information on this Proposal:

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

Contact Person: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

### BIDDER'S DECLARATION AND UNDERSTANDING:

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Proposal are those named herein, that this Proposal is, in all respects, fair and without fraud, that it is made without collusion with any official or representative of the OWNER, and that the Proposal is made without any connection or collusion with any person submitting another Proposal on this Contract.

The Bidder further agrees that it has exercised its own judgment regarding the interpretation of subsurface information and has utilized all data which it believes pertinent from the CONSULTANT, OWNER, and other sources in arriving at its conclusion.

The Bidder further declares that it has carefully examined Contract Documents for construction of the project, that it has inspected the site, that it has satisfied itself as to quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of quantities of work and materials as included in this Form of Proposal is brief and is intended only to indicate the general nature of the work and to correlate said quantities with detailed requirements in the Contract Documents, and that this Proposal is made according to provisions and under terms of the Contract Documents, which Documents are hereby made a part of this Proposal.

## CONTRACT EXECUTION, BONDS & INSURANCE:

The Bidder agrees that its Proposal shall not be withdrawn for a period of 90 days after bid opening. The Bidder further agrees that if this Proposal is accepted, it will, within 10 calendar days after receipt of **Notice of Award**, sign the Contract and deliver to the OWNER the required Performance and Payment Bonds and Certificates of Insurance, and will, to the extent of its Proposal, furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all the materials necessary to complete all Work as specified or indicated in the Contract Documents.

## CONTRACT TIME:

The Bidder agrees to **Substantially Complete the Interior Work within 120 calendar days after the Date of Notice to Proceed**, including an onsite construction period of 90 consecutive calendar days maximum, and to **Finally Complete the work within 7 calendar days after Substantial Completion**.

## SALES AND USE TAXES:

Prices quoted in the Proposal shall **NOT** include local and state sales taxes applied to the Owner's payments. The OWNER will pay the local and state sales taxes directly to the CONTRACTOR based on the monthly progress pay estimate. All other taxes as required by the laws and statutes of the State and its political subdivision shall be paid by the CONTRACTOR.

## ADDENDA:

The Bidder hereby acknowledges that Bidder has received Addenda No's. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, (Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and further agrees that Bidder's Proposal(s) includes all impacts resulting from said Addenda.

## TOTAL LUMP SUM BASE BID:

Base bid includes but is not limited to (refer to the Drawings and Specifications for the complete Scope of Work).

The bidder agrees to accept as full payment for the Work, as specified in the Contract Documents and shown on the Drawings, and based upon the undersigned's own estimate of quantities and costs, the following lump sum:

DOLLARS (\$ \_\_\_\_\_ ),  
\_\_\_\_\_



**PROJECT MANAGEMENT AND SUPERVISION:**

The Bidder proposes the following designated Project Manager and Superintendent, whose experience and qualifications shall be as described in Instructions to Bidders, and whose resumes indicating relevant experience are enclosed with this Proposal.

\_\_\_\_\_  
Project Manager

\_\_\_\_\_  
Superintendent

**BIDDER:**

The name of the BIDDER submitting this Proposal is \_\_\_\_\_

doing business at \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
(Street) (City) (State) (Zip)

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partners comprising the partnership, or of all persons interested in this Proposal as principals are as follows:

\_\_\_\_\_

Federal Tax Identification No: \_\_\_\_\_

Contractor's Washington Registration No: \_\_\_\_\_

Dept. of Labor and Industries Reg. No: \_\_\_\_\_

Washington State Department of Revenue No: \_\_\_\_\_

**Bid Signature.** The Bid shall be signed by the Bidder, as follows:

Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" in the Official Capacity line.

Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" in the Official Capacity line.

Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. If the Bid is signed by officials other than the president and secretary of the company, or the

president / secretary / treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid.

Joint Venture: Each party of the joint venture shall sign in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

Name of Firm _____		
Signed by _____, Official Capacity _____		
Print Name _____		
Signed by _____, Official Capacity _____		
Print Name _____		
Signed by _____, Official Capacity _____		
Print Name _____		
Address _____		
City _____	State _____	Zip Code _____
Date _____	Telephone _____	FAX _____
State of Washington Contractor's License No. _____		UBI No. _____
Federal Tax ID # _____ e-mail address: _____		

END OF SECTION

## EXHIBIT D

### COMBINED AFFIDAVIT & CERTIFICATION FORM: NON-COLLUSION, MINIMUM WAGE (NON-FEDERAL AID)

#### NON-COLLUSION AFFIDAVIT

Being first duly sworn, deposes and says, that he/she is the identical person who submitted the foregoing Bid, and that such Bid is genuine and not sham or collusive or made in the interest or on behalf of any person not therein named, and further, that the deponent has not directly induced or solicited any other individual or entity to put in a sham bid, or to refrain from submitting a bid, and that deponent has not in any manner sought by collusion to secure to himself/herself or to any other person any advantage over other bidder or bidders.

AND

#### MINIMUM WAGE AFFIDAVIT FORM

I, the undersigned, having duly sworn, deposed, say and certify that in connection with the performance of the work of this project, I will pay each classification of laborer, workman, or mechanic employed in the performance of such work not less than the prevailing rate of wage or not less than the minimum rate of wage as specified in the principal contract; that I have read the above and foregoing statement and certificate, know the contents thereof and the substance as set forth therein is true to my knowledge and belief.

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

\_\_\_\_\_  
Contractor's Business Name

\_\_\_\_\_  
Signature of Authorized Official\*

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
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.*

## EXHIBIT E

### Certification of Compliance with Wage Payment Statutes

The contractor hereby certifies that, within the three-year period immediately preceding the date of this contract, the contractor 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 certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

---

Contractor’s Business Name

---

Signature of Authorized Official\*

---

Printed Name

---

Title

---

Date

---

City

---

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.*

## EXHIBIT F - GENERAL CONDITIONS

### 1-01 BID PROCEDURES AND CONDITIONS

1-01.1 Prequalification: Prequalification of bidders is not required for this project. However, information concerning the bidder's qualifications and ability to construct the project is required with this bid.

1-01.2 Examination of Specifications, and Site of Work: Before submitting their bid, the bidder shall examine the site of the work and ascertain all the physical conditions in relation thereto. Failure to do this shall not relieve the bidder from entering into a contract nor excuse the bidder from performing the work in strict accordance with the terms of the Contract Documents. The bidder will not be entitled to additional compensation if the bidder subsequently finds the conditions require other methods of equipment that the bidder did not anticipate in making the bidder's unit contract bid prices.

Any statement or representation made by an officer, agent, employee, or consultant of the Renton Regional Fire Authority with respect to the physical conditions appertaining to the site of the work shall not be binding upon the Renton Regional Fire Authority.

Bidders shall satisfy themselves as to construction conditions by personal examination of the specifications and site of the proposed work, and by any other examination and investigation which they may desire to make as to the nature of the soil and difficulties to be encountered.

In submitting a bid, the bidder represents and warrants that the bidder has fully investigated construction conditions by personal examination of the specifications and site of the proposed work, and by appropriate examinations and investigation as to the nature of the soil and construction problems which may be encountered by reason thereof. The bidder also warrants and represents that the bidder is experienced and an expert in the construction contemplated. The bidder further understands that, in making the contract award, the Renton Regional Fire Authority is relying upon the representations and warranties of the contractor herein contained.

Any omissions, discrepancies or need for interpretations should be brought in writing to the attention of the consultant. Written addenda to clarify questions which arise will then be issued. All interpretations or explanations of

the Contract Documents shall be in the form of an addendum and no oral statements by the Renton Regional Fire Authority, consultant, or other representative of the Renton Regional Fire Authority shall in any way modify the Contract Documents, whether made before or after awarding the contract.

## **1-02 AWARD AND EXECUTION OF CONTRACT**

**1-02.1 Award of the Contract:** A Notice of Award will be forwarded by the consultant on behalf of the Renton Regional Fire Authority to the successful contractor, which notice will also state the date of a pre-construction conference to be held between the consultant and the contractor. The Notice of Award will be accompanied by the agreement signed by the contractor and returned to the Renton Regional Fire Authority within ten (10) calendar days from receipt, along with the following items:

- Progress Schedule
- Public Liability Insurance Policy
- Performance Bond (If required)
- Notice of Intent to Pay Prevailing Wage
- Schedule for Values of Lump Sum Work

The award of contract, if made, will be made to the lowest responsive responsible bidder. No award will be made until necessary investigations are made by the Renton Regional Fire Authority as to the responsibility of the apparent low bidder. The Renton Regional Fire Authority shall be the sole judge as to the responsibility of the bidder to satisfactorily perform the work as specified and within the time limit set. Upon failure of the contractor to enter into a contract and to submit documents listed above within ten (10) calendar days after receiving notice of award, the Renton Regional Fire Authority may at their discretion offer the project to the next lowest responsible bidder, or the work may be re-advertised, or may be constructed by the Renton Regional Fire Authority in any legal manner.

A contract will not be awarded until the Renton Regional Fire Authority is satisfied that the successful bidder is reasonably familiar with the class of work contemplated and has the necessary capital, tools, and experience to satisfactorily perform the work within the time stated. Completion of the work within the time stated is essential and prior commitments of the bidder, failure

to complete other work on time, or reasonable doubt as to whether the bidder would complete the work on time would be cause for rejection of any bid.

One contract will be awarded for this project.



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.

#### Journey Level Prevailing Wage Rates for the Effective Date 10/21/2022

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>	<u>*Risk Class</u>
King	<a href="#">Asbestos Abatement Workers</a>	Journey Level	\$56.80	<u>5D</u>	<u>1H</u>		<a href="#">View</a>
King	<a href="#">Boilermakers</a>	Journey Level	\$72.54	<u>5N</u>	<u>1C</u>		<a href="#">View</a>
King	<a href="#">Brick Mason</a>	Journey Level	\$66.32	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
King	<a href="#">Brick Mason</a>	Pointer-Caulker-Cleaner	\$66.32	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
King	<a href="#">Building Service Employees</a>	Janitor	\$28.23	<u>5S</u>	<u>2F</u>		<a href="#">View</a>
King	<a href="#">Building Service Employees</a>	Traveling Waxer/Shampooer	\$28.68	<u>5S</u>	<u>2F</u>		<a href="#">View</a>
King	<a href="#">Building Service Employees</a>	Window Cleaner (Non-Scaffold)	\$32.18	<u>5S</u>	<u>2F</u>		<a href="#">View</a>
King	<a href="#">Building Service Employees</a>	Window Cleaner (Scaffold)	\$33.18	<u>5S</u>	<u>2F</u>		<a href="#">View</a>
King	<a href="#">Cabinet Makers (In Shop)</a>	Journey Level	\$22.74		<u>1</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Acoustical Worker	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Bridge, Dock And Wharf Carpenters	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Floor Finisher	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Floor Layer	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Journey Level	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Carpenters</a>	Scaffold Erector	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Application of all Composition Mastic	\$70.09	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Application of all Epoxy Material	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Application of all Plastic Material	\$70.09	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Application of Sealing Compound	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Application of Underlayment	\$70.09	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Building General	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Composition or Kalman Floors	\$70.09	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Concrete Paving	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Curb & Gutter Machine	\$70.09	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Curb & Gutter, Sidewalks	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Curing Concrete	\$69.59	<u>15J</u>	<u>4U</u>		<a href="#">View</a>

King	<a href="#">Cement Masons</a>	Finish Colored Concrete	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Floor Grinding	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Floor Grinding/Polisher	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Green Concrete Saw, self-powered	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Grouting of all Plates	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Grouting of all Tilt-up Panels	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Guniting Nozzleman	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Hand Powered Grinder	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Journey Level	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Patching Concrete	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Pneumatic Power Tools	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Power Chipping & Brushing	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Sand Blasting Architectural Finish	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Screed & Rodding Machine	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Spackling or Skim Coat Concrete	\$69.59	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Troweling Machine Operator	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Troweling Machine Operator on Colored Slabs	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Cement Masons</a>	Tunnel Workers	\$70.09	<a href="#">15J</a>	<a href="#">4U</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$126.05	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver	\$131.05	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver	\$130.05	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver	\$129.05	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver	\$128.05	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver	\$126.05	<a href="#">15J</a>	<a href="#">4C</a>	<a href="#">8V</a>	<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver On Standby	\$84.94	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Diver Tender	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$89.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$94.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$107.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$107.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$103.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$105.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 64.01 -	\$110.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>

		68.00 PSI					
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$112.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$114.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$116.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Manifold Operator	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Manifold Operator Mixed Gas	\$82.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Operator/Technician	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Tender	\$71.98	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Assistant Engineer	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Assistant Mate (Deckhand)	\$75.97	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Boatmen	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Engineer Welder	\$78.03	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Leverman, Hydraulic	\$79.59	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Mates	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Dredge Workers</a>	Oiler	\$75.97	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
King	<a href="#">Drywall Applicator</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Drywall Tapers</a>	Journey Level	\$70.61	<a href="#">5P</a>	<a href="#">1E</a>		<a href="#">View</a>
King	<a href="#">Electrical Fixture Maintenance Workers</a>	Journey Level	\$35.19	<a href="#">5L</a>	<a href="#">1E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Cable Splicer	\$99.36	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Cable Splicer (tunnel)	\$106.81	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Certified Welder	\$95.98	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Certified Welder (tunnel)	\$103.09	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Construction Stock Person	\$47.03	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Journey Level	\$92.59	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Inside</a>	Journey Level (tunnel)	\$99.36	<a href="#">7C</a>	<a href="#">4E</a>		<a href="#">View</a>
King	<a href="#">Electricians - Motor Shop</a>	Journey Level	\$48.68	<a href="#">5A</a>	<a href="#">1B</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Cable Splicer	\$88.89	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Certified Line Welder	\$81.65	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Groundperson	\$52.91	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Heavy Line Equipment Operator	\$81.65	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Journey Level Lineperson	\$81.65	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Line Equipment Operator	\$70.02	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Meter Installer	\$52.91	<a href="#">5A</a>	<a href="#">4D</a>	<a href="#">8W</a>	<a href="#">View</a>
King	<a href="#">Electricians - Powerline Construction</a>	Pole Sprayer	\$81.65	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>

King	<a href="#">Electricians - Powerline Construction</a>	Powderperson	\$60.75	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
King	<a href="#">Electronic Technicians</a>	Journey Level	\$60.10	<a href="#">7E</a>	<a href="#">1E</a>		<a href="#">View</a>
King	<a href="#">Elevator Constructors</a>	Mechanic	\$103.81	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
King	<a href="#">Elevator Constructors</a>	Mechanic In Charge	\$112.09	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
King	<a href="#">Fabricated Precast Concrete Products</a>	All Classifications - In-Factory Work Only	\$20.62	<a href="#">5B</a>	<a href="#">1R</a>		<a href="#">View</a>
King	<a href="#">Fence Erectors</a>	Fence Erector	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Fence Erectors</a>	Fence Laborer	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Flaggers</a>	Journey Level	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Glaziers</a>	Journey Level	\$75.91	<a href="#">7L</a>	<a href="#">1Y</a>		<a href="#">View</a>
King	<a href="#">Heat &amp; Frost Insulators And Asbestos Workers</a>	Journey Level	\$84.58	<a href="#">15H</a>	<a href="#">11C</a>		<a href="#">View</a>
King	<a href="#">Heating Equipment Mechanics</a>	Journey Level	\$94.11	<a href="#">7F</a>	<a href="#">1E</a>		<a href="#">View</a>
King	<a href="#">Hod Carriers &amp; Mason Tenders</a>	Journey Level	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Industrial Power Vacuum Cleaner</a>	Journey Level	\$14.49		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Boat Operator	\$61.41	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Cook	\$56.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Deckhand	\$57.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Deckhand Engineer	\$58.81	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Launch Operator	\$58.89	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inland Boatmen</a>	Mate	\$57.31	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Cleaner Operator, Foamer Operator	\$31.49		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Grout Truck Operator	\$14.49		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Head Operator	\$24.91		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Technician	\$19.33		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Tv Truck Operator	\$20.45		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Insulation Applicators</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Ironworkers</a>	Journeyman	\$82.03	<a href="#">7N</a>	<a href="#">1Q</a>		<a href="#">View</a>
King	<a href="#">Laborers</a>	Air, Gas Or Electric Vibrating Screed	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Airtrac Drill Operator	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Ballast Regular Machine	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Batch Weighman	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Brick Pavers	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Brush Cutter	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Brush Hog Feeder	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Burner	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Caisson Worker	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>

King	<a href="#">Laborers</a>	Carpenter Tender	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Cement Dumper-paving	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Cement Finisher Tender	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Change House Or Dry Shack	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Chipping Gun (30 Lbs. And Over)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Chipping Gun (Under 30 Lbs.)	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Choker Setter	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Chuck Tender	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Clary Power Spreader	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Clean-up Laborer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Concrete Dumper/Chute Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Concrete Form Stripper	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Concrete Placement Crew	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Concrete Saw Operator/Core Driller	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Crusher Feeder	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Curing Laborer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Demolition: Wrecking & Moving (Incl. Charred Material)	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Ditch Digger	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Diver	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Drill Operator (Hydraulic, Diamond)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Dry Stack Walls	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Dump Person	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Epoxy Technician	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Erosion Control Worker	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Faller & Bucker Chain Saw	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Fine Graders	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Firewatch	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Form Setter	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Gabian Basket Builders	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	General Laborer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Grade Checker & Transit Person	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Grinders	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Grout Machine Tender	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Groutmen (Pressure) Including Post Tension Beams	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Guardrail Erector	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Hazardous Waste Worker (Level A)	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Hazardous Waste Worker (Level B)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Hazardous Waste Worker (Level C)	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	High Scaler	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Jackhammer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>

King	<a href="#">Laborers</a>	Laserbeam Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Maintenance Person	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Manhole Builder-Mudman	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Material Yard Person	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Motorman-Dinky Locomotive	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pavement Breaker	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pilot Car	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pipe Layer (Lead)	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pipe Layer/Tailor	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pipe Pot Tender	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pipe Reliner	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pipe Wrapper	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Pot Tender	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Powderman	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Powderman's Helper	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Power Jacks	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Railroad Spike Puller - Power	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Raker - Asphalt	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Re-timberman	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Remote Equipment Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Rigger/Signal Person	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Rip Rap Person	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Rivet Buster	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Rodder	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Scaffold Erector	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Scale Person	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Sloper (Over 20")	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Sloper Sprayer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Spreader (Concrete)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Stake Hopper	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Stock Piler	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Swinging Stage/Boatswain Chair	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tamper & Similar Electric, Air & Gas Operated Tools	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tamper (Multiple & Self-propelled)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Toolroom Person (at Jobsite)	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Topper	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Track Laborer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>



King	<a href="#">Laborers</a>	Track Liner (Power)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Traffic Control Laborer	\$51.48	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Traffic Control Supervisor	\$54.55	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Truck Spotter	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tugger Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 0-30 psi	\$158.87	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$163.90	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$167.58	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$173.28	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$175.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$180.50	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$182.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$184.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$186.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Guage and Lock Tender	\$59.95	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Miner	\$59.95	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Tunnel Work-Miner	\$57.41	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Vibrator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Vinyl Seamer	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Watchman	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Welder	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Well Point Laborer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers</a>	Window Washer/Cleaner	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers - Underground Sewer &amp; Water</a>	General Laborer & Topman	\$54.62	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Laborers - Underground Sewer &amp; Water</a>	Pipe Layer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Landscape Construction</a>	Landscape Construction/Landscaping Or Planting Laborers	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
King	<a href="#">Landscape Construction</a>	Landscape Operator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Landscape Maintenance</a>	Groundskeeper	\$17.87		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Lathers</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Marble Setters</a>	Journey Level	\$66.32	<a href="#">7E</a>	<a href="#">1N</a>		<a href="#">View</a>
King	<a href="#">Metal Fabrication (In Shop)</a>	Fitter/Certified Welder	\$42.17	<a href="#">15I</a>	<a href="#">11E</a>		<a href="#">View</a>
King	<a href="#">Metal Fabrication (In Shop)</a>	General Laborer	\$30.07	<a href="#">15I</a>	<a href="#">11E</a>		<a href="#">View</a>
King	<a href="#">Metal Fabrication (In Shop)</a>	Mechanic	\$43.63	<a href="#">15I</a>	<a href="#">11E</a>		<a href="#">View</a>
King	<a href="#">Metal Fabrication (In Shop)</a>	Welder/Burner	\$39.28	<a href="#">15I</a>	<a href="#">11E</a>		<a href="#">View</a>
King	<a href="#">Millwright</a>	Journey Level	\$73.08	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Cabinet Assembly	\$14.49		<a href="#">1</a>		<a href="#">View</a>

King	<a href="#">Modular Buildings</a>	Electrician	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Equipment Maintenance	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Plumber	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Production Worker	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Tool Maintenance	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Utility Person	\$14.49		1		<a href="#">View</a>
King	<a href="#">Modular Buildings</a>	Welder	\$14.49		1		<a href="#">View</a>
King	<a href="#">Painters</a>	Journey Level	\$49.46	<a href="#">6Z</a>	<a href="#">11J</a>		<a href="#">View</a>
King	<a href="#">Pile Driver</a>	Crew Tender	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Pile Driver</a>	Crew Tender/Technician	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Pile Driver</a>	Journey Level	\$71.98	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
King	<a href="#">Plasterers</a>	Journey Level	\$67.49	<a href="#">7Q</a>	<a href="#">1R</a>		<a href="#">View</a>
King	<a href="#">Plasterers</a>	Nozzleman	\$71.49	<a href="#">7Q</a>	<a href="#">1R</a>		<a href="#">View</a>
King	<a href="#">Playground &amp; Park Equipment Installers</a>	Journey Level	\$14.49		1		<a href="#">View</a>
King	<a href="#">Plumbers &amp; Pipefitters</a>	Journey Level	\$95.69	<a href="#">6Z</a>	<a href="#">1G</a>		<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Asphalt Plant Operators	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Assistant Engineer	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Barrier Machine (zipper)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Batch Plant Operator: concrete	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Boat Operator	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Bobcat	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Brokk - Remote Demolition Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Brooms	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Bump Cutter	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cableways	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Chipper	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Compressor	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Concrete Finish Machine - Laser Screed	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Conveyors	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes Friction: 200 tons and over	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes, A-frame: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: 20 tons through 44 tons	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>



		with attachments					
King	<a href="#">Power Equipment Operators</a>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: Friction cranes through 199 tons	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Crusher	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Deck Engineer/Deck Winches (power)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Derricks, On Building Work	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Dozers D-9 & Under	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Drilling Machine	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Elevator and man-lift: permanent and shaft type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Forklift: 3000 lbs and over with attachments	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Forklifts: under 3000 lbs. with attachments	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Gradechecker/Stakeman	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Guardrail Punch	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Horizontal/Directional Drill Locator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Horizontal/Directional Drill Operator	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Hydralifts/Boom Trucks Over 10 Tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Hydralifts/boom trucks: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Leverman	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

King	<a href="#">Power Equipment Operators</a>	Loaders, Overhead Under 6 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Loaders, Plant Feed	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Loaders: Elevating Type Belt	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Locomotives, All	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Material Transfer Device	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Motor Patrol Graders	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Overhead, bridge type: 100 tons and over	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Overhead, bridge type: 45 tons through 99 tons	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Pavement Breaker	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Pile Driver (other Than Crane Mount)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Plant Oiler - Asphalt, Crusher	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Posthole Digger, Mechanical	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Power Plant	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Pumps - Water	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Quad 9, Hd 41, D10 And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Rigger and Bellman	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Rigger/Signal Person, Bellman(Certified)	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Rollagon	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Roller, Other Than Plant Mix	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Roller, Plant Mix Or Multi-lift Materials	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Roto-mill, Roto-grinder	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Saws - Concrete	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Scraper, Self Propelled Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Scrapers - Concrete & Carry All	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Service Engineers: Equipment	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

King	<a href="#">Power Equipment Operators</a>	Shotcrete/Gunite Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Slipform Pavers	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Spreader, Topsider & Screedman	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Subgrader Trimmer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Tower Bucket Elevators	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Tower crane: up to 175' in height base to boom	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Tower Cranes: over 250' in height from base to boom	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Transporters, All Track Or Truck Type	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Trenching Machines	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Truck crane oiler/driver: under 100 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Truck Mount Portable Conveyor	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Welder	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Wheel Tractors, Farmall Type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators</a>	Yo Yo Pay Dozer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Asphalt Plant Operators	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Assistant Engineer	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Barrier Machine (zipper)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Batch Plant Operator, Concrete	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Boat Operator	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Bobcat	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Brokk - Remote Demolition Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-</a>	Brooms	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

	<a href="#">Underground Sewer &amp; Water</a>						
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Bump Cutter	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cableways	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Chipper	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Compressor	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Finish Machine - Laser Screed	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Conveyors	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes Friction: 200 tons and over	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes, A-frame: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 20 tons through 44 tons with attachments	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 20 tons through 44 tons with attachments	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: Friction cranes through 199 tons	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Crusher	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Deck Engineer/Deck Winches (power)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-</a>	Derricks, On Building Work	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

	<a href="#">Underground Sewer &amp; Water</a>						
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Dozers D-9 & Under	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drilling Machine	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Elevator and man-lift: permanent and shaft type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklift: 3000 lbs and over with attachments	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklifts: under 3000 lbs. with attachments	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Gradechecker/Stakeman	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Guardrail Punch	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/Directional Drill Locator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/Directional Drill Operator	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/boom trucks: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/boom trucks: over 10 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Leverman	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Overhead Under 6 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Plant Feed	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders: Elevating Type Belt	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Locomotives, All	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Material Transfer Device	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Motor Patrol Graders	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>



King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Overhead, bridge type: 100 tons and over	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Overhead, bridge type: 45 tons through 99 tons	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Pavement Breaker	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Pile Driver (other Than Crane Mount)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Plant Oiler - Asphalt, Crusher	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Posthole Digger, Mechanical	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Power Plant	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Pumps - Water	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Quad 9, Hd 41, D10 And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Rigger and Bellman	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Rigger/Signal Person, Bellman(Certified)	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Rollagon	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Roller, Other Than Plant Mix	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Roller, Plant Mix Or Multi-lift Materials	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Roto-mill, Roto-grinder	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Saws - Concrete	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Scraper, Self Propelled Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Scrapers - Concrete & Carry All	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shotcrete/Gunite Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Slipform Pavers	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Spreader, Toppersider & Screedman	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Subgrader Trimmer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Tower Bucket Elevators	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Tower crane: up to 175' in height base to boom	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Tower Cranes: over 250' in height from base to boom	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Transporters, All Track Or Truck Type	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Trenching Machines	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Truck crane oiler/driver: under 100 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Truck Mount Portable Conveyor	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Welder	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Wheel Tractors, Farmall Type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Equipment Operators-Underground Sewer &amp; Water</a>	Yo Yo Pay Dozer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
King	<a href="#">Power Line Clearance Tree Trimmers</a>	Journey Level In Charge	\$57.22	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
King	<a href="#">Power Line Clearance Tree Trimmers</a>	Spray Person	\$54.32	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
King	<a href="#">Power Line Clearance Tree</a>	Tree Equipment Operator	\$57.22	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>

	<a href="#">Trimmers</a>					
King	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer	\$51.18	<a href="#">5A</a>	<a href="#">4A</a>	<a href="#">View</a>
King	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer Groundperson	\$38.99	<a href="#">5A</a>	<a href="#">4A</a>	<a href="#">View</a>
King	<a href="#">Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$91.51	<a href="#">6Z</a>	<a href="#">1G</a>	<a href="#">View</a>
King	<a href="#">Residential Brick Mason</a>	Journey Level	\$66.32	<a href="#">7E</a>	<a href="#">1N</a>	<a href="#">View</a>
King	<a href="#">Residential Carpenters</a>	Journey Level	\$36.44		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Cement Masons</a>	Journey Level	\$46.64		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Drywall Applicators</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>	<a href="#">View</a>
King	<a href="#">Residential Drywall Tapers</a>	Journey Level	\$36.36		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Electricians</a>	Journey Level	\$48.80		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Glaziers</a>	Journey Level	\$28.93		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Insulation Applicators</a>	Journey Level	\$28.18		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Laborers</a>	Journey Level	\$29.73		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Marble Setters</a>	Journey Level	\$27.38		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Painters</a>	Journey Level	\$23.47		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Plumbers &amp; Pipefitters</a>	Journey Level	\$95.69	<a href="#">6Z</a>	<a href="#">1G</a>	<a href="#">View</a>
King	<a href="#">Residential Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$91.51	<a href="#">6Z</a>	<a href="#">1G</a>	<a href="#">View</a>
King	<a href="#">Residential Sheet Metal Workers</a>	Journey Level	\$94.11	<a href="#">7F</a>	<a href="#">1E</a>	<a href="#">View</a>
King	<a href="#">Residential Soft Floor Layers</a>	Journey Level	\$55.54	<a href="#">5A</a>	<a href="#">3J</a>	<a href="#">View</a>
King	<a href="#">Residential Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$55.95	<a href="#">5C</a>	<a href="#">2R</a>	<a href="#">View</a>
King	<a href="#">Residential Stone Masons</a>	Journey Level	\$66.32	<a href="#">7E</a>	<a href="#">1N</a>	<a href="#">View</a>
King	<a href="#">Residential Terrazzo Workers</a>	Journey Level	\$60.36	<a href="#">7E</a>	<a href="#">1N</a>	<a href="#">View</a>
King	<a href="#">Residential Terrazzo/Tile Finishers</a>	Journey Level	\$24.39		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Residential Tile Setters</a>	Journey Level	\$21.04		<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Roofers</a>	Journey Level	\$59.05	<a href="#">5A</a>	<a href="#">3H</a>	<a href="#">View</a>
King	<a href="#">Roofers</a>	Using Irritable Bituminous Materials	\$62.05	<a href="#">5A</a>	<a href="#">3H</a>	<a href="#">View</a>
King	<a href="#">Sheet Metal Workers</a>	Journey Level (Field or Shop)	\$94.11	<a href="#">7F</a>	<a href="#">1E</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Boilermaker	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Carpenter	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Crane Operator	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Electrician	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Heat & Frost Insulator	\$84.58	<a href="#">15H</a>	<a href="#">11C</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Laborer	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Machinist	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Operating Engineer	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Painter	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Pipefitter	\$39.58	<a href="#">7V</a>	<a href="#">1</a>	<a href="#">View</a>



King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Rigger	\$39.58	<u>7V</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Sheet Metal	\$39.58	<u>7V</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Shipfitter	\$39.58	<u>7V</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Warehouse/Teamster	\$39.58	<u>7V</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Welder / Burner	\$39.58	<u>7V</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Boilermaker	\$50.35	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Carpenter	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Crane Operator	\$45.06	<u>7Y</u>	<u>4K</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Electrician	\$50.42	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Heat & Frost Insulator	\$84.58	<u>15H</u>	<u>11C</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Laborer	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Machinist	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Operating Engineer	\$45.06	<u>7Y</u>	<u>4K</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Painter	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Pipefitter	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Rigger	\$50.35	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Sheet Metal	\$50.35	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Shipwright	\$50.95	<u>7X</u>	<u>4J</u>		<a href="#">View</a>
King	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Warehouse / Teamster	\$45.06	<u>7Y</u>	<u>4K</u>		<a href="#">View</a>
King	<a href="#">Sign Makers &amp; Installers (Electrical)</a>	Journey Level	\$55.78	<u>Q</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Sign Makers &amp; Installers (Non-Electrical)</a>	Journey Level	\$35.73	<u>Q</u>	<u>1</u>		<a href="#">View</a>
King	<a href="#">Soft Floor Layers</a>	Journey Level	\$55.56	<u>5A</u>	<u>3J</u>		<a href="#">View</a>
King	<a href="#">Solar Controls For Windows</a>	Journey Level	\$14.49		<u>1</u>		<a href="#">View</a>
King	<a href="#">Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$90.99	<u>5C</u>	<u>1X</u>		<a href="#">View</a>
King	<a href="#">Stage Rigging Mechanics (Non Structural)</a>	Journey Level	\$14.49		<u>1</u>		<a href="#">View</a>
King	<a href="#">Stone Masons</a>	Journey Level	\$66.32	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
King	<a href="#">Street And Parking Lot Sweeper Workers</a>	Journey Level	\$19.09		<u>1</u>		<a href="#">View</a>
King	<a href="#">Surveyors</a>	Assistant Construction Site Surveyor	\$79.62	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
King	<a href="#">Surveyors</a>	Chainman	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
King	<a href="#">Surveyors</a>	Construction Site Surveyor	\$80.33	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
King	<a href="#">Surveyors</a>	Drone Operator (when used in conjunction with survey work only)	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
King	<a href="#">Surveyors</a>	Ground Penetrating Radar Operator	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
King	<a href="#">Telecommunication Technicians</a>	Journey Level	\$60.10	<u>7E</u>	<u>1E</u>		<a href="#">View</a>
King	<a href="#">Telephone Line Construction - Outside</a>	Cable Splicer	\$39.15	<u>5A</u>	<u>2B</u>		<a href="#">View</a>
King	<a href="#">Telephone Line Construction - Outside</a>	Hole Digger/Ground Person	\$26.29	<u>5A</u>	<u>2B</u>		<a href="#">View</a>

King	<a href="#">Telephone Line Construction - Outside</a>	Telephone Equipment Operator (Light)	\$32.72	<a href="#">5A</a>	<a href="#">2B</a>		<a href="#">View</a>
King	<a href="#">Telephone Line Construction - Outside</a>	Telephone Lineperson	\$37.00	<a href="#">5A</a>	<a href="#">2B</a>		<a href="#">View</a>
King	<a href="#">Terrazzo Workers</a>	Journey Level	\$60.36	<a href="#">7E</a>	<a href="#">1N</a>		<a href="#">View</a>
King	<a href="#">Tile Setters</a>	Journey Level	\$60.36	<a href="#">7E</a>	<a href="#">1N</a>		<a href="#">View</a>
King	<a href="#">Tile, Marble &amp; Terrazzo Finishers</a>	Finisher	\$51.19	<a href="#">7E</a>	<a href="#">1N</a>		<a href="#">View</a>
King	<a href="#">Traffic Control Stripers</a>	Journey Level	\$51.90	<a href="#">7A</a>	<a href="#">1K</a>		<a href="#">View</a>
King	<a href="#">Truck Drivers</a>	Asphalt Mix Over 16 Yards	\$72.45	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Truck Drivers</a>	Asphalt Mix To 16 Yards	\$71.61	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Truck Drivers</a>	Dump Truck	\$71.61	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Truck Drivers</a>	Dump Truck & Trailer	\$72.45	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Truck Drivers</a>	Other Trucks	\$72.45	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Truck Drivers - Ready Mix</a>	Transit Mix	\$72.45	<a href="#">15J</a>	<a href="#">11I</a>	<a href="#">8L</a>	<a href="#">View</a>
King	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Irrigation Pump Installer	\$17.71		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Oiler	\$14.49		<a href="#">1</a>		<a href="#">View</a>
King	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Well Driller	\$18.00		<a href="#">1</a>		<a href="#">View</a>

## EXHIBIT H

### Certification of Compliance with Public Works Contractor Training Requirements

The bidder hereby certifies that the bidder is in compliance with the Washington State Department of Labor and Industries Contractor Training Requirement established by RCW 34.04.350 or is exempt from such requirements.

I certify 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

---

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.*

RENTON REGIONAL FIRE AUTHORITY  
PAYMENT AND PERFORMANCE BOND

Date Bond Executed

See Instructions to Bidders

NOTE: Type or Print in Ink

Principal (Legal Name and Business Address)	Type of Organization (Check One) <input type="checkbox"/> Individual <input type="checkbox"/> Joint Venture <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation
Surety(ies) (Name(s) and Business Address(es))	Contract Date      Contract Number
	Sum Amount of bond (Including State Sales Tax) Dollars
	(\$      )

We, the Principal and Surety(ies), in accordance with the Revised Code of Washington, are firmly bound and obligated to RENTON REGIONAL FIRE AUTHORITY in the above sum amount on conditions set forth below, for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH, that the Principal entered into the contract identified above.

THE ABOVE OBLIGATION shall be void and of no effect if the Principal performs and fulfills all the provisions of such contract and any extensions or modifications thereof that may be made by RENTON REGIONAL FIRE AUTHORITY, and faithfully pays all laborers, mechanics and subcontractors and materialmen, and all persons who shall supply such person or persons, or subcontractors, with materials and supplies for the carrying on of such work and shall indemnify the RENTON REGIONAL FIRE AUTHORITY against any loss or damage directly due to the failure of the Principal to faithfully perform the contract identified above.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this payment and performance bond and have affixed their signatures and seals on the date set forth above.

1. Name of Principal and Title				Phone No.	Signature	L.S. (Corporate Seal)
2.						
Surety A	Name and Address				Liability Limit	L.S. (Corporate Seal)
	1. Name and Title (Attorney in Fact)		Phone No.	Signature		
	2. Name and Title (Resident Agent)		Phone No.	Signature		
Surety B	Name and Address				Liability Limit	L.S. (Corporate Seal)
	1. Name and Title (Attorney in Fact)		Phone No.	Signature		
	2. Name and Title (Resident Agent)		Phone No.	Signature		

## **SECTION 01 1000**

### **SUMMARY**

#### **PART 1 GENERAL**

##### **1.01 PROJECT:**

- A. Project Name: Renton RFA Station 13 - IT / Admin Office Tenant Improvement
- B. Owner Name: Renton Regional Fire Authority.
- C. Architect's Name: Broderick Architects.

##### **1.02 CONTRACT DESCRIPTION**

- A. Contract Type: Renton Regional Fire Authority Public Works Contract
- B. Project Scope:
  - 1. Construct in a single complete contract the RENTON FIRE STATION #13 IT / ADMIN OFFICE TENANT IMPROVEMENT, in accordance with the plans and project manual prepared by Broderick Architects.

##### **1.03 COORDINATION:**

- A. It shall be the General Contractor's responsibility to coordinate the work with the Owner to address how the Fire Department personnel will occupy the station during construction, including any required phasing plan.
- B. In the event the station needs to be vacated to accomplish any work, provide a minimum of 10 working days' notice for any work requiring the station to be vacated.

##### **1.04 INSTRUCTIONS TO CONTRACTORS:**

- A. All instructions will be given by the Architect or his authorized agents (e.g., field observers). No other instructions shall be recognized. Instructions from the Architect will be made to the Contractor or his authorized agents (e.g., Job Superintendent) for distribution to subcontractors and/or trades people on the job. Subcontractors and Material men shall not contact the Owner or Architect to discuss the Project.

##### **1.05 PERMITS AND FEES:**

- A. The owner will pay the plan check fee and the building permit fee to the City of Renton. The Contractor shall include in his Bid all additional cost of permits and fees as required (electrical, mechanical, etc.).

##### **1.06 PREVAILING WAGE REQUIREMENTS:**

- A. Pursuant to Washington State Law, this project will be subject to payment of prevailing wages to all contractor's and subcontractors.

##### **1.07 SUBSTANTIAL COMPLETION DEFINED:**

- A. The earliest date on which, in the opinion of the Architect, the Owner may fully occupy and use the Project for the purpose for which it is intended, without undue inconvenience to either Contractor or Owner.

##### **1.08 PRIOR USE OR OCCUPANCY:**

- A. The Owner shall have the right to occupy or use any completed or partially completed portion of the work prior to completion.
- B. The Renton Regional Fire Authority does not intend to vacate the existing building during the entire construction period. The spaces being renovated will be vacant during the construction period. Coordinate with the Owner for continued operations to ensure emergency response is not compromised. The remainder of the station will be occupied at all times during construction. Contractor to ensure station operations.
- C. Occupancy or use prior to completion shall not be deemed an acceptance of any part of the Work, unless mutually agreed to by Owner and Contractor, and any claim which Owner may have against Contractor shall not be deemed to have been waived by such occupancy or use.

**1.09 CLEAN UP AND PROTECTION:**

- A. The Contractor shall provide adequate dust control to isolate the areas affected by the work from the rest of the inhabited portions of the station.
- B. The Contractor, as the Work processes, shall keep the premises free from accumulation of waste material and rubbish and, at the completion of the Work shall remove from building and surrounding area all rubbish and any remaining equipment surplus materials.
- C. Apply protective covering on installed Work where it is required to ensure freedom from damage or deterioration at time of Substantial Completion.
- D. Work connecting to any adjacent property shall be kept unencumbered and available to the Owner's daily operations. Coordinate with the Owner time and duration of any and all down times with a minimum of 10 working days notice.

**PRODUCTS: (NOT USED)**

**EXECUTION: (NOT USED)**

**END OF SECTION 01 1000**

**SECTION 01 2000**  
**PRICE AND PAYMENT PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedures for preparation and submittal of applications for progress payments.

**1.02 SCHEDULE OF VALUES**

- A. Form to be used: AIA G703.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- E. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.

**1.03 APPLICATIONS FOR PROGRESS PAYMENTS**

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Execute certification by signature of authorized officer.
- E. Submit one electronic and one hard-copy of each Application for Payment.

**1.04 MODIFICATION PROCEDURES**

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
- B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
  - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
  - 2. Promptly execute the change.
- C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 4 days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 6000.
- E. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.

**1.05 APPLICATION FOR FINAL PAYMENT**

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  - 1. All closeout procedures specified in Section 01 7000.

**END OF SECTION 01 2000**





**SECTION 01 3000**  
**ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Preconstruction meeting.
- B. Site mobilization meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Coordination drawings.
- F. Submittals for review, information, and project closeout.
- G. Number of copies of submittals.
- H. Submittal procedures.

**1.02 PROJECT COORDINATOR**

- A. Project Coordinator: Renton RFA.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for building access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities. Responsibility for providing temporary utilities and construction facilities is identified in Section 01 1000 - Summary.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals to Architect to be forwarded to the Project Coordinator:
  - 1. Requests for Interpretation.
  - 2. Shop drawings, product data, and samples.
  - 3. Manufacturer's instructions and field reports.
  - 4. Applications for payment and change order requests.
  - 5. Progress schedules.
  - 6. Coordination drawings.
  - 7. Correction Punch List and Final Correction Punch List for Substantial Completion.
  - 8. Closeout submittals.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PRECONSTRUCTION MEETING & SITE MOBILIZATION MEETING**

- A. Architect will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Architect.
  - 3. Contractor.
- C. Agenda:
  - 1. Execution of Owner-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.

5. Designation of personnel representing the parties to Contract, Owner, Contractor and Architect.
  6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  7. Scheduling.
  8. Use of premises by Owner and Contractor.
  9. Owner's requirements.
  10. Construction facilities and controls provided by Owner.
  11. Temporary utilities provided by Owner.
  12. Security and housekeeping procedures.
  13. Schedules.
  14. Procedures for maintaining record documents.
- D. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.

### **3.02 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the Work at maximum weekly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required:
  1. Contractor.
  2. Owner.
  3. Architect.
  4. Contractor's superintendent.
  5. Major subcontractors.
- D. Agenda:
  1. Review minutes of previous meetings.
  2. Review of work progress.
  3. Field observations, problems, and decisions.
  4. Identification of problems that impede, or will impede, planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Maintenance of progress schedule.
  7. Corrective measures to regain projected schedules.
  8. Planned progress during succeeding work period.
  9. Maintenance of quality and work standards.
  10. Effect of proposed changes on progress schedule and coordination.
  11. Other business relating to work.
- E. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.

### **3.03 CONSTRUCTION PROGRESS SCHEDULE**

- A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
  1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule at each weekly progress meeting.

### **3.04 SUBMITTALS FOR REVIEW**

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

2. Shop drawings.
  3. Samples for selection.
  4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
  - C. Samples will be reviewed for aesthetic, color, or finish selection.
  - D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

### **3.05 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  1. Design data.
  2. Certificates.
  3. Test reports.
  4. Inspection reports.
  5. Manufacturer's instructions.
  6. Manufacturer's field reports.
- B. Submit for Architect's knowledge as contract administrator or for Owner.

### **3.06 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
  1. Project record documents.
  2. Operation and maintenance data.
  3. Warranties.
  4. Bonds.
  5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

### **3.07 NUMBER OF COPIES OF SUBMITTALS**

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Alternately, at Contractors preference provide hard copies for Review:
  1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus one copy that will be retained by Architect.
- C. Documents for Information: Submit two copies.
- D. Extra Copies at Project Closeout: See Section 01 7800.
- E. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
  1. After review, produce duplicates.
  2. Retained samples will not be returned to Contractor unless specifically so stated.

### **3.08 SUBMITTAL PROCEDURES**

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

- C. Transmit each submittal with a copy of approved submittal form.
- D. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- E. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- G. Deliver submittals to Architect at business address.
- H. Schedule submittals to expedite the Project, and coordinate submission of related items.
- I. For each submittal for review, allow 5 days excluding delivery time to and from the Contractor.
- J. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- K. Provide space for Contractor and Architect review stamps.
- L. When revised for resubmission, identify all changes made since previous submission.
- M. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- N. Submittals not requested will not be recognized or processed.

**END OF SECTION 01 3000**

**SECTION 01 5000**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary utilities.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers and enclosures.
- D. Vehicular access and parking.
- E. Waste removal facilities and services.
- F. Field offices.

**1.02 TEMPORARY UTILITIES**

- A. Owner will provide the following:
  - 1. Electrical power , consisting of connection to existing facilities.
  - 2. Water supply, consisting of connection to existing facilities.
- B. Existing facilities may be used.

**1.03 TEMPORARY SANITARY FACILITIES**

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is NOT permitted.
- C. Maintain daily in clean and sanitary condition.
- D. At end of construction, return facilities to same or better condition as originally found.

**1.04 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
  - 1. When working on the lower floor ceiling, take special care to prevent dust from contaminating the Aparatus Bays.

**1.05 INTERIOR ENCLOSURES**

- A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

**1.06 VEHICULAR ACCESS AND PARKING**

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
- E. Existing parking area at the southwest corner of the site may be used for construction parking and staging, coordinate with Owner.

**1.07 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.

- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION 01 5000**

**SECTION 01 6000**  
**PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Maintenance materials, including extra materials, spare parts, tools, and software.

**1.02 SUBMITTALS**

- A. General:
  - 1. Coordinate submittals with the progress schedule and actual progress of the Work. Provide copies required by governing authorities, in addition to copies specified for submittal to Architect.
  - 2. Samples, Shop Drawings And Paperwork Submittals:
    - a. All materials or items submitted to the Architect must be labeled with the Contractor's Name, Project Name, and Contractors Signature showing his approval of the product.
- B. Shop Drawings:
  - 1. The Contractor shall verify all field measurements and submit with such promptness as to cause no delay to the Work, three (3) copies, checked and approved by himself, of all shop drawings required for the work. No shop drawings shall be submitted for the Architect's review until after they have been reviewed and noted for construction methods, dimensioning, and other trade requirements by the contractor and stamped with the contractor's approval seal. Architect's review shall not relieve the Contractor of responsibility for conforming with the plans and specifications unless attention has been called to the deviation at the time of the submission, nor shall it relieve him from responsibility for errors in the shop drawings. Shop drawings shall not be used as a method of submitting revisions.
  - 2. The Contractor shall allow seven (7) working days for review of all shop drawings. The Architect shall retain two (2) copies and return two (2) to the Contractor.
  - 3. The Architect shall review and approve such shop drawings only for conformance with the design concept of the Project and compliance with the Contract Documents.
  - 4. The Contractor shall make corrections required by the Architect.
  - 5. The Architects review and/or approval of the shop drawings shall not relieve the Contractor of the responsibility for errors in the shop drawings.
- C. Submit complete information on the following items of Work:
  - 1. Demolition Plan, Section 01 6000
  - 2. Closeout Submittals, 01 7800
  - 3. Cabinets and Countertops, Section 06 4100 (Architectural Wood Casework)
  - 4. Fiberglass Reinforced Paneling, Section 06 8316
  - 5. Sealants, Section 07 9200
  - 6. Hollow Metal Frames, Section 08 1213
  - 7. Flush Wood Doors, Section 08 1416
  - 8. Door Hardware, Section 08 7100
  - 9. Tile Carpet, Section 09 6813
  - 10. Painting, Section 09 9000
  - 11. Horizontal Louver Blinds, Section 12 2113
  - 12. Design Build Plumbing, Section 22 0000
  - 13. Plumbing Fixtures, Section 22 4000
  - 14. Design Build HVAC, Section 23 0000
  - 15. Design Build Electrical, Section 26 0000

16. Lighting, Section 26 0001
- D. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
  - E. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
  - F. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
    - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

## **PART 2 PRODUCTS**

### **2.01 NEW PRODUCTS**

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

### **2.02 PRODUCT OPTIONS**

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

### **2.03 MAINTENANCE MATERIALS**

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

## **PART 3 EXECUTION**

### **3.01 SUBSTITUTION LIMITATIONS**

- A. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- B. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.

### **3.02 TRANSPORTATION AND HANDLING**

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.



- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### **3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION 01 6000**

**SECTION 01 7000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Cutting and patching.
- D. Cleaning and protection.
- E. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- C. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.
- D. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
  - 1. Indicate extent of demolition and removal sequence.
  - 2. Identify demolition firm and submit qualifications.
  - 3. Include a summary of safety procedures.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate Contractor.

**PART 2 PRODUCTS**

**2.01 PATCHING MATERIALS**

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

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 PREPARATION**

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

### **3.03 GENERAL INSTALLATION REQUIREMENTS**

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

### **3.04 ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
  - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
- C. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove items indicated on drawings.
  - 2. Relocate items indicated on drawings.
  - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
  - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
  - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
  - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
  - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.

- a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
  - b. Provide temporary connections as required to maintain existing systems in service.
- 4. Verify that abandoned services serve only abandoned facilities.
- 5. Remove abandoned pipe, ducts, conduits, cabling and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- E. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
- F. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
- G. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- H. Refinish existing surfaces as indicated:
  - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
  - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- I. Clean existing systems and equipment.
- J. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- K. Do not begin new construction in alterations areas before demolition is complete.
- L. Comply with all other applicable requirements of this section.

### **3.05 CUTTING AND PATCHING**

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-complying work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
- H. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

2. Match color, texture, and appearance.
3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.06 PROGRESS CLEANING**

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

### **3.07 PROTECTION OF INSTALLED WORK**

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

### **3.08 ADJUSTING**

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

### **3.09 FINAL CLEANING**

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

### **3.10 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  1. Provide copies to Architect and Owner.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.

- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

**END OF SECTION 01 7000**

**SECTION 01 7800**  
**CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

**1.02 SUBMITTALS**

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
  - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
  - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
  - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
  - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
  - 1. RFI's and ASI's
  - 2. Change Order Proposals / Change Order Proposal Log
  - 3. Submittal Log
  - 4. Finaled Permit Documentation
  - 5. Punchlist
  - 6. Certificate of Substantial Completion
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:

1. Changes made by Addenda and modifications.
- F. Record Drawings, Design Build Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  1. Field changes of dimension and detail.
  2. Details not on original Contract drawings.
- G. Design Build Drawings: Provide compact disc with dwg files and supporting information.

### **3.02 OPERATION AND MAINTENANCE DATA**

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

### **3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES**

- A. For Each Product, Applied Material, and Finish:
  1. Product data, with catalog number, size, composition, and color and texture designations.
  2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

### **3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS**

- A. For Each Item of Equipment and Each System:
  1. Description of unit or system, and component parts.
  2. Identify function, normal operating characteristics, and limiting conditions.
  3. Include performance curves, with engineering data and tests.
  4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
  1. Include HVAC outdoor and exhaust air damper calibration strategy.
    - a. Include provisions which ensure that full closure of dampers can be achieved.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.



- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

### **3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS**

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Prepare data in the form of an instructional manual.
- E. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- F. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- G. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- H. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- I. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- J. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- K. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

### **3.06 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

**END OF SECTION 01 7800**

**SECTION 02 4100**  
**DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Selective demolition of building elements for alterations purposes, including but not limited to the following:
  - 1. Removal of portions of existing exterior wood stud wall (to accomodate new exterior door and window) and drywall as indicated on the drawings.
  - 2. Removal of designated drywall to accomodate installation of insulation from the ceiling of the spaces below.
  - 3. Removal of designated exterior window.
  - 4. Removal of the existing light fixtures in the renovated spaces.
  - 5. Removal of exposed electrical conduit and boxes.
  - 6. Removal of all abandoned low voltage cabling.
  - 7. Removal of obsolete compressor piping.
  - 8. Removal of existing window coverngs
- B. Materials to be Salvaged and Reused:
  - 1. Salvage and reuse the following:
    - a. Salvage the existing compressor system and relocate to the shop below as directed by the Owner. Contractor to relocate power supply, shut off and controls. Owner responsible for reconnecting air lines.
    - b. Existing window.
    - c. Existing speakers (locate per plan or as directed by the Owner)
    - d. Door required to complete the Work this Contract.
  - 2. Return to the Owner any of the following items (which in the opinion of the Owner of salvageable condition):
    - a. none
- C. Owner Provided Demolition Items:
  - 1. none
- D. Related work specified elsewhere:
  - 1. Remodeling construction work and patching are included within the respective sections of specifications, including removal of materials for reuse and incorporation into remodeling or new construction.
- E. Schedule: Submit schedule indicating proposed sequence of operations for selective demolition work to Owner's for review prior to start of work.
  - 1. Work of all trades associated with selective demolition shall be performed during normal business hours, between 7:00 AM and 7:00 PM.
  - 2. Provide detailed sequence of demolition and removal work.
  - 3. Examine existing conditions prior to demolition. Notify Architect immediately if any variations from the Contract Documents are encountered.
- F. Occupancy: All adjacent areas of the building will be in use during the construction period.
- G. Condition of Structures: Owner assumes no responsibility for actual condition of items or elements to be demolished.
- H. Salvaged Materials: Items of salvageable value to Contractor may be removed from structure as work progresses. Salvaged items must be transported from site as they are removed.
  - 1. Storage or sale of removed items will not be permitted on site.
- I. Protections: Provide temporary barricades and other forms of protection as required to protect Owner's personnel and general public from injury due to selective demolition work.
  - 1. Provide protective measures as required to provide free and safe passage of Owner's personnel and building tenants as they interface with demolition work.

2. Protect from damage existing finish work and furniture that is to remain in place and becomes exposed during demolition operations.
  3. Remove protections at completion of work.
- J. Damages: Promptly repair damages caused to adjacent facilities by demolition work at no cost to Owner.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS (NOT APPLICABLE)**

## **PART 3 EXECUTION**

### **3.01 EXECUTION:**

- A. Survey existing conditions and correlate with the Construction Documents to determine the extent of demolition required.
- B. Insofar as is practical, arrange operations to reveal unknown or concealed structural conditions for examination and verification before removal or demolition.
- C. Cover and protect furniture, equipment, and fixtures from damage.
- D. Separate areas in which demolition is being conducted from other areas that are still occupied.
  1. Provide, erect, and maintain temporary dustproof partitions of construction .
- E. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of conflict. Submit report to Owner's representative in written, accurate detail. Pending receipt of directive from Owner's representative, rearrange selective demolition schedule as necessary to continue overall job progress without delay.
- F. Disposal of Demolished Materials: Remove debris, rubbish, and other materials resulting from demolition operations from building site. Transport and legally dispose off site.
  1. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
- G. Repair demolition performed in excess of that required. Return structures and surfaces to remain to condition existing prior to commencement of selective demolition work. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.
  1. At demolished wall locations adjacent to windows repair / replace damaged sheet metal sills and clean mullions / windows as required.

**END OF SECTION 02 4100**

**SECTION 03 3000**  
**CAST-IN-PLACE CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Concrete formwork.
- B. Slabs on grade.
- C. Concrete reinforcement.
- D. Joint devices associated with concrete work.
- E. Concrete curing.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 9200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

**1.03 REFERENCE STANDARDS**

- A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; 2010.
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).
- C. ACI 301 - Specifications for Structural Concrete; 2010 (Errata 2012).
- D. ACI 302.1R - Guide for Concrete Floor and Slab Construction; 2004 (Errata 2007).
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000.
- F. ACI 308R - Guide to Curing Concrete; 2001 (Reapproved 2008).
- G. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2011.
- H. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement; 2015.
- I. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2012.
- J. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2013.
- K. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2016.
- L. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2015a.
- M. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2015.
- N. ASTM C150/C150M - Standard Specification for Portland Cement; 2015.
- O. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2014.
- P. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2015.
- Q. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures; 2014.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Mix Design: Submit proposed concrete mix design.

**1.05 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301 and ACI 318.

## **PART 2 PRODUCTS**

### **2.01 FORMWORK**

- A. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
  - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
  - 2. Earth Cuts: Do not use earth cuts as forms for vertical surfaces. Natural rock formations that maintain a stable vertical edge may be used as side forms.
  - 3. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.

### **2.02 REINFORCEMENT MATERIALS**

- A. Reinforcing Steel: ASTM A615/A615M Grade 60 (420).
  - 1. Type: Deformed billet-steel bars.
  - 2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (at sidewalk section): ASTM A1064/A1064M, plain type.
  - 1. Form: Flat Sheets.
  - 2. WWR Style: 4 x 8-W6 x W10.
- C. Reinforcement Accessories:
  - 1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch.
  - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

### **2.03 CONCRETE MATERIALS**

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
- C. Fly Ash: ASTM C618, Class C or F.
- D. Silica Fume: ASTM C1240, proportioned in accordance with ACI 211.1.
- E. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

### **2.04 BONDING AND JOINTING PRODUCTS**

- A. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.
  - 1. Material: Closed-cell, non-absorbent, compressible polymer foam in sheet form.
- B. Slab Construction Joint Devices: Combination keyed joint form and screed, galvanized steel, with rectangular or round knockout holes for conduit or rebar to pass through joint form at 6 inches on center; ribbed steel stakes for setting.

### **2.05 CONCRETE MIX DESIGN**

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Normal Weight Concrete:
  - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 2,500 pounds per square inch.
  - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
  - 3. Silica Fume Content: Maximum 5 percent of cementitious materials by weight.
  - 4. Total Air Content: 5 percent, determined in accordance with ASTM C173/C173M.
  - 5. Maximum Slump: 3 inches.
  - 6. Maximum Aggregate Size: 5/8 inch.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

### **3.02 PREPARATION**

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in accordance with bonding agent manufacturer's instructions.
- D. Where new concrete with integral waterproofing is to be bonded to previously placed concrete, prepare surfaces to be treated in accordance with waterproofing manufacturer's instructions. Saturate cold joint surface with clean water, and remove excess water before application of coat of waterproofing admixture slurry. Apply slurry coat uniformly with semi-stiff bristle brush at rate recommended by waterproofing manufacturer.

### **3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS**

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.

### **3.04 PLACING CONCRETE**

- A. Place concrete in accordance with ACI 304R.
- B. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.

### **3.05 SLAB JOINTING**

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
- D. Construction Joints: Where not otherwise indicated, use metal combination screed and key form, with removable top section for joint sealant.

### **3.06 CONCRETE FINISHING**

- A. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
  - 1. Light broom finish to match adjacent sidewalk finish.

### **3.07 CURING AND PROTECTION**

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

### **3.08 DEFECTIVE CONCRETE**

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.

**END OF SECTION 03 3000**

**SECTION 05 5100**  
**METAL STAIRS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Stairs with concrete treads.
- B. Prefabricated stairs.
- C. Structural steel stair framing and supports.
- D. Handrails and guards.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 3000 - Cast-in-Place Concrete: Placement of metal anchors in concrete.

**1.03 REFERENCE STANDARDS**

- A. AISC 201 - AISC Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures; 2006.
- B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- C. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2014 (Amended 2015).
- D. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
  - 1. Include the design engineer's seal and signature on each sheet of shop drawings.
- C. Design Data: As required by authorities having jurisdiction.
- D. Design Data, Seismic Performance: Submit documentation that stairs meet performance requirements specified.
- E. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.
- F. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is certified under AISC 201.

**1.05 QUALITY ASSURANCE**

- A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located, or personnel under direct supervision of such an engineer.

**PART 2 PRODUCTS**

**2.01 METAL STAIRS - GENERAL**

- A. Metal Stairs: Provide stairs of the design specified, complete with landing platforms, vertical and horizontal supports, railings, and guards, fabricated accurately for anchorage to each other and to building structure.
  - 1. Regulatory Requirements: Provide stairs and railings complying with the most stringent requirements of local, state, and federal regulations; where requirements of Contract Documents exceed those of regulations, comply with Contract Documents.
  - 2. Handrails: Comply with applicable accessibility requirements of ADA Standards.
  - 3. Structural Design: Provide complete stair and railing assemblies complying with the applicable local code.
  - 4. Dimensions: As indicated on drawings.

5. Shop assemble components; disassemble into largest practical sections suitable for transport and access to site.
  6. No sharp or rough areas on exposed travel surfaces and surfaces accessible to touch.
  7. Separate dissimilar metals using paint or permanent tape.
- B. Metal Jointing and Finish Quality Levels:
1. Architectural: All joints as inconspicuous as possible, whether welded or mechanical.
    - a. Welded Joints: Continuously welded and ground smooth and flush.
    - b. Mechanical Joints: Butted tight, flush, and hairline; concealed fastenings only.
    - c. Exposed Edges and Corners: Eased to small uniform radius.
    - d. Metal Surfaces to be Painted: Sanded or ground smooth, suitable for highest quality gloss finish.
  2. Commercial: Exposed joints as inconspicuous as possible, whether welded or mechanical; underside of stair not covered by soffit IS considered exposed to view.
    - a. Welded Joints: Intermittently welded on back side, filled with body putty, and sanded smooth and flush.
    - b. Welds Exposed to View: Ground smooth and flush.
    - c. Mechanical Joints: Butted tight, flush, and hairline.
    - d. Bolts Exposed to View: Countersunk flat or oval head bolts; no exposed nuts.
    - e. Exposed Edges and Corners: Eased to small uniform radius.
    - f. Metal Surfaces to be Painted: Sanded or ground smooth, suitable for satin or matte finish.
- C. Fasteners: Same material or compatible with materials being fastened; type consistent with design and specified quality level.
- D. Anchors and Related Components: Same material and finish as item to be anchored, except where specifically indicated otherwise; provide all anchors and fasteners required.

## **2.02 METAL STAIRS WITH CONCRETE TREADS**

- A. Jointing and Finish Quality Level: Architectural, as defined above.
- B. Risers: Closed.
- C. Treads: Metal pan with field-installed concrete fill.
  1. Concrete Depth: 1-1/2 inches, minimum.
  2. Tread Pan Material: Steel sheet.
  3. Tread Pan Thickness: As required by design; 14 gage, 0.075 inch minimum.
  4. Photoluminescent Nosing: Factory fabricated aluminum nosing with embedded photoluminescent strip; cast into front edge of tread.
  5. Concrete Reinforcement: None.
  6. Concrete Finish: Applied abrasive grit.
- D. Risers: Same material and thickness as tread pans.
  1. Nosing Depth: Not more than 1-1/2 inch overhang.
  2. Nosing Return: Flush with top of concrete fill, not more than 1/2 inch wide.
- E. Stringers: Rolled steel channels.
  1. Stringer Depth: 10 inches.
  2. End Closure: Sheet steel of same thickness as risers welded across ends.
- F. Railings: Steel pipe railings.
- G. Finish: Galvanized after fabrication, except sheet components to be galvanized before fabrication.
- H. Under Side of Stair: Exposed to view, to be finished same as specified for other exposed to view surfaces.

## **2.03 HANDRAILS AND GUARDS**

- A. Wall-Mounted Rails: Round pipe or tube rails unless otherwise indicated.
  1. Outside Diameter: 1-1/4 inch, minimum, to 1-1/2 inches, maximum.



- B. Guards:
  - 1. Top Rails: Round pipe or tube rails unless otherwise indicated.
    - a. Outside Diameter: 1-1/4 inch, minimum, to 1-1/2 inches, maximum.
  - 2. Infill at Pipe Railings: Pipe or tube rails sloped parallel to stair.
    - a. Outside Diameter: 1 inch.
    - b. Material: Steel pipe or tube, round.
    - c. Vertical Spacing: Maximum 4 inches on center.
    - d. Jointing: Welded and ground smooth and flush.
  - 3. End and Intermediate Posts: Same material and size as top rails.
    - a. Horizontal Spacing: As indicated on drawings.
    - b. Mounting: Welded to top surface of stringer.

#### **2.04 SHOP FINISHING**

- A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- B. Galvanizing: Hot-dip galvanize to minimum requirements of ASTM A123/A123M.
  - 1. Touch up abraded areas after fabrication using specified touch-up primer for galvanized surfaces.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that field conditions are acceptable and are ready to receive work.

#### **3.02 PREPARATION**

- A. When field welding is required, clean and strip primed steel items to bare metal.
- B. Supply items required to be cast into concrete and embedded in masonry with setting templates.

#### **3.03 INSTALLATION**

- A. Install components plumb and level, accurately fitted, free from distortion or defects.
- B. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Provide welded field joints where specifically indicated on drawings. Perform field welding in accordance with AWS D1.1/D1.1M.
- D. Other field joints may be either welded or bolted provided the result complies with the limitations specified for jointing quality levels.
- E. Obtain approval prior to site cutting or creating adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed or galvanized, except surfaces to be in contact with concrete.

**END OF SECTION 05 5100**

**SECTION 05 5305**  
**METAL GRATINGS AND FLOOR PLATES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Flat surface floor and stair tread plating.
- B. Perimeter closure.

**1.02 REFERENCE STANDARDS**

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- C. ASTM A786/A786M - Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates; 2015.
- D. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- E. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2014 (Amended 2015).
- F. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.
- G. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).
- H. SSPC-SP 2 - Hand Tool Cleaning; 1982 (Ed. 2004).

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate details of component supports, openings, perimeter construction details, and tolerances.
  - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
- C. Samples: Submit two samples, 12 by 12 inch in size illustrating surface finish, color, and texture.
- D. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated within the previous 12 months.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Steel Floor Plate: ASTM A786/A786M; manufacturer's standard pattern.
- B. Steel Framing: ASTM A36/A36M shapes, galvanized per ASTM A123/A123M.
- C. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- D. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

**2.02 ACCESSORIES**

- A. Perimeter Closure: Steel Angle: ASTM A35/A36M, galvanized.

**2.03 FINISHES**

- A. Prepare surfaces to be primed in accordance with SSPC-SP 2.
- B. Galvanizing for Steel Shapes: ASTM A123/A123M.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that opening sizes and dimensional tolerances are acceptable.

- B. Verify that supports are correctly positioned.

### **3.02 INSTALLATION**

- A. Install components in accordance with manufacturer's instructions.
- B. Place frames in correct position, plumb and level.
- C. Mechanically cut galvanized finish surfaces. Do not flame cut.
- D. Anchor by welding.
- E. Set perimeter closure flush with top of grating and surrounding construction.
- F. Secure to prevent movement.

**SECTION 06 1000**  
**ROUGH CARPENTRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Non-structural dimension lumber framing.
- B. Rough opening framing for doors and window.
- C. Sheathing.
- D. Underlayment.
- E. Concealed wood blocking, nailers, and supports.

**1.02 RELATED REQUIREMENTS**

- A. Section 05 5000 - Metal Fabrications: Miscellaneous steel connectors and support angles for wood framing.
- B. Section 09 2116 - Gypsum Board Assemblies: Gypsum-based sheathing.

**1.03 REFERENCE STANDARDS**

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- B. ASTM D3498 - Standard Specification for Adhesives for Field-Gluing Wood Structural Panels (Plywood or Oriented Strand Board) to Wood Based Floor System Framing; 2018a.
- C. ICC-ES AC308 - Acceptance Criteria for Termite Physical Barrier Systems; 2014 (editorially revised 2017).
- D. PS 20 - American Softwood Lumber Standard; 2010.
- E. WWPA G-5 - Western Lumber Grading Rules; 2011.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

**1.05 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two-year period commencing on Date of Substantial Completion.

**PART 2 PRODUCTS**

**2.01 GENERAL REQUIREMENTS**

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. Species: Douglas Fir-Larch, unless otherwise indicated.
  - 2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee ([www.alsc.org](http://www.alsc.org)) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

**2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

- A. Grading Agency: Western Wood Products Association; WWPA G-5.
- B. Moisture Content: S-dry or MC19.
- C. Stud Framing (2 by 2 through 2 by 6 ):
  - 1. Grade: No. 2.
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No. 2 or Standard Grade.

2. Boards: Standard or No. 3.

## **2.03 CONSTRUCTION PANELS**

- A. Underlayment: APA Underlayment; plywood, Exposure 2, 1/2 inch thick. Fully sanded faces at resilient flooring.

## **2.04 ACCESSORIES**

- A. Fasteners and Anchors:
  1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
- B. Termite-Resistant Sill Flashing: Self-adhesive membrane; polyethylene film bonded to sealant.
  1. Thickness: 40 mil, 0.040 inch.
  2. Termite Resistance: 100 percent when tested in accordance with ICC-ES AC380.
- C. Subfloor Adhesives: Gap-filling construction adhesive for bonding wood structural panels to wood-based floor system framing; complying with ASTM D3498.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION - GENERAL**

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

### **3.02 FRAMING INSTALLATION**

- A. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- B. Install structural members full length without splices unless otherwise specifically detailed.
- C. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.

### **3.03 BLOCKING, NAILERS, AND SUPPORTS**

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- C. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- D. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
- E. Provide the following specific non-structural framing and blocking:
  1. Cabinets and shelf supports.
  2. Wall brackets.
  3. Wall-mounted door stops.

### **3.04 INSTALLATION OF CONSTRUCTION PANELS**

- A. Underlayment: Secure to subflooring with nails and glue.
  1. Place building paper between floor underlayment and subflooring.

### **3.05 TOLERANCES**

- A. Framing Members: 1/4 inch from true position, maximum.
- B. Surface Flatness of Floor: 1/8 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

**END OF SECTION 06 1000**

**SECTION 06 4100**  
**ARCHITECTURAL WOOD CASEWORK**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Plastic Laminate Cabinets
- B. Solid Surface Countertops.

**1.02 REFERENCE STANDARDS**

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 3.0; 2016.
- D. BHMA A156.9 - American National Standard for Cabinet Hardware; 2010.
- E. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.
- F. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- G. BHMA A156.9 - American National Standard for Cabinet Hardware; 2010.
- H. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
- C. Samples: Submit actual samples of architectural cabinet construction, minimum 8 inches square, illustrating proposed countertop and cabinet finish.

**1.04 QUALITY ASSURANCE**

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Westmark Products, Inc.
- B. Pacific Cabinets.
- C. Cabinetmakers Inc.
- D. Custom Craft LLC
- E. Custom Source Woodworking
- F. Northwest Woodworks Inc.
- G. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 CABINETS**

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Breakroom and Storage Cabinets: Plastic laminate faced, Custom grade:
  - 1. Finish - Exposed Exterior Surfaces: Decorative laminate.
  - 2. Finish - Exposed Interior Surfaces: Decorative laminate.
  - 3. Finish - Concealed Surfaces: Manufacturer's option.
  - 4. Door and Drawer Front Edge Profiles: Square edge with thin applied band.
  - 5. Casework Construction Type: Type A - Frameless.
  - 6. Cabinet Design Series: As indicated on drawings.

7. Cabinet Style: Flush overlay.
8. Cabinet Doors and Drawer Fronts: Flush style.
9. Drawer Side Construction: Multiple-dovetailed.
10. Drawer Construction Technique: Dovetail joints.

### **2.03 LAMINATE MATERIALS**

- A. Manufacturers:
  1. Formica, Antimicrobial Collection
    - a. Colors: As indicated on the drawings
  2. Substitutions: See Section 01 6000 - Product Requirements.
- B. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.
- C. Provide specific types as indicated.
  1. Vertical Surfaces: VGS, 0.028 inch nominal thickness, through color, color as scheduled on the drawings .

### **2.04 COUNTERTOPS**

- A. Solid Surface Countertop: Formica Countertop and Splash: at Break Room.
  1. Manufacturer:
    - a. Formica, Terrazzo Blanc Collection, color as scheduled on the drawings.

### **2.05 ACCESSORIES**

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Fasteners: Size and type to suit application.
- C. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.
- D. Grommets: Standard plastic grommets for cut-outs, in color to match adjacent surface.

### **2.06 HARDWARE**

- A. Hardware: BHMA A156.9, types as recommended by fabricator for quality grade specified.
- B. Adjustable Shelf Supports: Standard side-mounted system using recessed metal shelf standards or multiple holes for pin supports and coordinated self rests, polished chrome finish, for nominal 1 inch spacing adjustments.
- C. Drawer and Door Pulls: "U" shaped wire pull, steel with chrome finish, 4 inch centers.
- D. Catches: Magnetic.
- E. Drawer Slides:
  1. Type: Extension types as indicated.
  2. Static Load Capacity: Commercial grade.
  3. Mounting: Side mounted.
  4. Stops: Integral type.
  5. Features: Provide self closing/stay closed type.
- F. Hinges: European style concealed self-closing type, steel with polished finish.

### **2.07 FABRICATION**

- A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
- B. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
- C. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.

- D. Mechanically fasten back splash to countertops as recommended by laminate manufacturer at 16 inches on center.
- E. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Prime paint cut edges.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify adequacy of backing and support framing.
- B. Verify location and sizes of utility rough-in associated with work of this section.

#### **3.02 INSTALLATION**

- A. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
- B. Use fixture attachments in concealed locations for wall mounted components.
- C. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.

#### **3.03 ADJUSTING**

- A. Adjust installed work.
- B. Adjust moving or operating parts to function smoothly and correctly.

#### **3.04 CLEANING**

- A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

**END OF SECTION 06 4100**



**SECTION 06 8316**  
**FIBERGLASS REINFORCED PANELING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Fiberglass reinforced plastic (FRP) wall paneling infill at the Utility Room walls.
- B. Trim.

**1.02 REFERENCE STANDARDS**

- A. ASTM D5319 - Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels; 2017.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Samples: Submit two samples \_\_12\_\_by\_\_12\_\_ inch in size illustrating material and surface design of panels.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Fiberglass Reinforced Plastic Panels:
  - 1. Marlite, Inc; pebbled, white: [www.marlite.com/#sle](http://www.marlite.com/#sle).
  - 2. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 PANEL SYSTEMS**

- A. Wall Panels:
  - 1. Panel Size: 4 by 8 feet.
  - 2. Panel Thickness: 0.10 inch.
  - 3. Surface Design: Embossed.
  - 4. Color: White. Match existing building standard
  - 5. Attachment Method: Adhesive only, sealant joints, no trim.

**2.03 MATERIALS**

- A. Panels: Fiberglass reinforced plastic (FRP), complying with ASTM D5319.
  - 1. Surface Burning Characteristics: Maximum flame spread index of 25 and smoke developed index of 450; when system tested in accordance with ASTM E84.
- B. Trim: Match adjacent FRP trim; white PVC
- C. Sealant: Type recommended by panel manufacturer; white.

**PART 3 EXECUTION**

**3.01 INSTALLATION - WALLS**

- A. Install panels in accordance with manufacturer's instructions.
- B. Cut and drill panels with carbide tipped saw blades, drill bits, or snips.
- C. Apply adhesive to the back side of the panel using trowel as recommended by adhesive manufacturer.
- D. Apply panels to wall with seams plumb and pattern aligned with adjoining panels.
- E. Install panels with manufacturer's recommended gap for panel field and corner joints.
- F. Place trim on panel before fastening edges, as required.
- G. Fill channels in trim with sealant before attaching to panel.
- H. Install trim with adhesive and screws or nails, as required.

- I. Seal gaps at floor, ceiling, and between panels with applicable sealant to prevent moisture intrusion.
- J. Remove excess sealant after paneling is installed and prior to curing.

**END OF SECTION 06 8316**

**SECTION 07 9200**  
**JOINT SEALANTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Nonsag gunnable joint sealants.

**1.02 RELATED REQUIREMENTS**

- A. Section 09 2116 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.

**1.03 REFERENCE STANDARDS**

- A. ASTM C834 - Standard Specification for Latex Sealants; 2014.
- B. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2012.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014.
- D. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2013.
- E. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2008 (Reapproved 2012).
- F. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.

**PART 2 PRODUCTS**

**2.01 JOINT SEALANT APPLICATIONS**

- A. Scope:
  - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to:
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. Joints between different exposed materials.
  - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
    - c. Other joints indicated below.
  - 3. Do not seal the following types of joints.
    - a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
    - b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
    - c. Joints where installation of sealant is specified in another section.
    - d. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints: Use nonsag non-staining silicone sealant, Type 1, unless otherwise indicated.
- C. Interior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.
  - 1. Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant; Type A.
  - 2. Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; clear; Type B.

3. In Sound-Rated Assemblies: Acrylic emulsion latex sealant; Type C.
- D. Interior Wet Areas: Break Room; fixtures in wet areas include plumbing fixtures and countertops.
- E. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-rated", or "acoustical".

## **2.02 JOINT SEALANTS - GENERAL**

- A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

## **2.03 NONSAG JOINT SEALANTS**

- A. Type 1 - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
  1. Movement Capability: Plus and minus \_\_\_\_ percent, minimum.
  2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
  3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
  4. Color: Match adjacent finished surfaces.
  5. Manufacturers:
    - a. Dow Chemical Company; DOWSIL 791 Silicone Weatherproofing Sealant: [consumer.dow.com/en-us/industry/ind-building-construction.html/#sle](http://consumer.dow.com/en-us/industry/ind-building-construction.html/#sle).
    - b. Pecora Corporation; \_\_\_\_: [www.pecora.com/#sle](http://www.pecora.com/#sle).
    - c. Sika Corporation; Sikasil WS-295: [www.usa-sika.com/#sle](http://www.usa-sika.com/#sle).
- B. Type A - General Purpose Interior Sealant: Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.
  1. Color: To be selected by Architect from manufacturer's standard range.
  2. Products:
    - a. Bostik Inc; [Chem-Calk 2020]: [www.bostik-us.com](http://www.bostik-us.com).
    - b. Hilti, Inc.; CP 506 Smoke and Acoustical Sealant: [www.us.hilti.com](http://www.us.hilti.com).
    - c. Pecora Corporation; AC-20 + Silicone Acrylic Latex Caulking Compound: [www.pecora.com](http://www.pecora.com).
- C. Type B - Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
  1. Color: White.
  2. Manufacturers:
    - a. Pecora Corporation: [www.pecora.com](http://www.pecora.com).
    - b. Sika Corporation; Sikasil GP: [www.usa-sika.com](http://www.usa-sika.com).
    - c. Substitutions: See Section 01 6000 - Product Requirements.
- D. Type C - Acoustical Sealant for Concealed Locations:
  1. Composition: Acrylic latex emulsion sealant.
  2. Applications: Use for concealed locations only:
    - a. Sealant bead between top stud runner and structure and between bottom stud track and floor.
  3. Products:
    - a. Bostik Inc; Bostic Acoustic Sealant: [www.bostik-us.com](http://www.bostik-us.com).
    - b. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant: [www.pecora.com](http://www.pecora.com).
    - c. Substitutions: See Section 01 6000 - Product Requirements.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.

### **3.02 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### **3.03 INSTALLATION**

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Perform acoustical sealant application work in accordance with ASTM C919.
- D. Install bond breaker backing tape where backer rod cannot be used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- F. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- G. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

**END OF SECTION 07 9200**

**SECTION 08 1113**  
**HOLLOW METAL DOORS AND FRAMES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Non-fire-rated hollow metal doors and frames.
- B. Hollow metal frames for wood doors.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 1416 Flush Wood Doors
- B. Section 08 7100 - Door Hardware.
- C. Section 09 9113 - Exterior Painting: Field painting.
- D. Section 09 9123 - Interior Painting: Field painting.

**1.03 REFERENCE STANDARDS**

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2011.
- C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
- D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2011.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2015.
- G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2014.
- H. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.
- I. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; 2007.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Hollow Metal Doors and Frames:
  - 1. Ceco Door, an Assa Abloy Group company: [www.assaabloydss.com](http://www.assaabloydss.com).

2. Steelcraft, an Allegion brand: [www.allegion.com/us](http://www.allegion.com/us).
3. Substitutions: See Section 01 6000 - Product Requirements.

## **2.02 PERFORMANCE REQUIREMENTS**

- A. Requirements for Hollow Metal Doors and Frames:
  1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
  2. Accessibility: Comply with ICC A117.1 and ADA Standards.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

## **2.03 HOLLOW METAL DOORS**

- A. Exterior and Interior Doors: Thermally insulated.
  1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
    - a. Level 2 - Heavy-duty.
    - b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
    - c. Model 1 - Full Flush.
    - d. Door Face Metal Thickness: 18 gage, 0.042 inch, minimum.
  2. Door Thermal Resistance: Minimum U-Value 0.060
  3. Door Thickness: 1-3/4 inch, nominal.
  4. Top Closures for Outswinging Doors: Flush with top of faces and edges.
  5. Door Face Sheets: Flush.
  6. Glazing: Sealed insulating units, 1 inch thick, made of 1/4 inch laminated glass.
  7. Door Finish: Factory primed and field finished.

## **2.04 HOLLOW METAL FRAMES**

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Frame Finish: Factory primed and field finished.
- C. Exterior Door Frames: Full profile/continuously welded type.
  1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvanized) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
  2. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
  3. Weatherstripping: Separate, see Section 08 7100.
- D. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
  1. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
- E. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.

## **2.05 FINISHES**

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

## **2.06 ACCESSORIES**

- A. Removable Stops: Formed sheet steel, shape as indicated on drawings, mitered or butted corners; prepared for countersink style tamper proof screws.
- B. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
- C. Foam Insulation: Install self-expanding closed cell foam in exterior and interior frames.
- D. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

## **2.07 FINISHES**

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

### **3.02 INSTALLATION**

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.
- C. Install door hardware as specified in Section 08 7100.

### **3.03 TOLERANCES**

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

### **3.04 ADJUSTING**

- A. Adjust for smooth and balanced door movement.

**END OF SECTION 08 1113**



**SECTION 08 1416**  
**FLUSH WOOD DOORS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Flush wood doors; flush configuration; non-rated.
  - 1. Match existing building standard.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 1113 - Hollow Metal Doors and Frames.
- B. Section 08 7100 - Door Hardware.
- C. Section 09 9000 - Painting and Coating.

**1.03 REFERENCE STANDARDS**

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- B. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 3.0; 2016.
- C. AWI/AWMAC (QSI) - Architectural Woodwork Quality Standards Illustrated; Architectural Woodwork Institute and Architectural Woodwork Manufacturers Association of Canada; 2005, 8th Ed., Version 2.0.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
- D. Specimen warranty.
- E. Manufacturer's Installation Instructions: Indicate special installation instructions.
- F. Warranty, executed in Owner's name.

**1.05 QUALITY ASSURANCE**

- A. Maintain one copy of the specified door quality standard on site for review during installation and finishing.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer if stored more than one week. Break seal on site to permit ventilation.

**1.07 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Wood Veneer Faced Doors:
  - 1. VT Industries, Architectural Wood Doors: [www.vtindustries.com](http://www.vtindustries.com)
  - 2. Eggers Industries: [www.eggersindustries.com](http://www.eggersindustries.com).
  - 3. Marshfield DoorSystems, Inc: [www.marshfelddoors.com](http://www.marshfelddoors.com).

### **2.02 DOORS**

- A. Doors: Refer to drawings for locations and additional requirements.
  - 1. Quality Standard: Custom Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
  - 2. Quality Level: Premium Grade, in accordance with AWI/AWMAC Architectural Woodwork Quality Standards Illustrated, Section 1300.
  - 3. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
  - 1. Provide solid core doors at each location.
  - 2. Wood veneer facing for field opaque finish.

### **2.03 DOOR AND PANEL CORES**

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.
- B. Hollow Core Doors: Type - Standard (FSHC); plies and faces as indicated above.

### **2.04 DOOR FACINGS**

- A. Veneer Facing for Opaque Finish: Closed grain hardwood veneer, in compliance with indicated quality standard.

### **2.05 ACCESSORIES**

- A. Hollow Metal Door Frames: As specified in Section 08 1113

### **2.06 DOOR CONSTRUCTION**

- A. Fabricate doors in accordance with door quality standard specified.
- B. Cores Constructed with stiles and rails:
- C. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- D. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- E. Provide edge clearances in accordance with the quality standard specified.

### **2.07 FACTORY FINISHING - WOOD VENEER DOORS**

- A. Finish work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 5 - Finishing for grade specified and as follows:
  - 1. Transparent:
    - a. System - 1, Lacquer, Nitrocellulose.
    - b. Stain: Match existing as approved by the Architect.
    - c. Sheen: Match Existing.
- B. Factory finish doors in accordance with approved sample.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Align and fit doors in frames with uniform clearances and bevels. Modify and machine doors for hardware as required. Seal cut surfaces after fitting and machining.

- B. It is the Contractor's responsibility to evaluate the condition of existing doors and doors provided by the Owner for swing, operation, hardware configuration. Provide a complete, smooth operating installation.
- C. Clean all doors and provide touch up sanding and stain to integrate relocated doors to match building standard.
- D. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- E. Coordinate installation of doors with installation of frames and hardware.
- F. Coordinate installation of glazing.
- G. Install door louvers plumb and level.

### **3.02 ADJUSTING**

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

**END OF SECTION 08 1416**

**SECTION 08 7100**  
**DOOR HARDWARE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Work under this section includes the complete finish hardware requirements for the project. Quantities listed are for the contractor's convenience only and are not guaranteed. Items not specifically mentioned, but necessary to complete the work shall be furnished, matching the items specified in quality and finish.
- B. Match existing building standard.
- C. Finish Hardware for door openings, except as otherwise specified herein:
  - 1. Door hardware for steel (hollow metal) doors.
  - 2. Door hardware for wood doors.
  - 3. Keyed cylinders as indicated.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 1213 - Hollow Metal Frames.
- B. Section 08 1416 - FLUSH WOOD DOORS.

**1.03 REFERENCE STANDARDS**

- A. Builders Hardware Manufacturing Association (BHMA)
- B. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.
- C. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2016.
- D. NFPA 101 - Life Safety Code; 2015.
- E. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- F. ANSI-A156.xx- Various Performance Standards for Finish Hardware
- G. ANSI-A117.1 – Accessible and Usable Buildings and Facilities

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware will be installed upon.
- B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
- C. Convey Owner's keying requirements to manufacturers.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Hardware schedule: Submit digital copies of schedule. Organize vertically formatted schedule into Hardware Sets with index of doors and headings, indicate complete designations of every item required for each door or opening. Include the following:
  - 1. Type, style, function, size, quantity and finish of hardware items.
  - 2. Name, part number and manufacture of each item.
  - 3. Fastenings and other pertinent information.
  - 4. Explanation of abbreviations, symbols and codes contained in schedule.
  - 5. Door and frame sizes, materials and degrees of swing.
- C. Product Data: Submit digital copies for each product indicated.
- D. Templates: Obtain and distribute templates for doors, frames, and other works specified to be prepared for installing door hardware.
- E. Samples: Upon request submit material samples.

## 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Hardware Supplier Qualifications: Company specializing in supplying the type of products specified in this section with at least three years documented experience.
- C. Hardware Supplier Personnel: Employ an Architectural Hardware Consultant (AHC) to assist in the work of this section.
  - 1. Hardware Schedule shall be prepared and signed by an AHC.
- D. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.
  - 1. Provide UL listed hardware for labeled and 20 minute openings in conformance with requirements for class of opening scheduled.
  - 2. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
- E. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.
- F. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

## 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping: Comply with Division 1.
  - 1. Deliver products in original unopened packaging with legible manufacturer's identification.
  - 2. Package hardware to prevent damage during transit and storage.
  - 3. Mark hardware to correspond with "reviewed hardware schedule".
  - 4. Deliver hardware to door and frame manufacturer upon request.
- B. Storage and Protection: Comply with manufacturer's recommendations.
- C. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

## 1.08 PROJECT CONDITIONS:

- A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
- B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

## 1.09 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:
  - 1. Locksets & Cylinders: Lifetime Mechanical Warranty
  - 2. All other Hardware: Two years.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS:

- A. The following manufacturers are approved subject to compliance with requirements of the Contract Documents. Approval of manufacturers other than those listed shall be in accordance with Division 1.

<u>Item:</u>	<u>Manufacturer:</u>	<u>Approved:</u>
Hinges	Stanley	Bommer, McKinney
Locksets	Stanley	Facility Standard

Cylinders	Best	Facility Standard
Protection Plates	Trimco	Hager, Rockwood
Door Stops	Trimco	Hager, Rockwood
Seals	Pemko	National Guard, Reese

## 2.02 MATERIALS:

- A. Hinges: Shall be Five Knuckle Ball bearing hinges
  - 1. Template screw hole locations
  - 2. Bearings are to be fully hardened.
  - 3. Bearing shell is to be consistent shape with barrel.
  - 4. Minimum of 2 permanently lubricated non-detachable bearings on standard weight hinge and 4 permanently lubricated bearing on heavy weight hinges.
  - 5. Equip with easily seated, non-rising pins.
  - 6. Non Removable Pin screws shall be slotted stainless steel screws.
  - 7. Hinges shall be full polished, front, back and barrel.
  - 8. Hinge pin is to be fully plated.
  - 9. Bearing assembly is to be installed after plating.
  - 10. Sufficient size to allow 180-degree swing of door
  - 11. Furnish five knuckles with flush ball bearings
  - 12. Provide hinge type as listed in schedule.
  - 13. Furnish 3 hinges per leaf to 7 foot 6 inch height. Add one for each additional 30 inches in height or fraction thereof.
  - 14. Tested and approved by BHMA for all applicable ANSI Standards for type, size, function and finish
  - 15. UL10C listed for Fire rated doors.
- B. Mortise Type Locks and Latchsets - Match Existing Building Standards:
  - 1. Tested and approved by BHMA for ANSI A156.2, Series 4000, Operational Grade 1, Extra-Heavy Duty, and be UL10C listed.
  - 2. Provide 9001-Quality Management and 14001-Environmental Management.
  - 3. Fit modified ANSI A115.2 door preparation.
  - 4. Locksets to have anti-rotational studs that are thru-bolted
  - 5. Keyed lever shall not have exposed "keeper" hole
  - 6. Each lever to have independent spring mechanism controlling it
  - 7. Provide sufficient curved strike lip to protect door trim
  - 8. Outside lever sleeve to be seamless, of one-piece construction made of a hardened steel alloy
  - 9. Keyed lever to be removable only after core is removed, by authorized control key
  - 10. Provide locksets with 6-pin removable and interchangeable core cylinders
  - 11. Hub, side plate, shrouded rose, locking pin to be a one-piece casting with a shrouded locking lug.
  - 12. Locksets outside locked lever must withstand minimum 1400 inch pounds of torque. In excess of that, a replaceable part will shear. Key from outside and inside lever will still operate lockset.
  - 13. Core face must be the same finish as the lockset.
  - 14. Functions and design as indicated in the hardware groups.
- C. Cylinders:
  - 1. Provide the necessary cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
  - 2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
  - 3. Coordinate and provide as required for related sections.
- D. Door Stops: Provide a wall stop for every opening as listed in the hardware sets.
  - 1. Wall stop and floor stop shall be wrought bronze, brass or stainless steel.
  - 2. Provide fastener suitable for wall construction.

3. Coordinate reinforcement of walls where wall stop is specified.
4. Provide dome stops where wall stops are not practical. Provide spacers or carpet riser for floor conditions encountered
- E. Kickplates: Provide with four beveled edges ANSI J102, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- F. Seals: All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.
- G. Silencers: Furnish silencers on all interior frames, 3 for single doors, 2 for pairs. Omit where any type of seals occur.

### **2.03 FINISH:**

- A. Designations used in Schedule of Finish Hardware - 3.05, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
- B. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

### **2.04 KEYS AND KEYING:**

- A. All keyed cylinders shall be subject to a existing BEST Master Keying system.
- B. Furnish cylinders with construction cores. Supply Owner with matching new cores for re-keying.
- C. Cylinders to be furnished with visual key control with key code. Stamped on the face of the keys and marked on the back or side of the cylinders.
- D. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verification of conditions: Examine doors, frames, related items and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
  1. Verify that electric power is available to power operated devices and of the correct characteristics.
  2. Do not proceed until unsatisfactory conditions have been corrected.

### **3.02 HARDWARE LOCATIONS:**

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
  1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
  2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
  3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

### **3.03 INSTALLATION:**

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.
- C. Install Conforming to ICC/ANSI A117.1 Accessible and Usable Building and Facilities.
  1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.

- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

### 3.04 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.
1. Check and adjust closers to ensure proper operation.
  2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
    - a. Verify levers are free from binding.
    - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
  3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.
  - 4.

### 3.05 SCHEDULE OF HARDWARE FINISH

#### MANUFACTURER LIST

<u>CODE</u>	<u>DESCRIPTION</u>
BE	Best Access Systems
NA	National Guard Products
KE	Keedex
PR	Precision
SH	Stanley Commercial Hardware
ST	Stanley
TR	Trimco

#### OPTION LIST

<u>CODE</u>	<u>DESCRIPTION</u>
LM	LOST MOTION
RD	For Surface and Concealed Vert. Devices
B4E	BEVELED 4 EDGES - KICK PLATES
C-SUNK HOLES	COUNTER SINK KICK and MOP PLATES

#### FINISH LIST

<u>CODE</u>	<u>DESCRIPTION</u>
626	Satin Chrome Plated
630	Satin Stainless Steel
689	Aluminum Painted
GREY	Grey
US26D	Chromium Plated, Dull

#### HARDWARE SETS

##### SET #01

3 Hinges	FBB179 4 1/2 X 4 1/2	US26D	ST
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1	Passage Set45H7N 17R (verify matching building standard)	626	SH	
1	Kick Plate KO050 10" x 2" LDW B4E C-SUNK HOLES	630	TR	
1	Wall Bumper 1270WV		630	TR
3	Door Silencers 1229A	GREY	TR	

**SET #02**

3	Hinges FBB179 4 1/2 X 4 1/2	US26D	ST	
1	Mortise Cylinder PROVIDED BY OWNER			
	Prep Door and Jamb for future electric latch devise			
1	Closer EDA with Spring Stop QDC119	689	SH	
1	Weatherstrip 305 CR (Head & Jambs)		PE	
1	Door Bottom 315 CN		PE	
1	Threshold 158 A MSES10		PE	
3	Door Silencers 1229A	GREY	TR	

**END OF SECTION 08 7100**

**SECTION 09 2116**  
**GYPSUM BOARD ASSEMBLIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Performance criteria for gypsum board assemblies.
- B. Acoustic insulation.
- C. Gypsum wallboard (new walls and patch at demolished partitions).
- D. Joint treatment and accessories.
- E. Textured finish system.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 1000 - Rough Carpentry 06 1000: Wall framing, wood blocking product and execution requirements.
- B. Section 07 9200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

**1.03 REFERENCE STANDARDS**

- A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2015.
- B. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2012.
- C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2013.
- D. ASTM C1047 - Standard Specification for Accessories For Gypsum Wallboard and Gypsum Veneer Base; 2014a.
- E. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2014.
- F. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009.
- G. ASTM E413 - Classification for Rating Sound Insulation; 2010.
- H. GA-216 - Application and Finishing of Gypsum Board; 2013.

**PART 2 PRODUCTS**

**2.01 GYPSUM BOARD ASSEMBLIES**

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
- B. Interior Partitions: Provide completed assemblies with the following characteristics:
  - 1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

**2.02 BOARD MATERIALS**

- A. Manufacturers - Gypsum-Based Board:
  - 1. American Gypsum Company; \_\_\_\_: [www.americangypsum.com/#sle](http://www.americangypsum.com/#sle).
  - 2. CertainTeed Corporation; \_\_\_\_: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
  - 3. Georgia-Pacific Gypsum; \_\_\_\_: [www.gpgypsum.com/#sle](http://www.gpgypsum.com/#sle).
  - 4. National Gypsum Company; \_\_\_\_: [www.nationalgypsum.com/#sle](http://www.nationalgypsum.com/#sle).
  - 5. USG Corporation; \_\_\_\_: [www.usg.com/#sle](http://www.usg.com/#sle).
  - 6. Substitutions: See Section 01 6000 - Product Requirements.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
  - 2. Thickness:
    - a. Vertical Surfaces: 5/8 inch.

- b. Ceilings: patch to match existing thickness

## **2.03 GYPSUM WALLBOARD ACCESSORIES**

- A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 4 inch.
  - 1. Install at any exposed stud or ceiling joist cavities and as indicated on the drawings.
- B. Acoustic Sealant: As specified in Section 07 9200.
- C. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
- D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
  - 1. Fiberglass Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
  - 2. Paper Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.
  - 3. Ready-mixed vinyl-based joint compound.
  - 4. Joint Compound: Setting type, field-mixed.
- E. Textured Finish Materials: Latex-based compound; plain.
- F. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that project conditions are appropriate for work of this section to commence.

### **3.02 ACOUSTIC ACCESSORIES INSTALLATION**

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.

### **3.03 BOARD INSTALLATION**

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

### **3.04 JOINT TREATMENT**

- A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
  - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
  - 2. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.
- B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.

### **3.05 TEXTURE FINISH**

- A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions .
- B. Texture Required: Match adjacent surfaces.

**END OF SECTION 09 2116**

**SECTION 09 6813**  
**TILE CARPETING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Carpet tile, loose laid with edges and control grid adhered.

**1.02 REFERENCE STANDARDS**

- A. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials; 2006 (Reapproved 2011).
- B. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.
- C. CRI (CIS) - Carpet Installation Standard; Carpet and Rug Institute; 2009.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Samples: 24 x 24 inch in size illustrating color and pattern for each carpet. Submit the number of samples that Contractor requires plus one that will be retained by Architect.
- C. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 - Product Requirements, for additional provisions.
  - 2. Extra Carpet Tiles: Quantity equal to 10 percent of total installed of each color and pattern installed.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Tile Carpeting CPT-1: Tufted, manufactured in one color dye lot.
  - 1. Product: Tectured Effects Plank manufactured by Declare.
  - 2. Tile Size: 12 by 36 inch, nominal.
  - 3. Color: 549 Larimar.
  - 4. Layout Pattern: Half Lap.

**2.02 ACCESSORIES**

- A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove, and as follows:
  - 1. Height: 4 inch.
  - 2. Thickness: 0.125 inch thick.
  - 3. Finish: Satin.
  - 4. Length: Roll.
  - 5. Color: Charcoal #123.
  - 6. Manufacturers:
    - a. Roppe Corp; Product Pinnacle: [www.roppe.com](http://www.roppe.com).
- B. Edge Strips: Rubber, Brown #110 color.
- C. Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type.
  - 1. Shaw Contract: Lok Dots Adhesive
  - 2. Install per manufacturer's written recommendations.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that sub-floor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.

**3.02 PREPARATION**

- A. Prepare floor substrates for installation of flooring in accordance with Section 09 0561.

- B. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- C. Vacuum clean substrate.

### **3.03 INSTALLATION**

- A. Starting installation constitutes acceptance of sub-floor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions.
- C. Blend carpet from different cartons to ensure minimal variation in color match.
- D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
- E. Lay carpet tile in square pattern, with pile direction parallel to next unit, set parallel to building lines.
- F. Trim carpet tile neatly at walls and around interruptions.
- G. Complete installation of edge strips, concealing exposed edges.

**END OF SECTION 09 6813**

**SECTION 09 9113**  
**EXTERIOR PAINTING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Mechanical and Electrical:
    - a. On the roof and outdoors, paint equipment exposed to weather or to view, including factory-finished materials.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Floors, unless specifically indicated.
  - 6. Glass.
  - 7. Concealed pipes, ducts, and conduits.

**1.02 RELATED REQUIREMENTS**

- A. Section 05 5000 - Metal Fabrications: Shop-primed items.
- B. Section 09 9123 - Interior Painting.

**1.03 REFERENCE STANDARDS**

- A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials; 2007.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition, [www.paintinfo.com](http://www.paintinfo.com).

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
  - 2. MPI product number (e.g. MPI #47).
  - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit two paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.
- E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 - Product Requirements, for additional provisions.

2. Extra Paint and Finish Materials: 1 gallon of each color; from the same product run, store where directed.
3. Label each container with color in addition to the manufacturer's label.

#### **1.05 DELIVERY, STORAGE, AND HANDLING**

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

#### **1.06 FIELD CONDITIONS**

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

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Paints:
  1. \_\_\_\_\_.
  2. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).

#### **2.02 PAINTS AND FINISHES - GENERAL**

- A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
  1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  2. Supply each paint material in quantity required to complete entire project's work from a single production run.
  3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- C. Colors: As indicated in Color Schedule.
  1. Selection to be made by Architect after award of contract.
  2. Allow for minimum of three colors for each system, unless otherwise indicated, without additional cost to Owner.
  3. Extend colors to surface edges; colors may change at any edge as directed by Architect.

#### **2.03 PAINT SYSTEMS - EXTERIOR**

- A. E - 1 -Fiber Cement Siding, Exterior Gypsum Board, Wood Decking and Wood, Opaque, Latex, 3 Coat:
  1. Low Luster on walls and trim / Flat on ceiling surfaces: Two coats of latex; Sherwin Williams Emerald Exterior Acrylic Latex.
  2. One coat of latex primer sealer; Sherwin Williams Multi-Purpose Latex Primer / Sealer
- B. E - 2 -Ferrous Metals and Primed Metals, Primed, Latex, 2 Coat:
  1. Semi-gloss: Two coats of latex enamel; Sherwin Williams Pro Industrial DTM Acrylic .

#### **2.04 ACCESSORY MATERIALS**

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  - 1. Fiber Cement Siding: 12 percent.
  - 2. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Fiber Cement Siding: Remove dirt, dust and other foreign matter with a stiff fiber brush. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
- G. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior calking compound after prime coat has been applied. Back prime concealed surfaces before installation.

### **3.03 APPLICATION**

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- C. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- E. Apply each coat to uniform appearance.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

**END OF SECTION 09 9113**



**SECTION 09 9123**  
**INTERIOR PAINTING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
  - 5. Floors, unless specifically indicated.
  - 6. Glass.
  - 7. Concealed pipes, ducts, and conduits.

**1.02 REFERENCE STANDARDS**

- A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials; 2007.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition, [www.paintinfo.com](http://www.paintinfo.com).
- C. SSPC-SP 1 - Solvent Cleaning; 2015.
- D. SSPC-SP 6 - Commercial Blast Cleaning; 2007.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
  - 2. MPI product number (e.g. MPI #47).
  - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit two paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 - Product Requirements, for additional provisions.
  - 2. Extra Paint and Finish Materials: 1 gallon of each color; from the same product run, store where directed.
  - 3. Label each container with color in addition to the manufacturer's label.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

## **1.05 FIELD CONDITIONS**

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

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Paints:
  - 1. Base Manufacturer: Sherwin-Williams Company: [www.sherwin-williams.com/#sle..](http://www.sherwin-williams.com/#sle..)

### **2.02 PAINTS AND FINISHES - GENERAL**

- A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
  - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
  - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

### **2.03 PAINT SYSTEMS - INTERIOR**

- A. I - 1 I New interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board.
  - 1. Two top coats and one coat primer.
  - 2. Eggshell: MPI gloss level 3; use this sheen at all locations.
  - 3. Top Coat Product:
    - a. Sherwin-Williams ProMar 200 Zero VOC Interior Latex.
  - 4. Primer(s): As follows unless other primer is required or recommended by manufacturer of top coats:
    - a. All Substrates: Sherwin-Williams ProMar 200 Zero VOC Wall Primer.
- B. I - 2 All Existing Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board, concrete, and wood.
  - 1. Two top coats
  - 2. Eggshell: MPI gloss level 3; use this sheen at all locations.
  - 3. Top Coat Product:
    - a. Sherwin-Williams ProMar 200 Zero VOC Interior Latex.
  - 4. Primer(s): As follows unless other primer is required or recommended by manufacturer of top coats:
    - a. All Substrates: Sherwin-Williams ProMar 200 Zero VOC Wall Primer.
- C. I - 2 I New and Existing Interior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including shop primed steel, hollow metal frames.
  - 1. Two top coats and one coat primer.
  - 2. Semi-Gloss: MPI gloss level 5; use this sheen at all locations.
  - 3. Top Coat Product:
    - a. Sherwin-Williams Pro Industrial Acrylic..
  - 4. Primer(s): As follows unless other primer is required or recommended by manufacturer of top coats:
    - a. Sherwin-Williams Pro Industrial Pro-Cryl Universal Prime
- D. S-1 Transparent Finish on Wood. Including refinishing existing wood doors.

1. Top Coat(s): Clear Water Based Varnish; MPI #128, 129, or 130.
  - a. Products:
    - 1) PPG Paints Deft Interior Polyurethane WB Acrylic Satin, DFT 159.
    - 2) Substitutions: Section 01 6000 - Product Requirements.

#### **2.04 ACCESSORY MATERIALS**

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  1. Gypsum Wallboard: 12 percent.
  2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
  3. Interior Wood: 15 percent, measured in accordance with ASTM D4442.

#### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Concrete:
- F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Ferrous Metal:
  1. Solvent clean according to SSPC-SP 1.
  2. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.
- H. Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
- I. Existing Wood Doors to Receive Opaque Finish: Clean and repair doors as required. Fill scratches and cracks after sealer has dried; sand lightly between coats.

#### **3.03 APPLICATION**

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- D. Sand wood and metal surfaces lightly between coats to achieve required finish.

- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Wood to Receive Transparent Finishes: Tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

**END OF SECTION 09 9123**

## **SECTION 10 1400**

### **SIGNAGE**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Room and door signs.

##### **1.02 REFERENCE STANDARDS**

- A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- C. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.

##### **1.03 FIELD CONDITIONS**

- A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.
- B. Maintain this minimum temperature during and after installation of signs.

#### **PART 2 PRODUCTS**

##### **2.01 MANUFACTURERS**

- A. Flat Signs:
  - 1. Inpro Signage, Phoenix Collection, rigid vinyl, no back plate
    - a. Finish: brushed nickel face w/ black text
    - b. Match Renton RFA Building Standard

##### **2.02 SIGNAGE APPLICATIONS**

- A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.
- B. Room and Door Signs: Provide a sign for every doorway, whether it has a door or not, not including corridors, lobbies, and similar open areas.
  - 1. Sign Type: Flat signs with engraved panel media as specified.
  - 2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille.

##### **2.03 SIGN TYPES**

- A. Flat Signs: Signage media without frame.
  - 1. Edges: Square.
  - 2. Corners: Square.
  - 3. Wall Mounting of One-Sided Signs: Tape adhesive.

#### **PART 3 EXECUTION**

##### **3.01 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Install neatly, with horizontal edges level.
- C. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

**END OF SECTION 10 1400**

**SECTION 12 2113**  
**HORIZONTAL LOUVER BLINDS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Horizontal slat louver blinds.
- B. Operating hardware.

**1.02 REFERENCE STANDARDS**

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data indicating physical and dimensional characteristics.
- C. Shop Drawings: Indicate opening sizes, tolerances required, method of attachment, clearances, and operation.
- D. Samples: Submit two samples, 6 inch long illustrating slat materials and finish, cord type and color.
- E. Manufacturer's Installation Instructions: Indicate special procedures.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 - Product Requirements, for additional provisions.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Horizontal Louver Blinds Without Side Guides:
  - 1. Hunter Douglas Architectural; CD Model: [www.hunterdouglasarchitectural.com/#sle](http://www.hunterdouglasarchitectural.com/#sle).
  - 2. Levolor; Metal Blinds: [www.levolor.com/commercial/#sle](http://www.levolor.com/commercial/#sle).
  - 3. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 BLINDS WITHOUT SIDE GUIDES**

- A. Description: Horizontal slat louvers hung from full-width headrail with full-width bottom rail.
- B. Manual Operation: Control of raising and lowering by cord with full range locking; blade angle adjustable by control wand.
- C. Metal Slats: Spring tempered pre-finished aluminum; square slat corners, with manufacturing burrs removed.
  - 1. Width: 1/2 inch.
  - 2. Color: As selected by Architect.
- D. Slat Support: Woven polypropylene cord, ladder configuration.
- E. Head Rail: Pre-finished, formed aluminum box, with end caps; internally fitted with hardware, pulleys, and bearings for operation; same depth as width of slats.
- F. Headrail Attachment: Wall brackets.

**2.03 FABRICATION**

- A. Determine sizes by field measurement.
- B. Fabricate blinds to cover window frames completely.
- C. At openings requiring multiple blind units, provide separate blind assemblies with space of 1/4 inch between blinds, located at window mullion centers.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that openings are ready to receive the work.

### **3.02 INSTALLATION**

- A. Install blinds in accordance with manufacturer's instructions.
- B. Secure in place with flush countersunk fasteners.

### **3.03 TOLERANCES**

- A. Maximum Variation of Gap at Window Opening Perimeter: 1/4 inch.
- B. Maximum Offset From Level: 1/8 inch.

### **3.04 ADJUSTING**

- A. Adjust blinds for smooth operation.

### **3.05 CLEANING**

- A. Clean blind surfaces just prior to occupancy.

**END OF SECTION 12 2113**

**SECTION 21 1300**  
**FIRE SUPPRESSION SPRINKLERS (DESIGN BUILD)**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Scope of work:
  - 1. Modify and extend the existing sprinkler system throughout the project space in compliance with the City of Renton Fire Marshall's requirements.
  - 2. Codes, Regulations and Ordinances: All fire protection work shall be done in strict accordance with all applicable local, state and national codes and/or ordinances, and as required by the City of Renton Fire Marshall.
- B. Wet-pipe sprinkler system.
- C. System design, installation, and certification.

**1.02 REFERENCE STANDARDS**

- A. ITS (DIR) - Directory of Listed Products; current edition.
- B. NFPA 13 - Standard for the Installation of Sprinkler Systems; 2016.
- C. NFPA 13R - Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies; 2016.
- D. UL (DIR) - Online Certifications Directory; current listings at database.ul.com.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on sprinklers, valves, and specialties, including manufacturers catalog information. Submit performance ratings, rough-in details, weights, support requirements, and piping connections.
- C. Shop Drawings:
  - 1. Submit preliminary layout of finished ceiling areas indicating only sprinkler locations coordinated with ceiling installation.
  - 2. Indicate hydraulic calculations, detailed pipe layout, hangers and supports, sprinklers, components and accessories. Indicate system controls.
  - 3. Submit shop drawings to the City of Renton Fire Marshall for approval. Submit proof of approval to Architect.
- D. Project Record Documents: Provide As-Built Project Record Documents indicating record conditions (two copies of record as-built prints, record as-built CAD files complying with all requirements of the City of Renton Fire Marshall, approved permit plans and the Contractor's field set of drawings and specifications).
- E. Operation and Maintenance Data: Include components of system, servicing requirements, record drawings, inspection data, replacement part numbers and availability, and location and numbers of service depot.

**1.04 QUALITY ASSURANCE**

- A. Conform to UL (DIR) requirements.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Sprinklers, Valves, and Equipment:
  - 1. Match existing building standards acceptable to the City of Kent Fire Marshall.

**2.02 SPRINKLER SYSTEM**

- A. Sprinkler System: Modify existing sprinkler system to provide coverage for areas affected this contract.



1. It is the Contractor's responsibility to assign sprinkler systems design requirements as defined in Code to all areas, and to obtain approvals for these requirements from the appropriate reviewing authority. These requirements include hazard classifications, sprinkler head temperature ratings, density, sprinkler area, and water supply requirements. Provide design and installation based on the more stringent requirement if City of Renton Fire Marshall's requirements differ from Code.
- B. Occupancy: Light hazard; comply with NFPA 13.
- C. Water Supply: Determine volume and pressure from water flow test data.
- D. Interface system with existing building control system.

### **2.03 SPRINKLERS**

- A. General: Provide sprinkler heads suitable for each installation, coordinate style to match the existing heads. Match existing building standard for each type of installation.
- B. Suspended Ceiling Type: Concealed pendant type with matching push on escutcheon plate to match existing.
  1. Response Type: Quick.
  2. Coverage Type: Standard.
  3. Escutcheon Plate Finish: Chrome plated.
  4. Fusible Link: Fusible solder link type temperature rated for specific area hazard.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Install in accordance with referenced NFPA design and installation standard.
- B. Install equipment in accordance with manufacturer's instructions.
- C. Place pipe runs to minimize obstruction to other work.
- D. Place piping in concealed spaces above finished ceilings.
- E. Install piping in concealed spaces above finished ceilings. Coordinate with Architect.
- F. Apply masking tape or paper cover to ensure concealed sprinklers, cover plates, and sprinkler escutcheons do not receive field paint finish. Remove after painting. Replace painted sprinklers.
- G. Test entire system per Code and the City of Kent Fire Marshall. Provide, arrange, and pay for all testing required by Code or City of Kent Fire Marshall in order to obtain complete and final acceptance. Tests shall be witnessed by City of Kent Fire Marshall. Notify City of Kent Fire Marshall two weeks prior to test.
- H. Instruct the Owner as to any changes in the operation of the sprinkler system, including, system drainage, system testing, and the relation to the fire alarm system.

**END OF SECTION 21 1300**

**SECTION 22 0000**  
**PLUMBING (DESIGN-BUILD REQUIREMENTS)**

**PART 1 GENERAL**

**2.01 SECTION INCLUDES**

- A. Description: Work includes Design Build Plumbing including piping and associated appurtenances.
  - 1. Plumbing and fixtures associated with the new Break Room sink.
- B. Pipe, pipe fittings, valves, and connections for piping systems.
  - 1. Sanitary sewer.
  - 2. Domestic water.
- C. Selective demolition and capping of existing water supply and drain at the existing washer and dryers being abandoned.

**2.02 QUALITY ASSURANCE**

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances. In case of conflict with drawings or specifications, the codes and ordinances govern.
- B. Basis:
  - 1. International Building Code
  - 2. Uniform Plumbing Code
  - 3. International Mechanical Code

**2.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalog information. Indicate valve data and ratings.
- C. Project Record Documents: Record actual locations of valves.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 6000 - Product Requirements, for additional provisions.

**PART 2 PRODUCTS**

**3.01 GENERAL**

- A. Description: Comply with "Quality Assurance" provisions, specifications, and manufacturer's data. Where these may be in conflict, the more stringent requirements govern.
- B. Pressure Ratings: Provide components with minimum pressure rating of 125 psig working pressure.

**3.02 COPPER TUBING, GENERAL**

- A. Tubing, Above Grade: Type L copper water tube, hard-drawn, ASTM B88.
- B. Tubing, Underground: Type K copper water tube, hard-drawn, ASTM B42.
- C. Fittings: Wrought copper solder fittings and screwed adapters, ANSI B16.22; cast bronze solder joint fittings and screwed adapters, ANSI B16.18.
- D. Unions: Wrought copper solder joint unions, ANSI B16.22; cast bronze solder joint fittings, ANSI B16.18.
- E. Joint Compound: Teflon tape.
- F. Solder: 95 percent tin, 5 percent antimony solder, or 96 percent tin, 4 percent silver.
- G. Valves:

1. Gate: 150 pound WSP, bronze, screwed or solder end, union bonnet, rising stem, solid bronze wedge disc, repackable under pressure, ASTM B62. Milwaukee 1151 or equivalent.
  2. Ball: 600 pound WSP, bronze body, chrome plated ball and stem. solder or screwed ends, 2 piece construction, lever handle, Teflon seat and seal. Milwaukee BA-100 or equivalent.
- H. Strainers: Cast bronze, Y-pattern, screwed or solder end, ASTM B62. 0.045 inch perforations, brass screen, ANSI B2.1.

### **3.03 ESCUTCHEON PLATES**

- A. Description: Metal chrome plated, spring clip type at ceilings. Beaton & Cadwell Series 10 or equivalent.

## **PART 3 EXECUTION**

### **4.01 INSPECTION**

- A. Description: Verify installation conditions as satisfactory to receive work of this section. Do not install until unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions as satisfactory.

### **4.02 PREPARATION**

- A. Field Measurements: Field verify locations of new and existing work prior to commencing work of this section.
- B. Protection: Protect surrounding areas and surfaces to preclude damage from work of this section.

### **4.03 INSTALLATION, APPLICATION, ERECTION AND PERFORMANCE**

- A. Description: Install, apply, erect, and perform the work in accordance with "Quality Assurance" provisions, specifications, and manufacturer's installation instructions and directions. Where these may be in conflict, the more stringent requirements govern.

### **4.04 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Comply with requirements in Section 01 6000.

### **4.05 INSTALLATION OF PIPING**

- A. General: Install pipe generally sloped to permit drainage at low points, free from traps, and in a manner to conserve space for other work; cap or plug open ends.
- B. Location of Piping:
1. Piping plans, sections, details and diagrams are diagrammatic indicating general arrangement of piping installation. Locate piping and include offsets to avoid interference with building structural members, equipment, building openings, light fixtures, ductwork, electrical work, and other obstructions.
  2. Arrange piping to allow access for operation, service, disconnection, and removal and replacement of valves, fixtures and equipment.
  3. In general, maintain the maximum possible headroom in ways of egress, including pedestrian walkways and maintenance aisles, minimum headroom of 6'-8" from the floor to the bottom of any component.
  4. Within buildings, conceal piping in walls and chases and above ceilings except where indicated in the Contract Documents to remain exposed. Do not cover or enclose work until completely inspected and approved. Should Work be covered or enclosed prior to inspections and approvals, uncover work as directed by the A/E. After Work has been inspected and approved, make repairs and replacements with materials as necessary to obtain approval of A/E at no additional cost to Owner.
  5. Route piping parallel to column lines and perpendicular to floor unless indicated otherwise.
- C. Disconnection Provisions: Provide unions or flanges at valves, fixtures and equipment if a means of disconnection is not otherwise provided.

- D. Changes in Pipe Size: Provide reducing fittings for changes in pipe size; bushings are not acceptable.
- E. Changes in Direction: Use fittings for changes in direction of piping.
- F. Structural Members: Do not cut or reduce size of structural members.
- G. Cleaning: Clean interior of piping before making joints and placing in position by blowing clean with steam or compressed air. Maintain cleanliness of piping throughout installation; provide caps or plugs on open ends of cleaned piping.
- H. Leaks: Correct leaks immediately, using new materials; do not peen or use leak-sealing compounds.
- I. Valve Stem Position:
  - 1. Gate, Globe, Ball Valves: Horizontal or above.

#### **4.06 JOINTS**

- A. Screwed:
  - 1. Use threads on iron and steel pipes, fittings and couplings in accordance with ANSI B31.1.
  - 2. Produce sufficient lengths of high quality threads to insure full metal-to-metal contacts when screwed home in fittings; countersink, ream and clean ends of pipes after threading.
  - 3. Make up full connections with not more than 1 full thread exposed, by such method that will not subject pipes or fittings to twisting or cross strains; lubricate male threads only with thread lubricant.
- B. Soldered:
  - 1. Cut ends square and remove fins and burrs. Replace dents and damaged tubing with new tubing.
  - 2. Remove grease and oil from joints by wiping with clean cloth saturated with a suitable chemical solvent. Clean with emery cloth.
  - 3. After cleaning, apply non-corrosive flux, apply heat and solder and hold joint rigidly until solder has hardened.
  - 4. Wipe excess solder from exterior of joint before hardening.
  - 5. Before soldering, remove stems and washers of solder joint valves.

#### **4.07 DIELECTRIC UNIONS AND NIPPLES**

- A. Install at the Following Locations:
  - 1. At black and galvanized steel piping connections to copper tubing.
  - 2. At black steel piping connections to copper headers for coils installed in air handling units.
  - 3. At black steel piping connections to bronze valves and similar devices.

#### **4.08 ESCUTCHEON PLATES**

- A. Description: Install where exposed pipes pass through walls, floors or ceilings of finished rooms. Plates not required where sleeves project above the floor.

#### **4.09 PIPE WRAPPING**

- A. General: Wrap the exterior of underground steel pipe and fittings with pipe wrapping material. Clean and prime before wrapping. Complete pressure testing prior to wrapping.
- B. Factory Applications: Provide factory-applied wrapping for straight lengths of pipe, applied spirally wound with half-overlapping. Hold-back not less than 4 inch on each end for field welding.
- C. Field Applications: Field wrap fittings and field joints. Initially stretch tape to conform with surface while spirally half-overlapping; apply a second wrapping, half-overlapped and spiraled with spirals opposite to the first wrapping. Overlap factory-wrapped pipe wrapping minimum of 6 inch.
- D. Inspection:
  - 1. Inspect wrapped surfaces for film thickness and uniformity of tape application.

2. Test wrapped surfaces in their entirety for presence of flaws with an electrical flaw and holiday detector at crest voltage of 5000 volts.
3. Provide calibrated instrument incapable of field adjustment, with calibration within the previous 6 months certified by the manufacturer or by an acceptable testing laboratory (e.g., National Bureau of Standards).
4. Perform test before and after installation. Repair defects and repeat tests.

**END OF SECTION 22 0000**

**SECTION 22 4000**  
**PLUMBING FIXTURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Sinks.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 4100 - Architectural Wood Casework: Plastic Laminate Wainscot.
- B. Section 07 9200 - Joint Sealants: Sealing joints between fixtures and walls and floors.

**1.03 REFERENCE STANDARDS**

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ASHRAE Std 18 - Methods of Testing for Rating Drinking-Water Coolers with Self-Contained Mechanical Refrigeration; 2008.
- C. NSF 61 - Drinking Water System Components - Health Effects; 2014 (Errata 2015).
- D. NSF 372 - Drinking Water System Components - Lead Content; 2011.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- C. Manufacturer's Instructions: Indicate installation methods and procedures.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Accept fixtures on site in factory packaging. Inspect for damage.

**PART 2 PRODUCTS**

**2.01 GENERAL REQUIREMENTS**

- A. Potable Water Systems: Provide plumbing fittings and faucets that comply with NSF 61 and NSF 372 for maximum lead content; label pipe and fittings.

**2.02 SINKS**

- A. Sink:
  - 1. Elkay; ELUH2115 - 0 hole configuration w/ LK99 Strainer: [www.elkay.com](http://www.elkay.com).
  - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Faucet:
  - 1. Kohler Company; Simplice: K596-CP: [www.kohler.com](http://www.kohler.com).
  - 2. Substitutions: See Section 01 6000 - Product Requirements.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that walls and floor finishes are prepared and ready for installation of fixtures.
- B. Verify that electric power is available and of the correct characteristics.
- C. Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories and sinks.

**3.02 PREPARATION**

- A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.

**3.03 INSTALLATION**

- A. Provide chrome plated rigid or flexible supplies to fixtures with loose key stops, reducers, and escutcheons.

- B. Install components level and plumb.
- C. Seal fixtures to wall and floor surfaces with sealant as specified in Section 07 9200, color to match fixture.
- D. Extend the existing water supply lines and drains to accommodate the new fixture.

#### **3.04 INTERFACE WITH WORK OF OTHER SECTIONS**

- A. Review millwork shop drawings. Confirm location and size of fixtures and openings before rough-in and installation.

#### **3.05 ADJUSTING**

- A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

#### **3.06 CLEANING**

- A. Clean plumbing fixtures and equipment.

#### **3.07 PROTECTION**

- A. Protect installed products from damage due to subsequent construction operations.
- B. Repair or replace damaged products before Date of Substantial Completion.

**END OF SECTION 22 4000**

## **SECTION 23 0000**

### **MECHANICAL**

#### **PART 1 GENERAL**

##### **1.01 BASIC MECHANICAL REQUIREMENTS**

- A. Description: Work includes materials, equipment, labor, supervision, tools and items necessary for the construction, installation, connection, testing and operation of mechanical work.
- B. Scope of work: The Scope of Work is outlined in the set of Mechanical Drawing package, including specifications and drawings, prepared by Berona Engineers Inc., dated 5/3/2022 which is part of this Bid Package.

##### **1.02 CODES AND ORDINANCES**

- A. General: Comply with applicable International Building and Mechanical Codes, Uniform Plumbing Codes, and local authority amendments. Conform to applicable industry standards, UL or ETL standards, ANSI standards, and other standards as may be noted.
  - 1. Notify the A/E of deviations in Contract Documents to applicable codes and ordinances prior to installation of the work. Perform changes in the work after initial installation due to requirements of code enforcing agencies at no additional cost to the Owner.
  - 2. If conflict occurs between legally adopted codes and the Contract Documents, the codes prevail, except that this shall not be construed as relieving the Contractor from complying with requirements of the Contract Documents which exceed code requirements and not contrary to same.
  - 3. Arrange for and pay for mechanical permits, fees, and inspections required.

##### **1.03 CODES AND ORDINANCES**

- A. Comply with all applicable International Building Codes, International Mechanical Code, International Plumbing Code, National Electrical Code, Washington Administrative Code, Washington State Commercial Energy Code and any local authority amendments.
- B. All work and materials shall conform to the local and State Codes, and all other applicable State laws and regulations, including seismic zone regulations.
- C. Whenever indicated material, workmanship, arrangement or construction is of higher quality or capacity than that required by the above Codes, the drawings and/or specifications shall govern.
- D. Should there be any direct conflict between Codes and the drawings and/or specifications, the Codes, rules, and regulations shall govern.

##### **1.04 VISITING THE PREMISES**

- A. The Contractors, before submitting their Bid on the work, must visit the site and familiarize himself with all visible existing conditions. As a result of having visited the premises, the Contractors shall be responsible for the installation of the work as it relates to such visible existing conditions. Arrangement for site visit shall be made through General Contractor.
- B. The submission of a bid will be considered an acknowledgement on the part of the Bidder of his visitation to the site.

#### **PART 2 PRODUCTS**

##### **2.01 NOT USED.**

#### **PART 3 INSTALLATION**

##### **3.01 NOT USED.**

**END OF SECTION 23 0000**



**SECTION 26 0000**  
**ELECTRICAL (DESIGN-BUILD REQUIREMENTS)**

**PART 1 GENERAL**

**1.01 BASIC ELECTRICAL REQUIREMENTS**

- A. General: The electrical work will consist of all the engineering, labor, materials, equipment, and supervision as necessary to provide a complete electrical system as outlined in this specification and Section 26 0001 Electrical Design Build Criteria, as necessary to serve mechanical and plumbing systems and as indicated on the Architectural plans.
  - 1. Electrical circuits and lighting throughout the space need to be connected to the generator panel.
  - 2. Adding a new 100 amp subpanel to the Utility room is acceptable.
  - 3. Data wiring and termination is by Owner. Contractor to provide mud-rings and pull wire to the relocated locations.

**1.02 DEFINITIONS**

- A. Contractor: All references in this Section shall be defined by Design-Build Electrical Subcontractor.
- B. Provide: Where word appears, Contractors shall furnish, install and connect item complete unless shown otherwise.
- C. Architect/Engineer: Shall bear meaning of Architect and/or his consultants.

**1.03 CODES AND ORDINANCES**

- A. Comply with all applicable International Building Codes, National Electrical Code, Washington Administrative Code, Washington State Commercial Energy Code and any local authority amendments.
- B. All work and materials shall conform to the local and State Codes, and all other applicable State laws and regulations, including seismic zone regulations.
- C. Whenever indicated material, workmanship, arrangement or construction is of higher quality or capacity than that required by the above Codes, the drawings and/or specifications shall govern.
- D. Should there be any direct conflict between Codes and the drawings and/or specifications, the Codes, rules, and regulations shall govern.

**1.04 PERMITS AND INSPECTIONS**

- A. Unless otherwise distinctly hereinafter specified, the Contractors shall apply and pay for all necessary permits and inspections required by any Public Authority having Jurisdiction.
- B. All required utility connection fees shall be paid by Contractors.

**1.05 DESIGN/BUILD RESPONSIBILITIES**

- A. The Design/Build Contractor (D/B) shall be the electrical contractor. In addition to the construction responsibilities. The engineering shall include:
  - 1. Preparation of Permit Documents including drawings and electrical specifications.
  - 2. Coordination with utilities and other design and construction team members.
  - 3. Completion of necessary forms and preparation of documentation for electrical permits and energy code compliance as pertains to the electrical work.
    - a. Other D/B responsibilities shall include:
      - 1) Preparation of Record Drawings for review by Owner's representative.
      - 2) Preparation of Operation & Maintenance Manuals for review by the Owner's representative.
    - b. Design/Build Coordination: The Design/Build (D/B) Contractor shall work closely with the Owner's representative and the design team members to identify exact requirements and determine the most cost effective means of meeting the Owner's requirements. The D/B Contractor shall utilize his skills and experience to benefit the

- Owner through careful design, thorough coordination with other trades, and cost effective decisions concerning material cost and labor saving technologies.
- c. Design Build Criteria: The following documents shall be utilized in preparation of bids and developing Design Build Contract Documents:
    - 1) Section 26 0001 - Electrical Design Build Criteria.
    - 2) Drawings - Architectural and HVAC (HVAC equipment and exhaust fans).
  - d. Drawings:
    - 1) Design Build subcontractors shall provide drawings in AutoCAD.
    - 2) Background Drawings:
      - (a) Background AutoCAD drawing files are available from Kevin Broderick at Broderick Architects.
      - (b) Floor Plans and Reflected Ceiling Plans will be issued to Design Build (DB) contractor by the Architect. Maintain communication with the Architect to ensure that the latest plans are being used. The objective is to share backgrounds across multiple trades to avoid a duplication of drawing efforts and facilitate coordination.
      - (c) The DB contractors will need to manipulate colors, line weights and freeze/thaw layers in the backgrounds as required to produce their own documents.
      - (d) The DB contractors are required to share their internal AutoCAD guidelines to other members of the design team as needed.
      - (e) Reflected Ceiling Plans: The Electrical Designer shall locate lights in the ceiling grid. Ductwork, circuiting, etc. shall be on layers different from the lights and diffusers so that they can be frozen.
      - (f) Title Block: Utilize the Architect's Title Block. The DB Contractor shall insert their own company info for their drawings.
  - e. Record Drawings: Contractors shall maintain an up-to-date set of prints for recording "Record" conditions. At the end of the job all "Record" information shall be transferred to a clean set of prints. The drawings shall record all deviations from the Contract Documents. These changes shall be accurately dimensioned from the building lines and reflect the location and depth of concealed piping below finish grade or finished floor.
  - f. Guarantees: Furnish written guarantee to Owner for period of one year covering all defects in material and workmanship. Should any trouble develop during this period due to defective materials or faulty workmanship, the Contractors shall furnish all necessary labor and material and correct the trouble promptly and without any additional cost to the Owner.

#### **1.06 VISITING THE PREMISES**

- A. The Contractors, before submitting their Bid on the work, must visit the site and familiarize himself with all visible existing conditions. As a result of having visited the premises, the Contractors shall be responsible for the installation of the work as it relates to such visible existing conditions. Arrangement for site visit shall be made through General Contractor.
- B. The submission of a bid will be considered an acknowledgement on the part of the Bidder of his visitation to the site.

#### **1.07 SUBMITTALS**

- A. Submit Proposed Power One-Line Diagram and circuit layout for relocated devices.

#### **1.08 CONSTRUCTION DOCUMENTS SUBMITTAL AFTER NOTICE TO PROCEED**

- A. Provide Construction Document Submittals following receipt of Notice To Proceed.
- B. Documents shall be prepared under the supervision of a registered professional Electrical Engineer licensed in the State of Washington.
- C. Construction Documents: Contractor shall provide complete set of final electrical plans, scale 1/8" = 1'-0" minimum. These plans shall indicate all lighting and power systems, including

branch circuit wiring. The plans shall include raceway systems for low voltage systems such as telephone, data, audio/visual and security.

- D. Load Calculation: Provide electrical load calculations as required for permit submittal.
- E. Provide accurate panel schedules and lighting fixture schedule.
- F. Provide equipment and installation specifications data sheets for materials, devices and fixtures.
- G. Obtain approval from Architect on system design, drawings, materials, and equipment.

**PART 2 PRODUCTS**

**2.01 NOT USED.**

**PART 3 INSTALLATION**

**3.01 NOT USED.**

**END OF SECTION 26 0000**

**SECTION 26 0001**  
**ELECTRICAL (DESIGN BUILD CRITERIA)**

**1) GENERAL**

**1.01 THE FOLLOWING GUIDELINES SHALL BE UTILIZED IN PREPARATION OF BIDS AND DEVELOPING DESIGN BUILD CONTRACT DOCUMENTS.**

- A. Not every detail and requirement for the electrical system is addressed in this Section.
- B. Procure a set of Design Development Architectural Drawings and utilize them as the basis of your Design/Build Proposal.

**1.02 INTERIOR LIGHTING**

- A. Provide new interior lighting per the Light Fixture Schedule found on the Drawings.
  - 1. Lights need to be connected to the station generator panel.
- B. Luminaires shall comply with Washington State Energy Code requirements
- C. Provide Energy Code Lighting Power Allowance calculations early in the design process and determine if the lighting design complies with Code. Notify the lighting designer immediately of the results of the calculations and provide recommendations for adjustments if needed to achieve a compliant design. Repeat calculations and provide feedback as required.
- D. Provide battery-powered emergency fixtures with 12V 25W lamps to provide Code-required minimum footcandle illumination on floor throughout egress pathways.
- E. Provide 120V LED exit signage to match the building standard.

**1.03 INTERIOR LIGHTING CONTROLS**

- A. Provide interior lighting controls in compliance with Washington State Energy Code.
- B. Controls shall be per the Reflected Ceiling Plan in the Architectural Drawings.
  - 1. Bring any questions or conflicts to the attention of the Architect before proceeding with the work.
  - 2. Switches to be Decora: White
  - 3. Cover Plates to be Decora: Stainless (match building standard).

**1.04 COMMUNICATIONS BACKBONE EXTENSION**

- A. Provide a 1" conduit with (2) CAT 6 cables from the Computer Room, concealed above the Apparatus Bays and terminating in the Utility Room in the TI space - approximately 125'.

**1.05 COMMUNICATIONS WIRING AND EQUIPMENT (WITHIN THE TI SPACE)**

- A. Provide raceway and mud rings only as indicated on the Architectural Drawings.
- B. Cabling and termination is not to be included in Electrical scope.
- C. It is acceptable to daisy-chain the low voltage boxes together.
- D. Provide a ground wire to the Utility Room for Owner provide equipment rack.

**1.06 FIRE ALARM AND DETECTION SYSTEMS**

- A. Modify the existing fire alarm system as required to account for selective demolition of walls in accordance with local requirements.

**1.07 18) ELECTRICAL OUTLET GENERAL REQUIREMENTS**

- A. Per Power and Data Plan in the Architectural Drawings.
- B. Switches to be Decora: White
- C. Cover Plates to be Decora: Stainless (match building standard).

**1.08 EGRESS PATHWAYS**

- A. Emergency Egress Lighting

1. Provide battery-powered emergency fixtures in all areas indicated on the Architectural Drawings and as required by Code - provide minimum footcandle illumination on floor throughout egress pathways.

**END OF SECTION 26 0001**

**SECTION 26 5100**  
**INTERIOR LIGHTING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Interior luminaires.
- B. Emergency lighting units.
- C. Exit signs.
- D. Lamps.

**1.02 RELATED REQUIREMENTS**

- A. Section 26 0529 - Hangers and Supports for Electrical Systems.
- B. Section 26 0533.16 - Boxes for Electrical Systems.

**1.03 REFERENCE STANDARDS**

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- B. NECA/IESNA 500 - Standard for Installing Indoor Commercial Lighting Systems; 2006.
- C. NECA/IESNA 502 - Standard for Installing Industrial Lighting Systems; 2006.
- D. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- E. UL 1598 - Luminaires; Current Edition, Including All Revisions.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and ceiling compatibility; include model number nomenclature clearly marked with all proposed features.

**1.05 QUALITY ASSURANCE**

- A. Comply with requirements of NFPA 70.

**1.06 DELIVERY, STORAGE, AND PROTECTION**

- A. Receive, handle, and store products according to NECA/IESNA 500 (commercial lighting), NECA/IESNA 502 (industrial lighting), and manufacturer's written instructions.
- B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

**1.07 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide three year manufacturer warranty for LED luminaires, including drivers.
- C. Provide five year pro-rata warranty for batteries for emergency lighting units.

**PART 2 PRODUCTS**

**2.01 LUMINAIRE TYPES**

- A. Furnish products as indicated in Lighting Schedule and Lighting Control Schedule included on the drawings.
- B. Substitutions: See Section 01 6000 - Product Requirements, except where individual luminaire types are designated with substitutions not permitted.

**2.02 LUMINAIRES**

- A. Provide products that comply with requirements of NFPA 70.

- B. Provide products that are listed and labeled as complying with UL 1598, where applicable.
- C. Provide products listed, classified, and labeled as suitable for the purpose intended.
- D. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.
- E. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.
- F. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.

## **2.03 LAMPS**

- A. Lamps - General Requirements:
  - 1. Unless explicitly excluded, provide new, compatible, operable lamps in each luminaire.
  - 2. Verify compatibility of specified lamps with luminaires to be installed. Where lamps are not specified, provide lamps per luminaire manufacturer's recommendations.
  - 3. Minimum Efficiency: Provide lamps complying with all current applicable federal and state lamp efficiency standards.
  - 4. Color Temperature Consistency: Unless otherwise indicated, for each type of lamp furnish products which are consistent in perceived color temperature. Replace lamps that are determined by the Architect to be inconsistent in perceived color temperature.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that field measurements are as indicated.
- B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.
- C. Verify that suitable support frames are installed where required.
- D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.
- E. Verify that conditions are satisfactory for installation prior to starting work.

### **3.02 PREPARATION**

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

### **3.03 INSTALLATION**

- A. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of luminaires provided under this section.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Install products in accordance with manufacturer's instructions.
- D. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting) and NECA 502 (industrial lighting).
- E. Provide required support and attachment in accordance with Section 26 0529.
- F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
- G. Wall-Mounted Luminaires: Unless otherwise indicated, specified mounting heights are to center of luminaire.
- H. Install accessories furnished with each luminaire.
- I. Bond products and metal accessories to branch circuit equipment grounding conductor.
- J. Exit Signs:

1. Unless otherwise indicated, connect unit to unswitched power from same circuit feeding normal lighting in same room or area. Bypass local switches, contactors, or other lighting controls.

K. Install lamps in each luminaire.

#### **3.04 ADJUSTING**

- A. Aim and position adjustable luminaires to achieve desired illumination as indicated or as directed by Architect. Secure locking fittings in place.
- B. Aim and position adjustable emergency lighting unit lamps to achieve optimum illumination of egress path as required or as directed by Architect or authority having jurisdiction.
- C. Exit Signs with Field-Selectable Directional Arrows: Set as indicated or as required to properly designate egress path as directed by Architect or authority having jurisdiction.

#### **3.05 CLEANING**

- A. Clean surfaces according to NECA 500 (commercial lighting), NECA 502 (industrial lighting), and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

**END OF SECTION 26 5100**