REQUEST FOR BIDS

GUSTAVES MANOR ENVELOPE UPGRADE

107 W. MAIN STREET AUBURN, WA 98001

RELEASED BY:



CAPITAL CONSTRUCTION DEPARTMENT

700 ANDOVER PARK WEST, SUITE C TUKWILA, WA 98188

BID DATES

ISSUANCE DATE: MARCH 16, 2022

DUE DATE: APRIL 6, 2022

TIME: 1:00PM

CAPITAL CONSTRUCTION DEPARTMENT

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A - SECTION

INFORMATIONAL FORMS

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- **A.3** Instructions to Bidders for Contracts (form HUD 5369)
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INVITATION FOR BID

DUE DATE: APRIL 6, 2022

The King County Housing Authority (KCHA) will accept bids from qualified general contractors to furnish labor, materials and necessary equipment to perform the following:

SCOPE OF WORK: GUSTAVES MANOR ENVELOPE UPGRADE

Gustaves Manor is located on the main arterial of West Main Street of downtown Auburn. The five-story apartment building constructed in 1982 is situated on the west portion of the block adjacent to the multistory retail structure, constructed in 1953. This portion of the building has a historical designation from the City and will remain protected throughout construction. There is limited parking surrounding the building and a City-owned parking lot located on the North Elevation. KCHA will work with the winning bidder to use the neighboring property for staging and laydown. The contractor's base bid will include all necessary safety measures when removing the existing and disposing of the existing building components. Pedestrian walkways will be protected at all times from any falling debris or overhead dangers. The contractor will work directly with the City of Auburn to obtain all necessary street use permits or closures during the construction period.

The five story apartment structure is concrete CMU block with infill metal stud framed walls and a stuccoclad exterior. The main exterior of building is stucco applied onto CMU block and selective areas around the balcony's and bay windows consist of the stucco application being applied onto plywood or GWB. The adjoined CMU block wall and roof structure at the west elevation will be removed disposed. Any asphalt damage will be cold patched and sealed. Removal of any windows or doors will be re-installed the same day. Exterior lighting on building noted to be removed will remain in place or temporary lighting will be provided by the contractor throughout construction.

The upper roof and elevator parapet will include removal and disposal of existing torch down roofing, insulation, metal coping at roof parapet and all associated flashing. Contractor will be responsible for all scaffolding and crane staging. Due to limited space on site any Crane work will have to coordinate with KCHA and City of Auburn for the use of traffic control measure and Right of Way (ROW) permitting required. The existing solar panels will be removed and replaced by others. Contractor will coordinate with Owner for reinstallation of new solar panels and electrical performed by others once all roof work is complete. Contractor will install new curbing for new solar panels as noted on plans.

The retail/residential structure is a historically preserved building which consists of brick exterior to three sides and a stucco assembly on the north elevation. Work associated with this structure includes lower roof and north elevation only. Removal and replacement of existing roof assembly and replacement of damaged sheathing as needed. Existing access door to roof to be modified as needed accommodate new metal stair assembly and include new door hardware to be installed. The HVAC unit and ductwork covers much of the northwest corner of the roof. The existing duct work will be removed and replaced with new insulated duct work. The existing mechanical unit will be salvaged and reinstalled, including conduit and wiring for reinstallation. This portion of the work will be a bidder design to reinstall the new ductwork to existing penetrations and provide adequate clearance around existing plumbing vents and existing roof penetrations. Contractor responsible to coordinate removal and reinstall with HVAC contractor to complete new roof assembly.

For complete scope, please see E.1 Scope of Work and Technical Specifications

DRAWINGS – PROJECT MANUAL DISTRIBUTION:

Drawing and bid documents can be downloaded from: https://www.kcha.org/business/construction/open



KCHA – GUSTAVES MANOR ENVELOPE UPGRADE

CAPITAL CONSTRUCTION DEPARTMENT

PRE-BID CONFERENCE:

MARCH 23, 2022 Date:

Time: 10:00 AM

107 W. MAIN STREET, AUBURN, WA 98001 Jobsite Address:

Attendance of the Pre-Bid Site Visit is MANDATORY. Notation:

Direct Questions, Requests or Clarification by Email or Fax to: Ouestions /

Contact Person: Project Manager: Amy Kurtz

> Email Address: amyk@kcha.org Phone Number: 206-574-1283 No Later Than: March 30, 2022

https://www.kcha.org/business/construction/open Website Posting:

All responses shall be in the form of Addenda

All Addenda(s) will post As Occurs Plan Holder's List posts every Friday

BIDS ARE DUE:

Date: **April 6, 2022**

1:00 pm (see KCHA Process – COVID-19 Process Changes) Time: King County Housing Authority - Capital Construction Office Address:

700 Andover Park West, Suite C, Tukwila, WA 98188

Envelope MUST BE: Submittal Procedure:

> Sealed a.

List Name and Address of your Firm/Company b.

List Due Date and Time c. List Project Name: d.

GUSTAVES MANOR ENVELOPE UPGRADE

Mailing / Shipping Package or Wrapping must also be marked with this information.

KCHA Process:

All Bids MUST BE Time and Date Stamped at KCHA – Capital Construction Office by the above Due Date and Time.

- No Bids will be accepted after that Date and Time a.
- No Bids Faxed or Email will be accepted

COVID-19 Process Changes

- Bids should be dropped off at the front desk at 600 Andover Park West, a. Tukwila, WA 98188.
- Bids will be accepted between 11:00AM 1:00PM ONLY. The front b. desk will only be open during these hours.
- A KCHA representative will be present at the front desk to time stamp c. bids.
- There will be NO PUBLIC READING of the bids. d.
- At 1:00PM bidding will be closed and KCHA staff will tabulate the bids e. and notify bidders by email of the bid results.

**NOTE: Contractors have the option to mail in bids, but bids must be received by the deadline of 1:00PM. KCHA does not recommend mailing in bids due to possible complications or difficulties that may arise with the mail delivery.



KCHA – GUSTAVES MANOR ENVELOPE UPGRADE

CAPITAL CONSTRUCTION DEPARTMENT

BID BOND OR CERTIFIED CHECK:

Amount: Five (5%) Percent of the Total bid must accompany Each Bid greater than one

hundred fifty (\$150,000) dollars.

Payable to: King County Housing Authority

Process: Bid Bond or Certified Check will be returned to the Unsuccessful Bidders within

Ten (10) Days after the Contract Award.

BONDS MUST BE ORIGINAL, NO PHOTOCOPIES OR SCANNED BONDS WILL BE ALLOWED

COVID-19 REQUIRED COMPLIANCE

Contractor must submit a signed copy of COVID-19 Job Site Requirements (see Section B.2). Signing the document is an indication that the Contractor has read and understands what is required to comply with the COVID-19 Requirements. If selected, the Contractor will be required to submit COVID-19 Protection Protocols in place for the Contractor's company, as well as a site specific COVID-19 safety plan; both of which will be placed into the contract as exhibits.

ASSURANCE OF COMPLETION:

Projects valued over one hundred fifty thousand (\$150,000) dollars **require** a one hundred (100%) percent Performance and Payment Bond. (See Section C – Contract Documents)

BONDING CAPACITY:

Provide **with your bid proposal**, a written statement from the contractor's bonding agent of the contractor's ability and capacity for providing a one hundred (100%) percent Performance and Payment Bond for the project. The statement shall be made on the official letterhead of the bonding company and signed by an authorized agent of the bonding company.

BONDING & INSURANCE FOR CONTRACT AWARD:

The contract award will be contingent on full performance bonding, or equivalent and contractor's ability to meet KCHA insurance requirements as outlined in the bid documents.

HUD NON-ROUTINE MAINTENANCE WAGE RATES:

Bidders should note that the current prevailing HUD Non-Routine Maintenance wage rates and weekly payroll reporting requirements apply to this project.

WASHINGTON STATE REQUIREMENT:

All contractors and subcontractors working on this project are required to file a "Statement of Intent to Pay Prevailing Wages", "Affidavit of Wages Paid" and certified payroll with L&I. (See Form A.12 for additional information.)

EEOE:

The King County Housing Authority is an Equal Employment Opportunity Employer and strongly encourages minority-owned and women-owned businesses, socially and economically disadvantaged businesses, and small businesses to submit bids or to participate as subcontractors and suppliers on KCHA Contracts.

KCHA RESERVED RIGHTS:

The King County Housing Authority reserves the right to reject any or all bids or to waive any informality in the bidding. No bid shall be withdrawn for a period of thirty (30) calendar days subsequent to the opening of the bids without the written consent of KCHA.

The King County Housing Authority also reserves the right to reject all bids, for any reason, prior to Contract Execution.

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

PUBLIC RECORDS:

All information submitted to KCHA will become public records, as per RCW 42.56. If you are submitting information, which you think is confidential and/or proprietary to your business, KCHA recommends that you do not submit that information, as KCHA cannot guarantee that type of information will be withheld from a public disclosure request.

PLAN CENTERS:

Bid documents, including drawings, specifications and conditions of the agreements may be examined at the following offices:

BUILDERS EXCHANGE OF WA 2607 Wetmore Ave. Everett, WA 98201 www.bxwa.com 425-258-1303

CONTRACTOR PLAN CENTER 5468 SE International Way Milwaukie, OR 97222 www.contractorplancenter.com 503-650-0148 BLUE BOOK 33801 1st Way S., Ste. 251 Federal Way, WA 98003 www.thebluebook.com 800-431-2584 x3121

DAILY JOURNAL OF COMMERCE www.djc.com 206-622-8272 DODGE DATA & ANALYTICS www.construction.com 206-328-5615 ISQFT <u>www.isqft.com</u> 800-364-2059 x7051

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PUBLICATION: Daily Journal of Commerce Daily

The Seattle Medium Wednesday
Northwest Asian Weekly Thursday

KCHA Web Site www.kcha.org/business/construction/open

CONTACT PERSON:

Amy Kurtz Project Manager 206-574-1283 Phone Number amyk@kcha.org Email Address



EXAMPLE OF <u>SEALED</u> ENVELOPE PROCEDURE / PREPARATION:

FROM:

ENTER YOUR COMPANY NAME Street Address City, State, Zip Code

TO:

KING COUNTY HOUSING AUTHORITY CAPITAL CONSTRUCTION DEPARTMENT 700 Andover Park West, Suite C

Tukwila, WA 98188

BID DUE:

Date: April 6, 2022 Time: 1:00 PM

PROJECT NAME: GUSTAVES MANOR ENVELOPE UPGRADE

Upon Receipt, the Envelope will be Time and Date Stamped by King County Housing Authority



NOTICE TO ALL BIDDERS

In order to be considered as **RESPONSIVE BIDS**, all bidders <u>MUST</u> submit Signed Section B forms no later than the **Bid Due Date and Time**:

- B.1 Bid Form
- **B.2** COVID-19 Job Site Requirements
- **B.3** Bidder's Experience Record
- **B.4** Contractor Certification
- **B.5** Non-Collusive Affidavit
- **B.6** Equal Opportunity
- B.7 Bid Security (Submit only for bids greater than \$150,000)
- **B.8** Debarment / Suspension Compliance Certification
- **B.9** Proposed Subcontractor List
- B.10 Section 3
 - a. Business Certification
 - b. Subcontractor Work Plan
 - c. Individual Certification and FAQ's
- **B.11** Harassment and Discrimination Policies
- **B.12** WMBE Survey (Form is not required to be responsive, but requested)
- **B.13** Preliminary Project Schedule Provided by Contractor

FORM 5369

From HUD Website 2021

U.S. Department of Housing and Urban Development

Office of Public and Indian Housing

Instructions to Bidders for Contracts Public and Indian Housing Programs

Instructions to Bidders for Contracts

Public and Indian Housing Programs

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1. Bid Preparation and Submission

- (a) Bidders are expected to examine the specifications, drawings, all instructions, and, if applicable, the construction site (see also the contract clause entitled **Site Investigation and Conditions Affecting the Work** of the *General Conditions of the Contract for Construction*). Failure to do so will be at the bidders' risk.
- (b) All bids must be submitted on the forms provided by the Public Housing Agency/Indian Housing Authority (PHA/IHA). Bidders shall furnish all the information required by the solicitation. Bids must be signed and the bidder's name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority. (Bidders should retain a copy of their bid for their records.)
- (e) Bidders must submit as part of their bid a completed form HUD-5369-A, "Representations, Certifications, and Other Statements of Bidders," NO LONGER REQUIRED BY HUD
- (d) All bid documents shall be sealed in an envelope which shall be clearly marked with the words "Bid Documents," the Invitation for Bids (IFB) number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.
- (e) If this solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "No Bid" in the space provided for any item on which no price is submitted.
- (f) Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.
- (g) Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph or facsimile (fax) machines will not be considered.
- (h) If the proposed contract is for a Mutual Help project (as described in 24 CFR Part 905, Subpart E) that involves Mutual Help contributions of work, material, or equipment, supplemental information regarding the bid advertisement is provided as an attachment to this solicitation.

2. Explanations and Interpretations to Prospective Bidders

- (a) Any prospective bidder desiring an explanation or interpretation of the solicitation, specifications, drawings, etc., must request it at least 7 days before the scheduled time for bid opening. Requests may be oral or written. Oral requests must be confirmed in writing. The only oral clarifications that will be provided will be those clearly related to solicitation procedures, i.e., not substantive technical information. No other oral explanation or interpretation will be provided. Any information given a prospective bidder concerning this solicitation will be furnished promptly to all other prospective bidders as a written amendment to the solicitation, if that information is necessary in submitting bids, or if the lack of it would be prejudicial to other prospective bidders.
- (b) Any information obtained by, or provided to, a bidder other than by formal amendment to the solicitation shall not constitute a change to the solicitation.

3. Amendments to Invitations for Bids

- (a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.
- (b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date on the bid form, or (3) by letter, telegram, or facsimile, if those methods are authorized in the solicitation. The PHA/IHA must receive acknowledgement by the time and at the place specified for receipt of bids. Bids which fail to acknowledge the bidder's receipt of any amendment will result in the rejection of the bid if the amendment(s) contained information which substantively changed the PHA's/IHA's requirements.
- (c) Amendments will be on file in the offices of the PHA/IHA and the Architect at least 7 days before bid opening.

4. Responsibility of Prospective Contractor

- (a) The PHA/IHA will award contracts only to responsible prospective contractors who have the ability to perform successfully under the terms and conditions of the proposed contract. In determining the responsibility of a bidder, the PHA/IHA will consider such matters as the bidder's:
 - (1) Integrity;
 - (2) Compliance with public policy;
 - (3) Record of past performance; and
 - (4) Financial and technical resources (including construction and technical equipment).
- (b) Before a bid is considered for award, the bidder may be requested by the PHA/IHA to submit a statement or other documentation regarding any of the items in paragraph (a) above. Failure by the bidder to provide such additional information shall render the bidder nonresponsible and ineligible for award.

5. Late Submissions, Modifications, and Withdrawal of Bids

- (a) Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it:
- (1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);
- (2) Was sent by mail, or if authorized by the solicitation, was sent by telegram or via facsimile, and it is determined by the PHA/IHA that the late receipt was due solely to mishandling by the PHA/IHA after receipt at the PHA/IHA; or
- (3) Was sent by U.S. Postal Service Express Mail Next Day Service Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and observed holidays.
- (b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) of this provision.
- (c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerk to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.
- (d) The only acceptable evidence to establish the time of receipt at the PHA/IHA is the time/date stamp of PHA/IHA on the proposal wrapper or other documentary evidence of receipt maintained by the PHA/IHA.
- (e) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and Failure by a bidder to acknowledge receipt of the envelope or wrapper.
- (f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the PHA/IHA will be considered at any time it is received and may be accepted.
- (g) Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids; provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

6. Bid Opening

All bids received by the date and time of receipt specified in the solicitation will be publicly opened and read. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present.

7. Service of Protest

(a) Definitions. As used in this provision:

"Interested party" means an actual or prospective bidder whose direct economic interest would be affected by the award of the contract.

"Protest" means a written objection by an interested party to this solicitation or to a proposed or actual award of a contract pursuant to this solicitation.

(b) Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgement from —

Contracting Officer
Capital Construction Department
King County Housing Authority
600 Andover Park West
Tukwila, WA 98188

[Contracting Officer designate the official or location where a protest may be served on the Contracting Officer]

(c) All protests shall be resolved in accordance with the PHA's/IHA's protest policy and procedures, copies of which are maintained at the PHA/IHA.

8. Contract Award

- (a) The PHA/IHA will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the PHA/IHA considering only price and any price-related factors specified in the solicitation.
- (b) If the apparent low bid received in response to this solicitation exceeds the PHA's/IHA's available funding for the proposed contract work, the PHA/IHA may either accept separately priced items (see 8(e) below) or use the following procedure to determine contract award. The PHA/IHA shall apply in turn to each bid (proceeding in order from the apparent low bid to the high bid) each of the separately priced bid deductible items, if any, in their priority order set forth in this solicitation. If upon the application of the first deductible item to all initial bids, a new low bid is within the PHA's/IHA's available funding, then award shall be made to that bidder. If no bid is within the available funding amount, then the PHA/IHA shall apply the second deductible item. The PHA/IHA shall continue this process until an evaluated low bid, if any, is within the PHA's/IHA's available funding. If upon the application of all deductibles, no bid is within the PHA's/IHA's available funding, or if the solicitation does not request separately priced deductibles, the PHA/IHA shall follow its written policy and procedures in making any award under this solicitation.
- (c) In the case of tie low bids, award shall be made in accordance with the PHA's/IHA's written policy and procedures.
- (d) The PHA/IHA may reject any and all bids, accept other than the lowest bid (e.g., the apparent low bid is unreasonably low), and waive informalities or minor irregularities in bids received, in accordance with the PHA's/IHA's written policy and procedures.

- (e) Unless precluded elsewhere in the solicitation, the PHA/IHA may accept any item or combination of items bid.
- (f) The PHA/IHA may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.
- (g) A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either party.
- Bid Guarantee (applicable to construction and equipment contracts exceeding \$25,000)

KCHA Procurement Policy requires Bid Guarantees for Projects valued at \$150,000 or more.

All bids must be accompanied by a negotiable bid guarantee which shall not be less than five percent (5%) of the amount of the bid. The bid guarantee may be a certified check, bank draft, U.S. Government Bonds at par value, or a bid bond secured by a surety company acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. In the case where the work under the contract will be performed on an Indian reservation area, the bid guarantee may also be an irrevocable Letter of Credit (see provision 10, Assurance of Completion, below). Certified checks and bank drafts must be made payable to the order of the PHA/IHA. The bid guarantee shall insure the execution of the contract and the furnishing of a method of assurance of completion by the successful bidder as required by the solicitation. Failure to submit a bid guarantee with the bid shall result in the rejection of the bid. Bid guarantees submitted by unsuccessful bidders will be returned as soon as practicable after bid opening.

10. Assurance of Completion

- (a) Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation. This assurance may be [Contracting Officer check applicable items] —
- [X] (1) a performance and payment bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law:
- [] (2) separate performance and payment bonds, each for 50 percent or more of the contract price;
- [] (3) a 20 percent cash escrow;
- [] (4) a 25 percent irrevocable letter of credit; or,
- [] (5) an irrevocable letter of credit for 10 percent of the total contract price with a monitoring and disbursements agreement with the IHA (applicable only to contracts awarded by an IHA under the Indian Housing Program).
- (b) Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. Individual sureties will not be considered. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of companies listed in this circular is mandatory. Copies of the circular may be downloaded on the U.S. Department of Treasury website http://www.fms.treas.gov/c570/index.html, or ordered for a minimum fee by contacting the Government Printing Office at (202) 512-2168.

- (c) Each bond shall clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond shall be on or after the execution date of the contract.
- (d) Failure by the successful bidder to obtain the required assurance of completion within the time specified, or within such extended period as the PHA/IHA may grant based upon reasons determined adequate by the PHA/IHA, shall render the bidder ineligible for award. The PHA/IHA may then either award the contract to the next lowest responsible bidder or solicit new bids. The PHA/IHA may retain the ineligible bidder's bid guarantee.

Preconstruction Conference (applicable to construction contracts)

After award of a contract under this solicitation and prior to the start of work, the successful bidder will be required to attend a preconstruction conference with representatives of the PHA/IHA and its architect/engineer, and other interested parties convened by the PHA/IHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract (e.g., Equal Employment Opportunity, Labor Standards). The PHA/IHA will provide the successful bidder with the date, time, and place of the conference.

- **12. Indian Preference Requirements** (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)
- (a) HUD has determined that the contract awarded under this solicitation is subject to the requirements of section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). Section 7(b) requires that any contract or subcontract entered into for the benefit of Indians shall require that, to the greatest extent feasible
- (1) Preferences and opportunities for training and employment (other than core crew positions; see paragraph (h) below) in connection with the administration of such contracts or subcontracts be given to qualified "Indians." The Act defines "Indians" to mean persons who are members of an Indian tribe and defines "Indian tribe" to mean any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and,
- (2) Preference in the award of contracts or subcontracts in connection with the administration of contracts be given to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452). That Act defines "economic enterprise" to mean any Indianowned commercial, industrial, or business activity established or organized for the purpose of profit, except that the Indian ownership must constitute not less than 51 percent of the enterprise; "Indian organization" to mean the governing body of any Indian tribe or entity established or recognized by such governing body; "Indian" to mean any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act; and Indian "tribe" to mean any Indian tribe, band, group, pueblo, or community including Native villages and Native groups (including

Treasury website: https://www.fiscal.treasury.gov/surety-bonds/

- corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.
- (b) (1) The successful Contractor under this solicitation shall comply with the requirements of this provision in awarding all subcontracts under the contract and in providing training and employment opportunities.
- (2) A finding by the IHA that the contractor, either (i) awarded a subcontract without using the procedure required by the IHA, (ii) falsely represented that subcontracts would be awarded to Indian enterprises or organizations; or, (iii) failed to comply with the contractor's employment and training preference bid statement shall be grounds for termination of the contract or for the assessment of penalties or other remedies.
- (c) If specified elsewhere in this solicitation, the IHA may restrict the solicitation to qualified Indian-owned enterprises and Indian organizations. If two or more (or a greater number as specified elsewhere in the solicitation) qualified Indian-owned enterprises or organizations submit responsive bids, award shall be made to the qualified enterprise or organization with the lowest responsive bid. If fewer than the minimum required number of qualified Indian-owned enterprises or organizations submit responsive bids, the IHA shall reject all bids and readvertise the solicitation in accordance with paragraph (d) below.
- (d) If the IHA prefers not to restrict the solicitation as described in paragraph (c) above, or if after having restricted a solicitation an insufficient number of qualified Indian enterprises or organizations submit bids, the IHA may advertise for bids from non-Indian as well as Indian-owned enterprises and Indian organizations. Award shall be made to the qualified Indian enterprise or organization with the lowest responsive bid if that bid is—
- (1) Within the maximum HUD-approved budget amount established for the specific project or activity for which bids are being solicited; and
- (2) No more than the percentage specified in 24 CFR 905.175(c) higher than the total bid price of the lowest responsive bid from any qualified bidder. If no responsive bid by a qualified Indian-owned economic enterprise or organization is within the stated range of the total bid price of the lowest responsive bid from any qualified enterprise, award shall be made to the bidder with the lowest bid.
- (e) Bidders seeking to qualify for preference in contracting or subcontracting shall submit proof of Indian ownership with their bids. Proof of Indian ownership shall include but not be limited to:
- (1) Certification by a tribe or other evidence that the bidder is an Indian. The IHA shall accept the certification of a tribe that an individual is a member.
- (2) Evidence such as stock ownership, structure, management, control, financing and salary or profit sharing arrangements of the enterprise.

- (f) (1) All bidders must submit with their bids a statement describing how they will provide Indian preference in the award of subcontracts. The specific requirements of that statement and the factors to used by the IHA in determining the statement's adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement shall be rejected as nonresponsive. The IHA may require that comparable statements be provided by subcontractors to the successful Contractor, and may require the Contractor to reject any bid or proposal by a subcontractor that fails to include the statement.
- (2) Bidders and prespective subcontractors shall submit a certification (supported by credible evidence) to the IHA in any instance where the bidder or subcontractor believes it is infeasible to provide Indian preference in subcontracting. The acceptance or rejection by the IHA of the certification shall be final. Rejection shall disqualify the bid from further consideration.
- (g) All bidders must submit with their bids a statement detailing their employment and training opportunities and their plans to provide preference to Indians in implementing the contract; and the number or percentage of Indians anticipated to be employed and trained. Comparable statements from all proposed subcontractors must be submitted. The criteria to be used by the IHA in determining the statement(s)'s adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement(s), or that includes a statement that does not meet minimum standards required by the IHA shall be rejected as nonresponsive.
- (h) Core crew employees. A core crew employee is an individual who is a bona fide employee of the contractor at the time the bid is submitted; or an individual who was not employed by the bidder at the time the bid was submitted, but who is regularly employed by the bidder in a supervisory or other key skilled position when work is available. Bidders shall submit with their bids a list of all core crew employees.
- (i) Preference in contracting, subcontracting, employment, and training shall apply not only on-site, on the reservation, or within the IHA's jurisdiction, but also to contracts with firms that operate outside these areas (e.g., employment in modular or manufactured housing construction facilities).
- (j) Bidders should contact the IHA to determine if any additional local preference requirements are applicable to this solicitation.
- (k) The IHA [] does [] does not [Contracting Officer check applicable box] maintain lists of Indian-owned economic enterprises and Indian organizations by specialty (e.g., plumbing, electrical, foundations), which are available to bidders to assist them in meeting their responsibility to provide preference in connection with the administration of contracts and subcontracts.



FAIR HOUSING/ACCESSIBILITY NOTICE

A. SUBJECT:

Accessibility Notice: Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Architectural Barriers Act of 1968 and the Fair Housing Act of 1988.

B. PURPOSE:

The purpose of this Notice is to remind recipients of Federal funds (in this instance, the Public Housing Authority) of their obligation to comply with pertinent laws and implementing regulations which provide for non-discrimination and accessibility in Federally funded housing and non-housing programs for people with disabilities.

C. NOTIFICATIONS:

Public housing agencies (PHAs) and other recipients of Federal PIH funds are responsible for providing this Notice to all current and future contractors participating in covered programs / activities or performing work covered under the above subject legislation and implementing regulations.

D. TO READ THE FULL TEXT OF THE NOTICE:

Go to www.kcha.org/business/requirements

Scroll down to Fair Housing Laws and Read: Fair Housing / Accessibility Notice

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PRE-BID CONFERENCE

There will be a Pre-Bid Conference prior to the date of the bid opening for the purpose of providing a general discussion and review of any questions that might pertain to the bidding documents and procedures. All interested contractors are required to attend this meeting after reading the Project Manual. Please bring Project Manual and drawings, if any, to this conference. Project Manuals will be available for purchase at the Pre-Bid Conference. ATTENDANCE OF THE PRE-BID CONFERENCE IS REQUIRED FOR ACCEPTANCE OF BID FROM THE CONTRACTOR.

PROJECT SITE ADDRESS: Gustaves Manor

107 W. Main Street Auburn, WA 98001

CONFERENCE DATE: March 23, 2022

TIME: 10:00 AM

CONTACT NAME: Amy Kurtz

EMAIL: amyk@kcha.org



PROJECT WAGE RATES

- A. DAVIS BACON WAGE RATES (NA)
- **B. HUD NON-ROUTINE MAINTENANCE WAGES**

TYPE OF WAGE RATES: <u>HUD NON-ROUTINE MAINTENANCE</u>

WAGE DATE: 01-01-21

For contracts entered into pursuant to competitive bidding procedures, the bid opening date "locks-in" the Non-Routine Maintenance Wage Rates that will be used during the course of the project.

NOTE: The awarded bidder will be required to submit, along with other contractual documentation, Form C.9 Certification of Compliance with Washington State Wage Payment Statutes.



NON-ROUTINE MAINTENANCE WAGE RATES

	HOURLY WAGE RATES						
WORK CLASSIFICATIONS	BASIC WAGE	FRINGE BENEFITS	TOTAL				
Asphalt Painter	\$27.06	\$8.85	\$35.91				
Asphalt Raker	\$25.27	\$8.27	\$33.54				
Asphalt Roller/Cement Mixer over 16 yds	\$25.91	\$8.85	\$34.76				
Backhoe Operator	\$27.06	\$8.85	\$35.91				
Carpenter	\$32.02	\$10.49	\$42.51				
Cement Mason - Finisher	\$32.02	\$10.49	\$42.51				
Concrete Saw Operator	\$25.27	\$8.27	\$33.54				
Drywaller	\$27.06	\$8.85	\$35.91				
Electrician	\$32.02	\$10.49	\$42.51				
Elevator Mechanic	\$55.86	\$39.76	\$95.62				
Fence Erector	\$25.27	\$8.27	\$33.54				
Glazier	\$27.06	\$8.85	\$35.91				
HVAC/Furnace Mechanic	\$32.02	\$10.40	\$42.42				
Laborer	\$25.27	\$8.27	\$33.54				
Low Voltage Technician	\$32.02	\$10.49	\$42.51				
Motor Grader	\$25.27	\$8.27	\$33.54				
Nozzleman for Cement Mixer	\$25.91	\$8.85	\$34.76				
Painter	\$27.06	\$8.85	\$35.91				
Paver/Roller/(Sakai Roller)	\$27.06	\$8.85	\$35.91				
Paving Machine Operator - Self Propelled	\$27.06	\$8.85	\$35.91				
Pipe Reliner	\$32.02	\$10.49	\$42.51				
Pipefitter	\$25.27	\$8.27	\$33.54				
Plumber	\$32.02	\$10.49	\$42.51				
Pressure Washer	\$19.78	\$6.30	\$26.08				
Refrigeration Mechanic	\$32.02	\$10.49	\$42.51				
Roofer	\$27.06	\$8.85	\$35.91				
Roto-mill/Roto-grinder	\$25.91	\$8.85	\$34.76				
Screedman	\$27.06	\$8.85	\$35.91				
Soft Floor Layer	\$25.27	\$8.27	\$33.54				
Tree Trimmer/Tree Climber	\$19.78	\$6.30	\$26.08				
Truck Driver all yardage	\$25.27	\$8.27	\$33.54				



TAX APPLICATIONS

TAX APPLICATIONS

If you have questions regarding the application of the retail sales tax exemption to the King County Housing Authority, please call your personal tax advisor or the Washington State Department of Revenue Office toll-free for one-on-one help: Telephone Information Center 1-800-647-7706.

WAC 458-20-17001

Government contracting -- Construction, installations, or improvements to government real property.

- (1) Special business and occupation tax applications and special sales/use tax applications pertain for prime and subcontractors who perform certain construction, installation, and improvements to real property of or for the United States, its instrumentalities, or a county or city housing authority created pursuant to chapter 35.82 RCW. These specific construction activities are excluded from the definition of "sale at retail" under RCW 82.04.050. All other sales to the United States, its agencies or instrumentalities are taxable as retail sales or wholesale sales, as appropriate. See WAC 458-20-190.
- (2) The definitions of terms and general provisions contained in WAC 458-20-170 apply equally for this rule, as appropriate. In addition, the terms, "clearing land" and "moving earth" include well drilling, core drilling, and hole digging, whether or not casing materials are installed and any grading or clearing of land, including the razing of buildings or other structures.

Business and Occupation Tax

- (3) Amounts derived from constructing, repairing, decorating, or improving new or existing buildings or other structures, including installing or attaching tangible personal property therein or thereto, and clearing land or moving earth, of or for the United States, its instrumentalities, or county or city housing authorities of chapter 35.82 RCW are taxable under the government contracting classification of business and occupation tax. The measure of the tax is the gross contract price.
- (4) Government contractors who manufacture or produce any tangible personal property for their own commercial or industrial use as consumers in performing government contracting activities are subject to the manufacturing classification of business and occupation tax measured by the value of the property manufactured or produced. See also, WAC 458-20-134. The manufacturing tax applies even though the property manufactured or produced for commercial use may be subsequently incorporated into buildings or other structures under the government contract and may thereby enhance the gross contract price.

Retail Sales Tax

(5) The retail sales tax does not apply to the gross contract price, or any part thereof, for any business activities taxable under the government contracting classification. Prime and subcontractors who perform such activities are themselves included within the statutory definition of "consumer" under RCW 82.04.190 and are required to pay retail sales tax upon all purchases of materials, including prefabricated and precast items, equipment, and other tangible personal property which is installed, applied, attached, or otherwise incorporated in their government contracting work. This applies for all such purchases of tangible personal property for installation, etc., even though the full purchase price of such property will be reimbursed by the government or housing authority in the gross contract price. It also applies notwithstanding that the contract may contain an immediate title vesting clause which provides that the title to the property vests in the government or housing authority immediately upon its acquisition by the contractor.

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(6) Also, the retail sales tax must be paid by government contractors upon their purchases and leases or rentals of tools, consumables, and other tangible personal property used by them as consumers in performing government contracting.

Use Tax

- (7) The use tax applies upon the value of all materials, equipment, and other tangible personal property purchased at retail, acquired as a bailee or donee, or manufactured or produced by the contractor for commercial or industrial use in performing government contracting and upon which no retail sales tax has been paid by the contractor, its bailor or donor.
- (8) Thus the use tax applies to all property provided by the federal government to the contractor for installation or inclusion in the contract work as well as to all government provided tooling.
- (9) The use tax is to be reported and paid by the government contractor who actually installs or applies the property to the contract. Where the actual installing contractor pays the tax, no further use tax is due upon such property by any other contractor.
- (10) Note to contractors: The United States Supreme Court has sustained the government contracting tax applications for this state, even though the ultimate economic burden of the tax is borne by the United States Government (Washington v. US, 75 L.Ed 2d 264, 1983).
- (11) This rule does not apply to public road construction. See WAC 458-20-171. [Statutory Authority: RCW 82.32.300. 86-10-016 (Order ET 86-9), § 458-20-17001, filed 5/1/86.]



SECTION 3 - CLAUSE

- A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3) as implemented by HUD under 24 CFR Part 75 (collectively, the "Section 3 Regulations"). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD- assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, including persons who are recipients of HUD assistance for housing, with preference for both targeted workers living in the service area or neighborhood of the Development and YouthBuild participants.
- B. The parties to this contract agree to comply with Section 3 Regulations. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual obligation or other impediment that would prevent them from complying with Section 3 Regulations.
- C. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- D. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with Section 3 Regulations, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of Section 3 Regulations. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of Section 3 Regulations.
- E. The Contractor will certify that any vacant employment positions, including training positions, that are filled; (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom Section 3 Regulations require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under Section 3 Regulations.
- F. Noncompliance with HUD's Section 3 Regulations may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- G. Section 3 Employment and Training. Without limiting Contractor's obligation to comply with Section 3 Regulations, the Contractor specifically agrees to use best efforts to provide employment and training opportunities to Section 3 workers in the following order of priority:
 - 1. To residents of the KCHA development where the work is being performed;
 - 2. To residents of other KCHA developments or for residents of Section 8-assisted housing managed by KCHA;
 - 3. To participants in YouthBuild programs; and

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- 4. To low- and very low-income persons residing within the Puget Sound Region.
- H. Section 3 Contracting. Without limiting Contractor's obligation to comply with Section 3 Regulations, Contractor specifically agrees to use best efforts to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 workers in the following order of priority:
 - 1. To Section 3 business concerns that provide economic opportunities for KCHA residents of the development where the work is being performed;
 - 2. To Section 3 business concerns that provide economic opportunities for KCHA residents of other KCHA developments or Section–8 assisted housing managed by KCHA;
 - 3. To YouthBuild programs; and
 - 4. To Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the Puget Sound Region.



SECTION 3 – SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

LOCAL RESIDENT HIRING AND CONTRACTING (SECTION 3) REQUIREMENTS:

The Owner's or King County Housing Authority's (KCHA) goal for this project is to participate in Section 3 activities by including efforts that will provide employment opportunities to Section 3 workers and contracting opportunities to Section 3 businesses. (Section 3 workers and Section 3 Businesses are defined below and in 24 CFR 75.)

The Contractor and its Subcontractors at all tiers for this specific contract will partner with the Owner to contribute to the Owner's overall "Section 3" goals, as described below.

Because local hiring and contracting requirements are defined under Section 3 of the Housing and Community Development Act of 1968, these requirements are commonly referred to as Section 3. The definitions and goals are defined in Sections A and B below. Section C describes the process. Section D discusses consequences of non-compliance with Section 3 goals and Section E describes some local hiring resources. For more information on the Owner's employment and training efforts, or compliance with Section 3, please contact KCHA by email at Section3@kcha.org.

A. Section 3 Definitions

For the purposes of this solicitation:

- 1. "Section 3 worker" means any worker who currently fits or when hired within the past five years fit at least one of the following categories, as documented:
 - a. The worker's income for the previous or annualized calendar year is below the income limit established by HUD. (See Pg. 4 of this section for HUD income limits)
 - b. The worker is employed by a Section 3 business concern.
 - c. The worker is a YouthBuild participant.
- 2. "Targeted Section 3 worker" means a Section 3 worker who is:
 - a. A worker employed by a Section 3 business concern; or
 - b. A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:
 - i. A resident of public housing or Section 8–assisted housing;
 - ii. A resident of other public housing projects or Section 8-assisted housing managed by the PHA that is providing the assistance; or
 - iii. A YouthBuild participant.
- 3. "Business concern" means a business entity formed in accordance with State law, and which is licensed under State, county, or municipal law to engage in the type of business activity for which it was formed.
- 4. "Section 3 business concern" means a business concern meeting at least one of the following criteria, documented within the last six-month period:
 - a. It is at least 51 percent owned and controlled by low- or very low-income persons;
 - b. Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers; or
 - c. It is a business at least 51 percent owned and controlled by current public housing residents or residents who currently live in Section 8–assisted housing.
- 5. The greatest extent feasible means:
 - a. Completing and submitting a Section 3 Work Plan to designated Owner staff prior to contract signing (template to be provided by the Owner).
 - b. If contracting with Section 3 business concerns:

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- i. Placing qualified business enterprises on solicitation lists.
- ii. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation of qualified Section 3 businesses.
- iii. Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce and State and local governmental small business agencies to identify potential Section 3 businesses.
- iv. Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources.
- c. If hiring Section 3 workers:
 - i. Post job opportunities for a mutually agreed upon length of time through the Owner's employment agency service partners and at project site as appropriate.
 - ii. Conduct interviews with qualified Section 3 workers.
 - iii. Notify designated Owner (KCHA) staff of all new hires.
- d. For both: Complete Section 3 compliance and tracking paperwork as necessary.

B. Section 3 Goals

The Owner will require, to the greatest extent feasible, for the Contractor to demonstrate participation in the local hiring and contracting requirements as defined under Section 3 of the Housing and Community Development Act of 1968.

- 1. Bidders shall demonstrate compliance with the Section 3 goals by making a best faith effort to achieve the following benchmarks:
 - a. Twenty-five (25) percent or more of the total number of labor hours worked by all workers are Section 3 workers; and
 - b. Five (5) percent or more of the total number of labor hours worked by all workers are Targeted Section 3 workers.
- 2. The successful bidder and covered subcontractors shall direct their efforts to provide Section 3 employment opportunities to Section 3 workers in the following order of priority:
 - a. First Priority: Current residents of KCHA development(s) benefitting from project.
 - b. Second Priority: Other Owner public housing and Section 8 voucher- assisted residents.
 - c. Third Priority: Participants in HUD Youthbuild programs.
 - d. Fourth Priority: Other low or very low income individuals in the Housing Authorities metropolitan area (Puget Sound region) who are at or below the Area's Low Income calculation.
- 3. The Contractor and covered subcontractors shall direct their efforts to award contracts to Section 3 business concerns in the following order of priority:
 - a. First Priority: To Section 3 business concern that provides economic opportunities for KCHA residents at the site(s) where the work will take place.
 - b. Second Priority: To Section 3 business concerns that provide economic opportunities for residents of other KCHA developments or Section–8 assisted housing managed by KCHA.
 - c. Third Priority: A subcontractor that is a HUD Youthbuild company.
 - d. Fourth Priority: To Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the metropolitan area (Puget Sound).

4. Sealed Bidding

In order for KCHA to meet or exceed its adopted goal that 3% of all non-construction contracts and 10% of construction contracts paid in whole or in part with HUD funds be awarded to Section 3 businesses, KCHA may elect, on a contract-by-contract basis, to award a competitively bid contract to a responsible bidder other than the lowest responsive bidder by using the following procedure:

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Bids shall be solicited from both Section 3 and non-Section 3 business concerns. KCHA may award the contract to the qualified Section 3 business concern with the highest priority ranking and with the lowest responsive bid if:

- a. the specific project or KCHA as an agency is otherwise not expected to meet Section 3 utilization goals; and,
- b. the bid is within the maximum total contract price established in KCHA's budget for the specific project for which bids are being taken; and,
- c. the sources of funds for the project are such that there are no conflicts between this procedure and applicable state law; and,
- d. the bid is not more than "X" higher than the total bid price for the lowest responsive bid from any responsible, bidder. "X" is determined as follows:

(FOR KCHA USE ONLY)	X = LESSER OF:
• When the lowest responsive bid is less than \$100,000	10%
When the lowest responsive bid is: \$100,000, but less than \$200,000 At least \$200,000 but less than \$300,000 At least \$300,000 but less than \$400,000 At least \$400,000 but less than \$500,000 At least \$500,000 but less than \$1 million At least \$1 million but less than \$2 million At least \$2 million but less than \$4 million At least \$4 million but less than \$7 million \$7 million	9% 8% 7% 6% 5% 4% 3% 2% 1 ½ % of the lowest responsive bid with no dollar limit

If no responsive bid by a Section 3 business concern meets the requirements above, the contract shall be awarded to a responsible bidder with the lowest responsive bid.

C. The Process

- 1. Contract is awarded to lowest responsible Bidder.
- 2. Section 3 orientation with Owner. Once the Notice of Intent to Award has been issued to the successful Bidder, Owner's staff will contact that Bidder and arrange for a meeting to discuss local hiring and contracting goals and strategies in greater detail. At this meeting, the Contractor will be provided a packet that will include a Section 3 overview, Section 3 certification form, and all Section 3 compliance and tracking forms that will be used throughout the contract.
- 3. Contractor reports on Section 3 activities monthly.

FOR CONTRACTS EXCEEDING \$500K ONLY:

- 4. Contractor submits Section 3 Work Plan, including hiring and subcontracting activities, prior to contract execution. Owner reviews and approves work plan prior to contract execution. Section 3 Work Plan shall be included in contract. Owner issues Notice to Proceed, providing all requirements are met.
- 5. Section 3 Work Plan implemented throughout the duration of contract.



D. Penalties for Non-compliance

Owner's commitment to this program is reflected in part by the cost of administering the program. Failure to make a good faith effort to the greatest extent feasible negates such funding and impairs the Owner's efforts to promote workforce diversity and to provide fair and equal opportunities to the public as a whole as a result of the expenditure of public funds. Therefore, if awarded this contract, the parties will mutually agree that failure to meet the requirements, including but not limited to the submission of required documentation, constitutes a material breach of contract. In the event of such breach, Owner may take any or all of the actions as contained in the Contract Documents.

E. Local Hiring Resources

Contact KCHA by email at Section3@kcha.org to obtain a list of local hiring resources.

SECTION 3 – 2021 INCOME GUIDELINES

Location	Bremerton Silverdale (Kitsap County)		Seattle, Bellevue Everett (King/Snohomish Counties)		Tacoma (Pierce County)		Sedro Wool (Skagit Cour		-
Income	Extremely Low	\$19,800	Extremely Low	\$24,300	Extremely Low	\$19,100		Extremely Low	\$17,300
Limit 1 Person	Very low income	\$23,950	Very low income	\$40,500	Very low income	\$31,800		Very low income	\$28,850
	Low income	\$52,750	Low income	\$63,350	Low income	\$50,900		Low income	\$46,100



PROGRESS PAYMENT SUSPENSION CRITERIA

CRITERIA will include:

- 1. Non-submittal of Certified Payroll documents (see Informational Form A.12)
- 2. Non-submittal of Section 3 Labor Hours Benchmark Status Report (see Section C for sample)
- 3. No lien release with Application for Payment
- 4. Insurance expires
- 5. Federal and/or State liens on general contractor
- 6. Suspension/expiration of WA State contractor's license
- 7. Work not accomplished
- 8. Work not approved/accepted
- 9. Repeated safety violations not resolved if warnings from KCHA are ignored
- 10. Incorrect Application for Payment or invoice (whichever is applicable)
- 11. Non-submittal of the GC Certification Upon Application for Payment (see Section E, Division 1 for sample of KCHA Pay Application which includes the continuation sheet, the payment application and the GC Certification)



EXECUTIVE ORDER 11246 (as AMENDED)

---DISCLAIMER--- http://www.dol.gov/general/disclaim#statutory

Executive Order 11246 - Equal Employment Opportunity

SOURCE: The provisions of Executive Order 11246 of Sept. 24, 1965, appear at 30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p.339, unless otherwise noted.

Under and by virtue of the authority vested in me as President of the United States by the Constitution and statutes of the United States, it is ordered as follows:

Part I - Nondiscrimination in Government Employment

[Part I superseded by EO 11478 of Aug. 8, 1969, 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803]

Part II - Nondiscrimination in Employment by Government Contractors and Subcontractors Subpart A - Duties of the Secretary of Labor

SEC. 201.The Secretary of Labor shall be responsible for the administration and enforcement of Parts II and III of this Order. The Secretary shall adopt such rules and regulations and issue such orders as are deemed necessary and appropriate to achieve the purposes of Parts II and III of this Order.

[Sec. 201 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart B - Contractors' Agreements

SEC. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

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- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States."

[Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

- **SEC. 203.** Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.
- (b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.
- (c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.
- (d) The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this Order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and

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provisions of the order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the Secretary of Labor may require.

[Sec. 203 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684; EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

- **SEC. 204** (a) The Secretary of Labor may, when the Secretary deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this **Order** in any specific contract, subcontract, or purchase **order**.
- (b) The Secretary of Labor may, by rule or regulation, exempt certain classes of contracts, subcontracts, or purchase orders (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; or (4) to the extent that they involve subcontracts below a specified tier.
- (c) Section 202 of this **Order** shall not apply to a Government contractor or subcontractor that is a religious corporation, association, educational institution, or society, with respect to the employment of individuals of a particular religion to perform work connected with the carrying on by such corporation, association, educational institution, or society of its activities. Such contractors and subcontractors are not exempted or excused from complying with the other requirements contained in this **Order**.
- (d) The Secretary of Labor may also provide, by rule, regulation, or **order**, for the exemption of facilities of a contractor that are in all respects separate and distinct from activities of the contractor related to the performance of the contract: provided, that such an exemption will not interfere with or impede the effectuation of the purposes of this **Order**: and provided further, that in the absence of such an exemption all facilities shall be covered by the provisions of this **Order**."

[Sec. 204 amended by EO 13279 of Dec. 16, 2002, 67 FR 77141, 3 CFR, 2002 Comp., p. 77141 - 77144]

Subpart C - Powers and Duties of the Secretary of Labor and the Contracting Agencies

SEC. 205. The Secretary of Labor shall be responsible for securing compliance by all Government contractors and subcontractors with this Order and any implementing rules or regulations. All contracting agencies shall comply with the terms of this Order and any implementing rules, regulations, or orders of the Secretary of Labor. Contracting agencies shall cooperate with the Secretary of Labor and shall furnish such information and assistance as the Secretary may require.

[Sec. 205 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

- **SEC. 206.** The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor to determine whether or not the contractual provisions specified in Section 202 of this Order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor.
- (b) The Secretary of Labor may receive and investigate complaints by employees or prospective employees of a Government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this Order.

[Sec. 206 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 207. The Secretary of Labor shall use his/her best efforts, directly and through interested Federal, State, and local agencies, contractors, and all other available instrumentalities to cause any labor union

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engaged in work under Government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in the implementation of the purposes of this Order. The Secretary of Labor shall, in appropriate cases, notify the Equal Employment Opportunity Commission, the Department of Justice, or other appropriate Federal agencies whenever it has reason to believe that the practices of any such labor organization or agency violate Title VI or Title VII of the Civil Rights Act of 1964 or other provision of Federal law.

[Sec. 207 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 208. The Secretary of Labor, or any agency, officer, or employee in the executive branch of the Government designated by rule, regulation, or order of the Secretary, may hold such hearings, public or private, as the Secretary may deem advisable for compliance, enforcement, or educational purposes.

(b) The Secretary of Labor may hold, or cause to be held, hearings in accordance with Subsection of this Section prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. No order for debarment of any contractor from further Government contracts under Section 209(6) shall be made without affording the contractor an opportunity for a hearing.

Subpart D - Sanctions and Penalties

SEC. 209. In accordance with such rules, regulations, or orders as the Secretary of Labor may issue or adopt, the Secretary may:

- (1) Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this Order or of the rules, regulations, and orders of the Secretary of Labor.
- (2) Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this Order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this Order.
- (3) Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of 1964.
- (4) Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.
- (5) After consulting with the contracting agency, direct the contracting agency to cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended, any contract, or any portion or portions thereof, for failure of the contractor or subcontractor to comply with equal employment opportunity provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the Secretary of Labor.
- (6) Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this Order.
- (b) Pursuant to rules and regulations prescribed by the Secretary of Labor, the Secretary shall make reasonable efforts, within a reasonable time limitation, to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a)(2) of this Section, or before a contract shall be cancelled or terminated in whole or in part under subsection (a)(5) of this Section.

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[Sec. 209 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 210. Whenever the Secretary of Labor makes a determination under Section 209, the Secretary shall promptly notify the appropriate agency. The agency shall take the action directed by the Secretary and shall report the results of the action it has taken to the Secretary of Labor within such time as the Secretary shall specify. If the contracting agency fails to take the action directed within thirty days, the Secretary may take the action directly.

[Sec. 210 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p 230]

SEC. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this Order or submits a program for compliance acceptable to the Secretary of Labor. [Sec. 211 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 212. When a contract has been cancelled or terminated under Section 209(a)(5) or a contractor has been debarred from further Government contracts under Section 209(a)(6) of this Order, because of noncompliance with the contract provisions specified in Section 202 of this Order, the Secretary of Labor shall promptly notify the Comptroller General of the United States.

[Sec. 212 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart E - Certificates of Merit

SEC. 213. The Secretary of Labor may provide for issuance of a United States Government Certificate of Merit to employers or labor unions, or other agencies which are or may hereafter be engaged in work under Government contracts, if the Secretary is satisfied that the personnel and employment practices of the employer, or that the personnel, training, apprenticeship, membership, grievance and representation, upgrading, and other practices and policies of the labor union or other agency conform to the purposes and provisions of this Order.

SEC. 214. Any Certificate of Merit may at any time be suspended or revoked by the Secretary of Labor if the holder thereof, in the judgment of the Secretary, has failed to comply with the provisions of this Order.

SEC. 215. The Secretary of Labor may provide for the exemption of any employer, labor union, or other agency from any reporting requirements imposed under or pursuant to this Order if such employer, labor union, or other agency has been awarded a Certificate of Merit which has not been suspended or revoked.

Part III - Nondiscrimination Provisions in Federally Assisted Construction Contracts

SEC. 301. Each executive department and agency, which administers a program involving Federal financial assistance shall require as a condition for the approval of any grant, contract, loan, insurance, or guarantee thereunder, which may involve a construction contract, that the applicant for Federal assistance undertake and agree to incorporate, or cause to be incorporated, into all construction contracts paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to such grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the provisions prescribed for Government contracts by Section 202 of this Order or such modification thereof, preserving in substance the contractor's obligations thereunder, as may be approved by the Secretary of Labor, together with such additional provisions as the Secretary deems appropriate to establish and protect the interest of the United States in the enforcement of those obligations. Each such applicant shall also undertake and agree (1) to assist and cooperate actively with the Secretary of Labor in obtaining the compliance of contractors and subcontractors with those contract provisions and with the rules, regulations and relevant orders of the Secretary, (2) to obtain and to furnish to the Secretary of Labor such information as the Secretary may require

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for the supervision of such compliance, (3) to carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the Secretary of Labor pursuant to Part II, Subpart D, of this Order, and (4) to refrain from entering into any contract subject to this Order, or extension or other modification of such a contract with a contractor debarred from Government contracts under Part II, Subpart D, of this Order.

[Sec. 301 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

- **SEC. 302.** "Construction contract" as used in this Order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.
- (b) The provisions of Part II of this Order shall apply to such construction contracts, and for purposes of such application the administering department or agency shall be considered the contracting agency referred to therein.
- (c) The term "applicant" as used in this Order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this Part, and it includes such an applicant after he/she becomes a recipient of such Federal assistance.
- **SEC. 303.** The Secretary of Labor shall be responsible for obtaining the compliance of such applicants with their undertakings under this Order. Each administering department and agency is directed to cooperate with the Secretary of Labor and to furnish the Secretary such information and assistance as the Secretary may require in the performance of the Secretary's functions under this Order.
- (b) In the event an applicant fails and refuses to comply with the applicant's undertakings pursuant to this Order, the Secretary of Labor may, after consulting with the administering department or agency, take any or all of the following actions: (1) direct any administering department or agency to cancel, terminate, or suspend in whole or in part the agreement, contract or other arrangement with such applicant with respect to which the failure or refusal occurred; (2) direct any administering department or agency to refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received by the Secretary of Labor from such applicant; and (3) refer the case to the Department of Justice or the Equal Employment Opportunity Commission for appropriate law enforcement or other proceedings.
- (c) In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing.

[Sec. 303 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 304. Any executive department or agency which imposes by rule, regulation, or order requirements of nondiscrimination in employment, other than requirements imposed pursuant to this Order, may delegate to the Secretary of Labor by agreement such responsibilities with respect to compliance standards, reports, and procedures as would tend to bring the administration of such requirements into conformity with the administration of requirements imposed under this Order: Provided, That actions to effect compliance by recipients of Federal financial assistance with requirements imposed pursuant to Title VI of the Civil Rights Act of 1964 shall be taken in conformity with the procedures and limitations prescribed in Section 602 thereof and the regulations of the administering department or agency issued thereunder.

Part IV - Miscellaneous

SEC. 401. The Secretary of Labor may delegate to any officer, agency, or employee in the Executive branch of the Government, any function or duty of the Secretary under Parts II and III of this Order.

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[Sec. 401 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 402. The Secretary of Labor shall provide administrative support for the execution of the program known as the "Plans for Progress."

SEC. 403. Executive Orders Nos. 10590 (January 19, 1955), 10722 (August 5, 1957), 10925 (March 6, 1961), 11114 (June 22, 1963), and 11162 (July 28, 1964), are hereby superseded and the President's Committee on Equal Employment Opportunity established by Executive Order No. 10925 is hereby abolished. All records and property in the custody of the Committee shall be transferred to the Office of Personnel Management and the Secretary of Labor, as appropriate.

(b) Nothing in this Order shall be deemed to relieve any person of any obligation assumed or imposed under or pursuant to any Executive Order superseded by this Order. All rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the Executive orders superseded by this Order, shall, to the extent that they are not inconsistent with this Order, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of this Order.

[Sec. 403 amended by EO 12107 of Dec. 28, 1978, 44 FR 1055, 3 CFR, 1978 Comp., p, 264]

SEC. 404. The General Services Administration shall take appropriate action to revise the standard Government contract forms to accord with the provisions of this Order and of the rules and regulations of the Secretary of Labor.

SEC. 405. This Order shall become effective thirty days after the date of this Order.



EXECUTIVE ORDER 13496

New Employee Notification Requirements for Federal Contractors and Subcontractors

Under Department of Labor regulations, www.gpo.gov/fdsys/pkg/FR-2010-05-20/pdf/2010-11639.pdf, contractors holding contracts with the Federal government and their subcontractors are required, beginning on June 21, 2010, to post notices informing employees of their rights under the National Labor Relations Act (NLRA). The notice to employees required by the regulations inform employees about their rights under the NLRA to form, join and assist a union and to bargain collectively with their employer; provides examples of unlawful employer and union conduct that interferes with those rights; and indicates how employees can contact the National Labor Relations Board, the Federal agency that enforces those rights, with questions or to file complaints. Contractors that violate the Labor Department's regulations requiring employee notification of these rights may be subject to sanctions, including suspension or cancellation of the contract.

The regulations require Federal contractors:

- to post the required employee notice conspicuously in and around their plants and offices so that it is prominent and readily seen by employees who are covered by the NLRA and who engage in contract-related activity;
- 2. to post the required notice electronically if they communicate with employees electronically, which requires posting a link to the Department of Labor's website containing the employee notice where they customarily place other electronic notices to employees about their jobs; and
- 3. to insert provisions in their subcontracts that require their subcontractors to comply with the same posting requirements as well.

Contractors and subcontractors may obtain the required poster in any of the three ways. The Labor Department will print posters and provide them to Federal contracting departments and agencies for supply to contractors and subcontractors. In addition, contractors and subcontractors can request posters from the field offices of the Labor Department's Office of Federal Contract Compliance Programs (http://www.dol.gov/ofccp/contacts/ofnation2.htm), or Office of Labor-Management Standards (OLMS) (http://www.dol.gov/olms/contacts/lmskeyp.htm). Finally, contractors and subcontractors can acquire the poster from OLMS' website by downloading it from http://www.dol.gov/olms or by calling (202) 693-0123. Compliance information for contractors and subcontractors can be found at OFCCP's website Construction Compliance Checks Frequently Asked Questions | U.S. Department of Labor (dol.gov)

EXECUTIVE ORDER 13496 - FREQUENTLY ASKED QUESTIONS

Executive Order 13496 Frequently Asked Questions | U.S. Department of Labor (dol.gov)



REQUIREMENTS FOR PUBLIC WORKS PROJECTS

REQUIREMENTS FOR PUBLIC WORKS PROJECTS – All projects require that the contractor and all subcontractors performing labor on the project site must file the Statement of Intent with L&I regardless of the wage determination is set as HUD Non-Routine Maintenance, State Prevailing wages or Davis-Bacon.

Statement of Intent to Pay Prevailing Wages - filed at the start of the project

- A. **Filed Immediately** after the contract is awarded and before work begins, if that is possible. **NO PAYMENTS CAN BE MADE** until the contractor has submitted an Intent form that has been approved by the Industrial Statistician.
- B. SUBCONTRACTORS must file using the PRIME CONTRACTOR'S "Form ID Number" after the PRIME has received approval for their Statement of Intent.
- C. Wage payment requirements for this project are determined to be
 - 1. Davis-Bacon (NA)

2. HUD Non-Routine Maintenance

- a. The Intent is then filed with the question "Is this a Housing Act of 1937 Project?" answered as Yes.
- b. See the Informational Form A.13b for the sample of Intent to Pay Prevailing Wages with the highlighted statement shown on the form.

Certified Payroll - filed each week for the duration of the project

- A. Submitted on a weekly basis, beginning with the first week that the Contractor works on the Project, and for every week afterward until the Contractor completes the Work.
- B. Consisting of a certified payroll report and a statement of compliance.
- C. See Informational Form A.13c for more information.

 NOTE: These requirements will also apply to HUD Non-Routine Maintenance Wages.

Affidavit of Wages Paid - filed at the end of the project

A. Submitted at the end of the project once all of the work has been completed, showing the wages paid to employees who worked on the project.

SCREEN SHOTS OF INTENT

File Intent: Enter the Project Details

Project Details	
Contract Type	Bid-Build (Traditional)
Bid Due Date (required) (i)	mm/dd/yyyy
Contract Award Date (required) (1)	mm/dd/yyyy
Awarding Agency	KING COUNTY HOUSING AUTHORITY
Awarding Agency Address	700 ANDOVER PARK SW TUKWILA, WA - 98188
Awarding Agency Contact Name (required)	
Awarding Agency Contact Phone Number (required)	Ext
Awarding Agency Contract Number (required) (1)	
Project Name (required)	
s apprentice utilization required? (required)	○ Yes ○ No
s OMWBE utilization required? (required)	○ Yes ○ No
s this a Housing Act of 1937 project? (required)	○ Yes ○ No
Project Site Address or Directions (i)	
	0/1000





Prevailing Wage Section - Telephone 360-902-5335 PO 8ox 44540, Olympia, WA 98504-4540

Statement of Intent to Pay Prevailing Wage

This is a Housing Act of 1937 project per 24 CFR 96-101 and is exempt from the state prevailing wage rates but not exempt from the application of other prevailing wage requirements under the Washington State laws, rules and policies.

Document Received Date:	Intent ld:	Affidavits:	Status:
Company Details			
Company X	Ţ	JBI:123 456 789	
123 Somewhere	I	Reg#: companyx122	
Renton, WA 98111	1	Email: puppies@yahoo.com	
	=1	Piled By: Pup Pies	
OMWBE Certifications as of 2/26/2020 No active certifications exist for this business.			
to delive certifications exist for this beariess.			
Workers' Compensation Account ID		688,825-01	
Prime Contractor			
Company Name	(Company X	
Contractor Registration No.	c	ompanyx122	
WA UBI No.	1	23 456 789	
Phone Number	:	206-555-1212	
Project Information			
Awarding Agency		KING COUNTY HOUSING AUTHORITY	
Awarding Agency Contact Name		Amy Kurtz	
Awarding Agency Contact Phone Number		206-574-1283	
Contract Number		CC2000165	
Project Name		Munro Manor	
Contract Type		Bid-Build (Traditional)	
Bid Due Date		1/29/2020	



Contract Award Date 2/5/2020

Apprentice utilization is required

OMWBE utilization is required

Is this a Housing Act of 1937 project?

Project Site Address or Directions 630 South 152nd St Burien, WA 98148

Project Description Installation of CIPP liners under the building slab, concrete walkway

No

No

Yes

and landscaping.

Intent Details

Does your company intend to hire ANY subcontractors? Yes

Will your company have employees perform work on this project? Yes

Do you intend to use any apprentices? (Apprentices are considered

employees.)

How many owner/operators performing work on the project own 30%

or more of the company?

What is the estimated contract amount? OR is this a time and

materials estimate?

\$340,309.00

No

0

Your expected project start date: (MM-DD-YYYY) 3/2/2020

In what county (or counties) will the work be performed?

In what city (or nearest city) will the work be performed?

King Burien

Journey Level Wage Details

County	Trade	Occupation	Prevailing Wage	Wage	Fringe	# Workers
King	Laborers	Pipe Reliner	\$51.80	\$49.81	\$2.00	5



REQUIREMENTS FOR CERTIFIED PAYROLL per CFR TITLE 29 SUBTITLE A DAVIS BACON & RELATED ACTS PROVISIONS & PROCEDURES

§ 5.5 Contract provisions and related matters.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided*, That such modifications are first approved by the Department of Labor):

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis- Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)

- (A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (1) The work to be performed by the classification requested is not performed

King County Housing Authority

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- by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30- day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
- (2) Withholding. The King County Housing Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of



the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

- (3) Payrolls and basic records.
 - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)

(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the King County Housing Authority if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the King County Housing Authority. The payrolls submitted shall set out accurately and completely all of the information required to be

maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the King County Housing Authority if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the King County Housing Authority, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

King County Housing Authority

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the King County Housing Authority or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.
- (4) Apprentices and trainees -
 - (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above,



shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

King County Housing

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

- (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract Termination: Debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility.
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis- Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.
- (b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by § 5.5(a) or § 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
 - (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$29 for each calendar day on which such individual was required or permitted to



- work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.
- (c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in § 5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.



B - SECTION

GUSTAVES MANOR ENVELOPE UPGRADE

107 W. MAIN STREET, AUBURN, WA 98001

DUE DATE: April 6, 2022 **TIME:** 1:00 pm

In order to be considered as **RESPONSIVE BIDS**, all bidders **MUST** submit the following <u>Signed</u> <u>Documents (each single sided)</u> no later than the **Bid Due Date and Time**.

Forms to Return if Bidding

B.1	Bid Form
B.2	COVID-19 Job Site Requirements
B.3	Bidder's Experience Record
B.4	Contractor Certification
B.5	Non-Collusive Affidavit
B.6	Equal Opportunity
B.7	Bid Security (Submit only for bids greater than \$150,000)
B.8	Debarment / Suspension Compliance Certification
B.9	Proposed Subcontractor List
B.10	Section 3
	a. Business Certification
	b. Subcontractor Work Plan
B.11	Harassment and Discrimination Policies
B.12	WMBE Survey (Form is not required to be responsive, but requested)
B.13	Preliminary Project Schedule – Provided by Contractor



BID FORM - RETURN EACH FORM SINGLE SIDED

BID TO:

KING COUNTY HOUSING AUTHORITY CAPITAL CONSTRUCTION DEPARTMENT 700 Andover Park West, Suite C * Tukwila, WA 98188

PROJECT NAME AND LOCATION:

Gustaves Manor Envelope Upgrade 107 W. Main Street, Auburn, WA 98001

SCOPE OF WORK:

Gustaves Manor is located on the main arterial of West Main Street of downtown Auburn. The five-story apartment building constructed in 1982 is situated on the west portion of the block adjacent to the multistory retail structure, constructed in 1953. This portion of the building has a historical designation from the City and will remain protected throughout construction. There is limited parking surrounding the building and a City-owned parking lot located on the North Elevation. KCHA will work with the winning bidder to use the neighboring property for staging and laydown. The contractor's base bid will include all necessary safety measures when removing the existing and disposing of the existing building components. Pedestrian walkways will be protected at all times from any falling debris or overhead dangers. The contractor will work directly with the City of Auburn to obtain all necessary street use permits or closures during the construction period.

The five story apartment structure is concrete CMU block with infill metal stud framed walls and a stuccoclad exterior. The main exterior of building is stucco applied onto CMU block and selective areas around the balcony's and bay windows consist of the stucco application being applied onto plywood or GWB. The adjoined CMU block wall and roof structure at the west elevation will be removed disposed. Any asphalt damage will be cold patched and sealed. Removal of any windows or doors will be re-installed the same day. Exterior lighting on building noted to be removed will remain in place or temporary lighting will be provided by the contractor throughout construction.

The upper roof and elevator parapet will include removal and disposal of existing torch down roofing, insulation, metal coping at roof parapet and all associated flashing. Contractor will be responsible for all scaffolding and crane staging. Due to limited space on site any Crane work will have to coordinate with KCHA and City of Auburn for the use of traffic control measure and Right of Way (ROW) permitting required. The existing solar panels will be removed and replaced by others. Contractor will coordinate with Owner for reinstallation of new solar panels and electrical performed by others once all roof work is complete. Contractor will install new curbing for new solar panels as noted on plans.

The retail/residential structure is a historically preserved building which consists of brick exterior to three sides and a stucco assembly on the north elevation. Work associated with this structure includes lower roof and north elevation only. Removal and replacement of existing roof assembly and replacement of damaged sheathing as needed. Existing access door to roof to be modified as needed accommodate new metal stair assembly and include new door hardware to be installed. The HVAC unit and ductwork covers much of the northwest corner of the roof. The existing duct work will be removed and replaced with new insulated duct work. The existing mechanical unit will be salvaged and reinstalled, including conduit and wiring for reinstallation. This portion of the work will be a bidder design to reinstall the new ductwork to existing penetrations and provide adequate clearance around existing plumbing vents and existing roof penetrations.

Bidding Contractor's Company Name:	Initials:	
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Bid Form Page 1 of 10 KCHA / 08-05-21

King County Housing Authority

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

Contractor responsible to coordinate removal and reinstall with HVAC contractor to complete new roof assembly.

For complete scope, please see E.1 Scope of Work and Technical Specifications

BASE BID:

Bidders must provide a cost for **each and every** bid item (even if the amount is **\$0.00**), for the bid to be considered responsive. Where conflict occurs between the bid item values entered and the total amount written, the bid item price(s) shall prevail, and totals will be corrected to conform thereto. The work of the various items is described throughout the Contract Documents.

Total Base Bid Lump Sum Amount (Gross Contract Price) should include all applicable taxes. King County Housing Authority (KCHA) will only pay this Gross Contract Price. Contractors shall review the State of Washington Department of Revenue Ruling WAC 458-20-17001 (included in bid documents) and all other applicable documents for tax obligations.

Contractor must pay the attached \square Davis Bacon / \boxtimes HUD Non-Routine Maintenance as the Minimum Wages and Fringe Benefits for the construction workers under this contract.

The Bidder agrees to accept as full payment for the Work, as specified in the Contract Documents, and based upon the undersigned's own estimate of quantities and costs, the following stipulated sums.

BASE B	BASE BID PRICE				
Α.	Materials, including all applicable Taxes	\$			
В.	Labor	\$			
C.	O & P, including all applicable Fees	\$			
D	Owner Allowance for added work contingency, as authorized by	\$221,000.00			
D.	KCHA	\$221,000.00			
TOTAL	TOTAL BID AMOUNT: (all costs inclusive – A, B, C& D)				
	Round to Nearest Dollar				
And No/100 Dollars					
PRINT (in words) Total Bid Amount. Sample – Three Hundred Thousand, Two Hundred Sixty-Six					

ADDITIONAL COVID-19 REQUIREMENTS

Should there be new COVID-19 requirements instituted by the State or County prior to the bid date, they will be addressed in an Addendum.

UNIT PRICES:

Unit prices are considered for use when small quantities are needed and additional competitive bidding is not required for price justification. An unforeseen condition requiring large quantities resulting in a substantial change in scope of new work will not be considered applicable for unit pricing. Large deviations in the scope of work will be addressed and evaluated through a bid process or on a Time Material basis as stipulated in the contract documents. Acceptance of any unit pricing is at the Owner's discretion.

Bidding Contractor's Company Name:_	 Initials: _	

Return Form - B.1

Bid Form



UNIT	UNIT PRICE #1				
Provid	le hourly rate for Journeyman Carpenter. This unit price will be used for change or	der purposes for			
additio	on or deduction of cost associated for work.				
A.	Rate	\$			
В.	Fringe Benefits	\$			
TOTA	TOTAL BID AMOUNT: (all costs inclusive – A and B) \$				
		And No/100 Dollars			
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.					

UNIT PRICE #2 Provide hourly rate for Journeyman Electrician. This unit price will be used for change order purposes for			
additio	on or deduction of cost associated for work.		
Α.	Rate	\$	
В.	Fringe Benefits	\$	
TOTA	AL BID AMOUNT: (all costs inclusive – A and B)	\$	
		And No/100 Dollars	
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.			

UNIT	PRICE #3		
Provid	Provide hourly rate for Common Laborer. This unit price will be used for change order purposes for addition or		
deduc	tion of cost associated for work.		
Α.	Rate	\$	
В.	Fringe Benefits	\$	
TOTA	TOTAL BID AMOUNT: (all costs inclusive – A and B) \$		
		And No/100 Dollars	
Enter V	Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.		

UNIT PRICE #4 WALL SHEATHING

Contractor to provide a Unit price based on (1) 4'x8' (32SF) x 1/2" of removal and legal disposal of existing wall sheathing and install of new 1/2" CDX plywood. This unit price will be utilized for the replacement of the unforeseen damage to existing wall sheathing. All damaged sheathing must be reviewed and approved by the Owner's representative prior to the removal and replacement.

Owner's representative prior to the removal and replacement.		
Α.	Materials, including all applicable Taxes	\$
В.	Labor	\$
C.	O & P, including all applicable Fees	\$
TOTA	AL BID AMOUNT: (all costs inclusive – A, B, and C)	\$
		And No/100 Dollars
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.		

Bidding Contractor's Company 1	Name:	Initials:



UNIT PRICE #5 ROOF SHEATHING

Contractor to provide a Unit price based on (1) 4'x8' (32SF) x 5/8" of removal and legal disposal of existing roof sheathing and install of new 4'x8' (32SF) x 5/8" CDX plywood. This unit price will be utilized for the replacement of the unforeseen damage to existing roof sheathing. All damaged sheathing must be reviewed and approved by the Owner's representative prior to the removal and replacement.

appro	approved by the Owner's representative prior to the removal and replacement.			
Α.	Materials, including all applicable Taxes	\$		
В.	Labor	\$		
C.	O & P, including all applicable Fees	\$		
TOTAL BID AMOUNT: (all costs inclusive – A, B, and C) \$		\$		
		And No/100 Dollars		
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.				

COMPLETE BID:

Contractor shall include all costs of doing the work shown, described, and intended by the Contract Documents, within the lump sum bid prices in the Proposal.

LOW BIDDER DETERMINATION:

The determination of the Low Bidder will be determined on the basis of the Grand Total of the Total Base Bid Price plus Owner-Directed Work Total. The Owner reserves the right to accept any, all, or no Additive items at the time of Award, or at any time thereafter.

RIGHT TO AWARD THE CONTRACT:

KCHA reserves the right to award the Contract to the Contractor based on the Contractor's Qualifications, Bonding Capacity and ability to Complete the Project within the Completion Time allowed for project. If written notice of the acceptance of this bid is mailed, or delivered to the undersigned within Seven (7) days after the opening thereof, or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver a Contract in the prescribed form within Seven (7) calendar days after the Contract is presented for signature.

RIGHT TO REJECT BIDS:

KCHA Reserves the Right to Reject any and all Bids and select any bid options (Base Bid/Alternate Bid or both). In addition, KCHA Reserves the Right to Refuse to Award a Bid to a Contractor based on the Contractor's Past Performance, and/or Unresolved Issues with KCHA, as well as unresolved issues with Washington State Labor & Industries. No Extension of Completion is allowed.

KCHA also Reserves the Right to Reject all bids, for any reason, prior to Contract Execution.

The undersigned hereby agrees that this proposal shall be a Valid and Firm Offer for the following calendar days from the date of the Bid Opening.

Calendar Days: <u>SIXTY (60)</u>

If the Contractor's Bid is determined to be "Not Responsible", KCHA will issue in writing the specific reasons for this determination. Your company will be allowed to appeal this decision. The appeal must be in writing. The appeal must be delivered to KCHA at the address provided in the determination of 'Not Responsible' within two (2) business days after KCHA makes the decision. The appeal may include additional information that was not included in the original Bid Documents. KCHA will make a final determination after the receipt of the appeal. The final determination may not be appealed.

Bidding Contractor's Company Name:	Initials:	
	_	



ADDENDUM RECEIPT:	(Receipt of the following Adden	da is acknowledged)
		5 /
Addendum No.:	Date:	
NO ADDENDA were received		
START TIME OF CONSTRUCTION Construction for the project muby KCHA.		e written Notice to Proceed Date issued
duration (Construction Period work required under the Cont	es to significantly complete the prod/Duration: NTP "construction stract and in accordance with the Computer punch list items) shall be the follow	oject within the construction period or start" to physical completion) all the Contract Documents. Time allowed to wing number of Calendar Days from the
Calendar Day	s: <u>ONE HUNDRED FIFTY</u>	<u>Y (150)</u>
PRELIMINARY SCHEDULI MANDATORY: Contract Primavera or similar and will in	tor is to provide a preliminary Maste	er Project Schedule in Microsoft Project, duration/completion date at time of bid .
Contractor's Invoice of percent		hly from the date of Contract, based on hall use the AIA-G702 and G703 forms
be released upon receipt of the	e Proper clearances from all pertine	suant to the General Conditions and will ent state agencies. Release of Retention rances from State Agencies are received.
Retention Rat	e: <u>FIVE PERCENT</u> (5%)	
		this is a percentage of the contract bid ed in Section 01 77 00.
Closeout Perc	entage: TWO AND ONE-HALF	PERCENT (2.5%)
Agreement are of the essence. Of the Work or Contract Comp	Owner will incur serious and substantieletion of the entire project does not	the Owner and time limits stated in the ntial damages if Substantial Completion toccur in the time limits defined in the
Bidding Contractor's Company Na	ame:	Initials:



Contract. Liquidated damages are not assessed as a penalty, but as liquidated damages for breach of contract. The amount is fixed and agreed upon by the Contractor and Owner due to the extreme difficulty and impracticability of fixing and ascertaining the actual damages the Owner would sustain.

This amount is construed as actual amount of damages to the Owner and may be retained by the Owner and deducted from any payments to the Contractor. Assessment of liquidated damages does not release the Contractor for obligations in the Agreement. If different and separate completion dates are stated in the Agreement for separate parts or stages of the Work, the amount of liquidated damages shall apply and may be assessed on those parts or stages of the Work which are delays.

If the Contractor fails to complete the Work by the Time for Substantial Completion stated above, then the Contractor agrees to abide by all provision of the Liquidated Damages clause to the Contract. Liquidated Damages shall be in the following DOLLAR AMOUNT per Calendar Days and will be assessed for each day that the Contractor exceeds the time for substantial completion stated above as follows:

Dollar Amount: TWO HUNDRED FIFTY DOLLARS AND NO/100 (\$250.00)

INDEMNIFICATION AND HOLD HARMLESS:

The Contractor hereby agrees that, to the fullest extent permitted by law, it will defend, indemnify and hold KCHA and its officials, partners, volunteers, agents and employees (the "Indemnities") harmless from and against any and all claims, losses, damages and expenses, including attorney's fees incurred with respect thereto or in enforcing this indemnity, which in any manner arise out of or in connection with, or result from:

- 1. The Work to be performed pursuant to this contract (the 'Work'), or
- 2. Any Act or Omission of:
 - a. The Contractor;
 - b. Any Subcontractor, Lower Tier Contractor, or Supplier engaged with respect to the Work;
 - c. Any other party acting at the direction, at the request or under the control of the Contractor with respect to this contract or the Work; or
 - d. The Officers, Directors, Partners, Employees, Volunteers or Agents of any of the foregoing, or the successors in interest of any of them.

Notwithstanding the foregoing, however, the Contractor shall not be required to indemnify and Indemnitee against liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the intentional misconduct or sole negligence of the Indemnitee, and if such damages are caused by or result from the concurrent negligence of the Indemnitee and the Contractor or its employees or agents, then the Contractor's indemnity hereunder shall be limited to the extent of the negligence of the Contractor or its employees or agents. For purposes of this Indemnity, the Contractor waives its immunity under industrial insurance, Title 51 of the Revised Code of Washington, and acknowledges that the parties have negotiated this waiver for the purposes of this agreement.

The Contractor hereby agrees to require all its Subcontractors or anyone acting under its direction or control or on its behalf in connection with or incidental to the performance of this contract to execute an indemnity agreement substantively identical to the proceeding one, specifically naming KCHA as an indemnitee, and the Contractor's failure to do so shall constitute a material breach of this contract by the Contractor.

LOCAL RESIDENCE HIRING AND CONTRACTING REQUIREMENTS FOR SECTION 3:

The undersigned agrees to adhere to the Local Resident Hiring and Contracting Requirements as defined in the Section 3 Documents. Failure to comply with this program "to the greatest extent feasible" may result

Bidding Contractor's Company Name:	Initials:

Bid Form Page 6 of 10 KCHA / 08-05-21



in the withholding of progress payments until the breach of the contract is remedied. See Section 3 Certification Forms attached.

I certify, under penalty of perjury, that my company	Is a Section 3 Business
	Is Not a Section 3 Business
(For further clarification for Section 3 Certification, refe	er to Sections A.8 and B.10.a)
BID WITHDRAWAL AFTER BID OPENING:	

- 1. A bidder who submits an erroneous low bid may withdraw the bid at the risk of forfeiting the bid bond. The bid withdrawal is permissible if there was an obvious error in the low bid and the mistake is readily apparent from the bid itself. The bidder must notify KCHA and submit evidence of the error within twenty-four (24) hours of the bid opening.
- 2. Evaluating factors for return or forfeiture of bid bonds should include:
 - Whether the bidder acted in good faith;
 - Whether the bidder acted without gross negligence; b.
 - Whether the bidder gave prompt notice of the error; c.
 - Whether the bidder will suffer substantial detriment by forfeiture; d.
 - Whether KCHA's status has not greatly changed, and no substantial hardship will e. be caused.
- Any low bidder who withdraws its bid is prohibited from bidding on the same project if it 3. is subsequently re-solicited.

NOTIFICATION:

Contractors submitting bids must have current industrial insurance and not be disqualified from bidding (not suspended or debarred by any federal, state, or other public agency).

All or a portion of this contract is paid for by Federal Funds. As a result, Successful Contractors are subject to the following statures: Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Architectural Barriers Act of 1968 and the Fair Housing Act of 1988.

It will be the Contractor's obligation to comply with pertinent laws and implementing regulations, which provide for non-discrimination and accessibility in Federally Funded Housing and Non-Housing Programs for people with Disabilities. To read the full text of the Notice go to Go to www.kcha.org/business/requirements Scroll down to Fair Housing Laws and Read: Fair Housing / **Accessibility Notice**

Bidding Contractor's Company Name:		Initials:
Bid Form	Page 7 of 10	KCHA / 08-05-21



The undersigned acknowledges:

- 1. To have carefully reviewed and understood the scope of work and requirements under the Contract Documents and the complete scope of work as required under the Bid Proposal,
- 2. To have been provided the opportunity to physically assess the project site,
- 3. And affirms that the bid entered herein, shall be a complete bid in accordance with the terms of the Contract Documents,
- 4. And hereby agrees to complete the Work required under the terms of the Contract Documents by the Completion Dates enumerated therein, and
- 5. That all Documents Submitted to KCHA will become Public Records, as per RCW 42.56. If you are submitting information, which you think is confidential and / or proprietary to your business; KCHA recommends that you do not submit that information, as KCHA cannot guarantee that type of information will be withheld from a public disclosure request.

Bidding Contractor's Company Name:	Initials:



COMPANY INFORMATION (please print all information):

Name of Bidder's Company	
Physical Street Address: (Contractor MUST have a Physical Street Address)	
City-State-Zip:	
Mailing Address if different than Physical:	
City-State-Zip:	
Telephone: Name of Person Authorized to Sign Contract: (if Company is Awarded Contract) Title of Person Authorized to Sign Contract: (if Company is Awarded Contract)	
Email Address of Person Authorized to Sign Contract: (if Company is Awarded Contract)	
Website:	
Contractor's License (WA State) Number:	
UBI (Unified Business License) Number:	
Employment Security Account Number:	
State Excise Tax Registration Number:	
Federal Tax I.D. Number:	
Duns Number:	Exempt
Public Works Training (RCW39.04.350):	Not Exempt – signed Compliance Statement in Accordance with RCW 9A.72.085 is provided

Bidding Contractor's Company Name:____

_____ Initials: _____



Chec	Check Box if your company is a Corporation and name the State Incorporated in below.			
	Check Box if your company is a Partnership and provide Full Name(s) and Address of all parties below.			
Check Box if your company is also known as (aka) and list that name and address below.				
•	y for making false statements in or	-	01.	
SUBMITTED ON:	Day of	<u>,</u> 20		
Signature of Bidder		Print Name and Title		



COVID -19 JOB SITE REQUIREMENTS – RETURN EACH FORM SINGLE SIDED

COVID-19 Job Site Requirements

Prior to recommending work all contractors are required to develop for at each job site a comprehensive COVID-19 exposure control, mitigation, and recovery plan. The plan must include policies regarding the following control measures: PPE utilization; on-site social distancing; hygiene; sanitation; symptom monitoring; incident reporting; site decontamination procedures; COVID-19 safety training; exposure response procedures; and a post-exposure incident project wide recovery plan.

A copy of the Site Specific COVID-19 plan must be available on the job site during construction and available for inspection by state and local authorities, KCHA staff, and residents. Workers must be trained on the safety protocols listed below before the activity begins.

All contractors have a general obligation to keep a safe and healthy worksite in accordance with state and federal law and must comply with the Washington State Department of Labor & Industries General Requirements and Prevention Ideas for Workplaces and the Washington State Department of Health Workplace and Employer Resources & Recommendations at https://www.doh.wa.gov/Coronavirus/workplace. Failure to follow these requirements will be considered a violation of these duties and be penalized accordingly. Under RCW 49.17.060, "each employer shall furnish to each of their employees a place of employment free from recognized hazards that are causing or likely to cause serious injury or death to his or her employees and shall comply with the rules, regulations, and orders promulgated under this chapter."

- The Contractor must ensure operations follow the main L&I COVID-19 requirements to protect workers.
- Educate workers about coronavirus and how to prevent transmission and the employer's COVID-19 policies.

A worker may refuse to perform unsafe work, including hazards created by COVID-19. And, it is unlawful for their employer to take adverse action against a worker who has engaged in safety-protected activities under the law if their work refusal meets certain requirements.

COVID-19 Site Supervisor

Return Form - B.2

1. A site-specific COVID-19 Supervisor shall be designated by the Contractor to monitor the health of employees and enforce the COVID-19 job site safety plan. A designated COVID-19 Supervisor must be present at all times during construction activities, except on single family residential job sites with 6 or fewer people on the site. The name and contact information for the site specific COVID-19 Supervisor must be clearly displayed on all jobsite COVID-19 required postings.

Bidding Contractor's Company Name:		Initials:
Phase 2 Construction Restart	Page 1 of 4	KCHA / 01-21-22



COVID-19 Safety Training

- 1. A Safety Stand-Down/toolbox talk/tailgate training must be conducted on all job sites on the first day of returning to work, and weekly thereafter, to explain the protective measures in place for all workers. Social distancing must be maintained at all gatherings.
- 2. Attendance will be communicated verbally and the trainer will sign in each attendee.

Social Distancing

- 1. Social distancing of at least 6 feet of separation must be maintained by every person on the worksite at all possible times. In instances where the 6 feet separation cannot be maintained, other prevention measures are required such as barriers, staggering breaks or work shift starts, etc.
- 2. Gatherings of any size must be precluded by taking breaks and lunch in shifts. Any time two or more persons must meet, ensure minimum 6 feet of separation.
- 3. Identify "choke points" and "high-risk areas" on job sites where workers typically congregate and control them so social distancing is always maintained.
- 4. Minimize interactions when picking up or delivering equipment or materials, ensure minimum 6-foot separation.

Personal Protective Equipment (PPE) – Employer Provided

- 1. Appropriate eye protection for all hazards must be worn at all times by every employee while on the worksite.
- 2. If appropriate PPE cannot be provided, the work is not authorized to commence, recommence, or the site must be shut down.
- 3. Provide personal protective equipment (PPE) such as gloves, goggles, face shields and face masks as appropriate or required to employees for the activity being performed. Cloth facial coverings must be worn by every employee not working alone (with no chance of human interaction) on the jobsite unless their exposure dictates a higher level of protection under Department of Labor & Industries safety and health rules and guidance. Refer to Coronavirus Facial Covering and Mask Requirements for additional details. A cloth facial covering is described in the Department of Health guidance, https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/ClothFacemasks.pdf.

Sanitation and Cleanliness

- 1. Hand-washing stations, with soap and running water, shall be abundantly provided on all job sites for frequent handwashing. When running water is not available, portable washing stations, with soap, are required.
- 2. Workers should be encouraged to leave their workstations to wash their hands regularly, before and after going to the bathroom, before and after eating and after coughing, sneezing or blowing their nose.

Bidding Contractor's Company Name:	Initials:	



- 3. Alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol can also be used, but are not a replacement for the water requirement.
- 4. Post, in areas visible to all workers, required hygienic practices, including not to touch face with unwashed hands or with gloves; washing hands often with soap and water for at least 20 seconds; use hand sanitizer with at least 60% alcohol; cleaning and disinfecting frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, machines, shared tools, elevator control buttons, and doorknobs; covering the mouth and nose when coughing or sneezing as well as other hygienic recommendations by the U.S. Centers for Disease Control (CDC).
- 5. Make disinfectants available to workers throughout the worksite and ensure cleaning supplies are frequently replenished.
- 6. Frequently clean and disinfect high-touch surfaces on job sites and in offices, such as shared tools, machines, vehicles and other equipment, handrails, doorknobs, and portable toilets. If these areas cannot be cleaned and disinfected frequently, the jobsite shall be shut down until such measures can be achieved and maintained.
- 7. Shared tools and other equipment must be wipe sanitized between users.
- 8. When the worksite is an occupied home, workers should sanitize work areas upon arrival, throughout the workday and immediately before they leave, and keep a personal distance of at least 10 feet from occupants at all times.
- 9. If an employee reports feeling sick and goes home, the area where that person worked should be immediately disinfected.

Employee Health/Symptoms

- 1. Create policies which encourage workers to stay home or leave the worksite when feeling sick or when they have been in close contact with a confirmed positive case. If they develop symptoms of acute respiratory illness, they must seek medical attention and inform their employer.
- 2. Have employees inform their supervisors if they have a sick family member at home with COVID-19. If an employee has a family member sick with COVID-19, that employee must follow the isolation/quarantine requirements as established by the State Department of Health.
- 3. Screen all workers at the beginning of their day by asking them if they have a fever, cough, shortness of breath, fatigue, muscle aches, or new loss of taste or smell.
- 4. Ask employees to take their temperature at home prior to arriving at work or take their temperature when they arrive. Thermometers used shall be 'no touch' or 'no contact' to the greatest extent possible. If a 'no touch' or 'no contact' thermometer is not available, the thermometer must be properly sanitized between each use. Any worker with a temperature of 100.4°F or higher is considered to have a fever and must be sent home.
- 5. Instruct workers to report to their supervisor if they develop symptoms of COVID-19 (e.g., fever, cough, shortness of breath, fatigue, muscle aches, or new loss of taste or smell). If symptoms

Bidding Contractor's Company Name	Initials:
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develop during a shift, the worker should be immediately sent home. If symptoms develop while the worker is not working, the worker should not return to work until they have been evaluated by a healthcare provider.

- 6. Failure of employees to comply will result in employees being sent home during the emergency actions. For example, if an employee refuses to wear the appropriate facial covering they would be sent home.
- 7. Any worker coming to work on a construction site in Washington from any state that is not contiguous to Washington must self-quarantine for the required number of days to become eligible to work on a job site in Washington.
- 8. If an employee is confirmed to have COVID-19 infection, employers should inform fellow employees of their possible exposure to COVID-19 in the workplace but maintain confidentiality as required by the Americans with Disabilities Act (ADA). The employer should instruct fellow employees about how to proceed based on the CDC <u>Public Health Recommendations for Community-Related Exposure.</u>

No jobsite may operate until the Contractor can meet and maintain all requirements, including providing materials, schedules and equipment required to comply.

All issues regarding worker safety and health are subject to enforcement action under L&I's Division of Occupational Safety and Health (DOSH).

- Employers can request COVID-19 <u>prevention advice and help</u> from L&I's Division of Occupational Safety and Health (DOSH).
- Employee Workplace safety and health complaints may be submitted to the L&I DOSH Safety Call Center: (1-800-423-7233) or via e-mail to adag235@lni.wa.gov

Contractor's Company Name:				
I have read and understand what is required to comply with the COVID-19 Requirements.				
Signature	Title			
N (N P)	D (
Name (Please Print)	Date			
Bidding Contractor's Company Name:	Initials:			



BIDDER'S EXPERIENCE RECORD – RETURN EACH FORM SINGLE SIDED

KCHA WILL AWARD CONTRACTS ONLY TO RESPONSIBLE PROSPECTIVE CONTRACTORS WHO HAVE THE ABILITY TO PERFORM SUCCESSFULLY UNDER THE TERMS AND CONDITIONS OF THE PROPOSED CONTRACT. PRINT ALL INFORMATION.

ATTACH ADDITIONAL SHEETS AS NECESSARY TO FULLY PROVIDE THE INFORMATION REQUIRED.

NAME OF BIDDER:					
PHYSICAL ADDRESS	:				
CITY-STATE-ZIP:					
MAILING ADDRESS:					
CITY-STATE-ZIP:					
CONTRACTOR'S LICENSE NUMBER: BOND REGISTRATION NUMBER:	(Must be a valid WA State	e License)	EMPLOYMENT SECURITY NUMBER: L&I's WORKERS' COMP. ACCT. ID:		
L&I PUBLIC WORKS TRAINING:	YES NO)			
BIDDER IS A(N):	INDIVIDUAI	L	PARTNERSHIP		
	JOINT VENTURE	Е	INCORPORATION	IN STATE OF	Ŧ
CONTINUOUSLY	BEEN IN BUSINESS FROM YEAR		NO. OF REC	GULAR FULL TIN EMPLOYE	
TOTAL NUMBER OF P	ROJECT COMPLETE	D IN THE	PAST 5 YEARS		
NUMBER OF PROJECT	S COMPLETED		AHEAD	ON-TIME	BEHIND
BIDDER HAS HAD EX	PERIENCE IN WORK	COMPAR	ABLE TO THAT REO	UIRED FOR THIS	S PROJECT
AS FOLLOWS: AS P		k :	AS SUB-C		
		NO. O	FYEARS	_	NO. OF YEARS
BIDDERS LIST THE FO	OLLOWING INFORMA	ATION: P	RINT ALL INFORMA	TION	
NAME OF BONDING	COMPANY:				
	ADDRESS:				
PHONI	E NUMBER:				
CONTAC					
BONDING					
Bidding Contractor's Compar Bidders Experience	ny Name:	Page 1	of 4		ials: HA / 01-12-22



Return Form -B.3

LIST THE SUPERVISORY PERSONNEL TO BE EMPLOYED BY THE BIDDER AND AVAILABLE FOR, AND INTENDED TO WORK ON THIS PROJECT (PROJECT MANAGER, PRINCIPAL FOREPERSON, SUPERINTENDENTS AND ENGINEERS): **PRINT ALL INFORMATION**

NAME	TITLE	HOW LONG WITH BIDDER
LIST ALL PUBLICLY FUNDED PROJECTS WITHIN THE PAST 5 YEARS. INCLUDE A SEPARATE SHEET(S), USING THE FORMAT	A REFERENCE FOR EACH. IF	NECESSARY, ATTACH A
PROJECT NAME:		
OWNER/CONTACT NAME & NUMBER:		
IF SUB, YOUR CONTRACT AMOUNT:		
PROJECT NAME:		
OWNER/CONTACT NAME & NUMBER:		
TOTAL CONTRACT AMOUNT:		
IF SUB, YOUR CONTRACT AMOUNT:		
YEAR PROJECT COMPLETED:		
PROJECT NAME:		
OWNER/CONTACT NAME & NUMBER:		
TOTAL CONTRACT AMOUNT:		
IF SUB, YOUR CONTRACT AMOUNT:		
YEAR PROJECT COMPLETED:		
PROJECT NAME:		
OWNER/CONTACT NAME & NUMBER:		
TOTAL CONTRACT AMOUNT:		
IF SUB, YOUR CONTRACT AMOUNT:		
YEAR PROJECT COMPLETED:		
Bidding Contractor's Company Name:		Initials:
Bidders Experience	Page 2 of 4	KCHA / 01-12-22



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		INFORMATION		CREOF, EVER FAILED	
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Bidding Contractor's Company Name:_ Bidders Experience Return Form – B.3



Return Form -B.3

HAS ANY ADVERSE LEGAL JUDGEMENT RELATED TO CONSTRUCTION BEEN RENDERED AGAINST THE BIDDER IN THE LATE 5 YEARS? **PRINT ALL INFORMATION**

NO	YES	IF YES, EXPLAIN	N		
WORKER	'S COMPENSA	Y OF ITS EMPLOYEES ATION OR OTHER INSU MEMBERMENT IN THE P	RANCE COMPANY	FOR ACCIDENTS	RESULTING IN
NO	YES IF Y	ES, COMPLETE THE FOLL	.OWING:		
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to disqualif EXCEEDS	fy Bidders when 1.0. KCHA m	SAFETY IS A PRIMARY re either the current or three ay require additional informa	(3) year average of thation from Bidders th	he Experience Modific at have an EMR of mo	eation Rate (EMR) ore than 1.0.
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UNDERSION INFORMA	GNED AUTH TION CONTA	PLETE, TRUE AND ACCU ORIZES THE KING C INED HEREIN. (IF THIS SIDERED NON-RESPONS)	OUNTY HOUSING INFORMATION IS	G AUTHORITY TO	VERIFY ALL
	BIDDEF	R'S SIGNATURE	В	IDDER'S NAME (PLEASE	E PRINT)
	BIDDER'S TI	TLE (PLEASE PRINT)		DATE	
Bidding Cor Bidders Ex	ntractor's Compar		age 4 of 4		Initials:KCHA / 01-12-22



CONTRACTOR CERTIFICATION – RETURN EACH FORM SINGLE SIDED

PROJECT NAME: GUSTAVES MANOR ENVELOPE UPGRADE NAME OF COMPANY: PHYSICAL STREET ADDRESS: CITY - STATE - ZIP: **MAILING ADDRESS:** CITY - STATE - ZIP: PHONE NUMBER: WA STATE UBI NO.: FEDERAL TAX ID NO.: TYPE OF BUSINESS: CORPORATION LLC - PARTNERSHIP SOLE PROPRIETOR **OWNERS OF THIS COMPANY** (List All Owners from the inception of the Company. Use an additional sheet of paper if necessary.) NAME OF OWNER(S) DATE(S) OF OWNERSHIP (from – to) UNDER PENALTIES OF PERJURY, I/ We hereby certify that: (Check the appropriate responses) 1. __I / ____ We have a complete copy of the Bid Documents and Drawings (if applicable) for this project as supplied by the King County Housing Authority. __I / ____ We have no contractual obligation or other disabilities that would prevent ____ Me / __ 2. Us from meeting the various requirements contained in the Bid Documents to the greatest extent feasible and with good faith efforts to attempt to meet the attached goals. I/ We do not and will not maintain, nor permit My/ Our employees to work in a 3. location where segregated facilities are maintained, except for separate or single-user toilets and changing facilities, if necessary, to assure privacy between the sexes. ____I / _____ We that _____ Have / _____ Have Not participated in an Equal Employment Opportunity 4. Plan in the past that required filing reports with the Government; and that if _____I/____We have, ____I / _____ We _____ Have / _____ Have Not filed all reports due. If not, the reports will be filed within the next (_____) days. The number shown on this form is _____My / ____ Our correct Taxpayer Identification Number OR 5. ____I Am / ____ We Are waiting for a number to be issued to ____Me / ____ Us and __I / ____ We further certify that ____I / ___ We are not subject to Backup Withholding because; 6. (a) _____I Am / ____ We Are Exempt from Backup Withholding, or (b) ____I/___ We have not been notified by the Internal Revenue Service (IRS) that ____I Am/____ We Are subject to Backup Withholding as a result of a failure to report all interest or dividends, or

Initials:

King County Housing Authority

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

	(c) the IRS has notifiedMe /Us thatl Withholding. (If you ARE subject to Backup Withholding, leave #6		kup
7.	I / We have been notified by the IRS that Backup Withholding because of under reporting interest of (If you filled out #6 – you are NOT subject to Backup)	or dividends.	t to
8.	, who is by title	e the	
	of our firm/company and has been designated, as the responsible office keeping complies with all the applicable regulations.	icial to ensure required reports are submitted, and rec	ord
AUT	THORIZED OFFICIAL:		
SIGN	NATURE	NAME (PLEASE PRINT)	
TITL	E (PLEASE PRINT)	DATE	

Return Form – B.4



NON-COLLUSIVE AFFIDAVIT – RETURN EACH FORM SINGLE SIDED

FOR CONTRACTS AND EQUIPMENT \$50	0,000 AND ABOVE
STATE OF WASHINGTON)	
COUNTY OF KING) ss	
	, being first duly sworn, deposes and says:
That he / she is a Partner or Officer of the Fir	m of, etc.
sham; that said bidder has not colluded, conbidder or person, to put in a sham bid or to indirectly, sought by agreement or collusion, bid price of affiant or of any other bidder, or to f that of any other bidder, or to secure any accordance in the said bidder.	id, that such proposal or bid is genuine and not collusive or an aspired, connived or agreed, directly or indirectly, with any refrain from bidding, and has not in any manner, directly or or communication or conference, with any person, to fix the to fix any overhead, profit or cost element of said bid price, or dvantage against KING COUNTY HOUSING AUTHORITY ract; and that all statements in said proposal or bid are true.
	SIGNATURE OF AUTHORIZED OFFICIAL
	Bidder, if the Bidder is an Individual
	Partner, if the Bidder is a Partnership
	Officer, if the Bidder is a Corporation
SUBSCRIBED AND SWORN to before me:	
this day of, 20	
(Signature)	
(Print Name)	
My Commission Expires:	, 20
Bidding Contractor's Company Name:	Initials:



EQUAL OPPORTUNITY CLAUSE - RETURN EACH FORM SINGLE SIDED

DURING THE PERFORMANCE OF THIS CONTRACT, THE CONTRACTOR AGREES AS FOLLOWS:

- 1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin, citizenship status, creed, age, marital status, physical or mental disability, sexual orientation, political ideology, or status as a Vietnam era or specially disabled veteran. The Contractor will take affirmative action to ensure that applicants are employed and the employees are treated during employment without regard to the aforementioned conditions. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.
- 2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to the aforementioned conditions of paragraph 1 above.
- 3. The Contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 4. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- 5. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records and accounts by the Owner and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- 6. In the event of the Contractor's non-compliance with the non-discrimination clauses of the Contract or with any of such rules, regulations or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government Contracts, in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rules, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 7. The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulation, or order of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Owner may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Owner, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

AUTHORIZED OFFICIAL:

SIGNATURE		NAME (PLEASE PRINT)	
TITLE (PLEASE PRINT)		DATE	
Bidding Contractor's Company Name:		Initials:	_
F 10	D 1 . C 1	VCUA / 00 05	2.1



	Dollars (\$)
	OR
	BOND: undersigned, (Principal), an
King	County Housing Authority (Owner) in the penal sum of:
succe	Dollars (\$ Dollars of which Principal and Surety bind themselves, their heirs, executors, administrator assors and assigns, jointly and severally. The liability of surety under this Bid Bond shall be limited the enal sum of this Bid Bond.
The lany A	DITIONS: Bid Deposit or Bid Bond shall be an amount not less than five percent (5%) of the total bid, including alternates, Additives, and Owner-Directed Work, if any, including sales tax, if any, and is submitted incipal to Owner in connection with a Proposal in according to the terms of the Proposal and Bid ments for:
	GUSTAVES MANOR ENVELOPE UPGRADE
NOV a. b. c.	If Principal requests, in writing, to withdraw its Bid, prior to Bid Opening, or If the Proposal is rejected by Owner, or Owner in accordance with the terms of the Proposal and furnishes a bond for the faithful performance of said Project and for the payment of all persons performing labor or furnishin materials in connection therewith, with Surety or Sureties approved by Owner,
forfe	this Bid Security shall be released; otherwise it shall remain in full force and effect and Principal shall the Bid Deposit or Surety shall immediately pay and forfeit to Owner the amount of the Bid Bondhalty and liquidated damages.
	obligations of Surety and its Bid Bond shall be in no way impaired or affected by any extension of time which Owner may accept bids; and Surety does hereby waive notice of any such extension.

Bidding Contractor's Company Name: _____ Initials: _____



SIGNED AND DATED THIS	_ Day of	<u>,</u> 20
		ATTEST to Principal's Signature:
PRINCIPAL (Print Company Name)	_	
Signature of Authorized Official	_	Signature
Printed Name	_	Printed Name
Title (Please Print)	_	Title (Please Print)
Corporate Seal (if Applicable)		
		ATTEST to Surety's Signature:
SURETY (Print Company Name)	_	
Signature of Authorized Official	_	Signature
Printed Name	_	Printed Name
Title (Please Print)	_	Title (Please Print)
Corporate Seal (if Applicable)		The above is Attorney in Fact:
		Yes No (If Yes, attach Power of Attorney)
Local Office of Agent and / or Surety Company	y (please p	orint):
Name:	_	
Street Ac	ddress: _	
City, Sta	nte, Zip: _	
Power of Attorney of person signing for Surety C	Company m	ust be attached to this Bond Form.
Surety Companies executing Bonds must appear Washington.	on the cur	rent Authorized Insurance List in the State of
Bidding Contractor's Company Name:		Initials:

Bid Security Return Form – B.7 Page 2 of 2

KCHA / 08-05-21



DEBARMENT / SUSPENSION COMPLIANCE CERTIFICATION RETURN EACH FORM SINGLE SIDED

The Bidder certifies to the best of its knowledge and belief, that it and its principals:

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

BIDDING COMPANY

Company Name	
Physical Street Address	
City / State / Zip	
Print Name of Authorized Official	Title
Signature of Authorized Official	Date
SUBSCRIBED AND SWORN to before me:	
this day of, 20	
(Signature)	
(Print Name)	<u> </u>
My Commission Expires:, 20	
Bidding Contractor's Company Name:	Initials:

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT



SUBCONTRACTOR – FIR	T TIER – LISTING – RETURN EACH FORM SINGLE SIDED
NAME OF BIDDING COMPANY:	
PHYSICAL STREET ADDRESS:	
CITY / STATE / ZIP:	
1. List Approximate Percent (9	of Work Your Company will actually Perform:
2. Do You Intend on using Sub	ontractor(s) for this Project? Yes No
work that will be associated completed to the best of t subcontractor list will be sub	s form the name and information of All First Tier Subcontractors performing with this Bid.) Attach additional sheets if necessary. This form needs to be Bidder's ability at time of bid. If Bidder is Awarded Contract a final nitted prior to Notice to Proceed. PRINT ALL INFORMATION
SU	SCONTRACTOR – FIRST TIER - LIST
Business Name:	Trade:
Address:	
Phone:	Years of Experience:
UBI No.:	
Business Name:	Trade:
Address:	Contact:
Phone:	Years of Experience:
UBI No.:	
Business Name:	Trade:
Address:	
Phone:	Years of Experience:
UBI No.:	
Business Name:	Trade:
Address:	Contact:
Phone:	Years of Experience:
UBI No.:	
The Bidder hereby certifies that the ir sheets, is accurate, complete, and cur	ormation contained in this Proposed Subcontractor List, including any attached nt:
Print Name of Authorized Official	Title
Signature	Date
Bidding Contractor's Company Name	Initials:



SECTION 3 – BUSINESS CERTIFICATION RETURN FORM SINGLE SIDED

THIS FORM MUST BE SIGNED AND RETURNED

	Project Name:		
(
			Contact Title:
			Contact Email:
Т	ype of Trade or B		
	• •		r, Full Time Employees (Puget Sound Region):
1.		rcent of	f the labor hours performed for your business over the prior three-month period
	Yes	No	If "yes" is checked, submit the section 3 Individual Certification form(s) for all the regular, full time employees (Puget Sound Region).
2.	Is your company	a HUD	YouthBuild Program?
	Yes	No	If "yes" is checked, please provide supporting documentation.
3.			r business owned and controlled by low- or very low-income persons (persons of the median income level for the past 12 months - see attached income
	Yes	No	If "yes" is checked, submit either the section 3 Individual Certification form(s) or the Section 3 Subcontractor Business Work Plan form.
4.	Does your busin will take place?	ess prov	vide economic opportunities for KCHA residents at the site(s) where the work
	Yes	No	If "yes" is checked, please provide supporting documentation.
5.	•	•	wide economic opportunities for residents of other KCHA developments or ng managed by KCHA?
	Yes	No	If "yes" is checked, please provide supporting documentation.
6.			rovide economic opportunities to Section 3 workers residing within the t Sound Region)?

Yes

No

If "yes" is checked, please provide supporting documentation.



Phone Number

I certify, under penalty of perjury, that my company Is Is Not a Section 3 Business.

I further certify that, if my company is awarded the bid, and needs to hire additional employees for the project, we will carry out Section 3 hiring, training and subcontracting requirements to the best of our ability.

Signature

Name

Date

Email Address

If you have more specific questions about Section 3 requirements, contact KCHA by email at Section3@kcha.org.

SECTION 3 – 2021 INCOME GUIDELINES

Location	Bremerton Location Silverdale (Kitsap County)		Seattle, Bellevue Everett (King/Snohomish Counties)		Tacoma (Pierce County)		Sedro Woolley (Skagit County)	
Income	Very low income	≤\$23,950	Very low income	≤\$40,500	Very low income	≤\$31,800	Very low income	≤\$28,850
Limit 1 Person	Low income	\$23,951 to \$52,750	Low income	\$40,501 to \$63,350	Low income	\$31,801 to \$50,900	Low income	\$28,851 to \$46,100



SECTION 3 – SUBCONTRACTOR WORK PLAN RETURN FORM SINGLE SIDED

CLAIMING YES TO QUESTION 4 or 5 on the SECTION 3 BUSINESS CERTIFICATION FORM

RETURN THIS FORM WITH THE BID <u>IF:</u>

	Project Name:	
	Company Name:	
	Address:	
	Contact Name:	
	Contact Phone:	Contact Email:
	SECTION 3 BUSINESS CONCERN	SUBCONTRACTED TASK(S) SUBCONTRACT OVERALL CONTRACT
	Subcontractor's Name:	
1.	Subcontractor's Address:	
	Subcontractor's Phone No.:	
	Subcontractor's Name:	
2.	Subcontractor's Address:	
	Subcontractor's Phone No.:	
	Subcontractor's Name:	
3.	Subcontractor's Address:	
	Subcontractor's Phone No.:	
	Subcontractor's Name:	
4.	Subcontractor's Address:	
	Subcontractor's Phone No.:	
TC	OTAL CONTRACT VALUE:	TOTAL SUBCONTRACT VALUE:
_	PERCENTAGE OF	
	For a list of Section 3 Certified Businesses, pleattps://portalapps.hud.gov/Sec3BusReg/BRegi	

KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT



SUMMARY OF HARASSMENT AND DISCRIMINATION RETURN EACH FORM SINGLE SIDED

KCHA prohibits harassment and discrimination based on race, color, national origin, citizenship status, creed, religion, sex, age, marital or veteran's status, physical or mental disability, sexual orientation, political ideology, or any other basis protected by law ("protected status"). This policy applies to KCHA's employees, vendors, contractors, visitors and others who conduct business with KCHA. The following are examples of prohibited conduct. This list is not exclusive; employees should see KCHA's Personnel Policies and Procedures for more details and vendors/contractors should contact the Human Resources Department for more details:

- Unwelcome conduct based on protected status when sufficiently severe or pervasive to create a hostile work environment; or a supervisor's improper conduct results in a tangible change in an employee's status or benefits (demotion, termination, etc.).
- Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature when (1) submission to such conduct is made an implicit or explicit condition of employment; (2) submission to or rejection of such conduct affects employment opportunities or decisions; or (3) such conduct interferes with an employee's work or creates an intimidating, hostile or offensive work environment.
- Sexually suggestive or racially derogatory words, pictures, videos, cartoons, emails, etc.
- Leering, staring in a sexually suggestive manner or making offensive remarks about looks, clothing, or body.
- Touching in a way that may make an individual feel uncomfortable, such as patting, pinching or intentional brushing against another's body.
- Gestures, pictures or drawings which would offend a particular racial or ethnic group or other protected class.
- Comments about an individual's skin color, accent, or other racial/ethnic characteristics.
- Disparaging remarks or stereotypes about an individual's gender, race, birthplace, ethnicity or ancestry.
- Negative comments about an individual's religious beliefs (or lack of religious beliefs).
- Negative comments regarding an individual's age if age 40 and over.
- Derogatory or intimidating references to an employee's mental or physical impairment.

Anyone who has been harassed and/or discriminated against is expected to promptly report the alleged incident(s) to the Supervisor, Department Director, Director of Human Resources, Deputy Executive Director/Chief Administrative Officer or the Executive Director. KCHA will protect the confidentiality of such complaints to the extent possible. Complaints will be promptly, thoroughly and impartially investigated and KCHA will take immediate and appropriate corrective action when it determines that harassment has occurred. Individuals who make complaints or provide information related to complaints will be protected from retaliation.

The Bidder hereby certifies that the information contained above is understood and agreed upon.

Bidder's Company Name:	
Print Name of Authorized Official	Title
Signature	Date
Bidding Contractor's Company Name:	Initials:
Horocoment and Discrimination Dogs 1 of 1	VCHA / 09 05 2



WMBE SURVEY – RETURN EACH FORM SINGLE SIDED

PLEASE COMPLETE THIS SURVEY AND RETURN WITH YOUR BID / PROPOSAL DOCUMENTS. NOT SUBMITTING THIS SURVEY WILL <u>NOT DISQUALIFY</u> YOUR BID/PROPOSAL. THIS IS FOR INFORMATIONAL PURPOSES <u>ONLY</u>.

Bidding Company Name: Address: City / State / Zip:				
Type of Business:		_ Incorporated – Federal ID _ Sole Proprietorship – SS# _ Other – Describe:	:	
WMBE:		N	lo	
Describe:		_ Disadvantage Owned (Dis_ Women Owned (WBE) _ Minority Owned (MBE or		
_	1.	White American	4.	Hispanic American
_	2.	Black American	5.	Asian – Pacific American
	3.	Native American	6.	Hasidic Jew
Registered WMBE:	Yes	No		_ Registration in Progress
Authorized Signer		Print Name and Title		Date
FOR KCHA USE ONLY: IF T TO: Tim Baker – KCHA Se Phone: 206-574-1111	enior Manage	ement Analyst	THE CONTRA	CT, FORWARD THIS FORM

Bidding Contractor's Company Name: Initials:



CONTRACTOR'S SUPPLIED SCHEDULE - RETURN EACH FORM SINGLE SIDED

- A. Gantt-Chart Schedule: Submit to the Owner a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Final Master Project Schedule within fourteen (14) days of date after Letter of Award. Base schedule on the Preliminary Master Project Schedule and whatever updating and feedback was received since the start of Project. The Gantt-Chart Final Master Project Schedule can be either in MS Project or equivalent format.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three (3) months or longer to complete, indicate an estimated completion percentage in ten (10%) percent increments within time bar.
- C. Contractor's Final Master Project Schedule Updating: At two (2) week intervals, update schedule to reflect actual construction progress and activities. Issue schedule three (3) days before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.

CONTRACTOR
TO INSERT
PRELIMINARY
MASTER PROJECT
SCHEDULE HERE
MUST BE IN
MICROSOFT PROJECT,
PRIMAVERA or SIMILAR

Bidding (Contractor's	Company	Name:	Initials:	



BB - SECTION

NO PARTICIPATION for Bid Package

BB.1 No Participation Form



KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

NO PARTICIPATION RESPONSE FORM

<u>IF YOU CHOOSE NOT TO BID ON THIS PROJECT</u> RETURN ONLY THIS FORM PRIOR TO THE BID DUE DATE.

(NOT RETURNING THIS DOCUMENT COULD RESULT IN YOUR NAME BEING REMOVED FROM FURTHER KCHA SOLICITATIONS.)

BID DUE DATE:		April 6, 2022	
PROJECT NAME:		Gustaves Manor Envelope Upgrade	
RETURN FORM TO:		amyk@kcha.org	
be received by the de	eadline of 1:00PM.	to mail in the No Participation Response For KCHA does not recommend mailing in the rise with the mail delivery.	
If using the mail please	e return the form to:	KING COUNTY HOUSING AUTHORITY ATTN: Amy Kurtz, Project Manager 700 Andover Park West, Suite C Tukwila, WA 98188	
1. My Company is NC	OT BIDDING on this	Contract because: (check all response(s) that ap	oply:
Does not perf	orm the requested typ	pe of work	
Has other wor	k which would inter	fere with the proposed work schedule	
☐ Job is too big			
☐ Job is too sma	ıll		
Can't meet the	e bonding and/or inst	urance requirements	
☐ The documen	ts were not received	in time to prepare a bid	
☐ The specificat	tions were not clear.	Please describe:	
Other:			
2. I would have Bid or	n this Contract if:		
COMPANY NAME:			
ADDRESS:			
CITY-STATE-ZIP			
SIGNATURE:	PRINCIPAL OR OFFICE	ER	DATE



C - SECTION

CONTRACT DOCUMENTS for Bid Package

C.1	Construction Contract and General Conditions – Sample Template
C.2	Performance and Payment Bond with Directions (for projects \$35,000 & over)
C.3	Certificate as to Corporate Principal (If Performance & Payment Bonds are required)
C.4	Instructions to Bidders for Insurance Requirements
C.5	Site Specific Safety Plan – List of Plan Requirements
C.6	Subcontractor Verification
C.7	Certification of Payments to Influence Federal Transactions (for all subcontracts \$100,000 & over)
C.8	Disclosure of Lobbying Activities (for all subcontracts \$100,000 & over)
C.9	Certification of Compliance with Washington State Wage Payment Statutes
C.10	Vendor Set Up Form
C.11	Final Affidavits of Amounts Paid – Contractors
C.12	Section 3 Individual Certification Form and FAQ's
C.13	Section 3 Labor Hours Benchmark Status Report – Sample Template

If selected, the documents that are numbered 2 through 9 will need to be submitted prior to the "Notice of Award" along with a copy of the completed Statement of Intent to Pay Prevailing Wages that you have filed with the Washington State Department of Labor and Industries.



CONSTRUCTION CONTRACT / GENERAL CONDITION SAMPLES

PLEASE SEE ATTACHED AIA DOCUMENTS

DRAFT AIA Document A101 - 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

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

CONTRACT NUMBER: « »

BETWEEN the Owner:

(Name, legal status, address and other information)

KING COUNTY HOUSING AUTHORITY

600 Andover Park West Tukwila, Washington 98188

and the Contractor:

(Name, legal status, address and other information)

NAME OF CONTRACTOR

Street Address City, State Zip

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

(Name, location and detailed description

NAME OF SITE

Street Address
City, State Zip
PROJECT NAME:

The Architect and/or The Engineer: (Name, legal status, address and other information)

NAME OF ARCHITECT OR ENGINEER

Street Address City, State Zip

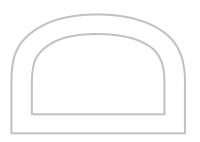
The Owner and Contractor agree as follows.

In consideration of the mutual covenants and agreements herein contained, the Contractor agrees to furnish all labor, material, tools, equipment, and other items necessary to perform and complete all work described in the contract documents. This agreement includes Owner Directed Work Items. The Owner Directed Work Items may or may not be completed under this agreement. If the Owner elects to exclude any or all Owner Directed Work Items, an adjustment shall be made to this Agreement.

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

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

AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.



ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES 1 THE CONTRACT DOCUMENTS 2 THE WORK OF THIS CONTRACT 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION CONTRACT SUM 5 **PAYMENTS** DISPUTE RESOLUTION 6 7 TERMINATION OR SUSPENSION 8 MISCELLANEOUS PROVISIONS **ENUMERATION OF CONTRACT DOCUMENTS** ARTICLE 1 THE CONTRACT DOCUMENTS The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9. ARTICLE 2 THE WORK OF THIS CONTRACT The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. The Contractor shall comply with the Detailed Summary of the Scope of Work per Exhibit A. ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION § 3.1 The date of commencement of the Work shall be: (Check one of the following boxes.)

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work, as indicated in the **Notice to Proceed**.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work no later than the date stipulated in the **Notice to Proceed**.

Con Substantial (Completion Date Month, Day, Completion Date Month, Day,	Year to Month, Day, Year Year Year (Liquidated Damages Start)	ı				
§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.							
ARTICLE 4 CONTRACT SUM § 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be « » (\$ « »), subject to additions and deductions as provided in the Contract Documents.							
§ 4.2 Alternates § 4.2.1 Alternates, if any, included	d in the Contract Sum:						
Alternate Number and De	scription	Price					
execution of this Agreement. Upo	on acceptance, the Owner shall iss	tes may be accepted by the Owner following ue a Modification to this Agreement. r the Owner to accept the alternate.)					
Item	Price	Conditions for Acceptan	се				
§ 4.3 Allowances, if any, included (Identify each allowance.) Allowance Description Owner's Contingency	d in the Contract Sum:	Price					
§ 4.4 Unit prices, if any:	it price and quantity limitations, i	f any, to which the unit price will be applicab	le)				

§ 4.4 U

(Identify Unit prices will be used for unforeseen conditions where small quantities are needed. An unforeseen condition requiring large quantities resulting in a substantial change in the scope of work will not be considered applicable for unit pricing. Large deviations in the Scope of Work will be evaluated and addressed through a change order process as stipulated in the Contract Documents.

Unit Item Description Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

Timely performance and completion of the Work is essential to the Owner and Time limits stated in the Agreement are of the essence. Owner will incur serious and substantial damages if Substantial Completion of the Work or Contract Completion of the entire project does not occur in the time limits defined in the Agreement. Liquidated Damages will not be assessed as a penalty, but as Liquidated Damages for breach of contract. The amount is fixed and agreed upon by the Contractor and Owner due to the extreme difficulty and impracticability of fixing and ascertaining the actual damages the Owner would sustain. This amount is construed as an actual amount of damages to the Owner and may be retained by the Owner and deducted from any payment to the Contractor for obligations in the Agreement. If different and separate completion dates are stated in the Agreement for separate parts or stages of the Work, the amount of Liquidated Damages shall apply and may be assessed on those parts or those stages of the Work which are delayed. The Owner therefore may impose and assess Liquidated Damages in the following amount per calendar day:

« »

•		,	\sim	. 1		
0	4	h	0	t I	าค	r

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

NA

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

- § 5.1.1 Based upon Applications for Payment submitted to the Owner by the Contractor, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.
- § 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

NA

§ 5.1.3 Provided that an Application for Payment is received by the Owner not later than the **25th** day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the **25th** day of the **following** month.

(Federal, state or local laws may require payment within a certain period of time.)

- § 5.1.3.1 Applications for Payment may be delayed by Owner should any criteria listed in A201TM-2017 General Conditions Section 9.5.1 be evident or if the As-Built Documents have not been updated per Division 01 10 10 Scope of Work Section 2.0.B.6.
- § 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment.
- § 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- § 5.1.6 In accordance with AIA Document A201TM–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
- § 5.1.6.1 The amount of each progress payment shall first include:
 - .1 That portion of the Contract Sum properly allocable to completed Work;
 - .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing.; and
- § 5.1.6.2 The amount of each progress payment shall then be reduced by:
 - .1 The aggregate of any amounts previously paid by the Owner;
 - .2 The amount, if any, for Work that remains uncorrected and for which the Owner has previously withheld an Application for Payment as provided in Article 9 of AIA Document A201–2017;
 - .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
 - .4 For Work performed or defects discovered since the last payment application, any amount for which the Owner may withhold payment, or nullify an Application of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
 - .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.6.3 The General Contractor Certification upon the Application for Payment form, per Exhibit B will accompany each Application for Payment. By submitting an Application for Payment, the Contractor certifies, agrees and warrants to the Owner as follows:

- .1 The Contractor has made full payment to all laborers, subcontractors and suppliers of material and equipment whose charges were included in any prior Application for Payment, subject only to (a) retainage at the contract rate, and (b) the matters set forth below or on an attachment hereto.
- .2 The Contractor knows of no one making a claim for payment other than those included in the current Application for Payment, who will be paid when the current Application for Payment is paid by the Owner, except as noted below or on an attachment hereto.
- .3 In consideration of payments made by the Owner, the Contractor hereby waives and releases any and all claims and demands against Owner and the Project for all periods up to and including the period covered by this Application for Payment, subject only to (a) receipt of payment of the current Application, (b) applicable retainage, and (c) the matters set forth below or on an attachment hereto.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

«Five Percent » « 5% »

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

$\ll NA \gg$

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

\ll NA \gg

- § 5.1.7.3 Retainage shall be held at the rate stated in § 5.1.7.1 for the duration of the project. There shall be no reduction or limitation of retainage. There shall also be no early release of retainage by the Owner to the Contractor. The Owner must obtain all releases in relation to Contractor Compliance from the Washington State Department of Revenue, the Washington State Department of Labor and Industries, and the Washington State Department of Employment Security prior to any release of retention by the Owner to the Contractor.
- § 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.
- § 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

- § 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when
 - the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
 - .2 a final Application for Payment has been approved by the Owner;
 - .3 verification of final Affidavits of Wages Paid (L&I) is provided by the Contractor to the Owner;
 - 4 final Review and Approval of all Certified Payroll Documents for all Prevailing Wages.
- § 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the Owner's approval of the Final Application for Payment,

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Any claim between the Owner and Contractor shall be resolved in accordance with the provisions set forth in Article 15 of AIA Document A201–2017.

TERMINATION OR SUSPENSION ARTICLE 7

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-2017.

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:

(Name, address, email address, and other information)

Nikki Parrott, Director of Capital Construction & Weatherization

- « », Project Manager
- « », Construction Coordinator
- « », Project Engineer

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

« », President

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Contractor shall purchase and maintain insurance as set forth in AIA Document A101TM–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum.

Type of insurance or bond Limit of liability or

bond amount (\$0.00)

Certificate of Liability Insurance Requirements: Limit (Exhibit – C) Coverage (Exhibit – C) Completed Value of Project **Builders Risk Insurance:** (Exhibit – C) Performance and Payment Bond: Gross Contract Amount 100%

§ 8.6 Other provisions:

§ 8.6.1 Section 3: Instruction, Requirements and Income Guidelines

§ 8.6.1.1 The Contractor shall comply with all requirements of the Section 3 Program for Economic Opportunities providing to the greatest extent possible, job training, employment and contract opportunities for low and very low income residents in connection with projects and activities in their neighborhoods per Exhibit D.0-D.4 and as designated in AIA A201-2017, Section 17 of the General Conditions.

§ 8.6.2 Davis-Bacon / State Prevailing Wage Certified Payroll

§ 8.6.2.1 The Contractor shall comply with requirements and regulations of the Davis-Bacon Act per Exhibit E.0 and **E.1**.

- .1 Payment of Wages to Workers shall be weekly.
- .2 Certified Payroll Reports recording wages paid to each worker will be submitted to the Owner weekly.
- Failure to submit weekly Certified Payroll Reports or errors in payroll reports for the Contractor and any and all Subcontractors, and any Lower Tier Subcontractors will be cause for the Owner to suspend or delay Contract Progress Payments.
- .4 The Owner shall withhold progress payments until all issues regarding full compliance with the submission of Certified Payroll Reports are resolved to the complete and full satisfaction of the Owner.
- The Contractor is required and shall perform a complete review of all Certified Payroll Reports .5 including those of the Contractor, and all Subcontractors and any and all Lower Tier Subcontractors prior to the submission of the reports by the Contractor to the Owner.
- The Davis Bacon Wage Decision for this project is:

Davis-Bacon Wage Decision « » and Modification No. « », Dated « »

§ 8.6.3 Prevailing Wage Exemption

§ 8.6.3.1 For all contracts with a Bid Date of May 15, 2011 or later:

- .1 When a Contractor claims an exemption from State Prevailing Wage Requirements on HUD Projects, the Contractor and all Subcontractors and all tiers must file an Intent and Affidavit with the Washington State Department of Labor and Industries for that project.
- .2 The Statement of Intent must also include an Exemption Claim stating that the project is exempt from the payment of State Prevailing Wage Rates based on the Housing Act of 1937 and 24CFR 965.101 and further stating that all workers will be paid in accordance with the requirements of the Davis-Bacon Wage Requirements, per Exhibit E.2.

.3	Pursuant to RCW 39.12.040, the Owner will not make any payments to a Contractor who has not submitted an Intent Form that has been approved by the Washington State Department of Labor and Industries Industrial Statistician, or release funds retained until the Contractor and all subcontractors have submitted Affidavit forms that have been certified by the Industrial Statistician.							
ARTICLE 9 § 9.1 This Aş .1 .2 .3								
.4	Specifications							
	Section Refer to Exhibit G	Title Specifications Table of Contents	Date	Pages				
.5	Addenda, if any:							
	Number	Date	Pages					
.6	Documents unless the bidd Other documents, if any, li (List here any additional d Document A201 TM –2017 p sample forms, the Contract requirements, and other in proposals, are not part of t documents should be listed Changes in the Work shall A201-2017, by means of co.1 Change Order Req.2 Change Order App. 3 Contractor's Break.4 Subcontractor's Break.4	ocuments that are intended to form rovides that the advertisement or in tor's bid or proposal, portions of Adformation furnished by the Owner is the Contract Documents unless enual here only if intended to be part of the documented as provided in Sectional to Down Summary – Change Order Adversal Down Summary – Change Order and	part of the C vitation to bi ddenda relation anticipation merated in the the Contract ion 7.3.1 of the Approval For ler Approval	d in this Article 9. Sontract Documents. AIA id, Instructions to Bidders, ing to bidding or proposal in of receiving bids or is Agreement. Any such Documents.) he AIA Document Exhibit – H.0 Exhibit – H.1 Im Exhibit – H.2a Form Exhibit – H.2b				

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(2034653549)

KING COUNTY HOUSING AUTHORITY

XXX CONSTRUCTION COMPANY

OWNER (Signature)		CONTRACTOR (Signature)	
(Printed name and title)		(Printed name and title)	
		Contractor's License No.:	
EXHIBIT OVERVIEW:			
DESCRIPTION		CROSS REFERENCE	
Exhibit – A Exhibit – B Exhibit – D.0 Exhibit – D.1 Exhibit – D.2 Exhibit – D.3 Exhibit – D.4 Exhibit – E.1 Exhibit – E.1 Exhibit – E.2 Exhibit – F Exhibit – G Exhibit – H.0 Exhibit – H.1 Exhibit – H.2a Exhibit – H.2b Exhibit – H.2C Exhibit – H.3 Exhibit – I	Detailed Summary of Scope of Work Application for Payment Insurance Requirements Section 3 Documents Certified Payroll Certified Payroll Prevailing Wage Exemption Drawings Specifications Change Order Request Change Order General Contractor Breakdown Summary Subcontractor Breakdown Summary Subcontractor Breakdown Summary Construction Change Directive Contractor's Bid Documents	Contractor Scope of Work GC Certification Limits Coverage Builders Risk New Hire Status Report New Hire Instructions Business Certification FAQ's Labor Relations Training Overview Requirements for Certified Payroll Statement of Intent Table of Contents COR GC-COR GC-COR GC-COR GC-COR GC-COR GC-COR GC-COR GC-COR SC-COR SC-C	

DRAFT AIA Document A201™ - 2017

General Conditions of the Contract for Construction

CONTRACT NUMBER:

for the following PROJECT:

(Name and location or address)

NAME OF SITE

Street Address City, State Zip **PROJECT NAME:**

THE OWNER:

(Name, legal status and address)

KING COUNTY HOUSING AUTHORITY

600 Andover Park West Tukwila, Washington 98188

THE CONTRACTOR:

(Name, legal status and address)

CONTRACTOR'S NAME

Address City, State Zip

THE ARCHITECT and/or THE ENGINEER:

(Name, legal status and address)

ARCHITECT/ENGINEER NAME

Address City, State Zip

ADDITIONS AND DELETIONS:

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

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

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.



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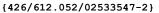
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User Notes:

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Owner. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

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

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

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

§ 1.1.5 The Drawings

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

§ 1.1.6 The Specifications

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

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

- § 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- § 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

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

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

- § 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Subsubcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.
- § 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner.

§ 1.6 Notice

- § 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission.
- § 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 General

User Notes:

- § 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.
- § 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

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§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 For the purposes of this Agreement the Owner has provided sufficient and adequate funding for this project. The Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change.

§ 2.3 Information and Services Required of the Owner

- § 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- § 2.3.2 The Owner may retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- § 2.3.5 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.
- § 2.3.6 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.
- § 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the additional professional design services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the professional design services, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

User Notes:

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

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- § 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.
- § 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Owners's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.
- § 3.1.4 Progress Meetings. The Contractor shall schedule and conduct meetings with the Owner and as determined by the Owner with the Architect also present, to discuss such matters as procedures, progress, coordination, and the Final Project Schedules. The Contractor shall prepare, record, and promptly distribute minutes of each progress meeting to each attendee and identified stakeholders. The Contractor shall also provide a short-term look ahead schedule for presentation and review at each progress meeting. The short-term schedule shall be in sufficient detail to allow the Contractor and Owner to make any necessary schedule modifications to maintain the progress of the Work and for adherence to the time frames stipulated in the Agreement. The following shall also be included in the progress meeting agenda:
 - .1 Coordination of architectural, structural, mechanical, electrical, civil work or any other item associated with the Work.
 - .2 Measures to mitigate adverse effects of construction on the residents of the development during construction.
 - .3 Resolving issues with governing agencies.
 - .4 Status of submittals, RFI's, COR's and COR's.
 - .5 Site safety and associated issues.
 - .6 Segregated and comingled material recycling reports.
 - .7 Section 3 compliance and status.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

- § 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.
- § 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Owner any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Owner may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.
 - .1 If there is a discrepancy between Scope of Work, Specifications and/or Drawings, the Scope of Work shall take precedence followed by the Specifications and lastly the drawings.
- § 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Owner any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Owner may require.
- § 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Owner issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

- § 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, and shall propose alternative means, methods, techniques, sequences, or procedures. The Owner shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Owner objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures and shall not proceed with that portion of the Work without further written instructions from the Owner. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.
- § 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.
- § 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

- § 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- § 3.4.2 Except in the case of minor changes in the Work authorized by the Owner in accordance with Section 3.12.8, the Contractor may make substitutions only with the consent of the Owner, and in accordance with a Change Order or Construction Change Directive.
- § 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

- § 3.5.1 The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality, new and in conformance with the Contract Documents unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- § 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

User Notes:

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

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§ 3.7 Permits, Fees, Notices and Compliance with Laws

- § 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay permits other than those acquired and paid by the Owners.
- § 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.
- § 3.7.3 If the Contractoror performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction. The Contract shall provide the required tenant notices as directed by the Owner.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Owner will promptly investigate such conditions and, if the Owner determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Owner determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Owner shall promptly notify the Contractor in writing, stating the reasons.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the shall be included in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall confirm for the Owner of the name and qualifications of the superintendent as identified in the Bid Documents. Within 14 days of receipt of the information, the Owner may notify the Contractor, stating whether the Owner (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no reasonable objection.

- § 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.
- § 3.9.4 The Contractor's Superintendent(s) shall be physically present at the jobsite from daily commencement of work to daily completion of work. The site shall be managed daily without interruption. Daily commencement and daily completion are defined as the actual hours of operation for the project.

§ 3.10 Contractor's Construction and Submittal Schedules

- § 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.
- § 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Owner's approval. The Owner's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Owner reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.
- § 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Owner, and delivered to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

- § 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.
- § 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- § 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.
- § 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.
- § 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Owner, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal

schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

- § 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- § 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Owner.
- § 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Owner's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Owner of such deviation at the time of submittal and (1) the Owner has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Owner's approval thereof.
- § 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Owner on previous submittals. In the absence of such notice, the Owner's approval of a resubmission shall not apply to such revisions.
- § 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.
- § 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Owner. The Owner shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner has specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Owner will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.
- § 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project. Contractor to be in compliance with Section 6002 of the Solid Waste Disposal Act as amended by Resource Conservation & Recovery Act.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Owner. Contractor is to be in compliance with the Right of Inventions Act (37 CFR Part 401).

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

- § 4.2.1 The Owner will provide administration of the Contract as described in the Contract Documents during construction until the date the Owner issues the final Certificate for Payment.
- § 4.2.2 The Owner will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Owner will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.
- § 4.2.3 On the basis of the site visits, the Owner will identify (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Owner will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Owner will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.
- § 4.2.4 The Owner will conduct a mandatory pre-construction meeting with the Contractor. The meeting will include but is not limited to a review of the scope of work, project schedules, general requirements for construction work, jobsite security, staging and storage areas, material recycling and salvage, jobsite cleanup, and tests, samples and construction observation. The meeting will also include a review of the submittal process for applications for payment, the change order process, the process for progress payments, the final application for payment, and release of retention. A review of the Certified Payroll process will also be conducted. A separate Certified Payroll training session will be conducted by the Owner with the Contractor and with each subcontractor.
- **§ 4.2.5** A separate meeting will be also be conducted to review the Section 3 plan submitted by the Contractor and to review of the Section 3 reporting procedures.
- § 4.2.6 The Contractor shall contact the local jurisdiction to conduct a pre-construction conference with building officials and other local agencies as applicable for the project.

§ 4.2.4 Communications

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other directly about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Owner. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

- § 4.2.5 Based on the Owner's evaluations of the Contractor's Applications for Payment, the Owner will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.
- § 4.2.6 The Owner has authority to reject Work that does not conform to the Contract Documents. Whenever the Owner considers it necessary or advisable, the Owner will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Owner nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Owner to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- § 4.2.7 The Owner and/or Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Owner and/or Architect's action will be taken in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Owner's professional judgment to permit adequate review. Review of such submittals is not conducted for the

purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Owner's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Owner and/or Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Owner's and/or Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

- § 4.2.8 The Owner will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Owner will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.
- **§ 4.2.9** The Owner will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.
- § 4.2.11 The Owner will interpret and decide matters concerning performance under, and requirements of, the Contract Documents. The Owner's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.
- § 4.2.12 Interpretations and decisions of the Owner will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings..
- § 4.2.13 The Owner's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- § 4.2.14 The Owner will review and respond to requests for information about the Contract Documents. The Owner's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will assist the Owner and respond to Requests For Information (RFI's) as directed by the Owner and will prepare and issue supplemental Drawings and Specifications in response to the Requests For Information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

- § 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.
- § 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

- § 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall confirm for the Owner of the persons or entities for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design as identified in the Bid Documents. Within 14 days of receipt of the information, the Owner may notify the Contractor whether the Owner (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no reasonable objection.
- § 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection. The Contractor shall ensure that all and any Subcontractor(s) are not on any Debarment Lists and are Not Excluded from performing work on Federally Funded Projects. The Contractor shall provide written evidence of such to the Owner prior to the commencement of work.

User Notes:

§ 5.2.3 If the Owner has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS § 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

User Notes:

- § 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- § 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.
- **§ 6.1.4** Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

- § 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- § 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Owner of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Owner of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.
- § 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.
- § 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.
- **§ 6.2.5** The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.
- § 6.2.6 The Contractor is obligated to comply with all Davis-Bacon and/or State Prevailing regulations if applicable, and shall inform all Subcontractors of this mandatory requirement. Strict compliance of the provisions of certified payrolls and monitoring of that compliance is a direct responsibility of the Contractor for each Subcontractor. Failure of the Contractor to monitor Davis-Bacon requirements including certified payroll compliance by Subcontractors, as evidenced by the Owner's review and written correction notices provided to the Contractor of non-compliance, will result in delay of progress payments to the Contractor by the Owner.

§ 6.3 Owner's Right to Clean Up

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

ARTICLE 7 CHANGES IN THE WORK § 7.1 General § 7.1.1

.1 The Owner anticipates that it will desire the Contractor to accomplish Work that was not able to be reasonably defined in sufficient detail during the solicitation for Bids for this Project. The

- Contractor agrees to perform such Owner Directed Work in accordance with the Contract Documents.
- .2 A fixed sum has been determined by the Owner for each individual and separate Owner Directed Work Item. The total Contract Amount includes the lump sum total of all combined Owner Directed Work Items. It is at the Sole Discretion and Decision of the Owner to Authorize the Contractor to proceed with each individual Owner Directed Work Item. If any or all Owner Directed Work Items are determined to be excluded from the Work, the Owner will provide a Change Order to the Contractor to deduct those amounts from the Contract.
- .3 If any or all Owner Directed Work Items are authorized by the Owner to be completed. The Owner will issue an Owner Directed Work Order to the Contractor for that Work Item.
- .4 For each Owner Directed Work Order issued to the Owner, the Contractor shall provide a complete and detailed cost estimate for that item to the Owner. The Contractor's estimate shall be approved by the Owner, prior to the commencement of any Owner Directed Work. Adjustments to the Contract may be made as an additive or deductive Change Order as determined by the difference between the Owner Directed Work Item Allowance, the Final Approved Estimated Cost as submitted by the Contractor, and the final Analysis of the Cost as conducted by the Owner.
- .5 The Contractor shall provide a complete and accurate time and material account and reconciliation report to the Owner for each issued work authorization for each Owner Directed Work Item.
- .6 Owner Directed Work Items are defined in the Contract Documents.

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and with	out invalid	ating the
Contract, by Change Order, Construction Change Directive or order for a minor change in the		
limitations stated in this Article 7 and elsewhere in the Contract Documents.		
All changes in the Work shall be completed for a Fixed Fee.		

- .1 Overhead, Profit, and General Conditions
 - (a.) The allowed markup shall cover all indirect project costs, including but not limited to: project Overhead, Profit, and General Conditions
 - (b.) The Contractor shall be allowed a maximum of 14% Overhead, Profit, and General Conditions, on the cost of craft labor, equipment, small tools and materials for self-performed Change Order work.
 - (c.) The Contractor shall be allowed a maximum of 8% Overhead, Profit, and General Conditions on the cost of craft labor, equipment, small tools and materials for Subcontractor Change Order work. The Contractor is not allowed to take a profit on the profit of the Subcontractor, as stated in form HUD-5370, section 29.
 - (d.) A Subcontractor shall be allowed a maximum of 14% of the cost of craft labor, equipment, materials, and small tools for Overhead, Profit, and General Conditions, for performing self-performed Change Order work.
 - (e.) A Lower Tier Subcontractor shall be allowed a maximum of 14% of the cost of craft labor, equipment, materials, and small tools for Overhead, Profit, and General Conditions, for performing Change Order work.
- § 7.1.2 A Change Order shall be based upon agreement among the Owner and Contractor. A Construction Change Directive requires agreement by the Owner and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Owner.
- § 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

- § 7.2.1 A Change Order is a written instrument prepared by the Owner and signed by the Owner and Contractor stating their agreement upon all of the following:
 - .1 The change in the Work;
 - .2 The amount of the adjustment, if any, in the Contract Sum; and
 - .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1

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A Construction Change Directive shall be provided as stipulated by the Owner and in accordance with the King County Housing Authority Change Order Request documents (COR) per Exhibit as designated in Document A101-2017, Article 9.1.7.2. The COR is a written order prepared by the Owner and signed by the Owner and upon Owner's request, by the Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. The Owner's Change Order Request / Change Order Approval Form (COR/COA) per Exhibit as designated in Contract Document A101-2017, Article 9.1.7.2, including the General Contractor Breakdown Summary (GC-COR) Exhibit, and the Subcontractor Breakdown Summary (SC-COR) Exhibit, shall be used by the Contractor for all construction change directives.

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

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Owner shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Owner;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed:
- **.3** Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Owner of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Owner. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

- § 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Owner will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Owner determines to be reasonably justified. The Owner's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.
- § 7.3.10 When the Owner and Contractor agree with a determination made concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Owner will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

- **§ 8.1.1** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- § 8.1.2 The date of commencement of the Work is the date established in the Agreement.
- § 8.1.3 The date of Substantial Completion is the date certified by the Owner in accordance with Section 9.8.
- § 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

- § 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- § 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.
- § 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Owner determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Owner may determine.
- § 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.
- § 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

- § 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.
- § 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Owner before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Owner. This schedule shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Owner and supported by such data to substantiate its accuracy as the Owner may require, and unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

- § 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Owner an itemized Application for Payment using AIA Form G701 and AIA Form G702 and in accordance with Article 5 of A101-2017 prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.
- § 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives.
- § 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.
- § 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.
- § 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Owner, based on the Owner's evaluation of the Work and the data in the Application for Payment, that, to the best of the Owner's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Owner. However, the issuance of a Certificate for Payment will not be a representation that the Owner has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Owner may withhold Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Owner's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Owner is unable to certify payment in the amount of the Application, the Owner will notify the Contractor as provided in Section 9.4.1. If the Contractor and Owner cannot agree on a revised amount, the Owner will promptly release Payment for the amount for which the Owner is able to make such representations. The Owner may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Payment previously issued, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- § 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.
- § 9.5.3 When the reasons for withholding certification are removed, approval will be made for amounts previously withheld.
- § 9.5.4 If the Owner withholds payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

- § 9.6.1 After the Owner has issued an Application for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents.
- § 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

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- § 9.6.3 The Owner will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner on account of portions of the Work done by such Subcontractor.
- § 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. The Owner shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.
- § 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.
- § 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.
- § 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.
- § 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

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

§ 9.8 Substantial Completion

- § 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
- § 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- § 9.8.3 Upon receipt of the Contractor's list, the Owner will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner. In such case, the Contractor shall then submit a request for another inspection by the Owner to determine Substantial Completion.

- § 9.8.4 When the Work or designated portion thereof is substantially complete, the Owner will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- § 9.8.5 The Certificate of Substantial Completion shall be submitted to the Contractor for written acceptance of responsibilities assigned in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

- § 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Owner as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor.
- § 9.9.2 Immediately prior to such partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- § 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

- § 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection. When the Owner finds the Work acceptable under the Contract Documents and the Contract fully performed, the Owner will promptly notify the Contractor that to the best of the Owner's knowledge, information and belief, and on the basis of the Owner's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Application for Payment is due and payable. The Owner's acceptance will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.
- § 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.
- § 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, the Owner shall, upon application by

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the Contractor and certification by the Owner, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Owner prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

- § 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from
 - liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
 - .2 failure of the Work to comply with the requirements of the Contract Documents;
 - .3 terms of special warranties required by the Contract Documents; or
 - .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.
- § 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

PROTECTION OF PERSONS AND PROPERTY ARTICLE 10

§ 10.1 Safety Precautions and Programs

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

§ 10.2 Safety of Persons and Property

- § 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to
 - .1 employees on the Work and other persons who may be affected thereby;
 - the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
 - .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- § 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.
- § 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.
- § 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- § 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

- § 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner.
- § 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

- § 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner of the condition.
- § 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor will promptly reply to the Owner in writing stating whether or not there is reasonable objection to the persons or entities proposed by the Owner. If the Contractor has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor has no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.
- § 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.
- § 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.
- § 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.
- § 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

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§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

- § 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.
- § 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.
- § 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.
- § 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

- § 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.
- § 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.
- § 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the

insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, subsubcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

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

§ 12.1.2 If a portion of the Work has been covered that the Owner has not specifically requested to examine prior to its being covered, the Owner may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Owner or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Owner's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

- § 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, the Owner may correct it in accordance with Section 2.5.
- § 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.
- § 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.
- § 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.
- § 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.
- § 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

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

MISCELLANEOUS PROVISIONS ARTICLE 13 § 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

User Notes:

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

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

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

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Owner will instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Owner of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Owner's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner.

§ 13.4.5 If the Owner is to observe tests, inspections, or approvals required by the Contract Documents, the Owner will do so promptly and, where practicable, at the normal place of testing.

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

§ 13.5 Interest

User Notes:

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

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

- § 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:
 - Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
 - .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
 - .3 Because the Owner has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
 - .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.
- § 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.
- § 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.
- § 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

- § 14.2.1 The Owner may terminate the Contract if the Contractor
 - repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
 - .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
 - .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
 - otherwise is guilty of substantial breach of a provision of the Contract Documents. .4
- § 14.2.2 When any of the reasons described in Section 14.2.1 exist, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:
 - Exclude the Contractor from the site and take possession of all materials, equipment, tools, and .1 construction equipment and machinery thereon owned by the Contractor;
 - .2 Accept assignment of subcontracts pursuant to Section 5.4; and
 - .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.
- § 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14/2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.
- § 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

- § 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.
- § 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent
 - .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
 - .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

- § 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.
- § 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall
 - .1 cease operations as directed by the Owner in the notice;
 - .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work;
 - .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- § 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 **CLAIMS AND DISPUTES**

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

- § 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.
- § 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a

User Notes:

response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

- § 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.
- § 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.
- § 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.
- § 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- § 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

- § 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.
- § 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.
- § 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.
- § 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

User Notes:

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be

made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

- § 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.
- § 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.
- § 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

- § 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).
- § 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.
- § 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

ARTICLE 16 Federal Provisions

§ 16.1 Prohibition Against the Use of Lead Based Paint

The Contractor shall comply with the prohibition against the use of lead based paint contained in the Lead Based Paint Poisoning Act (42 USC 4821-4846) as implemented by 24 CFR Part 35.

§ 16.2 Federal Health, Safety, and Accident Prevention

The Contractor shall ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under the construction safety and health standards promulgated by the Secretary of Labor by regulation. The Contractor shall comply with §5.07 and with the regulations and standards issued by the Secretary of Labor at 29 CFR Parts 1904 and 1926 Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 9154, 83 Stat. 96), 40 USC 3701 to 3708 et seq.

§ 16.3 Clean Air and Water Applicable to Contracts in Excess Of \$150,000

The Contractor shall comply with all requirements of the United States Environmental Protection Agency (EPA) 40 CFR Part 15, 42 USC 7401, 33 USC 1251 et seq., the Federal Water Pollution Control Act 33 USC 1281 et seq., and Executive Order 11738.

§ 16.4 Energy Efficiency

The Contractor shall comply with all standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163) in Washington State and the Federal Energy Policy and Conservation Act (42 USC 6201).

§ 16.5 Labor Standards; Davis-Bacon and Related Acts, if Applicable

The Contractor shall comply with all provisions of the Davis-Bacon Act and Related Acts such as the Housing Act of 1937, the National Housing Act, the Housing and Community Development Act of 1974, the National Affordable Housing Act of 1990, Equal Employment Opportunity 41 CFR Part 60 or similar related Acts for Federal Labor Standards for this Contract. The Contractor is responsible for the full compliance of all employers, including the Contractor, Subcontractors, and all the Lower-Tier Subcontractors with the Labor Standards Provisions applicable to this Project.

§ 16.6 Interest of Member of Congress

No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this Contract or to any benefit to arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit. Copeland Anti-Kickback Act 40 USC 3145.

§ 16.7 Interest of Members, Officers, Commissioners and Employees, or Former Members, Officers and Employees

No member, officer, or employee of King County Housing Authority, no member of the Governing body of the locality in which the project is situated, no member of the governing body in which the Owner was activated, and no other public official or such who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this contract or the proceeds thereof.

§ 16.8 Organization Conflicts of Interest

- .1 The Contractor warrants that to the best of its knowledge and belief and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of the work under this Contract and the Contractor's organizational, financial, contractual or other interests are such as:
 - .a Award of the Contract may result in an unfair competitive advantage; or
 - **.b** The Contractor's objectivity in performing the Contract Work may be impaired.
- .2 The Contractor agrees that if after award they discover an organizational conflict of interest with respect to this Contract, they shall make an immediate and full disclosure in writing to the Contracting Officer, which shall include a description of the action, which the Contractor has taken or intend to take to eliminate or neutralize the conflict. The Owner may, however, terminate the Contract if it deems the action to be in the best interest of the Owner.
- .3 In the event the Contractor was aware of an organizational conflict of interest before the award of this Contract and intentionally did not disclose the conflict to the Contracting Officer, the Owner may terminate the Contract for default.
- .4 In the event the Contractor was aware of an organizational conflict of interest before the award of this Contract and intentionally did not disclose the conflict to the Contracting Officer, the Owner may terminate the Contract for default.

§ 16.9 Lobbying

Contractor shall be in compliance with the Byrd Anti-Lobbying Amendment 31 USC 3145.

§ 17 Audits and Inspections

The records and documents with respect to all matters covered by this Contract shall be subject at all times to inspection, review or audit by the Owner or any other government agency so authorized by law during the performance of this Contract. The Owner shall have the right to an annual audit of the Contractor's financial statement and condition.

- .1 The Contractor shall maintain accounts and records in accordance with State Auditor's procedures, including personnel, property, financial and programmatic records which sufficiently and properly reflect all direct and indirect costs of any nature expended and services performed in the performance of this Contract and other such records as may be deemed necessary by the Owner to ensure proper accounting for all funds contributed by the Owner to the performance of this Contract and compliance with this Contract.
- .2 The Owner shall maintain these records for a period of six (6) years after termination hereof unless permission to destroy them in granted by the office of the archivist in accordance with RCW Chapter 40.14

§ 18 Section 3 – Instructions, Requirements and Income Guidelines, if Applicable

Contractor shall comply with all requirements of the Section 3 Program for economic opportunities providing to the greatest extent possible, job training employment and contract opportunities for low or very low income residents including persons who are recipients of HUD assistance for housing, with preference for both targeted workers living in the service area or neighborhood of the Development and YouthBuild participants, as defined at 24 CFR Part 75 ("Section 3 Regulations") per the Exhibit, as designated in AIA Contract Document A101-2007, Section 8.6.1.

- § 18.1 The work to be performed under this contract is subject to the requirements of the Section 3 Regulations. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very lowincome persons, including persons who are recipients of HUD assistance for housing, with preference for both targeted workers living in the service area or neighborhood of the Development and YouthBuild participants.
- § 18.2 The parties to this contract agree to comply with HUD's Section 3 Regulations. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Section 3 Regulations.
- § 18.3 The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- § 18.4 The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with Section 3 Regulations, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the Section 3 Regulations. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the Section 3 Regulations.
- § 18.5 The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom Section 3 Regulations require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under Section 3 Regulations.
- § 18.6 Noncompliance with Section 3 Regulations may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- § 18.7 The Contractor shall submit to the Owner a Section 3 Work Plan, including hiring and subcontracting activities, and an Individual Certification Form for each person that is assigned to the project, prior to the contract execution. The Contractor will submit to the Owner with each Application for Payment the Section 3 Labor Hours Benchmark Status Report and any Individual Certification Form(s) for persons not initially assigned to the project prior to the contract execution. Noncompliance, incorrect, or missing documents will result in progress payments being withheld until all issues are resolved to the satisfaction of the Owner.
- § 18.8 Section 3 Employment and Training. Without limiting Contractor's obligation to comply with Section 3 Regulations, Contractor specifically agrees to use best efforts to provide employment and training opportunities to Section 3 workers in the following order of priority:
 - .1 To residents of the KCHA development where the work is being performed;
 - .2 To residents of other KCHA developments or for residents of Section 8-assisted housing managed by KCHA;
 - .3 To participants in YouthBuild programs; and
 - .4 To low- and very low-income persons residing within the Puget Sound Area.
- § 18.8 Section 3 Contracting. Without limiting Contractor's obligation to comply with Section 3 Regulations,

User Notes:

Contractor specifically agrees to use best efforts to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 workers in the following order of priority:

- .1 To Section 3 business concerns that provide economic opportunities for KCHA residents of the development where the work is being performed;
- .2 To Section 3 business concerns that provide economic opportunities for KCHA residents of other KCHA developments or Section-8 assisted housing managed by KCHA;
- To YouthBuild programs; and
- To Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the Puget Sound Area.

§ 19 OTHER INFORMATIVE INFORMATION

§ 19.1 Certificate of Endorsement, Final Project Schedule, Subcontractor List, Performance and Payment Bond and Section 3 Plan must be received and approved by the Owner prior to the issuance of the Notice to Proceed.



User Notes:



PERFORMANCE AND PAYMENT BOND INSTRUCTIONS

DIRECTIONS FOR PREPARATION OF PERFORMANCE AND PAYMENT BOND

- 1. Individual sureties, partnerships, or corporations not in the surety business will not be acceptable.
- 2. The name of the Principal shall be shown exactly as it appears in the Contract.
- 3. The penal sum shall not be less than required by the Specifications.
- 4. If the Principals are partners or joint venturers, each member shall execute the bond as an individual and state is place of residence.
- 5. If the principal is a corporation, the bond shall be executed under its corporate seal. If the corporation has no corporate seal, it shall so state and affix a scroll or adhesive seal following the corporate name.
- 6. The official character and authority of the person(s) executing the bond for the Principal, if a corporation, shall be certified by the Secretary or Assistant Secretary thereof under the corporate seal, or copies attached to such records of the corporation as will evidence the official character and authority of the officer signing, duly certified by the Secretary or Assistant Secretary, under the corporate seal, to be true copies.
- 7. The current power-of-attorney of the person signing for the surety company must be attached to the bond.
- 8. The date of the bond must not be prior to the date of the Contract.
- 9. The following information must be placed on the bond by the surety company:
 - a. The Rate of premium in dollars per thousand; and
 - b. The total dollar amount of premium charged
- 10. The signature of a witness shall appear in the appropriate place attending to the signature of each party of the bond.
- 11. Type or print the name underneath each signature appearing on the bond
- 12. An executed copy of the bond must be attached to each copy of the Contract (original counterpart) intended for signing.



KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

as PRINCIPAL, and SURETY are held and bound unto the KING C hereinafter called the Public Housing Authority in \$	OUNTY HOUSING AUTHORITY of Seattle	
(\$) DOLLARS, lawful	the penal sum of.	
money of the United States, for the payment of wheexecutors, administrators, successors and assigns, join		
WHEREAS the Principal has entered into a c	certain Contract with the Public Housing A	uthority dated
, 20, a copy of	which is hereto attached and made a part hereof.	
the Contract and all duly authorized modifications the may be granted and during any guaranty period for whall claims arising out of the prosecution of the Work Authority for all expenses which it may incur by reas and if the Principal shall make full payment to all perprosecution of the Work under the contract, in definition the Principal shall pay or cause to be gother than the contract as well as payment of gasoline and shall motor vehicle fees required for commercial motor without their this obligation shall be void; otherwise, it shall not or extension of the term thereof, nor any forbearance release the Principal or the Surety from liability here or forbearance is hereby waived. IN WITNESS WHEREOF, the aforesaid Principal thereto, this day of	hich the Contract provides, and if the Principal sha under the contract and shall fully indemnify the P son of such claims, including its attorney's fees at ersons supplying labor, services, materials, or equal ault of which such persons shall have a direct repaid all sales and use taxes payable as a result of the pecial motor fuels taxes in the performance of the vehicles used in connection with the performance of remain in full force and effect. No modification of e on the part of the Public Housing Authority, shander. Notice to the Surety of any such modification and Surety have executed this instrument and affir	all fully satisfy Public Housing and court costs, uipment in the right of action as performance to Contract and of the Contract, of the Contract all in any way ion, extension,
WITNESS:	(Individual Principal) (Business Address)	(Seal)
	(Individual Principal) (Business Address)	(Seal)
ATTEST:	(Corporate Principal)	
	(Business Address)	
	(Ву)	(Corporate Sea
A TOTO DOCUME.	(Title)	
ATTEST:	(Surety)	
	(Business Address)	
	(Business Address) (By) (Title)	(Corporate Sea



CERTIFICATE AS TO CORPORATE PRINCIPAL

CERTIFICATE AS TO CORPORATE PRINCIPAL

l,	certify that I am the
President / Vice President / Secretary /	of the Entity: Corporation
/LLC /, named a	s the Principal in the aforegoing bond. The authorized
Official of the named bonding agent who signed the	said bond on behalf of the Principal, hereby certifies
that said bond was fully signed, sealed and attested	d for and in behalf of said Entity by authority of its
Governing body.	
Named Bonding Agent:	
Affix Corporate Seal / Authorized Signature:	



INSTRUCTION TO BIDDERS FOR INSURANCE REQUIREMENTS

INSTRUCTIONS / ENDORSEMENT TO BIDDERS COMPLETING, EXECUTING, AND SUBMITTING EVIDENCE OF INSURANCE

A. INSURED CONTRACTOR:

- 1. In order to reduce problems and time delays in providing evidence of insurance to the King County Housing Authority you are requested to give your insurance agent or broker a copy of the Insurance Requirements Sheet along with the Instructions/Endorsement Form(s) for Completing, Executing, and Submitting Evidence of Insurance.
- 2. If the agreement requires Workers' Compensation coverage and you have been authorized by the State to self-insure Workers' Compensation, then a copy of the certificate from the State authorizing self-insurance for Workers' Compensation shall meet the requirements for Workers' Compensation insurance covering activities within the State.
- 3. All questions relating to insurance should be directed to the department or office responsible for your contract, lease, permit, or other agreement.

B. INSURANCE AGENT OR BROKER:

- 1. The appropriate Endorsement Form shall include:
 - a. King County Housing Authority as Additional Insured
 - b. State that the Contractor's Insurance Is Primary
 - c. State King County Housing Authority's Insurance Is Non-Contributory In Claims Settlement Funding

PLEASE NOTE: King County Housing Authority **WILL NOT ACCEPT** Certificates of Insurance Alone.

- 2. More than one insurance policy may be required to comply with the insurance requirements. Endorsement forms appropriate to your insured's agreement, contract, lease or permit are included. In each instance, King County Housing Authority shall be named as additionally insured on the appropriate endorsement forms.
- 3. You shall have an authorized representative of the insurance company forward the completed endorsement forms with his/her phone number noted at the bottom of the page, to King County Housing Authority.
- 4. The name of the Insurance Company underwriting the coverage and its address shall be noted on the endorsement form.
- 5. The "General description of agreement(s) and/or activity(s) insured" shall include reference to the activity and/or to either the specific King County Housing Authority's:
 - a. Project or Site Name
 - b. Contract Number
 - c. Lease Number
 - d. Permit Number
 - e. Construction Approval Number



- 6. The Coverage and limits for each type of insurance are specified on the insurance requirements sheet. When coverage is on a scheduled basis, then a separate sheet is to be attached to the endorsement listing such scheduled locations, vehicles, etc. so covered.
- 7. Endorsements to excess policies will be required when primary insurance is insufficient in complying with King County Housing Authority's requirements.
- 8. If there is insufficient space on the form to note pertinent information, such as inclusions, exclusions or specific provisions, etc., a separate sheet may be attached.
- 9. When additional sheets are attached, change the number of pages at the bottom of the form to so indicate.
- 10. Completed Endorsement(s) including cancellation notices and questions relating to the required insurance are to be directed to:

KING COUNTY HOUSING AUTHORITY ATTN: CAPITAL CONSTRUCTION DEPARTMENT 700 ANDOVER PARK WEST, SUITE C TUKWILA, WA 98188

- 11. Improperly Completed Endorsements will be returned to your insured for correction by an authorized representative of the insurance company.
- 12. For extensions or renewals on insurance policies which have King County Housing Authority Endorsement Form(s) attached, the Housing Authority will accept a copy of the endorsement to extend the period of coverage as evidence of continued coverage.

C. MINIMUM LIMITS:

1. REFER TO "Insurance Requirements" attached.



INSURANCE REQUIREMENTS FOR BUILDING TRADE CONTRACTORS (with Construction Risks)

The Awarded Contractor shall comply as follows:

Contractor shall procure and maintain, at their expense, for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

<u>THE KING COUNTY HOUSING AUTHORITY (AUTHORITY) SHALL BE NAMED AS ADDITIONALLY INSURED ON THE APPROPRIATE ENDORSEMENT FORMS.</u>

MINIMUM SCOPE OF INSURANCE:

Coverage shall be at least as broad as:

- 1. Insurance Services Office Commercial General Liability coverage including Products / Completed Operations.
- 2. Insurance Services Office covering any Owned, Leased, Hired and Non-owned, and Automobile Liability.
- 3. Workers' Compensation insurance as required by State law and Employers Liability coverage.
- 4. Builders Risk (Property / Course of Construction insurance covering for all risks of loss for all projects in excess of \$250,000.)
- 5. Professional Liability / Errors and Omission (when applicable).

MINIMUM LIMITS OF INSURANCE:

Contractor shall maintain limits no less than:

- 1. General Liability: \$1,000,000 per occurrence, \$2,000,000 general aggregate, including \$1,000,000 Products / Completed Operations for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project / location or the general aggregate limit shall be twice the required occurrence limit.
- 2. Automobile Liability: \$1,000,000 per accident for bodily injury / property damage.
- 3. Employer's Liability / Washington Stop Gap: \$1,000,000 per accident for bodily injury, sickness or disease.
- 4. Builder Risk (Property) / Course of Construction: Completed value of the project.
- 5. Professional Liability / Errors and Omissions: \$1,000,000 per claim; \$2,000,000 aggregate (when applicable).

DEDUCTIBLES AND SELF-INSURED RETENTIONS:

Any deductibles or self-insured retentions must be declared to and approved by the Authority. At the option of the Authority, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Authority, its successors and assigns, director, officers, officials, employees,



agents, partners and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the Authority guaranteeing payment of losses and related investigations, claim administration and defense expenses. NOTE: If this contract deals with hazardous materials or activities (i.e. lead based paint, asbestos, armed security guards) additional provisions covering those exposures must be included in order to protect the Authority's interests.

OTHER INSURANCE PROVISIONS:

General Liability and Automobile Liability Policies are to contain, or be endorsed to contain, the following provisions:

- The Authority, its successors and assigns, director, officers, officials, employees, agents, 1. partners, and volunteers are to be covered as additional insureds with respect to (i) general liability arising out of work done or operations performed by or on behalf of the contractor, including materials, parts or equipment furnished in respect to such work or operations. The endorsement(s) effectuating the foregoing additional insured coverage shall be ISO form CG 20 10 11 85, or CG 20 10 10 01 issued concurrently with CG 20 37 10 01, or their equivalent as long as it provides additional insured coverage, and not limited to the minimum acceptable as required herein, for completed operations; (ii) automobile liability arising out of vehicles owned, leased, hired, or borrowed by or on behalf of the Contractor; (iii) any insurance written on a claims made basis, shall have a retroactive date that coincides with, or precedes, the commencement of any work under this contract. Evidence of such coverage shall be maintained for a minimum of six (6) years beyond the expiration of the project and if a Claims Made policy is not renewed or replaced, then evidence of an extended reporting period of six (6) years shall be provided.
- 2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the Authority, its successors and assigns, director, officers, officials, employees, agents, partners and volunteers. Any insurance or self-insurance maintained or expired by the Authority, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
- 3. The Contractor on behalf of itself and its liability insurance carriers release and waive any claims and subrogation rights against The Authority, its successors and assigns, director, officers, officials, employees, agents, partners, and volunteers. The Contractor agrees that they will cause its insurance carriers to include in its policies such a clause or endorsement. If extra cost shall be charged therefore, the Contractor shall pay the same.
- 4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled or materially changed, except after thirty (30) days / (ten (10) days for non-payment of premium) without prior written notice given to the Authority through certified mail, with return receipt requested.
- 5. Maintenance of the proper insurance for the duration of the contract is a material element of the contract. Material changes in the required coverage or cancellation of the coverage shall constitute a material breach of the contract.

Builders Risk / Course of Construction Policies shall contain the following provisions:

- 1. The Authority and its insurers shall be named as loss payees.
- 2. The insurer shall waive all rights of subrogation against the Authority, its successors and assigns, director, officers, officials, employees, agents, partners and volunteers.



ACCEPTABILITY OF INSURERS:

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than **A-:VII**. Contractors must provide written verification of their insurer's rating.

VERIFICATION OF COVERAGE:

Contractor shall furnish the Authority with **original certificates** and **amendatory endorsements** affecting coverage required by this clause. The endorsements should be on forms provided by the Authority or on other than the Authority's forms, provided those endorsements conform fully to the requirements. All certificates and endorsements are to be received and approved by the Authority before work commences in sufficient time to permit contractor to remedy any deficiencies. The Authority reserves the right to require complete, certified copies of all required insurance policies, or pertinent parts thereof, including endorsements affecting the coverage required by these specifications at any time.

SUBCONTRACTORS:

- 1. Subcontractor shall include the Contractor as additional insured under their policies. All coverages for subcontractors shall be subject to all of the requirements stated herein.
- 2. Contractor shall be responsible for the adequacy of required coverages for subcontractors, and compile related certificates of insurance and endorsements evidencing subcontractors' compliance.

INDEMNIFICATION AND HOLD HARMLESS:

- 1. To the fullest extent permitted by law the Contractor hereby agrees to indemnify and hold harmless the KCHA, its successors and assigns, directors, officials, officers and employees, volunteers, partners and agents (all foregoing singly and collectively "Indemnitees"), from and against any and all claims losses, harm, costs, liabilities, damages and expenses including, but not limited to, reasonable attorneys' fees arising or resulting from the performance of the Work, or the acts or omissions of the Contractor its successors and assigns, employees, subcontractors or anyone acting on the Contractor's behalf in connection with this Contract or its performance; PROVIDED, however, that the Contractor shall not be required to so indemnify any such Indemnitees against liability for damages caused by or resulting from the sole negligence of Indemnitees; PROVIDED FURTHER that if such damages are caused by or result from the concurrent negligence of the Indemnitees and the Contractor or anyone acting on the Contractor's behalf, then the Contractor's indemnity hereunder shall be limited to the extent of the negligence of the Contractor, its successors and assigns, et al.
- 2. The foregoing indemnity is specifically and expressly intended to constitute waiver of the Contractor's immunity under Washington's Industrial Act, RCW Title 51, and that this waiver has been specifically negotiated and agreed upon by the parties.
- 3. The Contractor hereby agrees to require all its subcontractors or anyone acting under its direction or control or on its behalf in connection with or incidental to the performance of this Contract to execute an indemnity clause identical to the preceding clause, specifically naming KCHA as Indemnitee, and failure to do so shall constitute a material breach of this Contract by the Contractor.

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 10 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:	

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

- A. Section II Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.
- **B.** With respect to the insurance afforded to these additional insureds, the following exclusion is added:
 - 2. Exclusions

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – (FORM B)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 37 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:						
Location And Description of Completed Operations:						
Additional Premium:						

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

Section II – Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" at the location designated and described in the schedule of this endorsement performed for that insured and included in the "products-completed operations hazard".



SITE SPECIFIC SAFETY PLAN REQUIREMENTS

Following is a list of the elements that are typically addressed in a construction site specific safety plan. A site specific safety plan will be one of the required post-selection documents be submitted by the contractor selected through this bid solicitation.

In addition to the typical elements of a construction safety plan that addresses the contractor, the Governor of the State of Washington has instituted additional proclamations and rules surrounding the COVID-19 virus that must be included. Because COVID-19 is a pandemic which is evolving rapidly, when warranted, it is expected that these project-specific safety plan(s) will be updated by the Contractor to reflect the most current rules in effect.

NOTE: For any project that requires entry into occupied units, the Contractor's Site Specific Safety Plan **will be required** to describe the specific construction techniques and use of PPE designed planned to keep the tenants and the workers safe from COVID-19 virus transmission.

The selected contractor with responsible for obtaining similar plans from all subcontractors and for the supervision and enforcement of safety requirements on the site. The contractor's Site-Specific Safety Plan will be submitted to KCHA before any work can begin. The Plan will need to address the following:

- 1. An initial job/job-site safety orientation and a schedule of weekly safety meetings that show employees and subcontractors what they need to know to perform their job assignments safely.
- 2. Details how and when to report on-the-job injuries.
- 3. Identifies on-site available 1st Aid / CPR trained personnel, readily accessible first-aid on the job site and/or access to the nearest clinic or hospital from the job site.
- 4. Identifies what to do in an emergency, including how to exit the workplace.
- 5. Lists the required personal protective equipment (PPE) and describes the proper use and care of the PPE.
- 6. Details the on-site Haz-Com Program that identifies hazardous materials (Asbestos, Lead) or chemicals including instruction about the safe use and storage.
- 7. Designates an on-site representative responsible for job-site Safety.
- 8. Designates who is responsible for performing and recording regular periodic site reviews, and inspections for your employees and subcontractors.
- 9. Describes programs related to housekeeping and jobsite safety.
- 10. Outlines the job-site specific fall protection plan.
- 11. Describes electrical and/or power generation controls on-site.
- 12. Has provisions for trenching /excavations and/or confined space entry.

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- Outlines procedures that comply with the governor's requirements as stated in his COVID-19 Phase 2 Construction Restart Job Site Work Plan; including the following:
 - a. General site COVID-19 measures.
 - b. Occupied unit entry (what workers PPE workers will be required to wear, sanitization protocols, etc. that will keep both the worker and the tenant safe).
 - c. Occupied unit exit (what workers will be required to do upon exiting an occupied unit that will keep both the work and the tenant safe).
 - d. Procedures workers will have to follow if entering multiple units within a day (with emphasis on PPE protocols between units if worker(s) are entering multiple units one after the other).

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SUB-CONTRACTOR VERIFICATION FORM

It is the responsibility of the General Contractor to obtain and verify the Subcontractor's Information described below. For compliance, the General Contractor must submit a copy of the Subcontractor Verification form prior to the sub starting work. A copy of the Affidavit of Intent form must accompany the applicable Certified Payroll. Without these forms, the Pay Application maybe withheld.

KCHA will review subcontractors' qualifications, safety record, and the history of compliance (including subcontractor's principals working under another company name) with labor and other state and federal laws. Based on this review, KCHA reserves the right at its sole discretion to reject subcontractors and require the selected General Contractor to replace or substitute a subcontractor with one acceptable to KCHA.

Name of Company:	
Physical Address:	
Contact Name and Title	
Email Address:	Phone No.:
WA State Contractor's License:	UBI Number:
Employment Security Number:	L&I's Workers' Comp. Acct. ID:
Federal Tax ID Number:	DUNS Number:
SUB-CONTRACTOR IS A(N):	dividual Partnership* Corporation** – in state of
* If Partners	o, provide Full Name(s) and Address(es) of all parties
** If your company is	so known as (AKA)" or "doing business as (DBA) list all names
	MODIFICATION RATE (EMR): 2019; 2020; 2021; proof of EMR stated, showing complete worksheet calculations).
Sub-Contractor is not presently debarred excluded from covered transactions by a	uspended, proposed for debarment, declared ineligible, or voluntarily federal department or agency:
NOTE : The penalty for making false so	ement in offer is prescribed in 18 U.S.C. 1001.
SUBMITTED ON : Day of _	, 20
Signature of General Contractor	Name of General Contractor (Print)
Title of General Contractor (Print)	Date

OMB Approval No. 2577-0157 (Exp. 01/31/2017)

Certification of Payments to Influence Federal Transactions

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

CONTRACT DOCUMENT C.7

Applicant Name	
Program/Activity Receiving Federal Grant Funding	
The undersigned certifies, to the best of his or her knowledge and	belief, that:
(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLI, Disclosure Form to Report Lobbying, in accordance with its instructions.	(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
I hereby certify that all the information stated herein, as well as any info Warning: HUD will prosecute false claims and statements. Conviction 1012; 31 U.S.C. 3729, 3802)	
Name of Authorized Official	Title
Signature	Date (mm/dd/yyyy)

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

0348-0046

(See reverse for public burden disclosure.) **CONTRACT DOCUMENT C.8** 1. Type of Federal Action: 2. Status of Federal Action: 3. Report Type: a. contract a. bid/offer/application a. initial filing b. grant b. initial award b. material change c. cooperative agreement For Material Change Only: c. post-award year _____ quarter ____ e. loan guarantee date of last report f. loan insurance 4. Name and Address of Reporting Entity: 5. If Reporting Entity in No. 4 is a Subawardee, Enter Name Subawardee and Address of Prime: Prime Tier _____, if known: Congressional District, if known: **Congressional District**, *if known*: 6. Federal Department/Agency: 7. Federal Program Name/Description: CFDA Number, if applicable: 9. Award Amount, if known: 8. Federal Action Number, if known: b. Individuals Performing Services (including address if 10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI): different from No. 10a) (last name, first name, MI): 11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact Signature: upon which reliance was placed by the tier above when this transaction was made Print Name: _____ or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. Telephone No.: _____ _____ Date: ____

Federal Use Only:

Authorized for Local Reproduction

Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2. Identify the status of the covered Federal action.
- 3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
- 4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
- 6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational evel below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
- 8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- 9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.
 - (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
- 11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.



CERTIFICATION OF COMPLIANCE WITH WASHINGTON STATE WAGE PAYMENT STATUTES

· ·		ree year period immediately preceding the bid solicitation date of
		I" violator, as defined in RCW 49.48.082, of any provision of chapters
	·	final and binding citation and notice of assessment issued by the WA
State Department of La	bor & Industries of through	n a civil judgement entered by a court of limited or general jurisdiction.
I certify under penalty	of perjury under the laws o	of the State of Washington that the forgoing is true and correct.
Bidder		
Signature of Authorized	I Official*	
Printed name		
Title		
Date	City	State
Check one:		
Individual Partners	ship Joint Venture	Corporation
State of Incorporation,	or if not a corporation, Stat	te where business entity was formed:
If a co-partnership, give	company name under wh	ich business is transacted:

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

CONTRACT DOCUMENTS C.10

⚠ King County Housing Authority Vendor Set-up Form (Alternative W-9)

FOR KCHA USE ONLY Submitted by:	Vendor Number:		Date:
Name (as shown on your income tax return):			
Business name/disregard entity name, if different from above:			
Check appropriate box for Federal tax classification (required):			
☐ Individual ☐ S Corporation ☐	Trust/Estate	Other (see instruction	ns)
☐ C Corporation ☐ Partnership ☐	Exempt Payee		
Limited Liability Company (LLC). Enter the tax classification (Company Personal Pers	C corporation, S=S Corp	ooration,	>>
1099 Address (number, street, and apt. or suite no.):	ty, State, and Zip Code:	Telephone	e:
Remit to address (if different from above):	ty, State, and Zip Code:	Email:	
Taxpayer Identification Number (TIN)		PROVII	DE ONE ONLY
Enter your TIN in the appropriate box. The TIN provided must match the the "Name" line to avoid backup withholding. For individuals, this is your (SSN). For other entities, it is your employer identification number (EIN).	social security number	SSN: EIN:	
Terms of Payment Net 30 Net 10th	of Month	Other	
☐ Net 10 ☐ Due upo	n re ce ipt	2 1 1 1 1 1 1	
*Section-3: O yes O No *Questions can be directed to KCHAS	ection 3 Coordinator 200	6-826-5335	
WMBE: OMINORITY OWNED (MBE OR OWNE)	OWNED (WBE)	O Not Applicable	
	nic American	☐ NONE OF THE A	BOVE (NEC)
	Pacific American	Other	
3. Native American 6. Hasid	ic Jew		я п
Certification			
Under the penalties of perjury, I certify that: 1. The number shown on this form is my correct taxpayer identification number	r (or Lam waiting for a number	to be issued to me) and	
 The number shown on this form is my correct taxpayer identification number I am not subject to backup withholding because: a) I am exempt from backup 	withholding, or b) I have not b	een notified by the Internal	Revenue Service (IRS) that I am
subject to backup withholding as a result of a failure to report all interest or			
3. I am a U.S. citizen or other U.S. person. See instructions Certification Instructions: You must cross out item 2 above if you have been notified report all interest and dividends on your tax return. For real estate transactions, item cancellation of debt, contributions to an individual retirement arrangement (IRA), and certification, but you must provide your correct TIN. The IRS doe not require your consent to any provision of this document other than the	2 does not apply. For mortgage generally, payments to other th	interest paid, acquisition of han interest and dividends, y	abandonment of secured property,
SIGN HERE Signature of U.S. Person:		Date:	
Return completed form to King County Housing Authority, 600 See instructions below or refer to the IRS instructions at www.ir	Andover Park West, Tu	nleting this form	
General Instructions: Purpose of the Form: Establish or update a vendor account with the King County Hounumber (TIN), request certain certifications and claims for exemption, as well as the	ising Authority. This form meets	the Federal requirements t	o request a taxpayer identification ndor establishment.
Complete form if: 1. You are a U.S. person (including a resident alien); 2. You are a vendor that provides goods or services to	KCHA: AND		
You will receive payment from KCHA			



FINAL AFFIDAVIT OF AMOUNTS PAID

the Sta	atement from the Sub-	n a Final Affidavit Form, re Contract Participant. Not	gardless of tier. Every Prim ary must witness and verify F	rime Participant must Comp Prime Participant.	blete and Sign, Certifying
PROJECT NAME / TITLE:				CONTRACT	NUMBER:
SCOPE OF WORK:					
PRIME CONTRACTOR / CONSULTANT:				UBI NU	IMBER:
ADDRESS-CITY-STATE-ZIP:					
CONTRACT TYPE:	CONSTRUCTION	ARCHITECT / ENGINE	ERING CONSULTANT	OTHER:	
ORIGINAL CONTRACT AM	IOUNT:	\$			
TOTAL # OF AMENDMENTS:	()	\$		•	
TOTAL # OF CHANGE ORDERS	5: ()	\$	-		
FINAL CONTRACT	AMOUNT:	\$	0.00		
SUB - CONTRACT PARTIC	IPANT:				
CHECK BOX THAT APPLIES:	SUB-C	CONTRACTOR	SUB - CONSULTAN	MATERIAI	LS SUPPLIER
ENTER NAME AND ADDRESS OF CO	OMPANY UBI N	DATE WO		AMOUNTS IN RETAINAGE TO DATE	AMOUNT PAID TO DATE
I, the Undersigned, do hereby c and Department of Revenue h Contractors, Sub-Consultants an for any retainage that is agreed	nave been paid and and Materials Supplie	d all accounts are in rs who have worked u	n good standing . I fuunder my company on th	rther certify that all of its project have been	employees and Sub- paid in full, except
NAME OF COMPANY:					
PRINT NAME OF AUTHORIZED PERSON		TITLE	SIGNATURE		DATE
The Sub-Contractor Participa with all work on the project for shown for work completed or po	which this statemer	nt is submitted, by the	ounts paid. I, the unders e Sub-Contract Participan	igned, do hereby certi t named above has be	fy that in connection een paid the amount
PRIME PARTICIPANT Signature / Title:				DATE:	
Subscribed and Sworn before	e me this	_ day of	20		
(PRINT NAME)	Nota	ry Public in and for t	he State of Washington.	n.	lahaw.
Residing at:					lotary Seal
_					



SECTION 3 – INDIVIDUAL CERTIFICATION FORM RETURN FORM SINGLE SIDED

Section 3 of the Housing and Urban Development (HUD) Act of 1968, as amended, requires that Housing Authorities and agencies receiving HUD funding, to the greatest extent feasible, provide economic opportunities to low-income persons. **Information provided on this form shall remain confidential and be used for reporting purposes only.** *Print all information*

NAME:			
ADDRESS:			
EMAIL ADDRESS:	PHONE NUMBER:		
HIRE DATE:	POSITION TITLE:		
EMPLOYER / COMPANY NAME	l:		
DD CYTCH IV. I CT			
` · ·	operty. the name of the property and skip to Qu		No
2. I am currently in KCHA's Sec		Yes	No
3. I am currently a participant in	a HUD YouthBuild Program. (If "Yes", skip to Question 5)	Yes	No
4. Based on the chart below:			
a. The Region / Area I live in	n is		
b. My total income level for 12 months was at – or below.	the past ow the amount identified on the table belo		

Location Bremerton Silverdale (Kitsap County)		Eve (King/Sr	Seattle, Bellevue Everett (King/Snohomish Counties)		Tacoma (Pierce County)		Sedro Woolley (Skagit County)		
Income	Very low income	≤\$23,950	Very low income	≤\$40,500		Very low income	≤\$31,800	Very low income	≤\$28,850
Limit 1 Person	Low income	\$23,951 to \$52,750	Low income	\$40,501 to \$63,350		Low income	\$31,801 to \$50,900	Low income	\$28,851 to \$46,100



5.	I work for a Section 3 business concern	Yes	No
	(If "Yes", skip Question 6)		
6.	In the past five years, I have been a resident of public housing or Section 8 assisted housing managed by KCHA; a resident of other public housing projects or Section 8 assisted housing, or a YouthBuild participant.	Yes	No
I here	by certify under the penalty of perjury that the information above is true	and correct.	
Signat	Date		

If submitting for a new hire, attach completed forms to Labor Hours Benchmark Status Report and submit to project manager. If submitting for Section 3 business qualification, attach to Section 3 Business Certification Form and submit to project manager. If submitting for general Section 3 certification, or for questions, please contact KCHA by email at Section3@kcha.org.



SECTION 3 – INDIVIDUAL CERTIFICATION FORM FAQ's RETURN FORM SINGLE SIDED

Question: What is this form?

Answer: This form is a Section 3 Certification Form that will be used to determine if an individual

is a Section 3 worker as defined by HUD 24 CFR 75 and the KCHA.

Question: Who fills out this form?

Answer: Any individual who is paid in full or part with HUD funds. (If unsure if position is HUD

funded, please contact Contract administrator.)

Question: What will this form be used for?

Answer: This form will be used for the purpose of determining Section 3 eligibility and for statistical

purposes.

Question: Who collects this form and where does it go?

Answer: Any employer or contractor that has a contract with the KCHA that is HUD funded will

collect this data from any employee who was employed within the last five years. Once the

data is collected the original copy will come to KCHA.

Question: Who is a KCHA Resident?

Answer: Someone who lives in a KCHA Housing Development whose name is listed on a current

lease.

Question: How long should I go back to calculate my income?

Answer: Individuals should calculate back 12 months from their date of hire.

Question: What if I don't live in King County?

Answer: Individuals who do not reside in King County may still be eligible to be certified by KCHA

as a Section 3 resident.

If you have more specific questions, please contact KCHA by email at Section3@kcha.org.



SECTION 3 - LABOR HOURS BENCHMARK STATUS REPORT (1) COMPANY NAME: (2) CONTACT PERSON: (3) CONTACT PHONE NO. & EMAIL: (4) PROJECT NAME: (6) CONTRACT AWARD DATE: (5) CONTRACT NO: **SECTION 3 LABOR HOUR BENCHMARKS** FROM: TO: _____ (7) REPORTING PERIOD: AGGREGATE LABOR HOURS PERFORMED BY ALL WORKERS ON (8)PROJECT DURING REPORTING PERIOD: AGGREGATE LABOR HOURS PERFORMED BY SECTION 3 WORKERS ON PROJECT DURING REPORTING PERIOD: AGGREGATE LABOR HOURS PERFORMED BY TARGETED SECTION (10) 3 WORKERS ON PROJECT DURING REPORTING PERIOD: I certify that the information in this report is true and correct to the best of my knowledge: SIGNATURE TITLE PRINT NAME DATE To be completed by KCHA staff **RECEIVED BY:** SIGNATURE TITLE PRINT NAME DATE



SECTION 3 - LABOR HOURS BENCHMARK STATUS REPORT - INSTRUCTIONS

Complete the Labor Hours Benchmark Status Report as indicated below and return the completed form <u>along</u> with the pay application(s) for the same period.

Return the Labor Hours Benchmark Status Report and pay application to:

King County Housing Authority Attn: 700 Andover Park West Tukwila, WA 98188

- (1) Company Name
- (2) Name of Person filling out the Labor Hours Benchmark Status Report
- (3) Phone number and email address of the person filling out the Labor Hours Benchmark Status Report
- (4) Name of the project as it appears on the contract
- (5) Contract Number
- (6) Contract Award date (date of LOA)
- (7) Reporting period should be the same as the pay application period
- (8) Total hours worked by all workers on the project includes Section 3 workers and Targeted Section 3 workers, during the reporting period
- (9) Total hours worked on the project by Section 3 workers during the reporting period
- (10) Total hours worked on the project by Targeted Section 3 workers during the reporting period



D - **SECTION**

THIRD PARTY REPORTS

D.1 Limited Hazardous Materials Survey Report

Limited Hazardous Materials Survey Report

Gustaves Manor 107 West Main Street Auburn, Washington

Prepared for:

King County Housing Authority 700 Andover Park West, Suite C Seattle, WA 98188

April 29, 2020 PBS Project No. 40573.205



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APPENDICES

APPENDIX A: PLM Bulk Sampling Information

PLM Bulk Sample Inventory

PLM Bulk Sample Laboratory Data Sheets and Chain of Custody Documentation

APPENDIX B: Lead in Paint Chip Sampling Information

Paint Chip Sample Inventory

Paint Chip Laboratory Data Sheets and Chain of Custody Documentation

APPENDIX C: Certifications



1 INTRODUCTION

1.1 Background

PBS Engineering and Environmental, Inc. (PBS) performed a limited hazardous materials survey of Gustaves Manor in anticipation of a roofing installation project. Accessible building areas included in the scope of work were inspected for the presence of asbestos-containing materials (ACMs) and lead-containing paint (LCP). The intent of this investigation is to ensure that the King County Housing Authority (KCHA) is in compliance with applicable regulatory requirements that a "good faith inspection" for ACMs be performed prior to renovation activities.

PBS understands a new membrane roof system will be installed over the existing asphaltic roofing at the upper and lower roof areas. PBS inspected all accessible areas of the building that are anticipated to be impacted by the planned work.

1.2 Survey Process

Accessible areas included in the project scope were inspected by AHERA-certified building inspector Ferman Fletcher (Cert. No. IR-20-8539B Exp. 4/1/2021) on April 23, 2020.

When observed, suspect materials were sampled, assigned a unique identification number, and transmitted for analysis to Seattle Asbestos Test, LLC (NVLAP # 200768-0) for analysis. All samples were analyzed by polarized light microscopy (PLM), which has a reliable limit of quantification of one percent asbestos by volume. Information regarding the type and location of sampled materials can be found on the attached PLM Sample Inventory. Located in Appendix A.

Destructive investigation was not performed to investigate inaccessible areas. Inaccessible areas are defined as those requiring selective demolition, fall protection or confined-space entry protocols to gain access. While PBS has endeavored to identify concealed ACM, additional unidentified materials may be present in concealed locations that that were not accessed during this survey. Any materials encountered during renovation that have not been previously sampled should be sampled for asbestos content prior to impact.

2 FINDINGS

2.1 Asbestos-Containing Materials (ACMs)

None of the materials sampled were found to contain detectible asbestos.

The following materials were determined **not** to contain asbestos:

- Built-up roofing Upper and Lower roof on field of flat roof and parapet walls;
- Stucco Exterior walls throughout;
- Curbing sealant and associated silver paint Lower Roof;
- Light grey parapet cap sealant Upper Roof;
- Light grey duct sealant roof-mounted HVAC equipment on Lower Roof.

Refer to Appendix A for a complete listing of representative bulk sampling and associated laboratory analysis.



2.2 Lead-Containing Paint,

Two (2) representative paint coatings were sampled for lead content. The samples were assigned a unique identification number and transmitted to NVL Laboratories, Inc. (AIHA IH #101861) in Seattle, Washington under chain-of-custody protocols for analysis using Flame Atomic Absorption (EPA 3051/7000B).

None of the paint sampled was found to contain detectible lead.

The following paint coatings were sampled and found **not** to contain lead.

- Beige paint on stucco walls.
- Beige paint on metal parapet caps on the Upper Roof.

Refer to Appendix B for locations and laboratory results of paint samples.

3 RECOMMENDATIONS

3.1 Asbestos-Containing Materials (ACM)

The possibility exist that suspect ACM may be present in equipment, wall and ceiling cavities, and in select areas included in the scope of renovations. These may include, but are not limited to pipe insulation, below slab components vapor barriers, and construction adhesives and wall mastics. In the event that suspect ACM is uncovered during construction, contractors should stop work immediately and inform the owner promptly for confirmation testing. All untested materials should be presumed asbestos-containing or tested for asbestos content prior to impact.

3.2 Lead-Containing Paint (LCP)

Representative painted coatings from the project locations were not found to contain lead by laboratory analysis. Painted coatings may exist in inaccessible areas of the work area or in secondary coatings. Any previously unidentified painted coatings should be considered lead containing until sampled and proven otherwise. Dust control and housekeeping is crucial in preventing worker and occupant exposures.

Impact of paint with detectable concentrations of lead requires construction activities to be performed in accordance with the State of Washington Department of Labor and Industries regulation for Lead in Construction (WAC 296-155-176). All construction activities performed in pre-1978 residential buildings require compliance with the EPA and State of Washington Renovation, Repair and Painting (RRP) program regulations.

Report prepared by:

Ferman Fletcher
AHERA Building Inspector

Cert. #172753, exp. 4/17/2020

Report reviewed by:

Mark Hiley

Senior Project Manager

Mark a. Diley



APPENDIX A

PLM Bulk Sampling Information

PLM Bulk Sample Inventory
PLM Bulk Sample Laboratory Data Sheets
PLM Bulk Sample Chain of Custody Documentation



Gustaves Manor King County Housing Authority PLM ASBESTOS SAMPLE INVENTORY

PBS Sample #	Material Type	Sample Location	<u>Lab Description</u>	Lab Result	<u>Lab</u>
40573.205 -01	Built-up Roofing	Upper Roof; Center	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Black asphaltic material with fibrous material	NAD	
			Layer 4: Black asphaltic material	NAD	
			Layer 5: Brown fibrous material	NAD	
			Layer 6: Black asphaltic material	NAD	
			Layer 7: White foamy material	NAD	
40573.205 -02	Built-up Roofing	Upper Roof; SW corner	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Black asphaltic material with fibrous material	NAD	
			Layer 4: Black asphaltic material	NAD	
			Layer 5: Brown fibrous material	NAD	
			Layer 6: Black asphaltic material	NAD	
			Layer 7: Brown fibrous material	NAD	
40573.205 -03	Built-up Roofing	Lower Roof; NW corner	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Multi-layered black asphaltic material	NAD	
			Layer 4: Black asphaltic material	NAD	
			Layer 5: Black asphaltic material with sand	NAD	
40573.205 -04	Built-up Roofing	Lower Roof; SW corner	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Multi-layered black asphaltic material	NAD	
			Layer 4: Black asphaltic material	NAD	
			Layer 5: Black asphaltic material with sand	NAD	
40573.205 -05	Built-up Roofing	Upper Roof; S. Parapet Wall	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Black asphaltic material with fibrous material	NAD	

PBS Sample #	Material Type	Sample Location	<u>Lab Description</u>	Lab Result	<u>Lab</u>
			Layer 4; Black asphaltic material	NAD	
40573.205 -06	Built-up Roofing	Lower Roof; S. Parapet Wall	Layer 1: Black asphaltic material with fibrous material and sand	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
			Layer 3: Black asphaltic material with fibrous material	NAD	
			Layer 4: Black asphaltic material	NAD	
40573.205 -07	Silver Paint/Curbing Sealant	Lower Roof; Exhaust Vent, SW corner	Layer 1: Silver paint	NAD	SAT
40573.205 -08	Silver Paint/Curbing Sealant	Lower Roof; Exhaust Vent, Center	Layer 1: Silver paint	NAD	SAT
			Layer 2: Black asphaltic material	NAD	
40573.205 -09	Light Grey Parapet Cap Sealant	Upper Roof; SE corner	Layer 1: Light gray soft/elastic material	NAD	SAT
40573.205 -10	Light Grey Duct Sealant	Lower Roof; HVAC unit, NW corner	Layer 1: Light gray soft/elastic material	NAD	SAT
40573.205 -11	Stucco	Lower Roof; SW corner	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
			Layer 2: Trace black asphaltic material	NAD	
40573.205 -12	Stucco	Lower Roof; W. elevation S. end	Sample Not Submitted	N/A	SAT
40573.205 -13	Stucco	Lower Roof; W. elevation S. end	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
40573.205 -14	Stucco	Lower Roof W. elevation Central next to entry door	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
		•	Layer 2: Gray sandy/brittle material	NAD	
40573.205 -15	Stucco	Lower Roof N. elevation E. end	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
			Layer 2: Gray sandy/brittle material	NAD	
40573.205 -16	Stucco	Lower Roof N. elevation E. end	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
			Layer 2: Gray sandy/brittle material	NAD	
40573.205 -17	Stucco	Lower roof; S. elevation E. end	Layer 1: Beige sandy/brittle material with paint	NAD	SAT
			Layer 2: Gray sandy/brittle material	NAD	

SEATTLE ASBESTOS TEST, LLC

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager: Ferman Fletcher

Client: PBS Engineering and Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Tel: 206.233.9639

Date Analyzed: 4/27/2020

Client Job#: 40573.205

Project Location: KCHA: Gustaves Manor

Laboratory batch#: 202019976

Samples Received: 17

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA - 40 CFR Appendix E of Part 763, Interim Method of Determination of Asbestos in Bulk Insulation Samples and Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely

SZhang

Steve (Fanyao) Zhang President



202019976

Project: KCHA: Gustaves M	anor	Project #: <u>40573.205</u>
Analysis requested: PLM		Date: 4/23/20
Relinq'd by/Signature:	7///	Date/Time: 4/23/20
Received by/Signature:	Jang SAT	Date/Time: 4 23 20@ 1350
E-mail results to:		
☐ Brian Stanford	Cel Alvarez	Mike Smith
Willem Mager	Janet Murphy	Ferman Fletcher
Gregg Middaugh	☐ Kaitlin Soukup	Holly Tuttle
Mark Hiley	Martin Estira	Ryan Hunter
☐ Tim Ogden	Justin Day	🔀 Eman Jabali
Prudy Stoudt-McRae	Filmon Embaye	
E-mail all invoices to: seattleap@pbs	usa.com	
TURN AROUND TIME:		
1 Hour	24 Hours	
2 Hours	48 Hours	Other
4 Hours		

	SAMPLE DATA	A FORM	
Sample #	Material	Location	Lab
40573.205-01	Built-up Roofing	Upper Roof; Center	SAT
-02	u	Upper Roof; SW corner	
-03	а	Lower Roof; NW corner	
-04	66	Lower Roof; SW corner	
-05	εε	Upper Roof; S. Parapet Wall	
-06	и	Lower Roof; S. Parapet Wall	
-07	Silver Paint/Curbing Sealant	Lower Roof; Exhaust Vent, SW corner	
-08	α	Lower Roof; Exhaust Vent, Center	
-09	Light Grey Parapet Cap Sealant	Upper Roof; SE corner	
-10	Light Grey Duct Sealant	Lower Roof; HVAC unit, NW corner	
-11	Stucco	Lower Roof; SW corner	
-12	ű	Lower Roof; W. elevation S. end	
-13	•	Lower Roof; W. elevation S. end	
-14	и	Lower Roof W. elevation Central next to entry door	
-15	. "	Lower Roof N. elevation E. end	
-16	и	Lower Roof N. elevation E. end	
17	и	Lower roof; S. elevation E. end	
,			

SEATTLE ASBESTOS TEST

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

Disclaimer: This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government.

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Ferman Fletcher

Client: PBS Engineering and Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Job#: 40573.205

Batch#: 202019976

Date Received: 4/23/2020

Samples Rec'd: 17

Date Analyzed: 4/27/2020

Samples Analyzed: 16

Project Loc.: KCHA: Gustaves Manor

yzed by: Yul Yang Reviewed by: Steve (Fanyao) Zhang, President

	T		Analyzed by	THE T	Asbestos Fibers			Fanyao) Zhang, President
Lab ID	Client Sample ID	Layer		%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
		1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	28	Synthetic fibers, Cellulose
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
1	40573.205-01	3	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	30	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		5	Brown fibrous material		None detected	Binder, Filler, Perlite	85	Cellulose
		6	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		7	White foamy material		None detected	Synthetic foam		None detected
		1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	25	Synthetic fibers, Cellulose
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
2	40573.205-02	3	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	29	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
		5	Brown fibrous material		None detected	Binder, Filler, Perlite	81	Cellulose
		6	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		7	Brown fibrous material		None detected	Binder, Filler, Perlite	80	Cellulose
		1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	23	Synthetic fibers, Cellulose
3	40572 205 02	2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
3	40573.205-03	3	Multi-layered black asphaltic material		None detected	Asphalt/binder	76	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		5	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	25	Glass fibers

SEATTLE ASBESTOS TEST

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

Disclaimer: This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government.

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Ferman Fletcher

PBS Engineering and Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Job#: 40573.205

Batch#: 202019976

Date Received: 4/23/2020

Samples Rec'd: 17

Date Analyzed: 4/27/2020

Samples Analyzed: 16

Project Loc.: KCHA: Gustaves Manor

SZhang Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	% /	Asbestos Fibers	Non-fibrous Components	1 %	Non-asbestos Fibers
		1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	27	Synthetic fibers, Cellulose
4	40573.205-04	2	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
4	40373.203-04	3	Multi-layered black asphaltic material		None detected	Asphalt/binder	75	Glass fibers, Cellulose
*		4	Black asphaltic material		None detected	Asphalt/binder	4	Cellulose
		5	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	21	Glass fibers
		1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	30	Synthetic fibers, Cellulose
5	40573.205-05	2	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
		3	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	28	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
	a.	1	Black asphaltic material with fibrous material and sand		None detected	Asphalt/binder, Filler, Sand	27	Synthetic fibers, Cellulose
6	40573.205-06	2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		3	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	25	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
7	40573.205-07	1	Silver paint		None detected	Paint, Filler	4	Cellulose
8	40573.205-08	1	Silver paint		None detected	Paint, Filler	4	Cellulose
0	40070.200-00	2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
9	40573.205-09	1	Light gray soft/elastic material		None detected	Binder, Filler	3	Cellulose
10	40573.205-10	1	Light gray soft/elastic material		None detected	Binder, Filler	3	Cellulose
11	40573.205-11	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	3	Cellulose
	70070,200-11	2	Trace black asphaltic material		None detected	Asphalt/binder	2	Cellulose

SEATTLE ASBESTOS TEST

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

Disclaimer: This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government.

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Ferman Fletcher

PBS Engineering and Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Job#: 40573.205

Batch#: 202019976

Date Received: 4/23/2020

Samples Rec'd: 17

Date Analyzed: 4/27/2020

Samples Analyzed: 16

Project Loc.: KCHA: Gustaves Manor

SZhang

			Analyzed by:	Yul	ang	Reviewed by:	Steve (Fanyao) Zhang, President
Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
12	40573.205-12		Sample not submitted		0 0	J		
13	40573.205-13	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	4	Cellulose
14	40573.205-14	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	3	Cellulose
14	40373.205-14	2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
15	40573,205-15	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	4	Cellulose
15	40575.205-15	2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
16	40572 205 46	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	3	Cellulose
10	40573.205-16	2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
17	40572 205 47	1	Beige sandy/brittle material with paint		None detected	Sand, Filler, Binder, Paint	3	Cellulose
17 40573.205-17	2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose	

APPENDIX B

Lead in Paint Sampling Information

Paint Chip Sample Inventory Paint Chip Laboratory Data Sheets Paint Chip Chain of Custody Documentation



AA LEAD PAINT CHIP SAMPLE INVENTORY

PBS Sample #	Paint Color / Component or Substrate	Sample Location	Results (mg/kg)	Results (%)	<u>Lab</u>
40573.205 -Pb01	Beige / Metal Parapet Cap	Upper Roof; E. end	<410	<0.041	NVL
40573.205 -Pb02	Beige / Stucco / Wall	Lower Roof: W. elevation	<51	< 0.0051	NVL

April 24, 2020



Ferman Fletcher

PBS Environmental - Seattle 214 E Galer St. Suite. 300 Seattle, WA 98102

NVL Batch # 2007444.00

RE: Total Metal Analysis

Method: EPA 7000B Lead by FAA <paint>

Item Code: FAA-02

Client Project: 40573.205

Location: KCHA: Gustaves Manor

Dear Mr. Fletcher,

NVL Labs received 2 sample(s) for the said project on 4/23/2020. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely.

Shalini Patel, Lab Supervisor

Enc.: Sample results





Analysis Report

Total Lead (Pb)

Client: PBS Environmental - Seattle Address: 214 E Galer St. Suite. 300

Seattle, WA 98102

Attention: Mr. Ferman Fletcher Project Location: KCHA: Gustaves Manor



Batch #: 2007444.00

Matrix: Paint

Method: EPA 3051/7000B Client Project #: 40573.205 Date Received: 4/23/2020 Samples Received: 2

Samples Analyzed: 2

Lab II	D Client Sa	Sample mple # Weight		Results g in mg/K		
20056	098 40573.205-	Pb01 0.0123	3 410	< 410	<0.041	
20056	099 40573.205-	Pb02 0.1974	4 51	< 51	<0.0051	

Comments: Small sample size (<0.05 g) for sample 40573.205-Pb01.

Sampled by: Client

Date Analyzed: 04/24/2020 Analyzed by: Ruth Schumaker Date Issued: 04/24/2020 Reviewed by: Shalini Patel

Shalini Patel, Lab Supervisor

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

RL = Reporting Limit

'<' = Below the reporting Limit

Note: Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

Bench Run No: 2020-0424-1

FAA-02

LEAD LABORATORY SERVICES



Company PBS Environmental - Seattle			nttle	NVL Batch Number 2007	444.00	
	Address 214 E Galer St. Suite. 300			TAT 3 Days	AH No.	
Seattle, WA 98102				Rush TAT		
Project Manager Mr. Ferman Fletcher Phone (206) 233-9639				Due Date 4/28/2020 Ti	me 2:20 PM	
				Email ferman.fletcher@pbs	usa.com	
	Cell	(206) 491-1389		Fax (866) 727-0140		
				•		
Proje	ect Name/N	lumber: 40573.205	Project Loca	ation: KCHA: Gustaves Mano	ır	_
Subca	ategory Ela	me AA (FAA)				
Iter	n Code FA	A-02 EPA 7	000B Lead by FAA	<paint></paint>		
			•	•		
To	tal Numb	er of Samples2			Rush Samples	_
	Lab ID	Sample ID	Description		A/R	
1	20056098	40573.205-Pb01			A	
2	20056099	40573.205-Pb02			Α	

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Drop Box				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	4/23/20	1420
Analyzed by	Ruth Schumaker		NVL	4/24/20	
Results Called by					
☐ Faxed ☐ Emailed					
Special Instructions:		'	·		

Date: 4/23/2020 Time: 3:17 PM

Entered By: Emily Schubert



2007444

Project:k	CHA: Gustaves Manor	Project #: 40573.205	
Analysis request	ed: FAAS for Pb	Date: 4/23/20	
Relinq'd by/Sign	nature:	Date/Time: 4/23/20	
Received by/Sig	nature: Cuults C	Date/Time: 4 23 20	1420
E-mail results to:			
Brian Stanford	Cel Alvarez	Mike Smith	
Willem Mager	Janet Murphy	Ferman Fletcher	
Gregg Middau		Holly Tuttle	
Mark Hiley	Martin Estira	Ryan Hunter	
Tim Ogden	Justin Day	🔀 Eman Jabali	
Prudy Stoudt-N			
	to: seattleap@pbsusa.com		
TURN AROUND TI		<u></u>	
1 Hour	24 Hours		
2 Hours	48 Hours	Other	
4 Hours			
	SAMPLE DATA F	FORM	
Sample #	Material	Location	Lab
40573.205- Pb01	Beige/Metal/Parapet Cap	Upper Roof; E. end	NVL
-Pb02	Beige/Stucco/Wall	Lower Roof; W. elevation	

APPENDIX C

Certifications



THIS IS TO CERTIFY THAT

FERMAN L FLETCHER

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE for ASBESTOS INSPECTOR REFRESHER

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

PBS

Course Date: 04/01/2020

Portland, OR

Certificate: IR-20-8539B

Course Location:

CCB #SRA0615 4-Hr Training

CCB #SRA0615 4-Hr Training

Expiration Date: 04/01/2021

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

Andy Fridley, Instructor

ander Fridly



E - SECTION

DRAWINGS & SPECIFICATIONS

- **E.1** Scope of Work and Technical Specifications
- E.2 Drawings (if not included see attached)



SCOPE OF WORK & TECHNICAL SPECIFICATIONS

SCOPE OF WORK

DIVISION 1 – GENERAL REQUIREMENTS

01 10 00	Summary
01 26 00	Contract Modification Procedures
01 29 00	Payment Procedures
01 31 00	Project Management & Coordination
01 32 00	Construction Progress Documentation
01 33 00	Submittal Procedures
01 40 00	Quality Requirements
01 50 00	Temporary Facilities & Controls
01 60 00	Product Requirements
01 73 00	Execution
01 73 29	Cutting and Patching
01 74 19	Construction Waste Management
01 77 00	Closeout
01 78 23	Operation and Maintenance Data
01 78 39	Project Record Documents
*****	KCHA Pay Application Form (sample)
*****	KCHA Substitute Request Form (sample)

DIVISION 02 – SITE CONSTRUCTION

02 41 00 Selective Demolition

DIVISION 03 – CONCRETE

03 45 00 Precast Architectural Concrete

DIVISION 04 – MASONRY

04 21 50 Thin Brick Panel Systems

DIVISION 05 – METALS

05 05 13	Shop Applied Coatings
05 05 23	Welding
05 50 00	Metal Fabrications

DIVISION 06 – WOOD & PLASTICS

06 10 00	Rough Carpentry
06 20 00	Interior Finish Carpentry
06 65 00	Exterior Synthetic Trim

DIVISION 07 – THERMAL MOISTURE CONTROL

07 25 00	Weather Resistant Barrier
07 46 46	Fiber Cement Siding
07 54 00	Thermoplastic Membrane Roofing
07 62 00	Sheet Metal Flashing and Trim
07 92 00	Joint Sealants



KCHA – GUSTAVES MANOR ENVELOPE UPGRADE CAPITAL CONSTRUCTION DEPARTMENT

DIVISION 08 - DOORS & WINDOWS

08 11 13	Hollow Metal Doors and Frames
08 16 13	Fiberglass Entry Doors
08 53 13	Vinyl Windows
08 71 00	Door Hardware

DIVISION 09 - FINISHES

09 21 00	Gypsum Wallboard
09 67 00	Fluid Applied Deck Coating
09 91 00	Painting

DIVISION 11 – EQUIPMENT

11 24 28 Fall Protection Systems

DIVISION 12 – FURNISHINGS

12 21 16 Window Coverings

DIVISION 26 – ELECTRICAL

26 05 00	General Electrical Provisions
26 05 11	Electrical Connections for Equipment
26 05 19	Low Voltage Electrical Power Conductors
26 05 29	Hangers and Supports for Electrical Systems
26 05 32	Outlet Boxes for Electrical Systems
26 05 33	Raceway Systems
26 31 00	Photovoltaic-Solar Energy Electrical Power Generation
26 51 00	Lighting





LIST OF DRAWINGS

A0.0	Cover Sheet
A1.0	Site Plan
AD2.1	First Floor Demo Plan
AD2.2	Second Floor Demo Plan
AD2.3	Third-Fifth Floor Demo Plan
AD2.4	Roof Demo Plan
AD3.0	Demo Elevations
AD3.1	Demo Elevations
A2.1	First Floor Plan
A2.2	Second Floor Plan
A2.3	Third-Fifth Floor Plan
A2.4	Roof Plan
A3.0	Exterior Elevations
A3.1	Exterior Elevations & Bldg. Section
A3.2	Wall Sections
A3.3	Wall Sections
A3.4	Exterior Finish Elevations
A3.5	Exterior Finish Elevations
A4.0	Assemblies and Details
A4.1	Details
A4.2	Roof Assemblies and Details
A4.3	Roof and Curb Details
A4.4	Alternate 1 Details
A4.5	Window & Door Details, Schedules
A-SK01	Masonry Details
E1.1	Elec Legend and Site Plan, Light Schedule
E2.1	1st and 2nd Floor Lighting Plans
E2.2	3 rd thru 5 th Floor Typ. Lighting Plan

TABLE OF CONTENTS - SCOPE OF WORK

1.0 Project Summary

2.0 Project Administration Requirements

- A. Pre-construction
- **B.** Construction Administration
- C. Closeout

3.0 General Requirements

- A. Acknowledgement
- B. Staffing and experience
- C. Quality assurance & Quality Control
- D. Inspection of work
- E. Site requirements
 - 1. Work hours
 - 2. Restrictions
 - 3. Contractor responsibilities
- F. Project Phasing

4.0 Safety, Protection & Restoration

- A. Safety
- **B.** Protection
- C. Restoration
- D. Hazardous Material

5.0 Divisions (See Specification Sections for complete details)

Division 1 General Conditions

- 1. Site Staging and Deliveries
- 2. Temporary Facilities

Division 2 Site Construction

- 1. Selective Demolition
- 2. Existing Utilities

Division 3 Concrete

1. Precast Architectural Concrete

Division 4 Unit Masonry

1. Thin Brick Panel Systems

Division 5 Metals

- 1. Shop Applied Coatings
- 2. Welding
- 3. Metal Fabrications

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Division 6 Wood & Plastics

- 1. Rough Carpentry
- 2. Exterior Finish Carpentry
- 3. Interior Millwork and Trim
- 4. Exterior Synthetic Trim

Division 7 Thermal and Moisture Protection

- 1. Weather Resistant Barrier
- 2. Fiber Cement Siding
- 3. Thermoplastic Membrane Roofing
- 4. Sheet Metal Flashing and Trim
- 5. Joint Sealants

Division 8 Doors and Windows

- 1. Hollow Metal Doors and Frames
- 2. Fiberglass Entry Doors
- 3. Vinyl Windows
- 4. Door Hardware

Division 9 Finishes

- 1. Gypsum Wall Board
- 2. Fluid Applied Decking
- 3. Painting

Division 11 Equipment

1. Fall Protection Systems

Division 12 Furnishings

1. Window Coverings

Division 23 Heating, Ventilating, and Air-Conditioning (HVAC)

1. HVAC Duct Work- Bidder Design

Division 26 Electrical

- 1. General Electrical Provisions
- 2. Electrical Connection for Equipment
- 3. Hangers, Outlet Boxes, Raceways
- 4. Photovoltaic-Solar Energy
- 5. Lighting

01-03-22 Page 2 of 22

SECTION 001010 SCOPE OF WORK

1.0 PROJECT SUMMARY

Gustaves Manor is located on the main arterial of West Main Street of downtown Auburn. The five-story apartment building constructed in 1982 is situated on the west portion of the block adjacent to the multistory retail structure, constructed in 1953. This portion of the building has a historical designation from the City and will remain protected throughout construction. There is limited parking surrounding the building and a City-owned parking lot located on the North Elevation. KCHA will work with the winning bidder to use the neighboring property for staging and laydown. The contractor's base bid will include all necessary safety measures when removing the existing and disposing of the existing building components. Pedestrian walkways will be protected at all times from any falling debris or overhead dangers. The contractor will work directly with the City of Auburn to obtain all necessary street use permits or closures during the construction period.

The five story apartment structure is concrete CMU block with infill metal stud framed walls and a stuccoclad exterior. The main exterior of building is stucco applied onto CMU block and selective areas around the balcony's and bay windows consist of the stucco application being applied onto plywood or GWB. The contractor to include 25 sheets of 1/2"plywood per floor in base bid to repair any damaged areas. The adjoined CMU block wall and roof structure at the west elevation will be removed disposed. Any asphalt damage will be cold patched and sealed. Removal of any windows or doors will be re-installed the same day. Exterior lighting on building noted to be removed will remain in place or temporary lighting will be provided by the contractor throughout construction.

The upper roof and elevator parapet will include removal and disposal of existing torch down roofing, insulation, metal coping at roof parapet and all associated flashing. Refer to plan page AD2.4. Contractor will be responsible for all scaffolding and crane staging. Due to limited space on site any Crane work will have to coordinate with KCHA and City of Auburn for the use of traffic control measure and Right of Way (ROW) permitting required. The existing solar panels will be removed and replaced by others. Contractor will coordinate with Owner for reinstallation of new solar panels and electrical performed by others once all roof work is complete. Contractor will install new curbing for new solar panels as noted on plans.

The retail/residential structure is a historically preserved building which consists of brick exterior to three sides and a stucco assembly on the north elevation. Work associated with this structure includes lower roof and north elevation only. Removal and replacement of existing roof assembly and replacement of damaged sheathing as needed. Existing access door to roof to be modified as needed accommodate new metal stair assembly and include new door hardware to be installed. The HVAC unit and ductwork covers much of the northwest corner of the roof. The existing duct work will be removed and replaced with new insulated duct work. The existing mechanical unit will be salvaged and reinstalled, including conduit and wiring for reinstallation. This portion of the work will be a bidder design to reinstall the new ductwork to existing penetrations and provide adequate clearance around existing plumbing vents and existing roof penetrations. Contractor responsible to coordinate removal and reinstall with HVAC contractor to complete new roof assembly.

01-03-22 Page 3 of 22

2.0 PROJECT ADMINISTRATION REQUIREMENTS

A. Pre-Construction Administration

BEFORE commencement of work begins on-site the Contractor will provide the Owner the following items:

1. Project Master Schedule

- a. Completed in Microsoft Project, Primavera or similar.
- b. Must be cost loaded to reflect Schedule of Values items.
- c. Project phasing shall be integrated into master schedule.
- d. Shall include the following project milestones.

Contract start date (CS)	TBD
Notice to Proceed (NTP)	TBD
Construction Duration (CD) Start Date/Stop Date	TBD - TBD
Substantial Completion (SC)	TBD
Physical Completion (PC) and Warranty Start Date of Entire Project	TBD
Contract Completion (CC) of Entire Project	TBD

*The dates listed above are estimated milestone dates, provided to the Contractor for incorporation and inclusion in the negotiated final project Critical Path Method (CPM) schedule. These estimated dates may change. Such changes, if any, shall not result in an automatic extension of the Final Completion date. The Contractor shall make reasonable flexibility in the schedule to accommodate any such date changes in order to accomplish the interim milestone dates (NTP,CD Start/Stop, SC, PC).

2. Schedule of Values (SOV)

- a. Each item must correlate to the project schedule.
- b. Schedule of Values to contain a two and one-half (2.5%) percent line item for the closeout documents.
- c. Schedule of Values to reflect detailed tasks by labor and material.
- d. Contractor to include a separate line item for each item listed below:
 - i. Overhead and Profit.
 - ii. General Conditions.
 - iii. Scaffolding and Crane Rental
 - iv. Material and Labor for each task or based on subcontracted work. This will allow KCHA to pay for materials purchased at the beginning of the project or during the course of construction (once KCHA has established that the Contractor has ordered, has been invoiced, and has a suitable location to store materials. See Contract documents for requirements.)
 - v. Plywood Sheathing (125 sheets)
 - vi. Traffic Control
 - vii. Mobilization.
 - viii. COVID Monitoring/Cost.

01-03-22 Page 4 of 22

3. Submittal Schedule

All submittals to King County Housing Authority (KCHA) prior to start of related work.

- a. The Contractor shall provide and manage a schedule of all submittals required on the project as listed in each specification section.
- b. Submittals will be processed with enough time for the Owner to reasonably provide feedback fourteen (14) days prior to materials being delivered to the site.
- c. Any material submitted that is not listed in the project specifications will need to be submitted with a Substitution Request Form for review.
- 4. Site Specific Safety Plan: The Site Specific Plan should be submitted for review then kept on site during construction. Verify regular safety meetings are being held per proposed plan. Contractor to provide a site specific COVID-19 safety plan and comply with all state COVID-19 protocols and safety requirements. A dedicated COVID-19 supervisor must be on site and is responsible to monitor the workers for required PPE and daily health reports of the workers. Any work inside the units will require N-95 masks, face shields, latex gloves, and shoe protection (booties.) Masks, gloves and booties must be replaced each time a unit is entered. Face shields to be disinfected prior to each entrance into a unit. Contractor is also required to disinfect all door knobs, light switches, tools and all other contractor touched surfaces in the units. Proper disposal required for all PPE.
- **5.** Phasing and Coordination Plan including the following (See section 3 item I, regarding Phasing):
 - a. Resident access plan for entry and exiting of apartment units.
 - b. Resident parking plan for proposed parking lot closings and openings.
- **6. Subcontractor List** with the names <u>all</u> subcontractors including contact information.

*NOTE: All items stated above must be submitted and approved BEFORE Contractor commences work.

B. Construction Administration

- 1. Master Schedule: The Contractor shall maintain (update and track) the provided project master schedule using CPM for the project. This work will progress and be reflected with the project SOV. Project phasing shall be reflected in the master schedule. The Contractor is responsible for all scheduling and coordination between all trades and any other subcontractors' working for the Contractor.
- 2. Two (2) Week Look-Ahead: The Contractor will provide weekly a two (2) week "look-ahead" schedule updating the relationship of this report with master project schedule. This shall be provided for review and be a topic of discussion during weekly site meetings. This schedule will be specific to the individual tasks as well as to identify work requiring site notifications and coordination.
- **3. Daily Reports:** Contractor to provide copies of daily site reports on a weekly basis. The daily report will describe daily man power, weather conditions, work in progress, delays and issues. Daily report format shall be submitted (during pre-construction phase) to Owner for review.
- **4. Meeting Minutes:** Contractor to manage and provide copies of meeting minutes/notes for all pre-construction, coordination, safety and weekly Owner/Architect/Contractor (OAC) meetings. Meeting minutes format to be submitted (during pre-construction phase) to Owner for review.

01-03-22 Page 5 of 22

- **5. Notices:** It is the Contractor's responsibility to plan, coordinate and inform KCHA of work which shall require notice. Failure to provide adequate notice that results in a delay will be fully on the Contractor.
 - a. Unit Entry: The Contractor must coordinate unit entry with the Owner such that all required Notices-to-Tenants can be posted forty-eight (48) business hours PRIOR to Entry.
 - b. Shut Downs: Contractor will provide proper notification (minimum of seventy-two (72) business hours to the Owner and (minimum of forty-eight (48) business hours to the tenants.
 - c. General Notices: The Contractor shall provide notice to Owner related to project start, potential impacts on tenants' accessibility and moving if items which could interfere with construction progress.
- **6. As-Builts:** The Contractor will be responsible to assess and record the existing conditions of any damaged or non-working items, such as existing electrical and mechanical equipment, pipe, utilities, concrete, asphalt etc., and prior to removal of work. Contractor is responsible to restore or replace all finishes that become damaged as a result of work being performed. Contractor is not responsible for repairs of existing damage. As-Built drawings shall be current-to-date and will be reviewed on-site prior to each pay application.
- **7. Certified Payrolls:** All Contractor employees and all sub-contractor employees will need to know their trade classification and pay rate.
 - a. Owner will be conducting on-site wage interviews verifying job classification and wage rate.
 - b. Non Routine Labor Rates apply to this project and must be posted on-site at all times.
- 8. Punch List: When the Contractor has deemed the project as substantially complete, meaning all base bid work is complete and conforms to requirements of the specifications and quality standards established through the mock-ups and as stated in the contract documents, the Contractor and a KCHA representative shall thoroughly inspect and list work that is non-conforming that the Contractor must complete prior to final payment. The work may include incomplete or incorrect installations or incidental damage to existing finishes, material, and structures. The list shall be provided to the Owner for their review and approval. All punch list items are expected to be finished and accepted by the physical completion date.

C. Closeout Administration

- 1. O&M Manuals: One (1) hard copy and one (1) electronic copy of the Operation and Maintenance (O&M) manual for all major materials and equipment shall be supplied by the Contractor to the Owner upon Project completion and prior to request for final payment.
 - a. Electronic copy to be submitted for approval prior to submitting hard copy.
 - b. O&M manual will include all warranties associated with the Work.
 - c. O&M manual will include relevant data associated with warranties and works such as
 - i. Name of installer with all contact information.
 - ii. Name of manufacturer and location material was purchased with all contact information.
 - d. All O&M manuals are subject to Owner approval
- **2. Final As-Built Drawings:** Upon substantial completion of the Project, the marked-up set of site documents shall be converted into as-built drawings and submitted to the Owner for review and approval.
- **3. Permits Finals:** Upon physical completion of the Project, all completed permits and permit drawings to be submitted to Owner and City of Auburn with final sign offs.

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- **4. Master Keys and Access Cards:** Upon physical completion of the Project, contractor shall return all master keys and access cards, signing off a Key Return Form.
- **5. Punch List(s):** Upon physical completion of the Project, all lists shall be completed and signed off by the Owner.

3.0 GENERAL REQUIREMENTS

A. Acknowledgements

- 1. By signing the contract, the Contractor acknowledges that they have reviewed and can fully implement all administrative and physical aspects of the work as described in the project scope of work, specifications and drawings. The Contractor also acknowledges that they have completed an extensive site walk of the site and accepts the site conditions.
- 2. The Contractor will be responsible to assess and record the existing conditions of any damaged items, such as interior, sills, drywall, electrical, prior to removal of work. KCHA's assumption is that all items are in good working order. Contractor is responsible to restore or replace all finishes that become damaged as a result of work being performed. Contractor is not responsible for repairs of existing damage.
- 3. The Contractor will provide all materials, fasteners, shoring, staging, labor, equipment, and expertise necessary to provide a quality "Turnkey" project, complete with all elements of the work, safely, on time, and within budget.
- 4. The Owner does not foresee any change orders for work resulting in site conditions that were clearly visible and present during the Mandatory Pre-bid Site Visit. By submitting a bid the Contractor acknowledges any labor, material and equipment required for a "Turnkey" project not specifically covered in the plans and specifications has been included in their base bid.
- 5. The Contractor's Superintendent or Foreman will be assigned a construction master key and will be held responsible for all costs related to the re-keying should the key be lost or stolen. If the master key is lost or stolen the Contractor will be responsible for re-keying all related locksets to a new keying system by the **end of the day** the issue is reported.
- 6. The Contactor has and will continue to field verify all visible existing site conditions, adjacent conditions/components and quantities. If there is a discrepancy between Scope of Work, Specifications and/or Drawings, the Scope of Work shall take precedence followed by the Specifications and lastly the Drawings.
- 7. Any questions occurring during bidding or construction shall be resolved by <u>direction in writing</u> from Owner. Any issues not so resolved or any conflicts between the scope of work, specifications and plans, shall result with the Contractor bidding, furnishing and installing the most stringent condition. No exceptions. Contractor must submit an RFI if a conflict exists between the scope of work, specifications and plans.
- 8. Contractor must demonstrate a comprehensive understanding that all work described in the project documents is all-inclusive and results in a complete system. Contractor to provide all materials, unless stated otherwise. All tasks must be complete with uniform fit, function, form, style and type.

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- 9. Permits: The Owner will obtain the building permit; all other permits (including city of jurisdiction permits or agency of jurisdiction permits) are the Contractor's responsibility. Contractor shall keep permits posted and onsite at all times
- 10. Plans & Specifications: The Contractor shall keep all associated permits and the approved permit plan set on site at all times. The Contractor will keep and maintain, on-site, a separate but complete set of construction drawings and specifications for markups and daily use.
- 11. Any damage caused by construction related activities (i.e. demolition, laydown areas) to existing physical assets to remain will be the Contractor's responsibility to correct at no cost to the Owner.

B. Staffing and Experience Requirements

- 1. The Contractor is expected to be on-site working each consecutive weekday unless directed otherwise by Owner.
- 2. A qualified and experienced full time site Superintendent or Foreman will be on site at all times.
- 3. The Contractor shall employ a sufficient number of workers and equipment to perform the Work in a diligent and expeditious manner. KCHA expects the Contractor to adequately staff the project to maintain the schedule, including reallocating and increasing staffing as needed to correct any slippage in the schedule.
- 4. Contractor and sub-contractor employees shall perform all work in a professional manner. All tasks must be complete with uniform fit, function, form, style and type.
- 5. All trades are to have a minimum of three (3) years of experience in their given trade.
- 6. Tradesmen must have the proper certification to perform work or to operate specific equipment that requires certifications and/or licenses.
- 7. The Contractor shall immediately remove from the site any of its employees or its subcontractors' employees, as the Owner shall deem incompetent, careless, insubordinate or otherwise disruptive to the progression of the project.

C. Quality Assurance / Quality Control

- 1. All Work shall be performed using new materials, installed plumb, level, true to the line, free of defects, and completed in a professional workmanlike manner to provide a complete, safe, and operable "Turnkey" installation.
- 2. The Contractor will follow all manufacturers' requirements and recommendations for the installation of all products to maintain the integrity of all manufacturer's warranties.
- 3. Mock-Ups: The Contractor will provide all mockups, within his base scope, required for the project as listed in each specification section. Mockups and color samples will be produced with enough time for the Owner to reasonably provide feedback one (1) week prior to these components being staged and implemented on site. Mockups will set expectations of quality expected for the project.

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- 4. Quality Assurance/ Quality Control: The Contactor will provide ongoing QA/QC at each step of work and take corrective measures prior to the next element of work being performed. This will include, but is not limited to, sequencing partial punches and substantial completions throughout the project.
- 5. Contractor responsible for subcontractor's quality of workmanship and materials, completion of scope, and scheduling on site.

Note: It is incumbent on the Contractor to inform the Owner of any conflicts between manufacturers' requirements and the provided plans and specifications through the RFI process and prior to submitting a bid.

D. Inspection of Work

- 1. Code Compliance: All work will be code compliant and without defect for all materials and applications at time of KCHA punch inspection.
- 2. Owner Progress Inspections: All work is subject to Owner inspection and approval and is the responsibility of the Contractor until it is turned over to Owner.
- 3. Jurisdiction Inspections (as required per permit): The Contractor is required to attend all inspections, and inform KCHA representative within 48 hours prior to such scheduled inspections. Contractor is responsible for any costs associated with re-inspections for work not approved by the Authority Having Jurisdiction.

E. Site Requirements

- 1. All communication and coordination will be with Owner representatives only.
- 2. On-site tenant support services (i.e. laundry, common space, maintenance facilities and storage) must be fully accessible and operational at all times.
- 3. Work shall be coordinated not to interrupt services (i.e. garbage, mail, EMS, etc.).
- 4. Emergency and tenant access must be maintained at all times.
- 5. The Contractor is required to maintain the cleanliness of the work-site; there will be daily inspections by the Owner to verify cleanliness, safety and tenant access. The Contractor will be responsible for clean-up and housekeeping of work limits, staging areas, and Contractor's parking areas by the end of each business day. Contractor to secure all equipment, materials, and tools, ensure that unfinished work areas are protected and secure prior to leaving for the weekend.
- 6. No noise prior to 8:00am but layout and work setup can begin at 7:30am until further notice.
- 7. All interior work in each unit to be completed within 5 consecutive days.
- 8. If Unit access is required, Contractor will not enter units before 8:00AM, once proper notification has been posted by KCHA.
- 9. The Contractor is responsible for providing sanitary services, potable water and field office spaces for their agents. No public bathroom, drinkable water or office space is available onsite, for the Contractor or its agents.

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- 10. The Contractor must read and comply with all safety requirements as stated in Section 4 A.
- 11. The Contractor is responsible for all necessary locates (both private and public)

F. Restrictions

- 1. No parking in fire lanes. Fire lanes will be uninhibited at all times for first responder and tenant service access, unless otherwise approved by Fire Marshal.
- 2. No smoking on site by any Contractor or any of the Contractor's representatives (i.e. subcontractors, suppliers, consultants, etc.).
- 3. No washing out of any materials on site will be allowed. All contaminated or silt laden water must be contained and responsibly disposed of offsite.
- 4. No loud or offensive music is permitted.
- 5. No dumping on site. Contractor will not be allowed to use Owner's waste facilities.

G. Work Hours

- 1. Work to be performed during normal hours of operation from 8:00am to 4:30 pm. There will be no work on weekends (unless prior approval has been granted by Owner). Owner does not pay overtime.
- 2. There will be no work on Owner holidays. Contractor to verify with Owner's Representative if there are any Owner holidays occurring during the duration of the project.

H. Contractor's Responsibilities

- 1. Contractor will be responsible to provide power for all work described. Contractor will not be allowed to use any on-site power unless prior approval has been granted by the Owner.
- 2. Water use available with previous approval from Owner. Contractor must obtain approval of Owner for water usage forty-eight (48) hours prior to use.
- 3. The Contractor is responsible for City of Auburn hauling route, plans, and street use permits.

I. Project Phasing

- 1. This project will directly impact thirty-five residential dwelling units. The Owner's expectation is to have the building protected from the elements at the end of each work day. Each window and door replacement to be swapped out on the same day. The intent of the phasing plan is to assure all safety measures are in place and limit unit entry into resident's dwellings.
- 2. Owner anticipates multiple sequencing sections in the envelope replacement of these buildings. The Owner's expectation is not to open up "Vast" areas of the project for prolong periods of time or shutting down public areas to accommodate staging, stock piling, mobilization or for convenience of construction. Contractor must realize and accept that this project is being conducted in a fully occupied housing development and all that it encompasses (families, elderly, and daily traffic from families coming and going at all times during the day). The Owner is not only concerned about scope, schedule and budget, but the impact on its residents.

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The Contractor must take these considerations in to their phasing and sequencing accordingly. The Contractor must review their risk factors to accommodate these considerations in their bid.

4.0 SAFETY, PROTECTION & RESTORATION

A. Safety

- 1. Contractor shall provide and have on site at all times a site specific safety plan.
- 2. Contractor to provide a site specific COVID-19 safety plan and comply with all state COVID-19 protocols and safety requirements. A dedicated COVID-19 supervisor must be on site and is responsible to monitor the workers for required PPE and daily health reports of the workers. Any work inside the units will require N-95 masks, face shields, latex gloves, and shoe protection (booties.) Masks, gloves and booties must be replaced each time a unit is entered. Face shields to be disinfected prior to each entrance into a unit. Contractor is also required to disinfect all door knobs, light switches, tools and all other contractor touched surfaces when exiting the units. Proper disposal required for all PPE.
- 3. Comply with all safety and health codes within Local, State and Federal jurisdictions.
- 4. All work must operate within OSHA and State-equivalent (WISHA) standards and requirements.
- 5. The Contractor shall conduct weekly safety meetings; the minutes from these meeting are to be available to the Owner upon request. A schedule for safety meetings will be provided with the Contractor's submittal of the Safety Plan. Confirmation that the weekly safety meeting did take place and the topic of the safety meeting will be stated in the weekly site meeting minutes.
- 6. All workers on-site will wear high visibility vests or apparel with company logo or name that clearly identifies the workers.
- 7. All workers must be equipped with proper personal protective equipment (PPE) and be wearing it when appropriate or required while they are on-site (i.e. hardhat, safety glasses, ear plugs and fall arrest etc.).
- 8. Contractor to keep walkways free of debris, materials, tools and equipment at all times. Access must be maintained for residents at all times. If access is blocked or limited, the Contractor must ensure that a safe, alternative route can be maintained and accessed by residents.
- 9. The Contractor will be diligent in ensuring that all safety measures are performed at all times for all aspects of work being performed.
- 10. Work Areas shall be cordoned off with safety fencing and/or caution tape while work is in progress.
- 11. Contractor is responsible for safety and security of work areas affected by work and will provide temporary guardrails, temporary cover and/or locks for openings. Contractor's main focus is the safety of his work force and the safety of KCHA's residents and staff.

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B. Protection

- 1. Protect existing roofing, concrete walkways, paving, landscaping and all other finished surfaces which are to remain.
- 2. Contractor will provide protection at landscape areas where material laydown, storage, construction trailers or equipment are stored.
- 3. Contractor is responsible to protect and maintain all areas within the project work limits including, but not limited to, landscaping, hardscapes, exterior amenities, existing improvements, and adjacent/abutting finishes to remain (roofing, soffits, gutters etc.). If necessary, Contractor shall coordinate with Owner for removal / relocation of tenant property on front and back patios.
- 4. See individual scope item related to protection Dust and debris control Best Management Practices (BMPs) will be applied daily in all work areas (i.e. use of tarps, water truck, street sweeper etc.).

C. Restoration

- 1. Contractor responsible for restoration of any damage due to construction related activities. Contractor is advised to do a pre-construction walk and do an assessment with KCHA site personal prior to construction to note and document existing conditions.
- 2. Contractor will restore all landscape impacted by construction to existing pre-construction conditions.
- 3. Planted areas that are damaged are to be conditioned with new wood chip mulch:
 - a. Will be free from deleterious materials and suitable as a top dressing.
 - b. Loosen subgrade of planting beds to a minimum of 4 inches. Remove stones larger than 1" and sticks, roots, rubbish and other extraneous matter and legally dispose. Mulch shall contain minimal nutrient content.

D. Hazardous Materials

- 1. There are no findings of lead based paint or asbestos containing materials found in buildup roofing, exterior stucco walls, curbing sealant and associated silver paint (lower roof), light grey parapet cap sealant (upper roof) and light grey duct sealant- roof mounted HVAC equipment on lower roof.
- 2. The hazardous material reports are located in the bid book section D.1: Third Party Reports

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5.0 DIVISIONS

DIVISION 1 GENERAL CONDITIONS

A. Site Staging & Deliveries

- 1. Contractor will coordinate bulk material deliveries with Owner forty-eight (48) hours prior to delivers where potential for parking access will be temporarily blocked no more than fifteen (15) minutes.
- 2. Contractor and subcontractors will only be allowed to off load and load up tools no more than fifteen (15) minutes. Heavy equipment used specifically for construction will not block emergency access. Construction activities will not block parking areas not scheduled for work.
- 3. KCHA will work with Contractor to designate areas around the building for additional material storage. No trash and debris will be stored, and must be removed from the site on a daily basis. Contractor must perform daily clean up around staging site to ensure dust and debris does not build up in the parking lot.

B. Temporary Facilities

- 1. Use of onsite restroom facilities will not be permitted. Contractor is responsible for portable toilets; Contractor to consult with Owner for placement.
- 2. Contractor is not permitted to use tenant or building power without KCHA approval. For bidding purposes, Contractor is to provide power for this project.
- 3. Contractor to provide all dumpsters, job shacks, con-x boxes, fencing etc. Locations to be negotiated and approved by Owner.

DIVISION 2 SITE CONSTRUCTION

A. DEMOLITION

Refer to Specification Section 024100 Selective Demolition.

- 1. The Contractor shall remove and legally dispose of all materials as required by the contract documents to allow for the installation of all new specified materials. Materials included to be removed and disposed of are as follow (but non-inclusive): roof membrane, stucco assembly, foam board, fasteners, windows, window covering, balcony and roof doors (including hardware), exterior lighting fixtures, landscaping bricks at solar panels and all related envelope assembly components from structure per scope of work, drawings and specifications.
- 2. Install City required overhead scaffolding protection to protect tenants and staff during construction.
- 3. Recycling efforts will be performed to the fullest extents possible as specified in the contract documents. Contractor to comply with recycling measures and reporting per Specification section 01 74 19 Construction Waste Management and Disposal.

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B. EXISTING UTILITIES

- 1. The Contractor is responsible to locate all public and private utilities which may impact the work.
- 2. Contractor to verify any existing equipment, devices, fixtures, cabling, wires and conduit is in operational order prior to moving, relocating, replacing or rerouting. There are several pieces of equipment that must be removed and reinstalled to accommodate the installation of the new roof KCHA makes the assumption that equipment was working prior to Contractor's arrival on site and should continue to work at the end of the project.
- Contractor to include in bid all necessary modifications, labor and parts necessary to run/reroute all existing cabling and exposed conduit. All costs associated with work noted will be Contractor's responsibility.
- 4. The Contractor will coordinate the decommissioning of electrical, solar panels, plumbing, fire and HVAC elements with the Owner and respective service providers.
- 5. Contractor responsible for repairing all wires, cables, communication boxes etc. damaged by construction activities on same day incident occurs.
- 6. Contractor responsible to pull utility boxes (cable, phone and electrical meters) away from building surface to allow installation of WRB and new siding per manufacturer's instructions. It is the Owner's expectation that the Contractor will not be required to shut power off to the building or unit to install siding. These conditions must be approved by both Contractor and Owner prior to demolition.
- 7. Contractor is responsible to air seal and /or fire seal all penetrations, vents and appurtenances.
- 8. Contractor is responsible to carefully remove and protect all utility and communication services on structure to be reinstalled. Services shall be maintained and operational for duration of project unless otherwise scheduled disruption is required to perform work.
- 9. Terminations and caps will be clearly marked on site and recorded in the project record drawings (i.e. red line drawings or as-builts) with clear and accurate dimensions.

C. LANDSCAPING

- 1. Prior to start of work, the Contractor and Owner shall walk the site identifying the condition of all trees, plants, (including planter boxes) and landscaping. Any trees, plants, sod etc. damaged due to construction activities must be replaced by the Contractor with like vegetation at Contractor's expense.
- 2. Restore all landscape impacted by construction to existing pre-construction conditions. Grass areas to be restored with sod. See requirements above in Section 4, Subsection C.

D. LOCATING AND UTILITIES

- 1. Contractor responsible to locate all public and private utilities that may be impacted by construction work.
- 2. Contractor to be responsible to repair and or replace all utilities and building components damaged by construction work.

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DIVISION 3 CONCRETE

A. PRECAST ARCHITECTURAL CONCRETE

Refer to Specification Section 034500 Precast Architectural Concrete

- 1. Concrete precast sills will be installed at the material separation between the brick panel system and fiber cement siding located around the perimeter as noted on the drawing.
- 2. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

DIVISION 4 UNIT MASONRY

A. THIN BRICK PANEL SYSTEMS

Refer to Specification Section 042150 Thin brick panel systems

- 1. Brick panel systems will be installed from grade to second floor at perimeter of building per drawings.
- 2. Examine substrate for conditions including soundness, tightness of connections, crumbling or looseness of surfaces, and projections. Verify substrate is acceptable to authorities having jurisdiction prior to the installation of work of this section.
- 3. Provide a mock-up for evaluation of surface preparation techniques and application.

DIVISION 5 METALS

A. METAL FABRICATIONS

Refer to Specification Section 05500 Metal Fabrications metal stair assembly

1. Pre-fabricated metal stair assembly per plan A2.4 and roof and curb details per page A4.3.

B. SHOP APPLIED COATINGS -WELDING

Refer to Specification Section 050513 Shop Applied Coating and Section 050523 Welding

- 1. Shop applied coating at miscellaneous steel
- 2. Powder-Coat finish on metal stair assembly at roof access
- 3. Exposed lentil at brick façade corners and ends Medium Gloss-Color BM 2061-Deep Royal-Surface-Fine Texture.

DIVISION 6 WOOD & PLASTICS

A. ROUGH CARPENTRY

Refer to Specification Section 061000 Rough Carpentry; Carpentry; Section 074646 Fiber Cement Siding and Trim; and Section 099100 Painting.

- 1. Contractor is responsible to shim, modify and repair minor irregularities in the assemblies in order to produce a finished product that is consistent in plane prior to cover. The Contractor will be responsible to ensure that all new components can be installed per manufacture recommendations on existing sub strait.
- 2. Field coordinate and layout work prior to beginning installation. Cut, fit and install rough carpentry construction at locations indicated in drawings and required to complete work of contract.
- 3. Use preservative treated wood products for materials for permanent construction at all exposed framing and where resting on concrete, masonry or roofing as otherwise indicated, or required.
- 4. Contractor responsible to coordinate design, and all installation requirements with manufacturer and all code requirements.
- 5. The Owner anticipates that there will be some compromised structural members and these will be addressed on case by case basis. Contractor must receive KCHA approval prior to any additional

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work being performed outside the contract scope of work. KCHA must also document damage prior to the Contractor removing compromised components. Failure to do this may result in the contractor burdening the cost of replacement

B. EXTERIOR FINISH CARPENTRY

- 1. General Contractor to provide labor and materials necessary to install new doors, windows, and blocking as needed, fiber cement siding and trim and necessary flashings. Work also includes the installation of pre-fabricated metal stair assembly per 1, 2, 3&8/A.3.
- 2. NOTE: **All removal and installation of windows will be performed by a <u>Glazier</u>. Refer to HUD Non-Routine Maintenance Wage Rates included in bid book.
- 3. The Contractor shall shim, modify and repair minor irregularities in the assemblies in order produce a finished product that is consistent in plane prior to cover.
- 4. Use lengths of material that when installed and provide minimal amount of splicing. All splices are to be weather cut in the correct direction.

C. INTERIOR MILLWORK & TRIM

Refer to Section 062000 Interior Finish Carpentry; Section 079200 Joint Sealants; and Section 099100 Painting.

- All interior window and/or door jamb, head, and sill may need to be cut to install/accept new window installation. Provide and install scribe trim to cover the gap between the existing jamb liner and new window. Scribe molding to be beveled wood trim. Scribe trim to be pre-painted prior to installation.
- 2. Interior trim to plane out correctly. All butt joints to be tight and square and finished appearance to be without blemishes.
- 3. Caulk all trim adjacent to drywall. Caulk to be high quality paintable latex and applied neat and uniform.
- 4. Touch up as needed. KCHA expectations are to only touch up mill work and not paint entire assembly in place. Contractor is not to paint in place.
- 5. A mock-up of the interior window and door packages and associated trim is required. Once approved by Owner, this will set the quality standard for the entire project.
- 6. For all GWB repairs labor and materials will be included to, patch, texture and paint to match existing adjacent surfaces. Match texture to blend in with existing texture and paint corner to corner, top to bottom.
- 7. Contractor will be responsible to mask off units prior to installing trim and painting and thoroughly clean area of work inside each residential unit at the end of each work day.
- 8. Apply finish methodology listed in Section 079200 Joint Sealants for putty, caulking, and finishes of interior trim surfaces.
- 9. Install finish hardware in coordination with interior and exterior painting sequence to limit any damage to finished products and applications.
- 10. The Contractor shall be responsible for the repair of any damage to interior GWB that is incurred from the modification, removal and replacement of the interior finishes (i.e. interior

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door and window casing) GWB, texture and paint repairs shall be required at areas where new trim does not cover the caulk line of the old trim.

11. Contactor to provide and install a new metal, carpet or vinyl transition strip between existing flooring and all new door frames or entry door threshold where necessary.

D. EXTERIOR SYNTHETIC TRIM

Refer to Section 066500

- 1. Contractor to provide and install 5/4" Boral TruExterior composite smooth finish trim boards at windows, doors, corners, fascia, and all other areas requiring trim. See specifications and plans for trim package dimensions and locations.
- 2. All window, door, and fascia boards to include metal head flashing with end dams.

DIVISION 7 THERMAL & MOISTURE PROTECTION

A. WEATHER RESISTANT BARRIER

Refer to Section 072500

- 1. Prior to mass production, the Contractor will provide a mockup of the WRB and associate flashing at openings and penetrations to demonstrate the method of installation incorporating interior and exterior corners, windows, and exterior doors that demonstrates quality and performance. The Contractor shall coordinate inspection and approval of mockup with manufacturer's and Owner's representatives prior to commencing with siding installation.
- 2. Upon completion of any corrective work to structure or plane, and by sequence, install all uniform weather resistant barrier, flashing, wrap and sealants prior to installation of new vinyl windows, pre-hung fiberglass door units to meet new finish dimensions. All corners and penetrations will be sealed per manufacturer's requirements for installation.

B. FIBER CEMENT SIDING

Refer to Section 074646

- 1. The Contractor to provide all labor and materials for the installation of a complete siding system, inclusive off all siding, trim (i.e. inside and outside corners, window and door casings, mounting blocks for lighting, fixtures, and all necessary caulking and fasteners.
- 2. Contractor will affix fiber cement siding to galvanized steel hat channel which is to be fastened to existing CMU block. Refer to plan details on A4.0
- 3. Patch and repair damaged sheathing to match existing thickness for uniform substrate to receive new siding assembly.
- 4. Fasteners: Stainless steel, T or pan head type as recommended by panel manufacturer, of equal or greater holding power than required by manufacturer.
- 5. Contractor is responsible to correct any substandard structural, level and plumb framing components prior to cover. The Contractor will be responsible to ensure that all existing components provide the necessary structural support for new elements to be installed, as well as flush out with existing adjacent surfaces.

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C. THERMOPLASTIC MEMBRANE ROOFING

Refer to Section 075400

- 1. Prior to installation of new TPO roof system, Contractor is responsible to make all repairs to damaged roofing and substrate if found prior to install.
- 2. Remove and salvage all intake, exhaust, HVAC equipment, ventilator vents and hoods and all associated electrical or conduit to install new TPO roofing system.
- 3. Contractor will be responsible for coordination of all work pertaining to HVAC system with roof sub-contractor and mechanical sub-contractor.
- 4. Plumbing penetrations to receive new TPO flashing boot, new stainless steel hose clamp and sealant
- 5. Provide and install ½" High Density (80psi Min.) Polyiso Cover Board under a 60 MIL smooth EverGuard TPO membrane. Color Grey.
- 6. Provide and install EverGuard walkway pads. Pads to be 1/8" thick 30" x 50' TPO rolls. See plans for walkway pad locations. Heat weld directly to new TPO roof membrane.
- 7. Arrange for the roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit final report and certificate of manufacturer's acceptance to the Owner's representative.

D. SHEET METAL FLASHING AND TRIM

Refer to Section 076200

- 1. The Contractor shall provide labor and materials to install metal flashings and counter-flashings, at perimeter edge, roof to wall, window and door heads, fixture blocking, as required for weather-tight installation.
- 2. Sill Pan Material: Fabricate from stainless steel, ASTM A240, Type 304, dead soft fully annealed, 0.018 inch thick, smooth surface, Number 4 finish on roof access doors only.
- 3. Flashing Material: Fabricate from prefinished G90 galvanized sheet steel, 24 gauge, Kynar 500 (PVDF) finish. Color as selected by Owner from standard color chart.
- 4. Contractor to provide and install site rolled (6") inch aluminum K-Style gutters, round downspouts and gutter debris protection per specifications. All gutters and downspouts to be installed plumb and parallel to adjacent building lines.
- 5. Roof flashing to be manufacturer finish. Submit color chart prior to order.

DIVISION 8 OPENINGS

A. HOLLOW METAL DOORS AND FRAMES

Refer to Section 081113

- 1. Upper roof access door slab, hardware and threshold will be removed and replaced with new. Door will be modified to accommodate existing jamb which is to remain.
- 2. Lower roof access door slab will be modified as needed accommodate new metal stair assembly. Existing threshold and hardware will be replaced with new.

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B. FIBERGLASS ENTRY DOORS

Refer to Section 081613

- Removal and replacement of unit balcony doors per plan and door schedule. The contractor will
 provide and install new prefinished fiberglass doors and composite jambs bored, mortised and
 machined to fit the hardware specified per the door hardware schedule. All doors and frames to be
 removed and replaced within the same day.
- 2. The Contractor shall verify existing rough openings and conditions prior to ordering. It is recommended door modifications be made prior to application of finish. The Contractor shall plane, shim and infill as necessary to provide a maximum of a 1/2" clearance for door installation to allow for backer rod and/or insulation installation.
- 3. Contractor will protect all KCHA and resident possessions and finished surfaces from dust, mud, texture and/or paint. Any damaged items will be replaced/repaired at Contractor's expense.
- 4. All doors will be installed true, level and plumb with square and consistent reveals and close (and latch) firmly with the single push of a hand (i.e. entry closers, bomber hinges, etc.).
- 5. Thresholds shall be installed on a firm foundation and supported to prevent bow or bend when pressure is applied to threshold. Where applicable thresholds shall be grouted with non-shrink grout between threshold and concrete slab. In locations were grout may degrade existing substrate, Contractor shall us shims, adhesive, or other approved materials that will prevent threshold from bow or bending when pressure is applied.
- 6. All interior door casing will be replaced with new per specification section 062000-2.

C. VINYL WINDOWS

Refer to Section 085313

- 1. Contractor to provide and install all new Milgard Tuscany series to include passive fresh air vents. Refer to window schedule noted on A4.5 and specification section 085313. Remove all windows blind treatments, and associated hardware, patch walls where existing brackets/hardware are removed. Contractor to provide temporary window coverings or maintain existing blinds until new are installed.
- 2. Contractor will have five (5) consecutive working days to complete <u>all</u> interior work per unit. Contractor will provide Owner with schedule of work two (2) weeks prior to entry.
- 3. Contractor to perform any corrective drywall surface, texture, interior paint repairs, and trim applications to interior surfaces affected by work.
- 4. Contractor will be responsible to mask off area of work and clean area of work inside of residential units at the end of each work day at a minimum. This includes floors, walls, and tenant belongings.
- 5. Note: **Mock-ups** will be required for KCHA approval demonstrating flashing and weather resistant barrier (WRB) applications are consistent with manufacturer's recommendations.

D. DOOR HARDWARE

Refer to Section 087100

- 1. Contractor to provide a complete finish hardware and suitable fastenings for the Project in accordance with Drawings, Specifications and Schedules.
- 2. Contractor to coordinate keying with Owner prior to ordering.

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- 3. Contractor to coordinate key exchange with Property Manager five (5) business days prior to new lock installation.
- 4. Property Manager will distribute keys to residents.
- 5. The Contractor to keep existing door cores and return to KCHA.

DIVISION 9 FINISHES

A. GYPSUM WALL BOARD

Refer to Section 092100

- 1. Contractor will patch any interior wall damage incurred during demolition or installation. Paint application will require corner to corner.
- 2. Contractor will protect all resident possessions and finished surfaces from dust, joint compound, tape, texture or overspray.
- 3. Contractor will apply an interior GWB, tape, mud and texture to match and blend in to the existing surface plane and texture quality/density.

B. FLUID APPLIED DECK COATING

Refer to Section 096700

- 1. The Contractor shall supply and install a rapid curing elastomeric urethane coating (Rhino Coating) and apply all required fillers for the complete deck coating at existing stair treads throughout complex. Each tread will be sandblasted and repaired as needed to receive a smooth finish surface once the fluid applied decking is applied.
- 2. The Contractor shall ensure that the rapid curing elastomeric poly urethane coating 80 mil Urethane is installed in accordance with the manufacturer's specifications and directions.
- 3. The Contractor shall inspect surface to receive coating and adjoining wall surface requiring deck coating prior to starting work to ensure that the surfaces are suitable to be finished in a high standard of quality and will not "puddle" water. Any surface that the Contractor deems unsuitable shall be reported to the Owner immediately.
- 4. Work shall be coordinated and phased in a manner to least impact access to occupied units.
- 5. Deck coating to cover both horizontal and vertical surfaces.
- 6. Contractor to provide means of access (by the end of the day) to tenant's units during the coating applications.

C. PAINTING

Refer to Section 099100

- 1. Contractor will provide labor and materials to paint exterior fascia boards, siding panels, trim, fiber cement blocks, doors and jambs. This work shall be inclusive labor and materials to perform surface preparation, fill, sanding and prime and paint. **Contractor to submit all paint drawdowns for Owner approval prior to paint applications.
- 2. Interior trim: (i.e. window liners, door and window casings)
- 3. All interior trim shall be pre-painted prior to install unless otherwise specified or necessary.
- 4. Two (2) coats of specified interior trim paint shall be applied upon completion of all prep and priming.

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5. Nail holes, seams and joints shall be filled with approved color match putty and wiped clean where prefinished trim is used; trim to be finished in place shall be filled, prepped and painted.

DIVISION 11 EQUIPMENT

A. FALL PROTECTION SYSTEMS

Refer to Section 112428

- 1. Contractor to remove all existing roof anchors, flashings, steel plates, pipe uprights, horizontal cable lines, turn buckles, tension indicators, shock absorbers, mounting hardware and all other specified hardware from areas where materials are to be removed.
- 2. Installation of anchor posts and horizontal life-line components to be performed by contractor according to manufacturer's instructions and recommendations.
- 3. Contractor to submit shop drawings engineered and designed to accommodate roof decking, roofing type, structural requirements, and watertight seal at roofing system.
- 4. Conform to WISHA for fall arrest and restraint systems.
- 5. Verify layout of fall-protection anchors and structural connections suitable for work.
- 6. Horizontal Cable life line to be installed per specifications section 112428-4.

DIVISION 12 FURNISHINGS

B. WINDOW COVERINGS

Refer to Section 12116

- 1. The Contractor is responsible for removing existing blinds. Provide and install new window blinds per specification in color and operation. Verify all measurements prior to placing new order due to window installation modifications; allow no more than ½" gap either side of jamb. All openings must be verified. Contractor responsible to order blinds to allow for lead time of delivery and coordinate to have onsite and installed prior to building punch.
- 2. Contractor to fabricate blinds to fill the opening completely from jamb to jamb and from head to sill
- 3. All window blind components (blinds, brackets, control rods, hooks, pull chords) will be defect and blemish free and adjusted, cleaned, and protected prior to final acceptance.
- 4. Adjust blinds for smooth operation.
- 5. Replace defective and damaged units.

DIVISION 23 HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

Refer to plan page AD2.4 for demo and A2.4 for install.

The HVAC unit and ductwork covers much of the northwest corner of the roof. Base bid will
include salvage of existing mechanical unit, conduit and wiring for reinstallation. Contractor to
provide Bidder design insulated ductwork from the salvaged unit to existing duct penetrations.
Provide adequate clearance around existing plumbing vents and existing roof penetrations.
Contractor responsible to coordinate removal and reinstall with HVAC contractor to complete new
roof assembly.

DIVISION 26 ELECTRICAL

A. GENERAL ELECTRICAL PROVISIONS

Refer to Section 260500

- 1. Provide all labor, materials, tools, equipment, supervision, and services required for the construction, installation, connection, testing and operation of electrical work described herein and shown on the drawings. This section applies to all Division 26 sections.
- 2. General construction work shown on the architectural drawings may require removal, relocation, and reinstallation of existing electrical work. Since existing conditions cannot be completely

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detailed on the Drawings, survey the site and perform required Work at no additional cost to the Owner.

B. ELECTRICAL

Refer to Sections 260510,260511,260519,260529,260532,260533

- 1. Coordinate installation of electrical connections for equipment with installed equipment.
- 2. Meet with each subcontractor furnishing equipment requiring electrical service and review equipment electrical characteristics. Report variances from electrical characteristics noted on electrical drawings to the Owner before proceeding with rough-work.

C. LIGHTING

Refer to Section 265100 and plan pages E1.1, E2.1 and E2.2

- 1. Work includes interior and exterior light fixtures, drivers, LED's and associated appurtenances.
- 2. Submit dimensioned drawings of each type of lighting fixtures. Submit in booklet form with separate sheet for each fixture, assembled in luminaire "type" in alphabetical order with proposed fixture and appurtenance clearly indicated on each sheet.
- 3. Field Measurements: Field verify locations of new and existing work prior to commencing work of this section.

END OF SECTION

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SECTION 01 1000 SUMMARY

PART	1	GENERAL
1.1		RELATED DOCUMENTS
	A.	Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
1.2		SUMMARY
	A.	 Work covered by the Contract Documents. Phased construction. Work under other contracts. Owner-furnished products. Owner's occupancy requirements. Applicable Codes. Reference standards. Use of premises and work restrictions. Specification formats and conventions. Execution, correlation and intent – Contract Documents.
1.3 WORK COVE		WORK COVERED BY CONTRACT DOCUMENTS
	A.	Project Identification:
		1. Project Name: GUSTAVES MANOR ENVELOPE UPGRADE
		2. Project Location: 107 W. MAIN STREET, AUBURN, WA 98001
B.		Owner/Developer: King County Housing Authority
		1. Owner's Representative: AMY KURTZ
		2. Contact Phone:206-574-1283
C.		Architects / Engineer:
		1. Representative: SHKS ARCHITECTS
		2. Contact Phone: 206-675-9151
	D.	Reference Section A of the Bid Documents for scope of work.

A. Construction shall be phased to accommodate Owner's desired schedule as noted in the bid documents and/or drawings, if applicable. Final Project Schedule shall include

PHASED CONSTRUCTION

1.4

phasing schedule to be prepared by the Contractor, and reviewed and approved by the Owner.

- B. Contractor shall prepare a phasing plan to maintain access to residential units during construction. Plan to be reviewed and approved by Owner prior to Work commencing.
- C. Before commencing Work of each phase of construction, submit an updated copy of Contractor's Final Project Schedule showing the sequence, commencement and completion dates, and move-out and -in dates of residents for all phases of the Work.

1.5 WORK UNDER OTHER CONTRACTS

A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.

1.6 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish products as indicated. This section includes receiving, unloading, handling, storing, protecting, and installing Owner-furnished products.
- B. Owner-Furnished Products:
 - 1. Products and materials as noted on drawings or otherwise indicated for re-use.
 - 2. Products and materials as noted on drawings or otherwise indicated to be supplied by Owner.

1.7 OWNER'S OCCUPANCY REQUIREMENTS

- A. Owner Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed areas of the building before Substantial Completion. Such placement of equipment and partial occupancy shall not constitute acceptance of the total Work. PRIOR to partial Owner Occupancy:
 - 1. Owner will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied.
 - 2. Contractor is responsible for obtaining a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
 - 3. The mechanical and electrical systems shall be fully operational; all required tests and inspections shall be successfully completed for areas to be occupied. On occupancy, Owner will operate and maintain mechanical and electrical systems serving the occupied portions of building.
 - 4. On occupancy, Owner will assume responsibility for maintenance and custodial service for the occupied portions of building.
 - 5. Coordinate insurance requirements with Owner prior to Owner occupancy of completed areas of the building.
- 1.8 CUTTING & PATCHING Refer to Section 01 7329 Cutting and Patching.

1.9 APPLICABLE CODES

A. Perform all Work in accordance with the current code requirements of the city holding jurisdiction over the site where Work is to be completed.

B. Certification of Code Compliance: All materials, methods and equipment shall comply with requirements of applicable codes and the Contract Documents, including requirements of all incorporated standards. The Contractor shall furnish, as a part of the Contract, certification of such compliance if requested by the Architect or the Code Enforcing Agency. Such certification shall be submitted in the form of test results or other data from a recognized independent testing laboratory. Contractor shall coordinate and provide all required submittals to the Code Enforcing Agency in a timely manner so as to not delay progress of the Project.

1.10 USE OF PREMISES AND WORK RESTRICTIONS

- A. General: Contractor shall have full use of premises for construction operations subject to phased construction requirements as specified in this Section and as indicated on Drawings by the Contract limits.
 - 1. Security Procedures: Refer to the Scope of Work Division 1, Section 4 Safety, Protection & Restoration and 01 5000 Temporary Facilities and Controls, for required security procedures to be followed while working at this building.
 - 2. Contractor Identification: All Contractors on site shall be easily identifiable and must wear clothing, name badges, hardhats, safety vests, or other visible identification or identifying article (approved by Owner) with employee's, laborer or staff member's company logo or company name.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas as indicated on drawings.
- C. Use of Parking Lot: Limited.
- D. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- E. On-Site Work Hours: Work in the existing occupied buildings will start no earlier than 8:00am, and will be completed by 4:30pm. Hours for work performed outside of the building will be at the discretion of Owner's Representative.
 - 1. Early Morning Hours: As approved by Owner's representative.
 - 2. Hours for Utility Shutdowns: Notify Owner and all affected utility companies seventy-two (72) hours in advance of proposed shutdown.
 - 3. Contractor to notify residents of Work a minimum of forty-eight (48) hours prior to start of Work.
 - a. If Work progress or new work affects additional or a new set of residents, the Contractor must give a new notice of work to all affected residences a minimum of forty-eight (48) hours prior to start of Work.
 - 4. Hours for Core Drilling and other loud activities must comply with city of jurisdiction's noise codes.
- F. Nonsmoking Properties. All of King County Housing Authority properties are nonsmoking.

- G. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.

1.11 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 33-division format and CSI/CSC's "2010 Master Format" numbering system.
 - 1. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular, where applicable, as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.12 EXECUTION, CORRELATION AND INTENT – CONTRACT DOCUMENTS

- A. General: If there is a discrepancy between Scope of Work, Specifications and/or Drawings, the Scope of Work shall take precedence followed by the Specifications and lastly the drawings. Contact Owner immediately for clarification of conflicts, corrections and clarifications.
- PART 2 PRODUCTS (Not Used)
- PART 3 EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 2600 CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract Modifications.
- B. Related Sections:
 - 1. Division 01 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Reference Article 7 in the General Conditions.

1.4 PROPOSAL REQUESTS

- A. The Contractor will have ten (10) calendar days from first notification to supply Owner with the information outlined in this section.
- B. Owner-Initiated Change Order Requests (COR): Contractor will issue a detailed description of:
 - 1. Proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 2. Change Order Requests (COR) and Construction Change Directives (CCD) shall be initiated by the Owner, dated and sequentially numbered on Owner provided forms.
 - 3. CORs are not instructions either to stop Work in progress or to execute the proposed change.
 - 4. After receipt of COR, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Provide a cost breakdown, including overhead and profit as a separate line item, and time extension request as provided for in Article 7 of The General Conditions.
 - b. Provide all necessary product information, specifications, etc. required to justify any Contractor requested changes.
 - 5. The allowed markup shall cover all indirect project costs, including but not limited to, the project Overhead, Profit and General Conditions
 - a. The Contractor shall be allowed a maximum of fourteen (14%) percent Overhead, Profit, and General Conditions, on the cost of craft labor,

- equipment, small tools and materials for self-performed Change Order work.
- b. The Contractor shall be allowed a maximum of eight (8%) percent Overhead, Profit and General Conditions on the cost of craft labor, equipment, small tools and materials for Subcontractor Change Order work. The Contractor is not allowed to take profit on the profit of the Subcontractor as stated in form HUD-5370, section 29.
- c. A Subcontractor shall be allowed a maximum of fourteen (14%) percent of the cost of craft labor, equipment, materials and small tools for Overhead, Profit and General Conditions, for self-performed Change Order work.
- d. A Lower-Tier Subcontractor shall be allowed a maximum of fourteen (14%) percent of the cost of craft labor, equipment, materials and small tools for Overhead, Profit and General Conditions, for self-performed Change Order work.
- 6. Include a list of quantities of products required (or eliminated) their unit costs and a total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- 7. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
- 8. Include costs of labor and supervision directly attributable to the change.
- 9. Include an updated Contractor's Final Project Schedule that indicates the effect of the change, including but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - a. Time extension requests must demonstrate the impact on the project Critical Path Schedule. See the General Conditions Article 15 and Section 01 3200 -Construction Progress Documentation.
- 10. Review all pricing provided by subcontractors and suppliers for accuracy and completeness. Verify that their scope of work is consistent with the requested change. Verify math is correct and that markup rates complies with the General Conditions.
- 11. After signing the Change Order Request or CCD, the Contractor shall return it to the Owner.
- 12. Quotation Form: Use forms acceptable to Owner.
- 13. After review of the Contractor's price, cost breakdown and requested time extension, if any, the Owner will submit for estimation and do one of the following:
 - a. Sign and route for approval.
 - b. Reject and resubmit to the Contractor for pricing correction.
 - c. Revise the Change Order Request or CCD and submit to the Contractor for repricing.
- 14. Prior to the Owner's acceptance of Change Order Requests, appropriate personnel shall also review the change requests.
- C. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Owner.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

- 2. Provide a cost breakdown, including overhead and profit as a separate line item, and time extension request as provided for in Article 7 of the General Conditions.
- 3. Provide all necessary product information, specifications, etc. required to justify any Contractor requested changes.
- 4. Allowances for direct supervision, safety, small tools, overhead and profit are limited by the General Conditions, Article 7.1.1.
- 5. Include a list of quantities of products required (or eliminated), their unit costs and total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- 6. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
- 7. Include costs of labor and supervision directly attributable to the change.
- 8. Include an updated Contractor's Final Project Schedule that indicates the effect of the change, including but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - a. Time extension requests must demonstrate the impact on the project Critical Path Schedule. See the General Conditions, and Section 01 3200-Construction Progress Documentation.
- 9. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
- 10. Proposal Request Form: Use form acceptable to Owner.
- 11. After review of the Contractor's price, cost breakdown and requested time extension, if any, the Owner will submit for estimation and do one of the following:
 - a. Sign and send on for approval.
 - b. Reject and resubmit to the Contractor for pricing correction.
 - c. Revise the Change Order Request or CCD and submit to the Contractor for repricing.
- 12. Prior to the Owner's acceptance of Change Order Requests, appropriate personnel shall also review the change requests.

1.5 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. The Contractor will have ten (10) calendar days from first notification to supply Owner with the information outlined in this section.
- B. Construction Change Directive: The Owner may issue a Field Authorization in accordance with provisions in Article 7, General Conditions. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- C. Documentation: Maintain detailed records on a time and material basis of Work required by the CCD, with supporting documentation as required by CORs.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract, consistent with Article 7 of the General Conditions of the Contract.

1.6 CHANGE ORDER PROCEDURES

- A. The Contractor will have ten (10) calendar days from first notification to supply Owner with the information outlined in this section.
- B. When approved and signed by the Owner, the Construction Change Directive will either be included in a Change Order Request (COR) to be charged against the Contract Allowance, or will be included in a formal Change Order, which will modify the Contract amount.
- PART 2 PRODUCTS (Not Used)
- PART 3 EXECUTION (Not Used)

END OF SECTION 01 2600

SECTION 01 2900 PAYMENT PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Master Project Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittal Schedule.
 - 2. Submit the Schedule of Values to Owner at earliest possible date but no later than fourteen (14) calendar days after the date of bid opening.
 - 3. Sub-schedules: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Documents as a guide to establish line items for the Schedule of Values. Lines items are based on Scope of Work and sequencing.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Owner.
 - c. Owner's contract number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:

- a. Item #, including separate line for an Allowance (if applicable).
- b. Description of the Work.
- c. Total Dollar Value.
- d. Previous Application Amount.
- e. Dollar Amount Charged on Current Pay Application.
- f. Stored Materials.
- g. Total Complete and Stored.
 - Percentage of the Contract Sum to nearest onehundredth percent, adjusted to total one hundred (100%) percent.
- h. Balance to Finish
- i. Retainage
- 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Documents. Provide several line items for principal subcontract amounts, where appropriate.
- 4. Round amounts to nearest one (1) cent; total shall equal the Contract Sum.
- 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - Differentiate between items stored on-site and items stored offsite. Include evidence of insurance or bonded warehousing per Article 9.3.2 AIA A201-2017 General Conditions.
- 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- 7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
- 8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Owner and paid for by Owner.
- B. Payment Application Times:
 - 1. The date for each progress payment is indicated in the Contract between Owner and Contractor.
 - 2. The period of construction Work covered by each Application for Payment is the period indicated in the Contract.
- C. Payment Application Forms:

- 1. Use Payment Application forms as provided by Owner for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Owner will return incomplete applications without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Final Project Schedule. Use updated schedules if revisions were made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 3. Provide current Subcontractor List with each Application for Payment.
- E. Transmittal: Submit one (1) signed and notarized original Application for Payment to Owner by a method ensuring receipt within forty-eight (48) hours. The Application for Payment shall include intent to pay prevailing wages and a running spreadsheet that itemizes both the intent and affidavit of wages paid to date for each subcontractor.
 - 1. Transmit Application for Payment with a transmittal form listing attachments and recording appropriate information about the application.
- F. General Contractor Certification Upon Application For Payment: Refer to attached Exhibits in Contract.
- G. Initial Application for Payment: Administrative actions and submittals that must precede the first Application for Payment include the following:
 - 1. List of subcontractors. (Required at pre-construction conference.)
 - 2. Schedule of Values.
 - 3. Contractor's Final Project Schedule to be created in MS Project or equivalent format. (Required at pre-construction conference.)
 - 4. Certificates of insurance and insurance policies. (Required prior to contract award.)
 - 5. Performance and payment bonds. (Required prior to contract award.)
 - 6. Section 3 Work Plan, for projects whose contract value is five hundred thousand dollars (\$500,000) or higher.
 - 7. Intent to Pay Prevailing Wages must be filed with L&I.
 - 8. Contractor to provide Owner with initial Cash Flow Projections. Cash Flow Projection needs to reflect Work as detailed in Final Project Schedule.
- H. **All** Application for Payments will be reviewed for completion and correctness, including reasons outlined in A201-2017 General Conditions.
- I. Application for Payment at Substantial Completion: After Owner issues the Certificate of Substantial Completion, submit an Application for Payment showing one hundred (100%) percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

- 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following (refer to Article 9.10 in AIA A201-2017 General Conditions:
 - 1. Completion of Project closeout requirements.
 - 2. Completion of Items specified.
 - 3. Ensure that unsettled claims will be settled.
 - 4. Ensure that incomplete Work is not accepted and will be completed without undue delay.
 - 5. Transmittal of required Project construction records to the Owner.
 - 6. Proof that fees and similar obligations were paid.
 - 7. Removal of temporary facilities and services.
 - 8. Removal of surplus materials, rubbish and similar elements.
 - 9. Operations and Maintenance Manuals
 - 10. Record Drawings (i.e. As-built drawings, redline drawings)
 - 11. Final Affidavits of Wages Paid filed with L&I.
- 1.6 SPECIAL PAYMENT REQUIREMENTS (Not Used)
- PART 2 PRODUCTS (Not Used)
- PART 3 EXECUTION (Not Used)

END OF SECTION 01 2900

SECTION 01 3100 PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Coordination Drawings.
 - 3. Project meetings.
 - 4. Requests for Information (RFIs).
- B. See Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.3 DEFINITIONS

A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Document.

1.4 COORDINATION

- A. Coordination: Contractor's Responsibility to coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Final Project Schedule.
 - 2. Preparation of the Schedule of Values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.

- 6. Pre-installation conferences.
- 7. Project closeout activities.

1.5 PROJECT MEETINGS

- A. General: Contractor is responsible for scheduling and conducting meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants, others who are involved and individuals whose presence is required, of date and time of each meeting. Notify Owner of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned; send the electronic version of the meeting minutes to the Project Manager and the Project Engineer, within three (3) business days of the meeting.
- B. Pre-construction Conference: A pre-construction conference shall be scheduled before starting construction. Owner to hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
 - 1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference.
 - 2. Agenda: Owner to discuss items of significance that could affect progress, including the following:
 - a. Scope of Work.
 - b. Contract Start and End Dates.
 - c. Authority of Owner's Personnel.
 - d. Davis Bacon/Prevailing Wage Certified Payroll Reports/Labor Relations and Section 3.
 - e. Insurance Certificate, Endorsement and Performance and Payment Bonds.
 - f. General Requirements/Special Conditions.
 - g. Final Project Schedule, including Phasing.
 - h. Easements, Permits, Lines & Grades.
 - i. Contractor's Superintendent.
 - j. Subcontractor List.
 - k. Safety Plan (see attachment at end of this section).
 - 1. Tests, Samples and Observations.
 - m. Progress Meetings and Reports.
 - n. Applications and Certificates of Payment, and Retention.
 - o. Progress Payments.
 - p. Change Orders.
 - q. Warranty Requirements.
 - r. Submittals.
 - s. Temporary and Storage Facilities, Staging Areas and Jobsite Security.
 - t. Clean-up and Trash Removal.
 - u. Salvage of Materials and Spare Materials.
 - v. Record Drawings.
 - w. Substantial Completion, Final Payment and Retainage.
 - x. Recycling and Energy Conservation.

- y. Minutes: The Owner will record and distribute Pre-construction meeting minutes via email.
- C. Progress Meetings: The Contractor will conduct progress meetings at weekly intervals. (refer to Article 3.1.4 of General Conditions).
 - 1. Attendees: In addition to representatives of Owner and the Contractor, each subcontractor, supplier and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Final Project Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Final Project Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Contractor shall provide a short term look-ahead schedule for presentation and review at each progress meeting.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) RFIs.
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
 - 21) Safety
 - 22) Section 3 compliance and status
 - 3. Minutes: Contractor will record the meeting minutes.
 - 4. Reporting: Contractor will email the minutes to all concerned prior to the meeting and will distribute written copies of the minutes of the meeting to each party present and to parties who should have been present.
 - a. Schedule Updating: Revise Contractor's Two (2)-Week Look Ahead Schedule after each progress meeting. This schedule will be discussed in

- each progress meeting. Issue revised schedule concurrently with the report of each meeting.
- b. Contractor's weekly reports will consist of five (5) daily reports, each reflecting the preceding five (5) days. These reports will be sent electronically to the Owner on a schedule that will be determined at the Pre-Construction Meeting or at each progress meeting.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
 - 1. RFIs generated from subcontractor or supplier of the Contractor must be routed through the General Contractor.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
 - 3. If a suggestion can be determined or derived at by the initiator of the RFI, it is required the suggestion be supplied with the submitted RFI. If no suggestion is given where one is possible, the RFI will be returned as incomplete.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 - 1. Project name and number.
 - 2. RFI Subject.
 - 3. Date.
 - 4. Name of Contractor.
 - 5. Name of Architect.
 - 6. RFI number, numbered sequentially.
 - 7. Specification Section number and title and related paragraphs, as appropriate.
 - 8. Drawing number and detail references, as appropriate.
 - 9. Field dimensions and conditions, as appropriate.
 - 10. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 11. Contractor's signature.
 - 12. Attachments: Include drawings, descriptions, measurements, photos, product data, shop drawings and other information necessary to fully describe items needing interpretation.
- C. Hard-Copy RFIs: Form established by Contractor's Project Management system.
 - 1. Identify each page of attachments with the RFI number and sequential page number.
- D. Owner's Action: Owner will review each RFI, determine action required and return it. Allow five (5) working days for Owner's acknowledgement of each RFI.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Owner's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.

- 2. Owner's action may include a request for additional information, in which case Owner's time for response will start again.
- 3. Owner's action may include architect and/or engineer recommendation or approval of proposed solution.
- 4. Owner's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Order Request according to General Conditions.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Owner in writing within five (5) days of receipt of the RFI response.
- E. On receipt of Owner's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Owner within three (3) days if Contractor disagrees with response.
- F. Contractor RFI Log: Prepare, maintain and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect's response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive and Change Order Request, as appropriate.
- PART 2 PRODUCTS (Not Used)
- PART 3 EXECUTION (Not Used)

GENERAL CONTRACTOR SITE SAFETY PLAN CHECKLIST

Instructions: Please indicate whether or not your Site Safety Plan contains the following provisions.

Contractors: Site Safety Plan Evaluation

Yes	No	N/A		
[]	[]	[]	1.	Will your company have a written, established, supervised and enforced site safety plan for the project? (<i>The site safety plan must be presented before</i>
				starting work)
[]	[]	[]	2.	Does the site safety plan include an orientation and weekly safety meetings that show your employees and other subcontractors what they need to know to perform their job assignments safely?
[]	[]	[]	3.	Does the site safety plan describe how and when to report on-the-job injuries?
[]	[]	[]	4.	Does the site safety plan identify on-site available 1st Aid / CPR trained personnel, readily accessible first-aid and and/or access to the nearest clinic or hospital on job site?
[]	[]	[]	5.	Does the site safety plan identify what to do in an emergency, including how to exit the workplace?
[]	[]	[]	6.	Does the site safety plan explain how employees and other subcontractors report unsafe conditions and practices?
[]	[]	[]	7.	Does the site safety plan describe the required personal protective equipment (PPE) and the proper use and care of the PPE?
[]	[]		8.	Is there an on-site Haz-com Program that identifies hazardous materials
				(Asbestos, Lead) or chemicals including instruction about the safe use and storage?
[]	[]	[]	9.	Does the site safety plan identify the designated representative responsible for job-site Safety?
[]	[]	[]	10.	Does the site safety plan describe who is responsible for performing and recording regular periodic site reviews, and inspections for your employees and subcontractors?
[]	[]	[]	11.	Does the site safety plan describe programs related to housekeeping and jobsite safety?
[]	[]	[]	12.	Does the site safety plan include a job-site specific written fall protection plan covering potential falls hazards and protections?
[]	[]	[]	13.	Does the site safety plan describe electrical and or power generation controls?
[]	[]	[]	14.	Does the site safety plan have provisions for trenching /excavations and/or confined space?

Notes:

SECTION 01 3200 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Final Project Schedule.
 - 2. Submittals Schedule (refer to Article 3.10.2 in General Conditions AIA A201-2017).
 - 3. Daily construction reports.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring and controlling the construction project. Activities included in a Final Project Schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical Path Method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
- E. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- F. Major Area: A story of construction, a separate building or a similar significant construction element.

1.4 SUBMITTALS

- A. Submittals Schedule: Submit one (1) electronic copy of schedule to the Owner. Arrange the following information in a tabular format
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor (if applicable).
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's final release or approval.
- B. Contractor's Final Project Schedule: Submit one (1) electronic copy and one (1) hard copy of initial schedule to the Owner. The hard copy should be large enough to show entire schedule for entire construction period.

1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Final Project Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals to the Owner, arranged in chronological order by dates required by Final Project Schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Final Project Schedule.
 - 2. Submit concurrently with the first complete submittal of Contractor's Final Project Schedule.
- 2.2 CONTRACTOR'S FINAL PROJECT SCHEDULE, GENERAL (refer to Article 3.10.1in the General Conditions AIA A201)
 - A. Contractor to provide a baseline, cost-loaded schedule in MS Project or Primavera to the Owner's Representative one (1) day **prior** to the weekly project meeting. Contractor is to update the schedule weekly.
 - B. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion as set by the date of Notice to Proceed.

- 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items as separate activities in schedule.
 - a. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Final Project Schedule with Submittals Schedule.
 - 4. Startup and Testing Time: Include not less than ten (10) days for startup and testing.
 - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in Final Project Schedule, and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 3. Work Restrictions: Show the effect of the following items on the Final Project Schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 - 4. Work Stages: Indicate important stages of construction for each major portion of the Work.
- E. Milestones: Include milestones indicated in the Contract Documents in Final Project Schedule, including, but not limited to, the Notice to Proceed, Substantial Completion and Final Completion.
- F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.

2.3 CONTRACTOR'S FINAL PROJECT SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit to the Owner a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Final Project Schedule within fourteen (14) calendar days of date after Letter of Award. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project. The Gantt-Chart Final Project Schedule can be either in MS Project or equivalent format.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three (3) months or longer to complete, indicate an estimated completion percentage in ten (10%) percent increments within time bar.

PART 3 EXECUTION

3.1 CONTRACTOR'S FINAL PROJECT SCHEDULE

- A. Contractor's Final Project Schedule Updating: At two (2) week intervals, update schedule to reflect actual construction progress and activities. Issue schedule three (3) days before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute electronic copies of approved schedule to Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 3200

SECTION 01 3300 SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples and other submittals.

B. Related Sections:

- 1. See Division 01 40 00 Section "Quality Requirements" for submitting test and inspection reports and for mockup requirements.
- 2. See Division 01 77 00 Section "Closeout Procedures" for submitting warranties.
- 3. See Division 01 78 39 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- 4. See Division 01 78 23 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Owner's responsive action.
- B. Informational Submittals: Written information that does not require Owner's responsive action. Submittals may be rejected for not complying with requirements.

PART 2 PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
 - 1. Submit electronic submittals to Owner via email as PDF electronic files.
 - a. Owner will return annotated file. Annotate and retain one (1) copy of file as an electronic Project record document file.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows:
 - 1. Time for review shall commence on Owner's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 2. Initial Review: Allow five (5) working days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Owner will advise Contractor when a submittal being processed must be delayed for coordination.
 - 3. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 4. Resubmittal Review: Allow seven (7) working days for review of each resubmittal.
- D. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately **4 by 5 inches** on label or beside title block to record Contractor's review and approval markings and action taken by Owner.
 - 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect (if applicable).
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use consecutively numbered submittals (001, 002, etc), followed by the Specification Section number, followed by a sequential number indicating version (e.g., 001-13 3300-0).
 - 2) Example: $001 01 \ 1300 0$
 - a) 001: Consecutively numbered submittals
 - b) 01 1300: Specification Section
 - c) 0: Version of submittal (0 = original submittal; 1 = first resubmittal; 2 = 2nd resubmittal; etc.)
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - 1. Other necessary identification.
- E. Deviations: Highlight, encircle or otherwise specifically identify deviations from the Contract Documents on submittals.
 - 1. Substitution Requests.

- F. Additional Copies: Unless additional copies are required for final submittal, and unless Owner observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 - 1. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- G. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Owner will return submittals, without review, received from sources other than Contractor.
 - 1. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked "Make Corrections Noted" or "No Exceptions Taken".
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers and others as necessary for performance of construction activities. Show distribution on transmittal forms.
 - 1. Use for Construction: Use only final submittals with mark indicating "Make Corrections Noted" or "No Exceptions Taken".

2.2 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
 - 1. Release of CADD information will be restricted to the following categories:
 - a. Architectural floor plans.
 - b. Site plan.
 - c. Reflected ceiling plans.
 - d. Exterior elevations.
 - e. Stair sections.
 - 2. The CADD database will contain only the background information; the sheet numbers, sheet titles, room names and numbers, reference symbols, and other similar data will not be included.
 - 3. The CADD database will be generated on PC hardware with Autodesk AutoCAD software. Architect has the capability to develop CADD output to meet capabilities of all major platforms and major media types.
 - 4. When requesting CADD databases, specify the output form required.

PART 3 PRODUCTS

3.1 ACTION SUBMITTALS

A. General: Prepare and submit to Owner, Action Submittals required by individual Specification Sections.

- B. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
 - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
 - 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Owner.
 - 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Names of subcontractor, manufacturer, and supplier.
 - h. Category and type of submittal.
 - i. Submittal purpose and description.
 - j. Specification Section number and title.
 - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - 1. Drawing number and detail references, as appropriate.
 - m. Location(s) where product is to be installed, as appropriate.
 - n. Related physical samples submitted directly.
 - o. Indication of full or partial submittal.
 - p. Transmittal number, numbered consecutively.
 - q. Submittal and transmittal distribution record.
 - r. Other necessary identification.
 - s. Remarks.
 - 5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- C. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.

- c. Manufacturer's installation instructions.
- d. Manufacturer's catalog cuts.
- e. Wiring diagrams showing factory-installed wiring.
- f. Printed performance curves.
- g. Operational range diagrams.
- h. Compliance with specified referenced standards.
- i. Testing by recognized testing agency.
- 4. Number of Copies: Submit to Owner, four (4) copies of Product Data, unless otherwise indicated. Owner will return two (2) copies. Mark up and retain one (1) returned copy as a Project Record Document.
- D. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal of Architect's CAD Drawings is otherwise permitted.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shop-work manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Notation of coordination requirements.
 - j. Notation of dimensions established by field measurement.
 - k. Relationship to adjoining construction clearly indicated.
 - 1. Seal and signature of professional engineer if specified.
 - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - 2. Sheet Size: Except for templates, patterns and similar full-size drawings, submit to Owner, Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
 - 3. Number of Copies: Submit to Owner, a minimum of three (3) opaque (bond) copies of each submittal. Submit additional copies as required for each consultant. Owner will return two (2) copies. At the sole discretion of the Owner electronic copies may be acceptable.
- E. Samples: Submit to Owner, Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.

- 3. Disposition: Maintain sets of approved Samples at Project site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
- 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures and patterns available.
 - a. Number of Samples: Submit one (1) full set of available choices where color, pattern, texture or similar characteristics are required to be selected from manufacturer's product line. Owner will return submittal with options selected.
- 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three (3) sets of Samples. Owner will retain two (2) Sample sets; remainder will be returned.
- F. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location.
 - 1. Number of Copies: Submit a minimum of three (3) copies of product schedule or list, unless otherwise indicated. Submit additional copies for each consultant required to review the submittal. Owner will return two (2) copies.
- G. Submittals Schedule: Comply with requirements specified in the General Conditions of the Contract and Owner-Contractor Contract.
- H. Application for Payment: Comply with requirements specified in the Owner-Contractor Contract.
- I. Schedule of Values: Comply with requirements specified in the Owner-Contractor Contract. If needed, combine subcontract list in paragraph below with product list above. Subcontract list is required by General Conditions to be submitted as soon as practical after award of the Contract.
- J. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design.
 - 1. Number of Copies: Submit electronically to Owner, one (1) copy of subcontractor list, unless otherwise indicated.

3.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

- 1. Number of Copies: Submit to Owner, two (2) copies of each submittal, unless otherwise indicated. Owner will not return copies.
- 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- 3. Test and Inspection Reports: Comply with requirements specified in Division 01 40 Section "Quality Requirements."
- B. Coordination Drawings: Comply with requirements specified in Division 01 31 00 Section "Project Management and Coordination."
- C. Contractor's Final Project Schedule: Comply with requirements specified in the General Conditions of the Contract, and Owner-Contractor Contract.
- D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and Owners, and other information specified.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- L. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.

- M. Pre-construction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- N. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- O. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- P. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 01 78 23 Section "Operation and Maintenance Data."
- Q. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- R. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address and telephone number of manufacturer.
- S. Manufacturer's Field Reports: Prepare written information documenting factoryauthorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Statement on condition of substrates and their acceptability for installation of product.
 - 2. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- T. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- U. Material Safety Data Sheets (MSDSs): Submit information directly to Owner.
 - 1. Architect will not review submittals that include MSDSs and will return them for resubmittal.

3.3 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Owner.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, electronically submit three (3) copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.
 - 2. If submittal has a wet stamp, then send three (3) hard copies, with the wet stamp to Owner for approval. Owner will return one (1) copy to Contractor.

PART 4 EXECUTION

4.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions.

4.2 OWNER'S ACTION

- A. Action Submittals: Owner will review each submittal, make marks to indicate corrections or modifications required, and return it. Owner will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- B. Informational Submittals: Owner will review each submittal and will not return it, or will return it if it does not comply with requirements. Owner will forward each submittal to appropriate party.
- C. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- D. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 01 3300

SECTION 01 4000 QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections and related actions do not limit Contractor's other quality assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. See Divisions 02 through 33 Sections for specific test and inspection requirements, if applicable. Not all Divisions will be used.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Owner.
- C. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- D. Pre-construction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

- E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- F. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory or shop.
- G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- H. Testing Agency: An entity engaged to perform specific tests, inspections or both. Testing laboratory shall mean the same as testing agency.
- I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Lower Tier Subcontractor, to perform a particular construction operation, including installation, erection, application and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- J. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of two (2) previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. General: If compliance with two (2) or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Owner for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Owner for a decision before proceeding.

1.5 TESTING SUBMITTALS

- A. Qualification Data: For testing agencies, as prescribed by Contract, but not provided by Owner shall demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and electronically submit to the Owner certified written reports that include the following:
 - 1. Date of issue.

- 2. Project title and number.
- 3. Name, address and telephone number of testing agency.
- 4. Dates and locations of samples and tests or inspections.
- 5. Names of individuals making tests and inspections.
- 6. Description of the Work and test and inspection method.
- 7. Identification of product and Specification Section.
- 8. Complete test or inspection data.
- 9. Test and inspection results and an interpretation of test results.
- 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
- 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- 12. Name and signature of laboratory inspector.
- 13. Recommendations on re-testing and re-inspecting.
- C. Permits, Licenses and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly or product that is similar to those indicated for this Project in material, design and extent.
- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.

- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design and extent to those indicated for this Project.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Owner.
 - 2. Notify Owner seven (7) calendar days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 4. Obtain Owner's approval of mockups before starting work, fabrication or construction.
 - 5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 6. Demolish and remove mockups when directed, unless otherwise indicated.
- J. Laboratory Mockups: Comply with requirements of pre-construction testing and those specified in individual Sections in Divisions 02 through 33.

1.7 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

- 2. Notify testing agencies at least twenty-four 24 hours in advance of time when Work that requires testing or inspecting will be performed.
- 3. Where quality-control services are indicated as Contractor's responsibility, electronically submit a certified written report, in duplicate, of each quality-control service to the Owner.
- 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
- 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 33 00 Section "Submittal Procedures."
- D. Re-testing/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including re-testing and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Owner and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Owner and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which onsite tests will be conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Electronically submit to the Owner a certified written report, in duplicate, of each test, inspection and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.

- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples and similar activities.

1.8 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Owner and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Owner with copy to Contractor and to authorities having jurisdiction.
 - 4. Electronically submitting to the Owner a final report of special tests and inspections, which includes a list of unresolved deficiencies, at Substantial Completion.
 - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 6. Re-testing and re-inspecting corrected work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
 - 2. Comply with the Contract Document requirements for Division 01 73 29 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 5000 TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 73 00 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. See Division 01 Section "Execution" for progress cleaning requirements.
- C. See Divisions 02 through 33 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections. Not all Sections will be used

1.3 DEFINITIONS

A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies and authorities having jurisdiction.
- B. Water Service from Existing System: Water from Owner's existing water system is available for use with approval of Owner's Representative. Provide connections and extensions of services as required for construction operations. Contractor must notify Owner forty-eight (48) hours before use of water service.
- C. Electric Power Service from Existing System: Contractor is responsible for supplying power service and distribution as required for construction operations, unless other arrangements are made with approval of Owner's Representative.

1.5 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Existing Permanent Facilities: Contractor shall assume responsibility for operation, maintenance and protection of each existing permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and existing facilities by all parties engaged in the Work:
 - 1. Keep temporary services and existing facilities clean and neat.
 - 2. Relocate temporary services as required by progress of the Work.
 - 3. Provide temporary keys and lock cores throughout duration of Contractor's occupancy of Owner's space. Contractor to provide Owner's Representative with temporary construction keys matching construction cores installed for access.
 - a. When Contractor is given keys to KCHA property, Contractor will claim responsibility for the keys by signing for keys acquired. If Contractor loses keys, Contractor is responsible for rekeying all locks associated with lost key. Contractor is responsible for returning keys back to Owner's Representative when Work is completed.

PART 2 PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls and foundations adequate for normal loading.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished and equipped to accommodate materials and equipment for construction operations.
- C. Contractor is responsible for security of Temporary Facilities.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 13 at each return air grille in system and remove and replace at end of construction.
- C. Self-Contained Toilet Units: Single-occupant units of chemical, aerated re-circulation, or combustion type; vented; fully-enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

- D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water, drinking-water units, including paper cup supply.
 - 1. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 degrees F.
- E. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110-to-120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button and pilot light.
- F. Power Distribution System Circuits: Where permitted, and overhead and exposed for surveillance, wiring circuits, not exceeding 125-V AC, 20-A rating, and lighting circuits may be nonmetallic sheathed cable.

PART 3 EXECUTION

3.1 INSTALLATION, GENERAL

- A. With Owner's approval, locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services. Provide Owner with seventy-two (72) hour notice if disturbance is to occur to site staff or residents.
- B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities and drinking water for use by construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will be permitted with Owner's approval, as long as facilities are cleaned and maintained daily. At Substantial Completion, restore these facilities to condition existing before initial use.
- D. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

- 1. Maintain a minimum temperature of 50 degrees F in permanently enclosed portions of building for normal construction activities, and 65 degrees F for finishing activities and areas where finished Work has been installed.
- 2. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes and odors from entering occupied areas.
- E. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- F. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Connect temporary service to Owner's existing power source, as directed by Owner after receiving approval by Owner's Representative.
- G. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 73 00 Section "Execution" for progress cleaning requirements. Contractor shall not use Owner's waste receptacles for any disposal.
- B. Parking: Use designated areas of Owner's existing parking areas for construction personnel upon Owner's approval.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway and subsoil contamination or pollution or other undesirable effects.
- C. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
- D. Barricades, Warning Signs, and Lights: Comply with Owner's instructions for erecting structurally adequate barricades, including warning signs and lighting.

- E. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by Owner.
- F. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- G. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by tenants from fumes and noise.
 - 1. Construct dustproof partitions with two (2) layers of 6-mil polyethylene sheet on each side. Overlap and tape full length of joints.
 - 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 - 3. Seal joints and perimeter.
 - 4. Protect air-handling equipment.
 - 5. Provide walk-off mats at each entrance through temporary partition.
 - 6. Dust Control/Air handlers
- H. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Prohibit smoking on Owner's property.
 - 2. Supervise welding operations, combustion-type temporary heating units and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3.5 OPERATION, TERMINATION AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a twenty-four (24) hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 77 00 Section "Closeout Procedures."

END OF SECTION 01 5000

SECTION 01 6000 PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. See Division 01 77 00 Section "Closeout Procedures" for submitting warranties for Contract closeout.
- C. See Divisions 02 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted. Not all Sections will be used.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.4 SUBMITTALS

- A. Substitution Requests: Electronically submit three (3) copies of each request for consideration to the Owner. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, which will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and the names and addresses of Architects and Owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Final Project Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - 1. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - 2. Owner's Action: If necessary, the Owner will request additional information or documentation for evaluation within five (5) calendar days of receipt of a request for substitution. Owner will notify Contractor of acceptance or rejection of proposed substitution within ten (10) calendar days of receipt of request, or five (5) calendar days of receipt of additional information or documentation, whichever is later.
 - a. Form of Acceptance: Signed and Approved Substitution Request Form.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two (2) or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store and handle products using means and methods that will prevent damage, deterioration and loss, including theft. Comply with manufacturer's written instructions.

B. Delivery and Handling:

- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
- 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged or sensitive to deterioration, theft and other losses.
- 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
- 2. Store materials in a manner that will not endanger Project structure.
- 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4. Store cementitious products and materials on elevated platforms.
- 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
- 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation and weather-protection requirements for storage.
- 7. Protect stored products from damage and liquids from freezing.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Pre-printed written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

- 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Electronically submit a draft for approval before final execution to the Owner.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 - 3. Refer to Divisions 2 through 33 Sections for specific content requirements and particular requirements for submitting special warranties. Not all Sections will be used
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Owner will make selection.
 - 5. Where products are accompanied by the term "match sample," sample to be matched is Owner's.
 - 6. Descriptive, performance and reference standard requirements in the Specifications establish "salient characteristics" of products.

B. Product Selection Procedures:

- 1. Products: Where Specifications include a list of names of both products and manufacturers, provide one (1) of the products listed or equal product that complies with requirements.
- 2. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one (1) of the manufacturers listed or equal manufacturer that complies with requirements.
- 3. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one (1) of the products listed, or a equal product. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed "or Equal" product.

- 4. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one (1) of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed manufacturer.
- 5. Product Options: Where Specifications indicate that sizes, profiles and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
- 6. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one (1) of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions and other characteristics that are based on the product named. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product by the other named manufacturers.
- 7. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Owner's sample. Owner's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
- 8. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns and textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Owner will select color, pattern, density or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Owner will select color, pattern, density or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Owner will consider requests for substitutions if received within sixty (60) days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Owner.
- B. Conditions: Owner will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Owner will return requests without action, except to record noncompliance with these requirements:
 - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner and similar considerations.
 - 2. Requested substitution does not require extensive revisions to the Contract Documents.

- 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- 4. Substitution request is fully documented and properly submitted.
- 5. Requested substitution will not adversely affect Contractor's Final Project Schedule.
- 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
- 7. Requested substitution is compatible with other portions of the Work.
- 8. Requested substitution has been coordinated with other portions of the Work.
- 9. Requested substitution provides specified warranty.

PART 3 EXECUTION (Not Used)

END OF SECTION 01 6000

SECTION 01 7300 EXECUTION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. General installation of products.
 - 3. Progress cleaning.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.
- B. See Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 SUBMITTALS

A. Not Applicable

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work. Notify Owner of any discrepancies between plans and actual conditions on site.
 - 1. Before construction, verify the location and points of connection of utility services.
- B. Acceptance of Conditions: Examine substrates, areas and conditions, with Installer or Applicator and Owner present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

- 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
- 3. Examine walls, floors and roofs for suitable conditions where products and systems are to be installed.
- 4. Proceed with installation only after unsatisfactory conditions have been corrected and approved by Owner. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Owner, per Section 01 3100.
 - 1. It is the Contractor's responsibility to coordinate between the various Contract Documents, including the Drawings and Specifications, with neither superseding the other. In the event of conflicts or discrepancies among the Contract Documents, it is the Contractor's responsibility to seek clarification.
 - 2. Where conflicts and/or omissions have not been brought to the attention of the Owner, it is understood that the Contractor has made provisions in the bid for the most costly material or methods.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Owner promptly.
- B. General: Engage experienced layout engineers to lay out the Work using accepted surveying practices.
 - 1. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 2. Inform installers of lines and levels to which they must comply.
 - 3. Check the location, level and plumb, of every major element as the Work progresses.
 - 4. Notify Owner when deviations from required lines and levels exceed allowable tolerances.

3.4 FIELD ENGINEERING

A. Reference Points: Locate existing permanent benchmarks, control points and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts and wiring in finished areas unless otherwise indicated.
 - 4. Install materials in lengths that produce the minimum amount of joints.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produces harmful noise and dust levels. Refer to Dust Control in the Scope of Work.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachments: Provide blocking and attachment plates, anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Owner.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, submit proposed joint layout, for Owner's approval. Fit exposed connections together to form hairline joints.
 - 1. Use weather cuts, miters, back caulk as needed. Use lengths that minimize joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.
 - 1. If required, Contractor must submit MSDS for all products to be used onsite to Owner for approval. Owner shall have seven (7) calendar days to review and approve/disapprove of the product.

2. If required, Contractor must submit a weekly schedule detailing when and where approved products will be used on an hour-by-hour basis. This schedule must be submitted by 9:00 AM on Wednesday of the week prior to the scheduled work week.

3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully in compliance with Section 01 7419 "Construction Waste Management and Disposal."
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than seven (7) calendar days during normal weather or three (3) calendar days if the temperature is expected to rise above 80 degrees F
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - 4. Do not use Owner receptacles.
 - 5. Recycle as outlined in Waste Management Plan in Section 01 7419.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period.

3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units and re-test.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 04 00 Section "Quality Requirements."

3.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 73 29 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction as well as landscapes and hardscapes to their original condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched and broken glass or reflective surfaces.

END OF SECTION 01 7300

SECTION 01 7329 CUTTING AND PATCHING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. See Divisions 02 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work. Not all Sections will be used.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

D. Visual Requirements:

- 1. Unless indicated otherwise, patching, extending or matching shall be performed as necessary to make the Work complete, with all components matching and consistent.
- 2. Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Owner's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- 3. Patching materials shall meet the requirements of the jurisdictional code authorities.
- 4. All patching procedures shall be reviewed with the Owner prior to proceeding.

1.4 WARRANTY

A. Existing Warranties: Remove, replace, patch and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Cut, move or remove items as necessary for access to alterations and renovations work; replace and restore at completion.
- E. Contact the Owner when unsuitable materials not marked for removal such as rotted wood, rusted metals and deteriorated concrete and masonry are discovered.
- F. Remove debris and abandoned items from area and from concealed spaces.
- G. Prepare surfaces and remove surface finishes to provide for proper installation of new work and new finishes.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. Provide appropriate dust control while cutting through surfaces. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 and 33 Sections (Sections may not be used) where required by cutting and patching operations.
 - 5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - 4. Ceilings: Patch, repair or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Trim existing doors as necessary to clear new floor finishes; refinish trimmed areas.
- E. Where existing items are indicated as cut or reconfigured, cap and finish all exposed edges to match the existing construction to remain. Provide new or relocated supports spaced to be consistent with the installation.
- F. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty and similar materials.

END OF SECTION 01 7329

SECTION 01 7419 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Project Documents, and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Salvaging of non-hazardous demolition and construction waste.
 - 2. Recycling of non-hazardous demolition and construction waste.
 - 3. Disposing of non-hazardous demolition and construction waste.

1.3 DEFINITIONS

- A. Construction Waste: All non-hazardous building and site materials or other non-hazardous solid waste resulting from construction, remodeling, renovation, repair or land-clearing operations. Construction waste includes packaging and material that is recycled, reused, salvaged or disposed as garbage.
- B. Demolition Waste: All non-hazardous building and site materials or other non-hazardous solid waste resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing for the purpose of using the material in the manufacture of a new product.
 - 1. Source-Separated Recycling: The process of separating recyclable materials in separate containers as they are generated on the job-site. The separated materials are hauled directly to a recycling facility or transfer station.
 - 2. Co-mingled Recycling: The process of collecting mixed recyclable materials in one container on-site. The container is taken to a material recovery facility where materials are separated for recycling.
- E. Re-Use: Making use of a material without altering its form. Materials can be reused onsite or reused on other project off-site. Examples include, but are not limited to the following:
 - 1. Grinding of concrete for use as sub-base material.
 - 2. Chipping of land-clearing debris for use as mulch.

- F. Salvage: Recovery of demolition or construction waste and subsequent sale or re-use in another facility.
- G. Salvage and Re-use: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 PERFORMANCE GOALS

- A. General: Material from demolition projects shall be recycled or reused whenever practicable (RCW 39.04.135). Contractor to develop a waste management plan that results in end-of-Project rates for salvage/recycling of fifty (50%) percent by weight of total waste generated by the Work by one or a combination of the following:
 - 1. Salvage.
 - 2. Reuse.
 - 3. Source-separated Recycling.
 - 4. Co-mingled Recycling.
- B. Salvage/Recycle Goals: Owner's goal is to salvage and recycle as much non-hazardous demolition and construction waste as possible including the following materials:
 - 1. Cardboard.
 - 2. Clean dimensional wood.
 - 3. Metals: Material banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - 4. Gypsum board.

1.5 SUBMITTALS

- A. Waste Management Plan: Submit three (3) copies of plan within seven (7) calendar days of date established for the Notice of Proceed.
- B. Waste Reduction Progress Reports: Electronically submit, concurrent with Final Application for Payment, the report to the Owner. Include separate reports for demolition and construction waste. Include the following information:
 - 1. Material category.
 - 2. Generation point of waste.
 - 3. Destination of waste.
 - 4. Total quantity of waste in tons.
 - 5. Quantity of waste salvaged, both estimated and actual in tons.
 - 6. Quantity of waste recycled, both estimated and actual in tons.
 - 7. Total quantity of waste recovered (salvaged plus recycled) in tons.
 - 8. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Waste Reduction Calculations: Before request for Substantial Completion, electronically submit a copy of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work to the Owner.
- D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

- E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices. If waste is taken to a facility that landfills and recycles, include facility record of recycling rate for the period of construction.
- G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices.

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Conduct construction waste management activities in accordance with State of Washington RCW 70.95.240, Seattle Municipal Code Chapter 21.36 and all other applicable laws and ordinances.
- B. Review of the following publications and programs (request copies by calling King County Solid Waste Division at 206-477-4466)
 - 1. Construction Recycling Directory for Seattle/ King County.
 - 2. Contractors Guide: Save money and resources through job-site recycling and waste prevention.
 - 3. King County Solid Waste Division Report of Co-mingled Recycling Facilities (available at www.metrokc.gov/dnrp/swd/construction-recycling/comingled.asp)

1.7 WASTE MANAGEMENT PLAN

- A. General: Develop a plan consisting of waste identification, waste reduction work plan and cost/revenue analysis. Include separate sections in plan for demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery and handling and transportation procedures.
 - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses and telephone numbers.
 - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses and telephone numbers.

- 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses and telephone numbers
- 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address and telephone number of each landfill and incinerator facility.
- 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling and designated location on Project site where materials separation will be located.
- D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:
 - 1. Total quantity of waste.
 - 2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
 - 3. Total cost of disposal (with no waste management).
 - 4. Savings in hauling and tipping fees that are avoided.
 - 5. Handling and transportation costs. Include cost of collection containers for each type of waste.
 - 6. Net additional cost or net savings from waste management plan.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Owner. Provide handling, containers, storage, signage, transportation and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Waste Management Coordinator: Contractor shall be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 - 1. Distribute waste management plan to everyone concerned within one (1) day of submittal return. A hard copy should remain on site. Send the plan electronically to the Owner.
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling and disposal.
 - 3. The General Contractor will ensure that the waste plan is communicated to the crews and subcontractors on site. They will be informed of:
 - a. How materials should be separated, and why.
 - b. Where materials should go.
 - c. How often the materials will be collected and delivered to the appropriate facilities.
 - d. The importance of recycling, and KCHA's recycling goals for the project.

- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated and sold.
 - 2. Comply with Division 01 50 00 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection and noise control.
 - 3. Clearly label the recycling bins and waste containers on site.
 - 4. Post lists of recyclable and non-recyclable materials in many locations, in different languages.
 - 5. The General Contractor will provide feedback to the crew and subcontractors on the results of their efforts
 - E. To the greatest extent possible, include in material purchasing agreements a waste reduction provision requesting that materials and equipment be delivered in packaging made of recyclable material, that they reduce the amount of packaging, that packaging be taken back for reuse or recycling, and to take back all unused product. Ensure that subcontractors require the same provisions in their purchase agreements.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until installation.
 - 4. Protect items from damage during transport and storage.
 - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's designated off-site storage area.
 - 5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Receivers and Processors: The list below is provided for information only; available recycling receivers and processors include, but are not limited to, the following:
 - 1. Washington State Department of Ecology, Recycling, Northwest Region 425-649-7000.
 - 2. Industrial Materials Exchange (IMEX), Hazardous Waste Management Program, King County, Washington.

- 3. The "Recycling Plus Program Manual" published by the Washington State Clean Washington Center can be used to develop a job site reduction program. The manual includes a job-site recycling worksheet and form, tips on waste reduction, and other technical assistance. The manual also includes sample language for waste reduction requirements for subcontractors' agreements, as well as sample provision for a full-service recycling agreement.
- 4. LEED Reference Guide, Construction Waste Management section.
- 5. Recovery 1 is a resource recovery, recycling and research facility dedicated to developing sustainable waste management systems. www.recovery1.com or by phone at 800-949-5852.
- 6. Total Reclaim offers a wide variety of innovative environmental services for management of electronics and other hard to handle materials, including fluorescent lamps, refrigerant gases and appliances. www.totalreclaim.com or by phone 206-343-7443.
- 7. "Contractors' Guide for Preventing Waste and Recycling"

 https://kingcounty.gov/~/media/depts/dnrp/solid-waste/construction-recycling/documents/ConGuide.ashx?la=en
- 8. "Seattle/King County Construction Recycling Directory." https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/county-green-building.aspx
- C. Recycling Incentives: Revenues, savings, rebates, tax credits and other incentives received for recycling waste materials shall accrue to Owner.
- D. Procedures: Separate recyclable waste from other waste materials, trash and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

- A. Wood Materials: Sort and stack members according to size, type and length. Separate lumber, engineered wood products, panel products and treated wood materials.
- B. Metals: Separate metals by type.
 - 1. Structural Steel: Stack members according to size, type of member and length.
 - 2. Remove and dispose of bolts, nuts, washers and other rough hardware.
- C. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

- D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- E. Plumbing Fixtures: Separate by type and size.
- F. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers and other components by type and size.
- G. Lighting Fixtures: Separate lamps by type and protect from breakage.
- H. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers and other devices by type.
- I. Conduit: Reduce conduit to straight lengths and store by type and size.

3.5 RECYCLING CONSTRUCTION WASTE

A. Packaging:

- 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
- 2. Polystyrene Packaging: Separate and bag materials.
- 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
- 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Wood Materials:

- 1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
- 2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- C. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.
 - 1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.6 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 01 7419

KING COUNTY HOUSING AUTHORITY GUSTAVES MANOR ENVELOPE UPGRADE

Waste Disposal and Recycling Data Form



The resource conservation program at KCHA tracks the disposal and recycling data for all KCHA activities. These includes all of the waste and recycling generated by residents, food composting, yard waste composting, unit-improvement waste, illegal dumping waste, and all waste created during the construction and demolition process.

Our goals for all of these areas are:

- 1. Track the diversion of our waste and improve when possible
- 2. Meet KCHA recycling goals.

Please provide estimates, to the best of your ability, about the projected waste being generated on this project as well as how much of that waste is being recycled vs disposed. If estimates aren't possible, then we will need this information at project close-out.

Project Name: GUSTAVES MANOR ENVELOPE UPGRADE

107 W. MAIN STREET, AUBURN, WA 98001

Work Order No.: 1276

Job No.: 554.4

DESCRIPTION	WEIGHT	QUANTITY (Circle One)			
Total Waste Generated**		Lbs.	CY	Tons	
Waste Disposed		Lbs.	CY	Tons	
Waste Recycled		Lbs.	CY	Tons	
**Waste Disposed plus Waste Recycled should equal Total Waste Generated					
What % of the total waste do you estimate you will recycle?					

The following tables identify materials expected on this project, the quantities generated, whether they will be disposed or recycled, and what facility they will be disposed or recycled at.

DEMOLITION PHASE				
MATERIAL	QUANTITY Lbs./CY/Tons		/ RECYCLE? E ONE)	DISPOSAL OR RECYCLING FACILITY
		Disposal	Recycle	

Example: Roofing, 3 tons, Recycle, DTG Recycle

CONSTRUCTION PHASE				
MATERIAL	QUANTITY Lbs./CY/Tons		/ RECYCLE? E ONE)	DISPOSAL OR RECYCLING FACILITY
		Disposal	Recycle	

Example: Misc. Con. Mat., 30 cy, Recycle, Waste Management

SECTION 01 7700 CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Warranties.
 - 3. Final cleaning.
- B. See the Owner-Contractor Contract for requirements for Applications for Payment for Substantial and Final Completion.
- C. See Division 01 7839 Section "Project Record Documents" for submitting Record Drawings, Record Specifications and Record Product Data.
- D. See Division 01 7823 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- E. See Divisions 02 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections. Not all Sections will be used.

1.3 SUBSTANTIAL COMPLETION (Refer to Article 9.8 AIA A201-2017)

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications and similar documents (to be included in O&M Manuals).
 - 4. Obtain and submit to Owner, the releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys and similar final record information to the Owner.
 - 6. Deliver tools, spare parts, extra materials and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.

- 8. Complete startup testing of systems.
- 9. Submit test/adjust/balance records to the Owner.
- 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools and similar elements.
- 11. Advise Owner of changeover in heat and other utilities.
- 12. Submit changeover information related to Owner's occupancy, use, operation and maintenance.
- 13. Complete final cleaning requirements, including touchup painting.
- 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- 15. Provide training on all newly installed systems by qualified personnel. Training will be presented to those that use the equipment, i.e. tenants site staff, facility users.
- B. Inspection: Submit a written request for inspection for Substantial Completion to the Owner. On receipt of request, Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Owner will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Owner, that must be completed or corrected before certificate will be issued.
 - 1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 CONTRACT COMPLETION (Refer to Article 9.10 in AIA A201-2017)

- A. Preliminary Procedures: Before requesting final inspection for determining date of Contract Completion, complete the following:
 - 1. Submit a final Application for Payment according to the Owner-Contractor Contract provisions to the Owner.
 - 2. Submit to the Owner, a certified copy of Owner's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Owner. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements to the Owner.
 - 4. Instruct Owner's personnel in operation, adjustment and maintenance of products, equipment and systems.
- B. Inspection: Submit a written request for final inspection for acceptance to the Owner. On receipt of request, Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Owner will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: After Contractor has performed own Quality Control of the Work, Contractor will notify and schedule punch list inspection with Owner and other team

members. Owner will document items needing correction on Owner provided form listing area inspected and deficient item needing correction. Owner will provide Contractor with copy of punch list after inspection is completed. Owner has right to stop inspection due to quantity of repetitious items identified by Owner, or if Contractor has not performed own Ouality Control of the Work

- 1. Organize list of spaces in sequential order.
- 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment and building systems.

1.6 WARRANTIES (Refer to Article 3.5 in AIA A201-2017)

- A. Submittal Time: Submit written warranties on request of Owner for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name and name of Contractor.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains and other foreign deposits.
 - c. Remove tools, construction equipment, machinery and surplus material from Project site.
 - d. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - e. Sweep concrete floors broom clean in unoccupied spaces.
 - f. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - g. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - h. Remove labels that are not permanent.
 - i. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - j. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings and other foreign substances.
 - k. Replace parts subject to unusual operating conditions.
 - 1. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - m. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers and grills.
 - n. Clean light fixtures, lamps, globes and reflectors to function with full efficiency. Replace burned-out bulbs and those noticeably dimmed by hours of use, and defective or noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - o. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 7700

SECTION 01 7823 OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation manuals for systems, subsystems, and equipment Maintenance manuals for the care and maintenance of products, materials, finishes, systems, and equipment.
- B. See Divisions 02 through 33 Sections for specific operation and maintenance manual requirements for the Work in those Sections. Every Division may not be used.

1.3 SUBMITTALS

- A. Manual: Submit one (1) electronic copy of each manual in final form at least fifteen (15) calendar days before final inspection. Owner will return copy with comments within fifteen (15) calendar days after final inspection.
 - 1. Correct or modify each manual to comply with Owner's comments. Submit two (2) hard copies and one (1) electronic copy on Compact Disk of each corrected manual within fifteen (15) calendar days of receipt of Owner's comments.

PART 2 - PRODUCTS

2.1 MANUALS- GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain a title page, table of contents and manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.

- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem and equipment. If possible, assemble instructions for subsystems, equipment and components of one (1) system into a single binder.
 - 1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 - 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 - 4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents and drawing locations.

2.2 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and equipment descriptions, operating standards, operating procedures, operating logs, wiring and control diagrams, and license requirements.
- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include start-up, break-in and control procedures; stopping and normal shutdown instructions; routine, normal, seasonal and weekend operating instructions; and required sequences for electric or electronic systems.

- D. Systems and Equipment Controls: Describe the sequence of operation and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.3 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual; identify by product name and arrange to match manual's table of contents. For each product, list name, address and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern and texture.
 - 4. Material and chemical composition.
 - 5. Re-ordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and inspection procedures, types of cleaning agents, methods of cleaning, schedule for cleaning and maintenance, and repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.4 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual; identify by product name and arrange to match manual's table of contents. For each product, list name, address and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including maintenance instructions, drawings and diagrams for maintenance, nomenclature of parts and components, and recommended spare parts for each component part or piece of equipment.

- D. Maintenance Procedures: Include test and inspection instructions, troubleshooting guide, disassembly instructions, and adjusting instructions that detail essential maintenance procedures.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 EXECUTION

3.1 MANUAL PREPARATION

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material and finish incorporated into the Work.
- B. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem and piece of equipment not part of a system.
- C. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data includes more than one (1) item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- D. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
- E. Comply with Division 01 7700 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 7823

SECTION 01 7839 PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. See Division 01 7823 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- C. See Divisions 02 through 33 Sections for specific requirements for Project Record Documents of the Work in those Sections. Every Division may not be used.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Submit to Owner PDF **and CAD** files of scanned record prints and three (3) sets of prints.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications to the Owner.
- C. Record Product Data: Submit to the Owner, annotated PDF electronic files and directories of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous recordkeeping requirements and submittals in connection with various construction activities.
- E. Submit annotated PDF electronic files and directories of each submittal.

PART 2 PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one (1) set of black-line white prints of the Contract Drawings and Shop Drawings.

- 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
- 2. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
- 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
- 4. Note Field Authorization numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer and other information necessary to provide a record of selections made.
 - 4. Note related Change Orders, Record Product Data and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.

3. Note related Change Orders, Record Specifications and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one (1) copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Owner's reference during normal working hours.

END OF SECTION 01 7839

G703 - Continuation Sheet

SITE NAME - PROJECT NAME; Contract No. CCxxxxx65

 APPLICATION NO:
 06 FINAL

 APPLICATION DATE:
 04.19.21

 PERIOD FROM:
 04.01.21

PERIOD TO: 04.19.21 C G Α В D Ε F Η WORK COMPLETED **MATERIALS** TOTAL BALANCE TO RETAINAGE % PRESENTLY ITEM **SCHEDULED** FROM PREVIOUS COMPLETED & DESCRIPTION OF WORK **FINISH** (AGGREGATE **STORED** STORED TO DATE NO. VALUE APPLICATION(S) THIS PERIOD $(G \div C)$ TO DATE) (C - G) (D + E + F)(NOT IN D OR E) (G) Allowance & Contingencies 29,000.00 18,851.74 10,148.26 0.00 29,000.00 100.00% 0.00 1,450.00 Close out 13,523.33 6,761.00 6,762.33 0.00 13,523.33 100.00% 0.00 676.17 Bond & Insurance 24,050.00 24,050.00 0.00 0.00 24,050.00 100.00% 0.00 1,202.50 Mobilization 17,500.00 17,500.00 0.00 0.00 17,500.00 100.00% 0.00 875.00 Demo Siding and Windows 30,000.00 30,000.00 0.00 0.00 30,000.00 100.00% 0.00 1,500.00 Frame & GWB F/P, Door, Storage 19.000.00 19.000.00 0.00 0.00 19.000.00 100.00% 0.00 950.00 Deck Coatings 15.500.00 15.500.00 0.00 0.00 15.500.00 100.00% 0.00 775.00 Deck Railings 23,500.00 21,150.00 0.00 23,500.00 100.00% 0.00 1,175.00 2,350.00 Roofing incl Ladders and Hatches 57,300.00 28,650.00 28,650.00 0.00 57,300.00 100.00% 0.00 2,865.00 Roof Framing/Backing/Blocking 11.600.00 10.600.00 1.000.00 0.00 11.600.00 100.00% 0.00 580.00 Siding and Flashing Materials 43,000.00 43,000.00 0.00 0.00 43,000.00 100.00% 0.00 2,150.00 Siding Labor 47,000.00 45,000.00 2,000.00 0.00 47,000.00 100.00% 0.00 2,350.00 Window Materials 0.00 100.00% 800.00 16.000.00 16.000.00 0.00 16.000.00 0.00 15,000.00 15,000.00 0.00 0.00 15,000.00 100.00% 0.00 750.00 Window Labor Patio Door Materials 9,600.00 9,600.00 0.00 0.00 9,600.00 100.00% 0.00 480.00 0.00 490.00 Patio Door Labor 9.800.00 9,800.00 0.00 9.800.00 100.00% 0.00 Exterior Doors & Hardware Materials 13,500.00 13,500.00 0.00 0.00 13,500.00 100.00% 0.00 675.00 Exterior Door Labor 10,625.00 10,625.00 0.00 0.00 10,625.00 100.00% 0.00 531.25 **Door Hardware Materials** 2,200.00 2,200.00 0.00 0.00 2,200.00 100.00% 0.00 110.00 Gutters 4.200.00 0.00 4.200.00 0.00 4.200.00 100.00% 0.00 210.00 Flameblock Labor 15,000.00 15,000.00 0.00 0.00 15,000.00 100.00% 0.00 750.00 14,000.00 Flameblock Materials 14,000.00 0.00 0.00 14.000.00 100.00% 0.00 700.00 Blinds 8.500.00 8.500.00 0.00 0.00 8.500.00 100.00% 0.00 425.00 **Electrical & Lighting Fixtures** 12,800.00 0.00 12,800.00 12,800.00 0.00 100.00% 0.00 640.00 900.00 **Exterior Painting** 18,000.00 17,000.00 1,000.00 0.00 18,000.00 100.00% 0.00 Indirect Costs/Overhead/Profit 103.569.63 90.210.00 13,359.63 0.00 103.569.63 100.00% 0.00 5,178.48 CO 1 - Contingency (8.218.97) (8,218.97)0.00 (8,218.97)100.00% (410.95)0.00 0.00 TOTALS 575,548.99 514,297.74 61,251.25 0.00 575,548.99 100.00% 0.00 28,777.45 5% RETAINAGE 28.777.45 25,714.89 3,062.56 0.00 28.777.45 **TOTALS LESS RETAINAGE** 546,771.54 488,582.85 58,188.69 0.00 546,771.54 0.00 28,777.45 TOTAL BALANCE TO FINISH (H+I) 28,777.45 1

NET CHANGE ORDERS THIS PERIOD:(8,218.97)CHANGE ORDERS APPROVED THIS PERIOD (LIST C/O #s)NET C/O ADDITIONS (THIS PERIOD):0.00NET C/O DEDUCTIONS (THIS PERIOD):(8,218.97)TOTAL CHANGE ORDERS TO DATE:(8,218.97)

Form G702

Application and Certificate for Payment

		•	•				
TO OWNER:	King County Housing Authori	ty PROJECT	SITE NAME		APPLICATION NO:	06 FINAL	Distribution to:
	Attn: Capital Construction Dept.	NAME / SCOPE			PERIOD TO:	04.19.21	OWNER: X
	700 Andover Park W. Suite C	OF WORK:	PRO	JECT NAME	CONTRACT NO:	CCxxxxx65	ARCHITECT:
	Tukwila, WA 98188				CONTRACT DATE:	11/16/2020	CONTRACTOR:
FROM	CONTRACTOR NAME	VIA	ARC		NTP DATE:	11/16/2020	FIELD:
CONTRACTOR:	CONTRACTOR ADDRESS	ARCHITECT:	119 S. MAIN ST		PROJECT NO:	215.1B	:
	CITY, STATE, ZIP		SEATTLE, WA	98104-2579	WORK ORDER NO:	1243	
CONTRACTO	DIC ADDI ICATION FOR D	AVMENT		The undersioned Contractor	certifies that to the ho	est of the Contractor'	s knowledge, information and
CONTRACTO	R'S APPLICATION FOR P	ATWENT		•			pleted in accordance with the
Application is made	for payment, as shown below, in conne	ection with the Contr	act.	•	* *	•	r for Work for which previous
Continuation Sheet,	Form G703, is attached.			Certificates for Payment we	re issued and payments	received from the Ov	wner, and that current payment
1. ORIGINAL CONTR	ACT SUM		\$583,767.96	shown herein is now due.			
2. NET CHANGE BY	CHANGE ORDERS		(\$8,218.97)	CONTRACTOR:			
3. CONTRACT SUM	TO DATE (Line 1 +/- 2)		\$575,548.99	By:		Date:	
4. TOTAL COMPLETI	ED & STORED TO DATE (Column G on	G703)	\$575,548.99			_	
5. RETAINAGE:				State of:			
a. 5 % of	Completed Work			County of:			
(Column D + I	E on G703: \$575,548.99)	\$28,777.45		Subscribed and sworn to bef	ore		
b. 5 % of	Stored Material		_	me this	day of		
(Column F on			_	Notary Public:			
Total Retainage (Lin	nes 5a + 5b or Total in Column I of G70	03)	\$28,777.45	My Commission expires:			
			*	OWNER'S REPRES	SENTATIVE CER	RTIFICATE FO	R PAYMENT
	ESS RETAINAGE		\$546,771.54				
(Line 4 Less L	,		****				tions and the data comprising
	CERTIFICATES FOR PAYMENT		\$488,582.85				her that to the best of the bessed as indicated, the quality
,	prior Certificate)		Φ50 100 60				ntract is entitled to payment of
	NT DUE	•••••	\$58,188.69	the AMOUNT CERTIFIED		cuments, and the Cor	mace is chimed to payment of
	ISH, INCLUDING RETAINAGE	¢20 777 <i>15</i>					\$58,188.69
(Line 3 Less L	ine 6)	\$28,777.45	_	AMOUNT CERTIFIED			. ,
				(Attach explanation if amore Application and on the Cont	0 00 0	* *	ed. Initial all figures on this with the amount certified.)
CHANGE ORDER S	UMMARY	ADDITIONS	DEDUCTIONS	OWNER'S REPRESENTATIVE	<u>:</u>		
Total changes appro	ved in previous months by Owner	\$0.00	\$0.00	By:		Date:	
Total approved this r	month. (CO numbers listed below)	\$0.00	(\$8,218.97)	This Cartificate is not recent	inhla Tha AMOUNT C	EDTIFIED is payable	e only to the Contractor named
#s:	1 TOTALS	\$0.00	(\$8,218.97)				lice to any rights of the Owner
NET CHANGES by (Change Order		(\$8,218.97)	or Contractor under this Cor		1 -5	, ,

GENERAL CONTRACTOR CERTIFICATION UPON APPLICATION FOR PAYMENT

OWN		King County Housing Authorit			06
	ERAL CONTRACTOR:	CONTRACTOR NAME	DATE: PERIOD FR		04.01.21
	ECT NAME:	SITE NAME	THROUGH		04.19.21
	PE OF WORK:	PROJECT NAME	CONTRACT NUMB		CCxxxxx65
1	ODICINIAL CONTD	ACT ANACHINIT.		<u> </u>	F02 767 06
1.	ORIGINAL CONTR			\$	583,767.96
2.	APPROVED CHAN	• •		\$	(8,218.97)
3.	CURRENT CONTR		IFNIT.	\$	575,548.99
4.		VIOUS CERTIFICATES FOR PAYM		\$	488,582.85
5.	AMOUNT OF CUF	RRENT CERTIFICATE FOR PAYME	ENT REQUEST:	\$ <u> </u>	58,188.69
By su	-	panying Application for Paymer	nt, the Contractor certifies	s, agrees an	d warrants to the Owner as
1.	whose charges w	as made full payment to all la rere included in any prior Appli matters set forth below or on ar	ication for Payment, subje		
2.		nows of no one making a claim will be paid when the current ent hereto.	• •		• • • • • • • • • • • • • • • • • • • •
3.	demands against for Payment, sub	of payments made by Owner, to Owner and the Project for all project for all project only to (a) receipt of payment below or on an attachment here	periods up to and including ent of the current Applicat	the period	covered by this Application
	EXCEPTION(S) - DESCRII	rTION:			AMOUNT:
GENE	RAL CONTRACTOR NA	ME:	CONTRACTO	R NAME	
BY AL	JTHORIZED SIGNER:	PRINT NAI	ME	TITLE	DATE
	of Washington ty of King				
and s		satisfactory evidence that ged that (he/she) signed this instrued in the instrument.	iment and acknowledged it to		son who appeared before me, free and voluntary act for the
Signe	d before me on this _	Day of			SEAL
	Notary Public in an	d for the State of Washington			
	My Commission Exp	pires:			

SUBSTITUTION REQUEST Project: Sub. Request #: From: To: Date: A/E Project #: Re: Contract For: Specification Title: Description: Page: Article / Paragraph: Proposed Substitution: Manufacturer: Address: Phone: Trade Name: Model No .: Installer: Address: Phone: 2 - 5 years old 5 - 10 years old More than 10 years old History: ☐ New Product Differences between proposed substitution and specified product: Point-by-point comparative data attached - REQUIRED BY A/E Reason for not providing specified item: Similar Installation: Project: Architect: Address: Owner: Date Installed: Proposed substitution affects other parts of Work: ☐ No Yes; explain: Savings to Owner for accepting substitution: (\$ Proposed substitution changes Contract Time: □ No ☐ Yes (If Yes): Add Deduct days. * If Contract time is to be extended, a Change Order must be prepared. Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent
 are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, included A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

A/E's REVIEW AND ACTION Substitution approved - Make submittals in accordance with Specification Section 01 3300. Substitution approved as noted - Make submittals in accordance with Specification Section 0 13300. Substitution rejected - Use specified materials. Substitution Request received too late - Use specified materials. Signed by: Date: Additional Comments: Contractor Subcontractor Subcontractor Manufacturer A/E	Address: Felephone: Attachments:					
Substitution approved - Make submittals in accordance with Specification Section 01 3300. Substitution approved as noted - Make submittals in accordance with Specification Section 0 13300. Substitution rejected - Use specified materials. Substitution Request received too late - Use specified materials. Signed by: Date:						
	☐ Substitution approve	ed - Make submittal				
	Substitution rejected Substitution Reques	l - Use specified ma t received too late -	aterials. Use specified materials	als.		
	Substitution rejected Substitution Reques Signed by:	- Use specified materic treceived too late -	aterials. Use specified materia	als.	Date:	
	Substitution rejected Substitution Reques Signed by:	- Use specified materic treceived too late -	aterials. Use specified materia	als.	Date:	

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes selective demolition and removal of building and site elements as indicated on drawings including but not limited to:
 - 1. Removal of existing stucco siding and trim,
 - 2. Removal of existing membrane roofing,
 - 3. Removal of existing damaged roof insulation and sheathing,
 - 4. Removal of existing flashing,
 - 5. Removal of existing roof downspouts and lower roof gutters,
 - 6. Removal of existing unit deck doors, frames, hardware, exterior trim and interior trim,
 - 7. Removal of existing exterior windows, exterior trim, and window coverings,
 - Removal of existing roof plumbing vent flashings and boots,
 - 9. Removal of existing antenna and associated cable,
 - 10. Removal of existing exterior unit lights and return to owner,
 - 11. Salvage existing balcony railings,
 - 12. Salvage existing lower access doors, frames, exterior trim and interior,
 - 13. Salvage existing roof access door frames, removal of existing roof access thresholds and hardware,
 - 14. Salvage existing roof vent caps,
 - 15. Salvage existing roof access hatch,
 - 16. Salvage existing signage for reinstallation,
 - 17. Protect existing sheathing and insulation.
- **H**. Protect existing building and site elements scheduled to remain during demolition activities and while new work is being installed.

1.2 REFERENCES

- A. 29 CFR 1926- U.S. Occupational Safety and Health Standards; current edition.
- H. NFPA 241- Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2009.

1.3 SUBMITTALS

- A. See Division 1 Project Administration. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.
- **H**. Schedule: Submit for approval selective demolition schedule, including schedule for any interruption of utility service to affected units.
- C. Site Plan: Showing:
 - 1. Vegetation to be protected.
 - 2. Restore landscaping at areas disturbed by construction.
 - 3. Areas for temporary construction and field offices.
 - 4. Areas for temporary and permanent placement of removed materials.
- 1). Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
 - 2. Identify demolition firm and submit qualifications.
 - 3. Include a summary of safety procedures.

- 4. Indicate protection and separation of occupied premises.
- 5. Continuity of site utilities: Underground utilities, including water, telephone, data, cable television, gas must remain in full operation during the work.
- !!. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.
- F. Schedule of demolition activities to be updated at each scheduled construction meeting.
 - 1. Indicate detailed sequence of demolition and removal work with starting and ending dates for each activity.
 - 2. Indicate any interruption of services.
 - 3. Indicate locations of temporary protection from the work and means of egress from the building.

1.4 QUALITY ASSURANCE

A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers. Maintain watertight integrity as needed to protect construction to remain from structural and environmental damage.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 60 00.

1.6 PROJECT CONDITIONS

- A. Building to be selectively demolished will remain fully occupied during the construction sequence. Isolating work areas to limit dust, dirt, noise and debris is critically important during the construction process.
- **B.** Protection of Existing Improvements: Provide, erect and maintain barricades, coverings, or other types of protection necessary to prevent damage to existing improvements. Restore any site improvements, including but not limited to landscaping, pavement, walks, structures, fences and planters, damaged by this work to their original condition, as acceptable to Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 SCOPE

- A. Remove portions of existing buildings as indicated on the drawings.
- B. Salvage items indicated for salvage, relocation or recycling.
- C. Restore landscaping to 'like-new' condition at areas disturbed by construction.
- 1). Do not damage building elements and improvements indicated to remain.
- If. Occupied Spaces: The site and buildings will remain occupied during the work of this project. Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner; Owner requires minimum seven (7) days' notice. Email notice to Owner's Project Manager is acceptable as official "written notice".

3.2 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Refer to Section 01 74 19 Construction Waste Management and Disposal for additional requirements.
 - 2. Obtain required permits.
 - 3. Comply with applicable requirements of NFPA 241.
 - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 5. Provide, erect and maintain temporary barriers and security devices.
 - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 8. Do not close or obstruct roadways or sidewalks without permit.
 - 9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Prevent movement of structure; provide shoring and bracing necessary to execution of work.
 - 2. Stop work immediately if adjacent structures appear to be in danger.
 - 3. Perform cutting to accomplish removals as specified in Section 01 73 29 Cutting and Patching.
 - 4. Repair adjacent construction and finishes damaged during removal work to like new condition as specified in Section 01 73 29 Cutting and Patching.
- 1). Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- If hazardous materials are discovered during removal operations, stop work and notify the Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.

3.3 TEMPORARY PROTECTION

- A. Existing building envelope, including roof decking, shall remain watertight at all times throughout the construction process.
- B. Provide temporary protective sheeting over uncovered deck surfaces.
- C. Do not permit traffic over unprotected or repaired deck surface.

3.4 EXISTING UTILITIES

A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.

- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- 1). Do not close, shut off, or disrupt existing life safety systems that are in use without at least seven (7) days' prior written notification to Owner.
- 1. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least seven (7) days' prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- (i. Remove exposed piping, valves, meters, equipment, supports and foundations of disconnected and abandoned utilities.

3.5 SELECTIVE DEMOLITION FOR 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 shown.
 - 2. Report discrepancies to Owner before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions.
- B. 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 indicated on drawings in locations of work.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- 1). Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
- 14. Services (including but not limited to HVAC, Plumbing, Fire Protection, Electrical and Telecommunications): Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. 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.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.

3.6 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk and trash from site. Do not allow demolished materials to accumulate on site. See Division 1 Project Administration for compliance with Waste Management requirements and procedures. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.
- B. Remove from site all materials not to be reused on site.

- C. Leave site in clean condition, ready for subsequent work.
- 1). Clean up spillage and wind-blown debris from public and private lands.

3.7 SCHEDULE

- A. Items for Protection during Demolition and Construction:
 - 1. Common spaces and exterior walkways, including entryways.
 - 2. Adjacent construction.
 - 3. As required.

END OF SECTION

- 2. Identify demolition firm and submit qualifications.
- 3. Include a summary of safety procedures.
- 4. Indicate protection and separation of occupied premises.
- 5. Continuity of site utilities: Underground utilities, including water, telephone, data, cable television, gas must remain in full operation during the work.
- E. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.
- F. Schedule of demolition activities to be updated at each scheduled construction meeting.
 - 1. Indicate detailed sequence of demolition and removal work with starting and ending dates for each activity.
 - 2. Indicate any interruption of services.
 - 3. Indicate locations of temporary protection from the work and means of egress from the building.

1.4 QUALITY ASSURANCE

A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers. Maintain watertight integrity as needed to protect construction to remain from structural and environmental damage.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 60 00.

1.6 PROJECT CONDITIONS

- A. Building to be selectively demolished will remain fully occupied during the construction sequence. Isolating work areas to limit dust, dirt, noise and debris is critically important during the construction process.
- B. Protection of Existing Improvements: Provide, erect and maintain barricades, coverings, or other types of protection necessary to prevent damage to existing improvements. Restore any site improvements, including but not limited to landscaping, pavement, walks, structures, fences and planters, damaged by this work to their original condition, as acceptable to Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 SCOPE

- A. Remove portions of existing buildings as indicated on the drawings.
- B. Salvage items indicated for salvage, relocation or recycling.
- C. Restore landscaping to 'like-new' condition at areas disturbed by construction.
- D. Do not damage building elements and improvements indicated to remain.
- E. Occupied Spaces: The site and buildings will remain occupied during the work of this project. Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of

the Owner; Owner requires minimum seven (7) days' notice. Email notice to Owner's Project Manager is acceptable as official "written notice".

3.2 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Refer to Section 01 74 19 Construction Waste Management and Disposal for additional requirements.
 - 2. Obtain required permits.
 - 3. Comply with applicable requirements of NFPA 241.
 - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 5. Provide, erect and maintain temporary barriers and security devices.
 - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 8. Do not close or obstruct roadways or sidewalks without permit.
 - 9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Prevent movement of structure; provide shoring and bracing necessary to execution of work.
 - 2. Stop work immediately if adjacent structures appear to be in danger.
 - 3. Perform cutting to accomplish removals as specified in Section 01 73 29 Cutting and Patching.
 - 4. Repair adjacent construction and finishes damaged during removal work to like new condition as specified in Section 01 73 29 Cutting and Patching.
- D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. If hazardous materials are discovered during removal operations, stop work and notify the Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.

3.3 TEMPORARY PROTECTION

- A. Existing building envelope, including roof decking, shall remain watertight at all times throughout the construction process.
- B. Provide temporary protective sheeting over uncovered deck surfaces.
- C. Do not permit traffic over unprotected or repaired deck surface.

3.4 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least seven (7) days' prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least seven (7) days' prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports and foundations of disconnected and abandoned utilities.

3.5 SELECTIVE DEMOLITION FOR 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 shown.
 - 2. Report discrepancies to Owner before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions.
- B. 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 indicated on drawings in locations of work.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
- E. Services (including but not limited to HVAC, Plumbing, Fire Protection, Electrical and Telecommunications): Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. 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.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.

3.6 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk and trash from site. Do not allow demolished materials to accumulate on site. See Division 1 Project Administration for compliance with Waste Management

requirements and procedures. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.

- B. Remove from site all materials not to be reused on site.
- C. Leave site in clean condition, ready for subsequent work.
- D. Clean up spillage and wind-blown debris from public and private lands.

3.7 SCHEDULE

- A. Items for Protection during Demolition and Construction:
 - 1. Common spaces and exterior walkways, including entryways.
 - 2. Adjacent construction.
 - 3. As required.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes architectural precast concrete including but not limited to:
 - 1. Precast concrete sill at fiber cement transition to brick veneer,
 - 2. Precast cap at planter assembly.

1.2 REFERENCES

- A. American Concrete Institute (ACI):
 - ACI 301 Specifications for Structural Concrete for Buildings.
 ACI 318 Building Code Requirements for Reinforced Concrete.
- B. ASTM International (ASTM):
 - 1. ASTM A36 Standard Specification for Carbon Structural Steel
 - 2. ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) Coating on Iron and Steel Hardware
 - 3. ASTM A615 Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
 - 4. ASTM C33 Standard Specification for Concrete Aggregates
 - ASTM C39 Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 - 6. ASTM C260 Specification for Air-Entraining Admixtures for Concrete
 - 7. ASTM C979 Standard Specification for Pigments for Integrally Colored Concrete
- C. Architectural Precast Association (APA): Web Site http://www.archprecast.org
- D. Precast/Prestressed Concrete Institute (PCI): Web Site http://www.pci.org .
 - 1. PCI MNL-117 Manual for Quality Control for Plants and Production of Architectural Precast Concrete
 - 2. PCI MNL-120 Design Handbook Precast and Prestressed Concrete
 - 3. PCI MNL-122 Architectural Precast Concrete
 - 4. PCI MNL-135 Tolerance Manual for Precast and Prestressed Concrete Construction

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ACI 318, Building Code Requirements for Reinforced Concrete; CRSI Manual of Standard Practice; PCI MNL 117, Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products.
- C. Fabrication and Erection Tolerance Limits: PCI MNL 117.

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1.5 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 01651and manufacturer's instructions.
- B. Provide blocking and lateral support during transportation and storage to prevent damage.
- C. Verify undamaged condition before acceptance at Site.
- D. Support and handle consistent with shape and design to prevent damage to edges.
- E. Cover, store, and protect to prevent staining, chipping, and spalling or concrete.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Architectural Precast Concrete:
 - 1. Application: Precast concrete sills and caps.
 - 2. Manufacturers: Olympian Precast, Inc; Northwest Precast; Diamond Concrete Products.; or approved equal.
 - 3. Dimensions: Per Drawing.
 - 4. Surface Finish: Smooth finish.
 - 5. Cement: Portland Cement Type I/II gray conforming to ASTM C-150...
 - 6. Design Mix: 5000 psi, 28-day compressive strength, 4 to 6 percent total air content.
 - 7. Components:
 - a. Reinforcing Steel: ASTM A 767, Class II, galvanized.
 - b. Fine Aggregate for Facing Mixes: ASTM C 33.
 - c. Coarse Aggregate for Facing Mix: ASTM C 33.
 - d. Pigments: Nonfading lime resistant pigments.
 - e. Concrete Admixtures: Containing less than 0.1 percent chloride ions, ASTM C-494.
 - 8. Anchor Bolts: ASTM A 307.
 - a. Steel Finish: ASTM A 153, galvanized.
 - b. Nonmetallic shrinkage-resistant grout, ASTM C 1107.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Tolerance: 1/4 inch in 20 feet for plumb and location. 1/8 inch at adjacent units and reglets.
- C. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

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PART 1 GENERAL

1.1 SUMMARY

A. Section includes thin brick panel systems.

1.2 REFERENCES

A. ASTM International (ASTM):

- 1. ASTM C 216 Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale); severe weather grade kiln-fired brick.
- ASTM C 270 Standard Specification for Mortar for Unit Masonry; specially formulated mortar mix.
- ASTM C 513 Standard Test Method for Obtaining and Testing Specimens of Hardened Lightweight Insulating Concrete for Compressive Strength; for bricks, minimum compression strength of 1000 PSI.
- 4. ASTM C 666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing, brick, pass.
- 5. ASTM C 1088 Standard Test Method for Thin Veneer Brick Units Made From Clay or Shale; severe weather grade kiln-fired brick.
- 6. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- 7. ASTM E 754 Standard Test Method for Pullout Resistance of Ties and anchors Embedded in Masonry Mortar Joints.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's installation instructions, showing required preparation and installation procedures.
 - 2. Storage and handling requirements and recommendations.
 - 3. Cleaning and maintenance instructions.
- B. Shop Drawings: Provide drawings prepared by the applicator/contractor showing the wall layout, typical details, connections, expansion joints, plus the installation sequence shall be submitted shall be submitted to the Owner upon request. Shop drawings shall include the following:
 - 1. Submit elevations, sections and details of assembly components; indicate locations and configurations.
 - 2. Show sequence of installation, attachment details, and weather sealing.
 - Show location of members, other items of work and related work of other Sections to be coordinated with work of this section.
 - 4. Submit detail drawings depicting proper installation and flashing techniques. Coordinate locations with those found on the Drawings.

C. Quality Assurance Submittals:

- 1. Copies of test reports by independent laboratories verifying the performance of the system shall be submitted to the Owner upon request.
- 2. The certified applicator/contractor shall submit a copy of his current training certificates to the Owner prior to the application of the thin brick panel system.
- D. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- E. Warranty: Copy of manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

- A. Single Source Requirements: Provide primary and secondary components required for installation of thin brick panel systems from a single source.
- B. Manufacturer Qualifications: Minimum 20 years' experience manufacturing similar products.
- C. Installer Qualifications:
 - 1. Received instruction by manufacturer's personnel in the installation of the thin brick panel system.
 - 2. Five-Years experienced and competent in the installation of thin brick panel systems.

D. Performance Testing:

- 1. TAS 201 Large Missile Impact Test
- 2. TAS 202 Uniform Static Pressure Test
- 3. TAS 203 Cyclic Wind Pressure Load Test
- 4. E84 Flame Smoke Test
- 5. E754 Shear Pull Test
- 6. NFPA 285 All combustible components being required & used in part or as part of the projects composite wall assembly (such as; insulation, weather resistive barrier, sheathing & adhesives) required to meet the NFPA 285 requirements unless otherwise exempt (see Part 2 "Products" 2.2 H. Insulation Board & 2.2 I. WRB).
- E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. The mock-up shall demonstrate the proposed range of color, texture, and workmanship to be expected in completed work.
 - 2. Locate mock-up on site in location as directed by Owner. Clean the sample panel installation using the same materials and tools as planned for the final construction.
 - 3. Obtain Owner's acceptance of mock-up before start of work.
 - 4. Do not proceed with remaining work until workmanship, color, style, pattern, and texture are approved by Owner.
 - 5. Modify mock-up area as required to produce acceptable work.
 - 6. Remove mock-up at the completion of the work.
 - 7. Mock-up may be incorporated into the work.
- F. Conduct a pre-installation meeting to verify all products, application procedures, site conditions and warranty terms. Conduct in accordance with Section 01310.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Materials shall be delivered to the location in unopened factory containers. Upon arrival, materials shall be inspected for damage and manufacturer informed of any discrepancies. Deficient materials shall not be used.
- B. Materials shall be stored in a protected location and safeguarded from damage.

1.6 PROJECT CONDITIONS

- A. The ambient air temperature shall remain at 36 degrees F (2.2 degrees C) or greater for at least 72 hours after the application of mortar.
- B. Flashing and sealants shall be installed immediately after completion of the system. For outdoor application, provide temporary protection as needed from precipitation, wind, airborne dust and debris, and similar items.
- C. Provide protection of surrounding areas and adjacent surfaces from application of thin brick panel systems.

1.7 COORDINATION / SCHEDULING

- A. The work in this section requires close coordination with related specifications sections and trades. Proper labor and equipment shall be employed to ensure a continuous operation satisfactory to the Owner.
- B. Coordinate installation of thin brick panel systems with related wall elements, including, windows, doors, louvers, ducts, signage, flashings, sealants, weather resistive barrier, sealant tapes and membranes, supporting wall framing and sheathing, surface mounted objects, and similar items.
 - 1. Coordinate with installation of flashing, coping and sealants to ensure that materials are installed in accordance with manufacturer's instructions.
 - 2. Coordinate with installation of surface-mounted objects to ensure that watertight seal is provided.

1.8 WARRANTY

A. Manufacturer's Warranty: Standard 20-year limited warranty, which include all thin brick panel system components manufactured &/or supplied.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 BRICK PANEL SYSTEMS

- A. Brick Panel Systems: System for aligning and locking thin brick to a substrate that does not depend on adhesive for its performance.
 - 1. Manufacturers: Brick-it, Glen-Gery, Kingspan, or approved equal.
 - a. Basis of Design: Brick-It (G90) Continuous Insulation Panel System.
 - 2. Metal Grid System Panels: Galvanized steel metal components formed to align brick courses and to support and ensure a mechanical bond of each brick in place.
 - a. Panels shall be chem-dry treated and be a minimum 0.0149-inch (0.36 mm) thickness with continuous carrying brick ledges (every course of brick) with minimum thickness per ledge: 0.028 inch (0.71 mm).
 - b. Panels shall have a continuous interlock every third course, minimum thickness, 0.042 inch (1.07 mm).
 - c. Panels shall be able to fold out comers, door and window sections, and have a continuous linear array of holes to receive adhesive and have a continuous array of mortar receptors to lock in mortar mix.
 - d. Panels shall be designed to carry brick load evenly on entire wall surface without the use of footings, starter angles or special corner sections.
 - e. Size: Spacing for Brick Veneer (2-1/2").

B. Brick:

- 1. Manufacturers: Belden Brick; Endicott Clay Products; Glen-Gery Corp.; Mutual Materials; or approved equal.
 - a. Basis of Design: Mutual Materials
- 2. Brick: Kiln-fired brick 1/2 to 1 inch (13 mm to 25 mm) nominal thickness, meeting ASTM C 216 (for cut Face Brick) &/or ASTM C 1088 (for extruded Thin Brick), Grade SW, Type TBS, TBX, FBS, FBX, &/or PCI requirements.
 - a. Color: To be chosen and approved by Owner from www.brickit.com library &/or approved equal.

- C. Mortar: Brick-it Type "S" premixed mortar supplied by to meet ASTM C 270 or approved equal.
 - 1. Color selected by the Owner from manufacturer's full range of standard available mortar color options.

D. Accessories

- 1. Stainless Steel Finished Edge Strip: L-shaped profile with 1/2" top section and straight anchoring leg, matte black aluminum, Schulter-Jolly by Schulter Systems or approved equal.
- 2. Fasteners: Manufacturer's recommended non-corrosive ribbed nails, screws or staples, designed for applicable substrate or approved equal.
- 3. Adhesives: Manufacturer's recommended high solid, solvent based silicone or construction adhesive that remains flexible and unaffected by freeze-thaw cycles (cut brick requires the use of manufacturer's recommended silicone adhesive only).
- 4. Water: Shall be clean, potable, and free of all foreign matter.
- 5. Insulation Board: Green Guard, Owens Corning or Dow, minimum 25 PSI, 2" XPS or approved equal.
- 6. Weather Resistive Barrier: As specified in Section 072500.
- 7. Rain Screen &/or Drainage Mat: Green Guard DC14, MTI Sure Cavity 3mm or 5mm or approved equal.
- 8. Cleaner: Prosoco, Deidrich Technologies or approved equal approved for use by thin brick manufacturer.
- 9. Masonry Sealer: Manufacturer's recommended sealer, applied to brick and mortar joints.
- 10. Sealant Systems: Acceptable to manufacturer, color as selected by Owner. Joint design and surface preparation shall be based on sealant manufacturer's recommendation and project conditions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to installation, examine substrate for conditions including soundness, tightness of connections, crumbling or looseness of surfaces, and projections. Verify substrate is acceptable to authorities having jurisdiction prior to installation of the work of this Section.
- B. Report deviations from the requirements of project specifications or other conditions that might adversely affect the installation to the Contractor. Do not start work until deviations are corrected.

3.2 SUBSTRATE PREPARATION

- A. Repair damaged or cracked surfaces. Prepare substrate to be flat, within 1/8 inch (3.2 mm) within any 4 foot (1.2 m) square area.
- B. Remove surface contaminants on concrete and concrete masonry surfaces, such a form release oils, dust, paint, waterproofing, and similar items. If required by manufacturer, apply conditioner to substrate by sprayer or roller to chalking or excessively absorptive surfaces.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's written instructions as applicable to each type of substrate required. Install bricks to specified pattern and mortar.
- B. Metal Grid: Apply to substrate surface in the true level rows, interlock at every panel. Install such that panel does not extend 1/4 inch (6 mm) below the face of the brick.
 - 1. Offset vertical grid joints and leave 1/4 inch (6 mm) between joints. Install for brick to extend past grid by 1/2 inch (13 mm) at grid ends.

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- 2. Fasten grid system to a sound substrate or wall with a non-corrosive fastener; minimum penetration of substrate is 1 inch (25 mm). Concrete and masonry walls require fasteners and adhesive on rear of metal grid.
- 3. Install fasteners on an average of 3 per square foot (0.1 square meters) and at top and bottom courses vertically and a maximum of 16 inches (406 mm) on center horizontally.

C. Adhesive:

- 1. Brick shall be spaced to ensure that the head joints do not exceed 5/8 inch (16 mm) or fall below 1/4 inch (6.5 mm). The optimum head joint size is 7/16 inch (11 mm).
- 2. Use adhesive supplied by manufacturer. For exterior installations, apply 3/8 inch (9.5 mm) vertical dabs. For interior applications, apply 3/8-inch (9.5 mm) beads over adhesive holes as shown in manufacturer's literature.
- 3. Do not use excessive adhesive as this will cause bricks to tilt away from grid. Check periodically and repress to grid.
- 4. Allow adhesive 24 hours to dry before mortaring.

D. Brick Placement:

- 1. Applications Requiring Corners:
 - a. Start with corner brick, or a corner brick at each corner if there are corners at both ends.
 - b. Install bricks adjusting vertical joints for fit or cut brick as required.
- 2. Applications that do not required corners:
 - a. Install bricks in direction of arrows as shown in manufacturer's literature.
 - b. Place adhesive on two rows of grid in the middle of wall.
 - c. Adjust vertical joints to fit area, 3/8 inch to 1/2 inch (9.5 mm to 13 mm), to fit wall space.
 - d. Cut end bricks as needed. Install bricks horizontally than vertically.
 - e. Draw a plumb vertical line every 48 inches (1219 mm) to help maintain spacing.

E. Mortar:

- 1. Allow adhesive to fully cure before mortaring joints.
- 2. Use clean, cold water to mix mortar. Flush hoses regularly; especially during warm weather.
- 3. Slightly dampen bricks before mortaring; especially during hot weather.
- 4. Mix properly and test a sample area.
- 5. Do not apply mortar to brick panel system when the ambient outdoor temperature is below 36 degrees F (2.2 degrees C) unless temporary protection and heat can be provided for a minimum of 36 hours after installation.
- 6. Apply mortar into horizontal joints first, then vertical joints. Over fill joints with enough mortar to avoid leaving any voids. When mortar attains a firm consistency joints shall be tooled.
- 7. Use the joint tool supplied with the mortar kit to strike joints. Press the tool against the joint and strike joint to fill and seal mortar to edges of brick. Strike the vertical joints first than horizontal joints. Provide concave finish. Fill voids.
- F. Sealer: Apply only after mortar joints are thoroughly cured. Allow a minimum of 2 weeks prior to application.
 - 1. Seal exterior applications in accordance with manufacturer's recommendations.
 - 2. Seal interior applications in accordance with manufacturer's recommendations.

3.4 FIELD QUALITY CONTROL

A. Arrange and pay for project inspection by manufacturer or its authorized representative to confirm warranty will be provided. Notify Owner 48 hours in advance of inspection.

3.5 CLEANING AND PROTECTION

- A. Cleaning: As recommended by manufacturer. Do not begin cleaning until mortar joints are properly cured. Allow a minimum of 24 to 72 hours. Soak bricks and mortar joints before applying cleaner.
 - 1. Thoroughly flush wall after cleaning.
 - 2. Clean adjacent materials and surfaces of all foreign materials resulting from the work of this Section.

B. Protection:

- 1. Protect installed materials from water impinging on the visible surface, chinking, sealants joints, and from behind.
- 2. Protect installed materials from dust, dirt, precipitation, freezing, damaged, spilled materials, and continuous high humidity until they are fully dry.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes shop-applied coatings including but not limited to:
 - 1. Shop applied coating at miscellaneous steel.

1.2 REFERENCES

A. ASTM International:

- 1. ASTM B 117 Practice for Operating Salt Spray (Fog) Apparatus.
- 2. ASTM D 1654 Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- 3. ASTM D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- 4. ASTM D 2247 Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
- 5. ASTM D 3363 Standard Test Method for Film Hardness by Pencil Test.
- 6. ASTM D 4214 Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Provide in the same order as scheduled by this Section:
 - 1. Manufacturer's Product Data Sheets for each product.
 - a. Performance features, substrate recommendations, primer recommendations (where required), and product limitations.
 - b. Recommended dry film thickness.
 - c. Solids by weight.
 - d. Solids by volume.
 - 2. Product/Label Analysis for paint products:
 - a. Pigment and vehicle percentages by weight.
 - b. Pigment composition analysis, including fillers in percent by weight.
 - c. Vehicle Composition analysis, including resins, solvents, and additives by weight.
 - 3. Material Data Safety Sheets (MSDS):
 - a. Solvents, driers, additives, and fillers.
 - b. Volatile organic compounds (VOC) emissions in grams per liter.
 - 4. Finish Coat System Product Testing Results:
 - a. Abrasion resistance.
 - b. Color retention.
 - c. Gloss retention.
 - d. Salt Fog Spray Test.
- C. Samples for Verification: For each coating product, for each color, gloss, and texture specified, on specified substrate.

- D. Product test reports.
- **L**. Qualifications: For shop-applied coatings Applicator.
- F. Maintenance data.
- G. Warranty: Sample of special warranty.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Employ locally available technical field representative, testing equipment, and services as necessary to perform inspections, observations, and to determine compliance with manufacturer's instructions and provisions of Contract Documents.
- **B**. Applicator Qualifications:
 - 1. Company with employees specializing in work of this Section.
 - 2. Able to list minimum 3 projects within last 3 years documented experience showing satisfactory performance for projects of equivalent size and scope.
 - 3. Employ qualified journeymen painters, apprentices under direction of qualified journeymen, in accordance with trade regulations.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 01 60 00.
- B. Deliver, unload, and store shop-coated items so that they remain free of damage or deformation. Package and protect items during shipping and handling. Protect stored items from water; stack to facilitate drainage. Keep shop-coated items out of contact with materials that may adversely affect the coating.
- C. Protect shop-coated items with protective covering until installed.

1.6 WARRANTY

- A. Conform to Warranty provisions specified Section 01 77 00.
- **B**. Coating Warranty: Coating Applicator's warranty in which Applicator agrees to repair finish or replace coated items that demonstrate deterioration of shop-applied finishes within warranty period indicated.
 - 1. Exposed Coating: Deterioration includes but is not limited to:
 - a. Color fading in excess of 5 Delta E Hunter units per ASTM D 2244.
 - b. Peeling, checking, or cracking of coating adhesion to metal.
 - c. Chalking in excess of a No. 8 per ASTM D 4214, when tested per Method D 659.
 - d. Corrosion of substrate in excess of a No. 6 on cut edges and a No. 8 on field surfaces, when measured per ASTM D 1654.
 - 2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Provide shop-applied coatings manufactured by PPG Industries, Inc., Pittsburgh, PA, (888) 774-4332, Email: ideascapes@ppg.com; Website: www.ppgideascapes.com

- 1. PPG Ultradurable formulation.
- 2. PPG Ultradurable clear coat.
- **B.** Substitution Requests: Conform to provisions of Section 01 60 00 for products specified by this Section.

2.2 REGULATORY REQUIREMENTS

- A. Conform to requirements of Section 01 40 00.
- B. Shop Applied Coatings: Conform to State of Washington and US Environmental Protection Agency for maximum volatile organic compound (VOC) emissions.

2.3 SHOP GALVANIZED FINISHES

- A. Where galvanized finishes are specified, conform to the following:
 - Galvanized Structural Steel Members: Hot-dip zinc-coat galvanize after fabrication, ASTM A123. Zinc coat galvanize exterior steel, including steel embeds, steel in contact with masonry and concrete, weldments, connectors, and other miscellaneous steel framing exposed to weather, except as otherwise indicated.
 - a. Up to 3/16 Inch Thick Steel: 2.0 oz average and 1.8 oz minimum.
 - b. 1/4 Inch and Thicker Steel: 2.3 oz average and 2.0 oz minimum.
 - 2. Galvanized Sheet Steel: As specified by applicable Sections. Where galvanized sheet steel is shown on Drawings but not otherwise specified, conform to ASTM A653 G90 at exterior exposed steel, G60 for exterior steel protected from weather, and G40 for interior steel.
 - 3. Bolts and Threaded Fasteners: Hot-dip galvanize, ASTM A153, Class C or D.
 - 4. Touch-up for damaged galvanized surfaces to remain unfinished: 95 percent zinc cold galvanizing compound.
 - a. ZRC Worldwide, Galvilite. http://www.zrcworldwide.com
 - b. ITW Devcon, Devcon Z. http://www.devcon.com
 - c. ITW LPS Cold Galvanize Corrosion Inhibitor.

2.4 SHOP-APPLIED COATINGS SCHEDULE

- A. Powder-Coat Finish for Steel Items fabricated from Shapes and Plates: fluoropolymer finish: AAMA 2605. Basis of design: PPG Industries, Inc., Ultradurable Powder Coating.
 - 1. Coated Items: Metal guardrails, metal handrails
 - 2. Color: BM 2061-10 "Deep Royal"
 - 3. Gloss: Medium
 - 4. Surface: Fine Texture

2.5 SOURCE QUALITY CONTROL

A. Shop Prepared steel to receive finish coatings under Work of Other Sections: Free of drips and other imperfections causing telegraphing through finished coating.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify conditions ready to receive work of this Section.

3.2 PREPARATION

A. Prepare surfaces as recommended by manufacturer, as specified by this section and Section 055000.

3.3 APPLICATION

- A. Apply in accordance with manufacturer's instructions and provisions of Contract Documents.
- **B.** Touch up damaged surfaces prior to special coating application as specified by this Section and Section 05 50 00.
- C. Apply number of coats to achieve specified dry film thickness (DFT) and as instructed by manufacturer.
- D. Apply under-coatings in 3/4 tone color difference from final coat.
- **E**. Apply additional coats as required for full coverage with no holidays, color variations, or other surface imperfections.

3.4 PATCHING

A. At completion of work, repair surfaces damaged by other trades and requiring touch-up or refinishing by recoating entire surface, as necessary for uniform appearance.

3.5 FIELD QUALITY CONTROL

- A. Environmental Conditions: During coating application, make hourly record, maintain record in job shack, and submit upon request by Owner.
- **B**. Film Thickness Tests:
 - 1. Verify mil thickness with wet film gauge, in selected locations.
 - 2. Test surfaces with Tooke or approved dry film gauge, for total dry film thicknesses.

3.6 CLEANING

- A. As Work proceeds, promptly remove spilled, splashed, or splattered products so as not to damage surfaces. Keep premises free from unnecessary accumulation of tools, equipment, surplus materials, and debris.
- **B**. At conclusion of Project, thoroughly clean paint and splatters from surfaces including adjacent surfaces.
 - 1. Take care not to scratch or otherwise damage surfaces.
 - 2. Verify chemical compatibility of cleaners to be applied to materials to be cleaned.
- C. Leave premises neat and clean; free from debris and residue from work of this Section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes welding materials and methods of joining miscellaneous and structural metals.

1.2 REFERENCES

A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section:

1.	AISC	Specifications for the Design, Fabrication and Erection of
		Structural Steel for Buildings, American Institute of Steel
		Construction, latest Edition. Administrative Requirements
2.	AWS A2.4	American Welding Society (AWS) Standard Symbols for Welding,
		Brazing, and Non-Destructive Examination
3.	AWS A3.0	Standard Welding Terms and Definitions
4.	AWS A5 Series	Specification for Steel Electrodes
5.	AWS D1.1	Structural Welding Code – Steel
6.	AWS D1.2	Structural Welding Code – Aluminum
7.	AWS D1.3	Structural Welding Code - Sheet Steel
8.	AWS D1.4	Structural Welding Code - Reinforcing Steel
9.	AWS D1.6	Structural Welding Code - Stainless Steel
10.	AWS D1.8	Structural Welding Code - Seismic Supplement
11.	IBC	International Building Code

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00, Submittal Procedures, Shop Drawings, Product Data and Samples:
 - 1. Welding Procedures and Qualifications:
 - a. Structural Steel: For welded joints prequalified by AWS D1.1, submit a description of welding procedures proposed for use on structural steel.
 - b. Reinforcing: Description of reinforcement weld locations, welding procedures, and welder qualifications when welding is permitted.
 - c. Other procedures as required by Contract Documents.
 - d. Welding Procedures shall be submitted to the Owner.
 - 2. Shop Drawings: Indicate welded connections on Shop Drawings in technical sections using standard AWS symbols. Show each welded connection with details indicating size, length, location, type of weld, and whether shop-welded or field-welded.
 - 3. Manufacturer's Certification: Filler material for welding.
 - 4. Qualifications Data: Certifications for welders and installers.

1.4 QUALITY ASSURANCE

A. Qualifications:

- 1. Welder Qualifications / Certifications: Each welder performing work on this project shall be qualified before commencement of welding on this project, in accordance with AWS and Washington Association of Building Officials (WABO).
- 2. Welding shall be performed by "Certified Welders", certified within previous 12 months.
- 3. Copies of each welder's certification records shall be made available to the Owner for review.
- 4. If re-qualification/certification is required, the cost of these tests shall be borne by the Contractor.

- B. Installer Qualifications: Welders shall be AWS/WABO certified.
 - 1. Comply with requirements in referenced AWS welding codes.
 - 2. Use only pre-qualified welds.

PART 2 - PRODUCTS

2.1 PERFORMANCE

- A. Regulatory Requirements: Comply with IBC and other requirements of Authorities Having Jurisdiction (AHJ).
- B. Test and Inspections: This Work is subject to special testing and inspection.
 - 1. A qualified inspector under the requirements of the building code shall continuously inspect field welds.
 - a. Full penetration field and shop welds shall be full time inspected and tested by ultrasonic, non-destructive procedures.
 - 2. Notice shall be given for joints requiring inspection for proper end preparation, root opening, and the like, prior to welding.
 - 3. Charpy V-Notch Testing: Testing shall be in accordance with ASTM A6 Supplement 30, where this test is specifically required.
 - 4. Ultrasonic testing and visual inspection of plate material and rolled sections greater than 1 1/2 inches in thickness and located at welded connections for discontinuities.
 - 5. Submit results for tests to Owner (informational submittal).

2.2 GENERAL

- A. See Drawings and individual technical Specification Sections for metals to be welded.
- B. Electrodes: See referenced AWS codes for requirements.
 - 1. Steel: In accordance with individual technical Specification Sections and Drawings and as required to develop strength of particular grade and section welded in accordance with AWS D1.1 and D1.8 requirements. Use E70XX electrodes.

PART 3 - EXECUTION

3.1 GENERAL

- A. Structural Steel Framing:
 - 1. Welding processes other than shielded metal arc, flux core arc, and submerged arc may be used, provided AWS welder qualifications submitted for each process.
 - 2. Types of Welds: Required weld types are indicated by symbols on Drawings; characteristics of welds shall be in accordance with standard specifications or codes as applicable; each welder shall mark his identification symbol on his work.
 - 3. Preparation of Steel Surfaces to be Welded: Prepare edges to be joined by welding as indicated on Drawings and in accordance with AWS. Welds shall be made to clean base material. Steel: Remove coatings, galvanizing, grease, scale, rust, and other foreign matter at locations that are to be welded in accordance with AWS D1.1.
 - 4. Consider the toughness and notch sensitivity of the steel in the formation of welding procedures to prevent brittle and premature fracture during fabrication and erection.
 - 5. Detail connections, welding sequences, and preheat methods to minimize restraint and accumulation and concentration of through thickness strains due to weld shrinkage.
 - 6. At welded joints not hidden by architectural finish materials, remove projecting ends of

runoff tabs, backer bars, and any other erection aids; grind flush with edges of plates.

- B. Reinforcing Steel: Welding or tack welding of reinforcing bars to other bars or plates, angles, and similar shapes is prohibited, except where specifically shown on plans or accepted by Owner. Where required, use electrodes in accordance with requirements of AWS D1.4 and Structural General Notes.
- C. Studs and Anchors: Comply with AWS. Do not weld when base metal material temperature is below 0 deg. F.
- D. Non-Fusible Backing Materials: The use of non-fusible backing materials, in accordance with Structural General Notes, is permitted only by welders prequalified per AWS for such materials.

3.2 PREPARATION

- A. Welding: Shape edges shall be joined as indicated on Drawings; prepare and clean edges of oil, grease, scale, and rust in accordance with AWS D1.1.
- B. Miscellaneous and Reinforcing Steel: See Drawings for welding of reinforcing bars or plates, angles, and similar shapes. Conform to referenced AWS D1.1 or D1.4.
- C. Protection: Take the precautions required by regulations, standards, and Specifications to protect personnel and property.
 - 1. Carefully mask or shield adjacent surfaces to prevent damage from heat or welding materials.
 - 2. Take particular care to prevent fires.
 - 3. When welding finished assemblies adjacent to or above finished materials, protect surfaces from damage due to welding.

3.3 WELDING PROCEDURES

- A. Clean and weld in accordance with referenced AWS D1.1, D1.2, D1.3, D1.4, D1.6 and D1.8.
 - 1. See also, as applicable, AISC Design Guides for welding and modification of existing steel.
- B. Electrodes shall be thoroughly dry prior to use.
- C. Grind smooth welds exposed to view. Remove service metal and piece marks on steel items exposed to view.
- D. After inspection, protect weld from rust with protective primer, applicable to substrate and compatible with final finish. Refer to requirements indicated in technical sections.

3.4 CLEANING

- A. Remove slag or flux remaining on any bead.
- B. Remove any cracks or blowholes appearing on any bead. Use methods such as chipping, grinding, or gas gouging.
- C. Touch up cold galvanizing over galvanized steel at field welds.

3.5 REPAIR

A. Repair damaged finishes as directed and replace damaged items at no added cost to Owner.

D. Site Welding: Clean and strip primed steel to bare metal where site welding is required and apply touch-up primer or cold galvanizing compound as specified in Section 09 91 00, Painting.

3.3 CLEAN UP

A. Leave premises clean and free from residue of Work of this Section ready for field coating of Section 09 91 00, Painting.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes miscellaneous metal fabrications including but not limited to the following:
 - 1. Pre-fabricated metal stair assembly,
 - 2. Steel angles, plates, and supports,
 - 3. Fasteners, mounting clips, connectors, washers, and accessories as required,
 - 4. Preparation, priming, and galvanizing of shop coated ferrous metal fabrications.

1.2 REFERENCES

A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section.

B. AISC

- 1. Manual of Steel Construction
- 2. Code of Standard Practice for Steel Buildings and Bridges
- 3. Load and Resistance Factor Design (LFRD) Specification for Structural Steel Buildings
- 4. Seismic Provisions for Structural Steel Buildings
- 5. Specification for Allowable Stress Design of Single-Angle Members, and for Load and Resistance Factor Design of Single Angle Members
- C. ASTM International: Standards indicated herein.
- D. Architectural Metal Products Division of National Association of Architectural Metal Manufacturers (NAAMM): Metal Finishes Manual for Architectural and Metal Products.
- E. NAAMM-AMP 555: Code of Standard Practice for Architectural Metal Industry.
- F. The Society for Protective Coatings (SSPC): Volume 1, Good Painting Practice, and Volume 2, Systems and Specifications.
- G. Research Council on Structural Connections (RCSC): Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Conform to Section 01 33 00 for coordination with work of other Sections.
 - 1. Coordinate requirements for primed and unprimed steel conforming to provisions of this Section and provisions required by applicable treatments and coating systems.
 - 2. Other metal fabrications indicated.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- **B**. Product Data: Include manufacturer's publications, specifications, instructions, performance criteria, and limitations. Show conformance with specifications.
- C. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
 - 1. Prepare placing plan locating structural connectors.
 - 2. Include embedded items, including anchor bolts.

- 3. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate weld length.
- D. Certification: Submit certification letter attesting that specified shop finish preparation, procedures, and products, including galvanized plating and SSPC procedures have been followed.

E. Samples:

- 1. Provide Mockup in accordance with Section 01 40 00.
 - a. Owner-accepted mock-up may be incorporated into work.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in work of this Section with minimum 5 years documented experience.
- **B.** Welders Qualifications: AWS qualified, WABO Certified within last 12 months in accordance with Section 050560.
- C. Welding: Perform in accordance with regulatory agencies. See Section 05 05 23, Welding.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 66 00, Product Storage and Handling Requirements, and following:
 - 1. Protect from moisture and corrosion until erected.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General:

- 1. Provide rolled shapes, bars, plates, sheets, strips, accessories, and the like, as detailed or required for complete installations.
- 2. Sizes, dimensions, and configurations as indicated on Drawings or as required.

B. Steel:

- Steel Plate, Shapes, and Bars: ASTM A36.
 Tubular Steel and Pipe: Cold formed hollow structural steel (HSS), ASTM A500
 Grade B or hot formed ASTM A501, electric resistance welded (ERW), seamless.
- 2. Steel Pipe: ASTM A53, Type S, Grade B, standard weight, Schedule 40 seamless.
- 3. Stainless Steel Bolts, and Screws: ASTM F593.
- 4. Welding Electrodes: Conform to AWS Standards as specified by ASTM.
- 5. Miscellaneous Metal: Provide rolled shapes, bars, sheets, strips, accessories, and as detailed or required for complete installations.
- 6. Non-Shrink Grout: As specified by ASTM.

2.2 MISCELLANEOUS FABRICATIONS

- A. Steel Sections: Welded assemblies of standard structural shapes as required to complete the Work. Galvanize steel exposed to weather, embedded in concrete or within cavity formed by exterior veneer, unless directed otherwise.
- B. Miscellaneous Framing and Support:
 - 1. Provide miscellaneous steel framing, and supports which are not a part of structural steel framework, as required to complete work.

- 2. Fabricate miscellaneous units to sizes, shapes and profiles shown or, if not shown, of required dimensions to receive adjacent other work to be retained by framing.
- 3. Except as otherwise shown, fabricate from structural steel shapes and plates and steel bars of welded construction using mitered joints for field connection. Cut, drill and tap units to receive hardware and similar items.
- 4. Fabricate components required for anchorage of fabrications of same material and finish as fabrication, except where specifically noted otherwise.
- 5. Galvanize or prime miscellaneous framing and supports with zinc-rich primer where indicated.
- C. Form steel to accurate sizes and shapes, with clean straight lines and angles.
 - 1. Fit and shop assemble in largest sections, for delivery to site.
 - 2. Fabricate items with joints fitted and secured. Miter corners of frames with square or angled joints.
 - 3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated, or, if none indicated, Phillips flathead (countersunk) screw or bolts.
 - 4. Except where exposed bolts are detailed or indicated, do not use screws or bolts, if avoidable. When used, countersink heads and draw up tight; nick threads to prevent loosening.
- D. Bolt, drill, tap, punch, and shear to leave clean surfaces.
- **E**. Joints and Fastenings: Detail for ample strength and stiffness. Where exposed to weather, form to exclude water.
- F. Provide holes and connections for work of other trades.
- G. Welding:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Weld permanent connections as specified by ASTM. Grind exposed welds smooth. Conform to NOMMA Guideline 1: Joint Finishes, Finish #1.
 - 3. Obtain fusion without undercut or overlap. Remove welding flux immediately.
 - 4. Make exposed joints butt tight flush, and hairline.
 - 5. Welds shall be smooth and invisible after finishing; grind exposed joints flush and smooth with adjacent surface (before galvanizing, where galvanizing indicated).
 - 6. Ease exposed edges to small uniform radius (1/32 inch unless otherwise indicated).

2.3 ACCESSORIES

- A. Fastenings, connectors, flanges, radius ells and accessories as specified, detailed or required for complete installation.
 - 1. Sleeve seams in running pipe.
 - 2. Inside Radius Ells: Seamless steel, as detailed and to suit conditions of installation.
 - 3. End Caps and Cover Caps: As detailed and to suit conditions of installation.
 - 4. Connectors: Steel, types as detailed and to suit conditions of installation.
 - 5. Other components to be as manufactured or fabricated to suit installation.
- B. Galvanizing Repair and Touch-Up for Galvanized Surfaces: Product complying with ASTM A780, for application 2.5 mils dry thickness.

2.4 GALVANIZATION

- A. Zinc-coated (galvanized) ferrous metal assemblies indicated to be galvanized. Hot-dip galvanize after fabrication and grinding in accordance with ASTM A123 (other steel products) and ASTM A153 (hardware):
 - 1. Required coating weights per square foot of actual surfaces:
 - a. Steel 3/16 inch and Less: 2.0 oz. Average; 1.8 oz. Minimum.
 - b. Steel 1/4 inch and Heavier: 2.3 oz. Average; 2.0 oz. Minimum.
 - 2. Galvanize bolts and similar threaded fasteners, in accordance with referenced Standards/ASTM A307, Class A, B, C, and D, as applicable.
 - 3. ASTM A653/A924 G90 galvanizing process (zinc with tin) for fabricated steel sheet.
 - 4. Galvanize steel exposed to weather, or that is within cavity formed by exterior siding.

2.5 SHOP FINISH/FACTORY PRIME

- A. Shop Primer for Exterior, Ungalvanized Ferrous Metal Receiving Finish Coating Systems Single component, moisture cured, micaceous iron oxide and zinc filled polyurethane (MIOZinc). Color: Green/Gray
 - 1. Tnemec Co, Series 394, PerimePrime
 - 2. Wasser, MC Miozinc 100.
- B. Where not specified, assume Tnemec, Uni-Bond, Self-Crosslinking Acrylic, Corrosion Resistant Primer Series 115 and verify with Owner.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Conform to manufacturer's instructions and provisions of Contract Documents.
- **B**. Protect against galvanic action from uncoated dissimilar metals. Except as otherwise indicated, embed (uncoated portion) of steel items into concrete and steel inserts with specified non-shrink grout.
- C. Fabricated Items: Install plumb and true to line. Anchor securely in place.
- D. Miscellaneous: Install metal items and fabrications as required to fully complete the Work whether specifically indicated or not.

3.2 TOUCH-UP AFTER INSTALLATION

- A. After installation and erection, remove weld spatter, grind smooth, and clean steel of oil and grease in accordance with SSPC-SP-1. Clean abraded, bolted, and welded areas.
- B. Damaged Shop Primed Ferrous Metal Surfaces: Reapply specified shop primer to make free of scratches and stains.
- C. Damaged Galvanized Surfaces to Receive Finish Coating: Touch up with specified organic, zinc rich, urethane primer.
- D. Site Welding: Clean and strip primed steel to bare metal where site welding is required and apply touch-up primer or cold galvanizing compound as specified in Section 09 91 00, Painting.

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SECTION 05 50 00 METAL FABRICATION

3.3 CLEAN UP

A. Leave premises clean and free from residue of Work of this Section ready for field coating of Section 09 91 00, Painting.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes miscellaneous metal fabrications including but not limited to the following:
 - 1. Pre-fabricated metal stair assembly,
 - 2. Steel angles, plates, and supports,
 - 3. Fasteners, mounting clips, connectors, washers, and accessories as required,
 - 4. Preparation, priming, and galvanizing of shop coated ferrous metal fabrications.

1.2 REFERENCES

A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section.

B. AISC

- 1. Manual of Steel Construction
- 2. Code of Standard Practice for Steel Buildings and Bridges
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- 4. Seismic Provisions for Structural Steel Buildings
- 5. Specification for Allowable Stress Design of Single-Angle Members, and for Load and Resistance Factor Design of Single Angle Members
- C. ASTM International: Standards indicated herein.
- D. Architectural Metal Products Division of National Association of Architectural Metal Manufacturers (NAAMM): Metal Finishes Manual for Architectural and Metal Products.
- E. NAAMM-AMP 555: Code of Standard Practice for Architectural Metal Industry.
- F. The Society for Protective Coatings (SSPC): Volume 1, Good Painting Practice, and Volume 2, Systems and Specifications.
- G. Research Council on Structural Connections (RCSC): Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Conform to Section 01 33 00 for coordination with work of other Sections.
 - 1. Coordinate requirements for primed and unprimed steel conforming to provisions of this Section and provisions required by applicable treatments and coating systems.
 - 2. Other metal fabrications indicated.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- **B**. Product Data: Include manufacturer's publications, specifications, instructions, performance criteria, and limitations. Show conformance with specifications.
- C. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
 - 1. Prepare placing plan locating structural connectors.
 - 2. Include embedded items, including anchor bolts.

- 3. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate weld length.
- D. Certification: Submit certification letter attesting that specified shop finish preparation, procedures, and products, including galvanized plating and SSPC procedures have been followed.

E. Samples:

- 1. Provide Mockup in accordance with Section 01 40 00.
 - a. Owner-accepted mock-up may be incorporated into work.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in work of this Section with minimum 5 years documented experience.
- **B.** Welders Qualifications: AWS qualified, WABO Certified within last 12 months in accordance with Section 050560.
- C. Welding: Perform in accordance with regulatory agencies. See Section 05 05 23, Welding.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 66 00, Product Storage and Handling Requirements, and following:
 - 1. Protect from moisture and corrosion until erected.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General:

- 1. Provide rolled shapes, bars, plates, sheets, strips, accessories, and the like, as detailed or required for complete installations.
- 2. Sizes, dimensions, and configurations as indicated on Drawings or as required.

B. Steel:

- Steel Plate, Shapes, and Bars: ASTM A36.
 Tubular Steel and Pipe: Cold formed hollow structural steel (HSS), ASTM A500
 Grade B or hot formed ASTM A501, electric resistance welded (ERW), seamless.
- 2. Steel Pipe: ASTM A53, Type S, Grade B, standard weight, Schedule 40 seamless.
- 3. Stainless Steel Bolts, and Screws: ASTM F593.
- 4. Welding Electrodes: Conform to AWS Standards as specified by ASTM.
- 5. Miscellaneous Metal: Provide rolled shapes, bars, sheets, strips, accessories, and as detailed or required for complete installations.
- 6. Non-Shrink Grout: As specified by ASTM.

2.2 MISCELLANEOUS FABRICATIONS

- A. Steel Sections: Welded assemblies of standard structural shapes as required to complete the Work. Galvanize steel exposed to weather, embedded in concrete or within cavity formed by exterior veneer, unless directed otherwise.
- B. Miscellaneous Framing and Support:
 - 1. Provide miscellaneous steel framing, and supports which are not a part of structural steel framework, as required to complete work.

- 2. Fabricate miscellaneous units to sizes, shapes and profiles shown or, if not shown, of required dimensions to receive adjacent other work to be retained by framing.
- 3. Except as otherwise shown, fabricate from structural steel shapes and plates and steel bars of welded construction using mitered joints for field connection. Cut, drill and tap units to receive hardware and similar items.
- 4. Fabricate components required for anchorage of fabrications of same material and finish as fabrication, except where specifically noted otherwise.
- 5. Galvanize or prime miscellaneous framing and supports with zinc-rich primer where indicated.
- C. Form steel to accurate sizes and shapes, with clean straight lines and angles.
 - 1. Fit and shop assemble in largest sections, for delivery to site.
 - 2. Fabricate items with joints fitted and secured. Miter corners of frames with square or angled joints.
 - 3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated, or, if none indicated, Phillips flathead (countersunk) screw or bolts.
 - 4. Except where exposed bolts are detailed or indicated, do not use screws or bolts, if avoidable. When used, countersink heads and draw up tight; nick threads to prevent loosening.
- D. Bolt, drill, tap, punch, and shear to leave clean surfaces.
- **E**. Joints and Fastenings: Detail for ample strength and stiffness. Where exposed to weather, form to exclude water.
- F. Provide holes and connections for work of other trades.
- G. Welding:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Weld permanent connections as specified by ASTM. Grind exposed welds smooth. Conform to NOMMA Guideline 1: Joint Finishes, Finish #1.
 - 3. Obtain fusion without undercut or overlap. Remove welding flux immediately.
 - 4. Make exposed joints butt tight flush, and hairline.
 - 5. Welds shall be smooth and invisible after finishing; grind exposed joints flush and smooth with adjacent surface (before galvanizing, where galvanizing indicated).
 - 6. Ease exposed edges to small uniform radius (1/32 inch unless otherwise indicated).

2.3 ACCESSORIES

- A. Fastenings, connectors, flanges, radius ells and accessories as specified, detailed or required for complete installation.
 - 1. Sleeve seams in running pipe.
 - 2. Inside Radius Ells: Seamless steel, as detailed and to suit conditions of installation.
 - 3. End Caps and Cover Caps: As detailed and to suit conditions of installation.
 - 4. Connectors: Steel, types as detailed and to suit conditions of installation.
 - 5. Other components to be as manufactured or fabricated to suit installation.
- B. Galvanizing Repair and Touch-Up for Galvanized Surfaces: Product complying with ASTM A780, for application 2.5 mils dry thickness.

2.4 GALVANIZATION

- A. Zinc-coated (galvanized) ferrous metal assemblies indicated to be galvanized. Hot-dip galvanize after fabrication and grinding in accordance with ASTM A123 (other steel products) and ASTM A153 (hardware):
 - 1. Required coating weights per square foot of actual surfaces:
 - a. Steel 3/16 inch and Less: 2.0 oz. Average; 1.8 oz. Minimum.
 - b. Steel 1/4 inch and Heavier: 2.3 oz. Average; 2.0 oz. Minimum.
 - 2. Galvanize bolts and similar threaded fasteners, in accordance with referenced Standards/ASTM A307, Class A, B, C, and D, as applicable.
 - 3. ASTM A653/A924 G90 galvanizing process (zinc with tin) for fabricated steel sheet.
 - 4. Galvanize steel exposed to weather, or that is within cavity formed by exterior siding.

2.5 SHOP FINISH/FACTORY PRIME

- A. Shop Primer for Exterior, Ungalvanized Ferrous Metal Receiving Finish Coating Systems Single component, moisture cured, micaceous iron oxide and zinc filled polyurethane (MIOZinc). Color: Green/Gray
 - 1. Tnemec Co, Series 394, PerimePrime
 - 2. Wasser, MC Miozinc 100.
- B. Where not specified, assume Tnemec, Uni-Bond, Self-Crosslinking Acrylic, Corrosion Resistant Primer Series 115 and verify with Owner.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Conform to manufacturer's instructions and provisions of Contract Documents.
- **B**. Protect against galvanic action from uncoated dissimilar metals. Except as otherwise indicated, embed (uncoated portion) of steel items into concrete and steel inserts with specified non-shrink grout.
- C. Fabricated Items: Install plumb and true to line. Anchor securely in place.
- D. Miscellaneous: Install metal items and fabrications as required to fully complete the Work whether specifically indicated or not.

3.2 TOUCH-UP AFTER INSTALLATION

- A. After installation and erection, remove weld spatter, grind smooth, and clean steel of oil and grease in accordance with SSPC-SP-1. Clean abraded, bolted, and welded areas.
- B. Damaged Shop Primed Ferrous Metal Surfaces: Reapply specified shop primer to make free of scratches and stains.
- C. Damaged Galvanized Surfaces to Receive Finish Coating: Touch up with specified organic, zinc rich, urethane primer.
- D. Site Welding: Clean and strip primed steel to bare metal where site welding is required and apply touch-up primer or cold galvanizing compound as specified in Section 09 91 00, Painting.

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SECTION 05 50 00 METAL FABRICATION

3.3 CLEAN UP

A. Leave premises clean and free from residue of Work of this Section ready for field coating of Section 09 91 00, Painting.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes miscellaneous rough carpentry including but not limited to:
 - 1. Roof equipment supports,
 - 2. Blocking and backing,
 - 3. Other miscellaneous rough carpentry incidental to the work of this contract,
 - 4. Hardware, fasteners and other accessories.

1.2 REFERENCES

- A. Western Wood Product Association (WWPA): Western Lumber Product Use Manual Standard Grading Rules for Western Lumber.
- B. West Coast Lumber Inspection Bureau (WCLIB): No. 16 Standard Grading and Dressing Rules for West Coast Lumber.
- C. APA The Engineered Wood Products Association (APA and APA EWS).
- D. APA Product Guide Grades and Specifications.
- E. APA Product Guide Performance Rated Panels.
- F. APA PS 1 Construction and Industrial Plywood (With Typical APA Trademarks).
- G. APA PS 2 Performance Standard for Wood-Based Structural-Use Panels.
- H. ASTM A123 Specifications for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- I. ASTM A153 Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- J. ASTM D1761 Standard Test Methods for Mechanical Fasteners in Wood.
- K. ASTM D5456 Specification for Evaluation of Structural Composite Lumber Products.
- L. ASTM F1667 Specifications for Driven Fasteners: Nails, Spikes, and Staples.

1.3 COORDINATION

- A. Coordinate rough carpentry with other Sections to make Work fit together.
- B. Coordinate with other Sections for backing support of wall-supported items at stud-framed walls.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used including fasteners and accessories.

1.5 QUALITY ASSURANCE

- A. Evidence of Grade: Conform to IBC 2303 and DOC PS 20.
 - 1. Rough Lumber: Stamp each piece of lumber and plywood with grademark and trademark of Association having jurisdiction.
 - 2. In Lieu of Grade Stamping Exposed to View Lumber: Certify by manufacturer that products meet or exceed specified requirements.

B. Preservative Treatment: AWPA C2 for lumber and AWPA C9 for plywood; waterborne pressure treatment. Provide for wood in contact with soil, concrete, masonry, roofing, flashing, dampproofing and waterproofing.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store wood materials minimum six (6") inches above ground on framework or blocking away from dirt and moisture, well ventilated and covered with waterproof covering.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

- A. Framing Lumber:
 - 1. Species: Douglas Fir-Larch, or Hem-Fir.
 - 2. Grade: WWPA No.1 and better.
 - 3. Moisture Content: S-DRY, 15 percent maximum moisture content.

2.2 WOOD PANEL PRODUCTS

- A. Wall Sheathing: APA Plywood Rated Sheathing Exposure 1, 15/32 inches thick, verify in field and match existing.
 - 1. Joints: Square edge.
 - 2. APA Span Rating: Not less than 32/16 framing spaced at 16-inch centers.
- B. Roof Sheathing: 15/32 inch to match existing, APA Plywood Rated Sheathing Exposure 1.
 - 1. Edge and End Joints
 - a. Tongue and groove (T&G).
 - b. Square cut butt joints accepted with panel edge clips or solid backing to prevent differential movement of adjacent edges between supports, conforming to APA recommendations.
 - 2. APA Span Rating: Not less than 32/16 framing spaced at 16-inch centers.
- C. OSB is not allowed.

2.3 FASTENERS

- A. Fastener Types, Sizes, Spacing, and Quantities: Provide fasteners and connectors including nails, spikes, screws, clips, bolts and anchors required for installation of carpentry and millwork, conforming to IBC Table 2304.9.1, and APA recommendations
- B. Nails, Spikes, Staples and Other Driven Fasteners: Conform to ASTM F1667 and IBC Section 2303.6.
- C. Bolts and Lag Bolts: Provide steel plate washers.

2.4 ACCESSORIES

- A. Construction Adhesives: Solvent based, conforming to APA Specification AFG-01.
- B. Pressure Treated Items: Preservative pressure treat wood members contacting concrete, masonry and at exterior conditions. Treat cut ends per manufacturer's recommendations.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Field coordinate and layout work prior to beginning installation. Cut, fit and install rough carpentry construction at locations indicated in drawings and as required to complete work of contract. Set materials level, plumb, aligned and in correct position in accordance with best practices of trade.
- B. Temporary Bracing: Make provisions for erection loads, sufficient to maintain structure safe, plumb and in true alignment until completion of erection and installation of permanent bracing and framing.
- C. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated.
- D. Provide nailers, blocking and grounds where required. Set work plumb, level and accurately cut.
- E. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with other work.
- F. Comply with manufacturer's requirements for cutting, handling, fastening and working treated materials.
- G. Restore damaged components. Protect work from damage.
- H. Provide nails, spikes, screws and bolts as necessary for secure and rigid permanent connections. Conform to IBC Table 2304.9.1-Fastening Schedule, APA recommendations, and provisions of Contract Documents.
- I. Drive nails perpendicular to grain of wood in lieu of toe-nailing, where feasible.

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes installation of interior finish carpentry items including but not limited to:
 - 1. Door and window casing,
 - 2. Miscellaneous auxiliary materials, fasteners, connectors and accessories.

1.2 REFERENCES

A. Standards and References:

- 1. PS20 American Softwood Lumber Standard
- 2. AWS Architectural Woodwork Standards
- 3. WCLIB Standard Grading Rules No. 17
- 4. WWPA Western Lumber Grading Rules

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, rough-in dimensions, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4 OUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Architectural Woodwork Standards: Conform to AWS for Custom Grade work.
- C. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship of each type of finish carpentry.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials in ventilated, interior locations. Protect from excessive humidity. Maintain relative humidity of 25 percent to 55 percent before, during, and after installation.
- B. Store plywood, fiberboard, particleboard, and other sheet products flat. Allow to stabilize before use.
- C. Cover to protection against dirt and dust.

PART 2 PRODUCTS

2.1 MATERIALS

A. Medium-Density Fiberboard: ANSI A208.2, Grade MD-Exterior Glue.

SECTION 06 20 00 INTERIOR FINISH CARPENTRY

- B. Casing Header: 1" x 3" MDF Flat stock.
- C. Casing Legs: 9/16" x 2-1/2" MDF Flat stock.
- D. Jamb Liner: 9/16" MDF Flat stock. Cut to fit opening.
- E. Moisture Content: 4 percent to 7 percent.
- F. Formaldehyde Content: Manufactured with no added formaldehyde, including formaldehyde free binders. Labeled by manufacturer as containing no added urea formaldehyde (NAUF).

2.2 ACCESSORIES AND HARDWARE

A. Rough Hardware:

- 1. Provide necessary nails, screws and the like, or material, type, size and finish as required for each substrate condition, for secure anchorage.
- 2. Use recessed screws, finish or casing nails for exposed work, unless otherwise indicated.
- 3. Hot-dipped galvanize rough hardware subject to moisture.
- 4. Fastenings/Quantities: Furnish as necessary whether indicated or not.
- B. Miscellaneous Items: Provide miscellaneous items required for completion of architectural woodwork as indicated with quality consistent with that specified for related woodwork.

2.3 FINISHES

- A. Back Priming: Prior to installation, back prime concealed faces of panels, moldings, and other thin wood, plywood, and panel material subject to warping and bowing. Apply 2 coats of sealer, primer, or suitable finish system to balance finish on exposed face. Refer to Section 09 91 00.
- B. Preparation: Sand, seal, and prepare surfaces to receive uniform coatings free of blotches, inconsistent absorption, irregular sheen, and color variations.
- C. Field Finished Wood Trim and Field Fabricated Finished Carpentry: Provide painted finish systems under work of Section 09 91 00.
- D. Wood Putty Filler: Match color of finished wood.

PART 3 EXECUTION

3.1 PREPARATION

- A. Measurements: Take dimensions necessary prior to installation.
- B. Back prime work scheduled to be painted prior to installation.
- C. Protect surrounding areas or surfaces to preclude damage during installation.

3.2 INSTALLATION

- A. Install work in accordance with referenced AWS Manual for Custom Quality Standard unless otherwise specified.
- B. Install trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than twenty-four (24") inches long except where necessary.
- C. Use blind fastening where indicated or practical. At face of finished work, use finish nails or finish head screws at face of finished installations.

- D. Unless otherwise indicated, countersink fasteners, fill surface flush, and sand where face fastening is unavoidable.
- E. Interface with adjacent system. Carefully bring together work of this Section with related work; transitions smooth, no abrupt rough edges or intersections. Stagger end joints in adjacent and related members.
- F. Space screws and nails at equal intervals at spacing to fasten permanently and securely in place, except not less than one fastener at each end and at center of each item.
- G. Install to detail with tight joints.
- H. Miter casings and moldings except as otherwise indicated.
- I. Cut butt splices at 30-degree angles.
- J. Make members and lines level, plumb, and square to line with adjacent construction. Use concealed shims where necessary for alignment.
- K. Select and cut material to exclude damaged, marked, or defective areas.
- L. Eased Edges: Ease exposed edges of finish work 1/16-inch minimum radius whether indicated or not.
- M. Close exposed joints, spaces, and openings against adjacent construction with scribes, fillers, and trim pieces of same material and finish as finish carpentry item.
- N. Prior to securing items, adjust to ensure proper matching at joints and correct alignment throughout their length. Shim as required using concealed shims.
- O. Do not use additional overlay trim to conceal larger gaps unless specifically approved by Owner after review of conditions of installation.
- P. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
 - 1. Do not use manufactured units with defective surfaces, sizes or patterns.
- Q. Provide for thermal and building movements.
- R. Erection Tolerances:
 - 1. Maximum variation from true positions: 1/32 inch.
 - 2. Adjoining Surfaces of Same Material: No variance permitted.
 - 3. Maximum offset from true alignment with abutting materials: 1/32 inch.

3.3 CLEANING

A. Leave clean, premises free of residue and debris resulting from of work of this Section.

3.4 PROTECTION

A. Protect exposed finishes and surfaces from construction damage.

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes installation of exterior synthetic (poly-ash) trim.

1.2 REFERENCES

- A. ASTM C 1185 Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.
- B. ASTM D 570 Standard Test Method for Water Absorption of Plastics.
- C. ASTM D 1761 Standard Test Methods for Mechanical Fasteners in Wood.
- D. ASTM D 6341 Standard Test Method for Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber Shapes Between -30 and 140°F (-34.4 and 60°C).
- E. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- F. AWPA E1 Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.
- G. AWPA E10 Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including installation instructions.
- B. Samples: Submit manufacturer's sample of exterior synthetic trim, minimum 1 inch by 4 inches by 8 inches long.
- C. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- D. Warranty Documentation: Submit manufacturer's standard warranty.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in protective covering until installation.
 - 3. Store materials in clean, dry area.
 - 4. Store exterior synthetic trim on flat, level surface.
 - 5. Keep exterior synthetic trim covered and free of dirt and debris.
 - 6. Protect materials and finish during storage, handling, and installation to prevent damage.

1.5 WARRANTIES

- A. Warranty Period for Exterior Synthetic Trim: 20-year limited warranty.
 - 1. No decay due to rot.
 - 2. No excess swelling from moisture.
 - 3. Resist termite damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Boral Composites Inc., 200 Mansell Court East, Suite 305, Roswell, Georgia 30076. Toll Free 888-926-7259. www.BoralTruExterior.com. info@TruExterior.com.

2.2 EXTERIOR SYNTHETIC TRIM

- A. Exterior Synthetic (Poly-ash) Trim: Boral TruExterior® Trim.
- B. Composition:
 - 1. Post-Industrial Recycled Content: Minimum 70 percent, by weight.
 - 2. Post-Consumer Recycled Content: Minimum 2 percent, by weight.
 - 3. Pigments and dyes.

C. Physical Properties:

- 1. Density, ASTM C 1185: 40 to 50 pcf.
- 2. Water Absorption, ASTM D 570: Less than 1.5 percent.
- 3. Fungi Rot, AWPA E10:
 - a. White Rot: Negligible loss.
 - b. Brown Rot: Negligible loss.
- 4. Termite Resistance, AWPA E1: Greater than 9.0, with 10 being impervious.

D. Mechanical Properties:

- 1. Flexural Strength, ASTM C 1185: Greater than 1,600 psi.
- 2. Nail Withdrawal, ASTM D 1761: Greater than 40 lbf/in.

E. Thermal Properties:

- 1. Coefficient of Linear Expansion, ASTM D 6341, Typical: 1.40E-05 in/in/degree F, tested at minus 30 to 140 degrees F.
- 2. Flame Spread, ASTM E 84: Between 25 and 29.
- 3. Smoke Developed, ASTM E 84: Less than 450.

F. Trim Sizes:

- 1. 1" x 3-1/2" unless noted otherwise.
- 2. Manufacturing Tolerances:
 - a. Width: Plus or minus 1/16 inch.
 - b. Thickness: Plus or minus 1/16 inch.
 - c. Length: Plus 2 inches, minus 0 inch.
 - d. Edge Cut: Plus or minus 2 degrees.
- 3. Exposed Texture: Smooth.

2.3 FINISHES

A. Primer:

- 1. Acrylic based.
- 2. Low VOC.
- 3. Factory applied on all sides.

2.4 FASTENERS

A. Type: As recommended by manufacturer, of equal or greater holding power than required by manufacturer's Code compliance reports; sized and nailing pattern per manufacturer's printed data.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces to receive exterior synthetic trim.
- B. Notify Owner of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install exterior synthetic trim in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Do not install exterior synthetic trim in structural or load-bearing applications.
- C. Install exterior synthetic trim plumb, level, and square.
- D. Install exterior synthetic trim with flush, tight joints.
- E. Install Fasteners:
 - 1. Maximum of 24 inches on center.
 - 2. Within 2 inches of end of boards.
- F. Fill nail and screw holes with acrylic caulk, wood filler, or auto body filler.
- G. Repair minor damages to exterior synthetic trim in accordance with manufacturer's instructions and as approved by Owner.
- H. Remove and replace damaged exterior synthetic trim that cannot be successfully repaired as determined by Owner.
- I. Painting:
 - 1. Apply top coat to exterior synthetic trim over factory-applied primer.
 - a. Within 150 days of installing trim.
 - b. As specified in Section 09 91 00.

3.3 PROTECTION

A. Protect installed exterior synthetic trim to ensure that, except for normal weathering, trim will be without damage or deterioration.

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes composite sheet membrane system as required for a continuous barrier to resist air and water infiltration including but not limited to:
 - 1. Weather Resistant Barrier ("WRB"),
 - 2. Accessories as required for installation of continuous barrier,
 - 3. Flexible Flashing
 - 4. Flexible Sill Flashing,
 - 5. Flashing Tape,
 - 6. Flashing Panels.

1.2 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. ASTM International (ASTM):
 - 1. ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting
 - 2. ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
 - 3. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 4. ASTM E96 / E96M Standard Test Methods for Water Vapor Transmission of Materials
 - 5. ASTM E398 Standard Test Method for Water Vapor Transmission Rate of Sheet Materials Using Dynamic Relative Humidity Measurement

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: System components including weather resistant barrier, self-adhering tapes and other membrane flashing, fasteners, and accessories as required to complete each for each weather barrier system, as specified and published in manufacturer's product data.
- C. Warranty: Manufacturer's ten (10) Year Limited Product and Labor Sample Warranty form.

1.4 CLOSEOUT SUBMITTALS

A. Warranty: Manufacturer's ten (10) Year Limited Product and Labor Sample Warranty form; submit signed warranty to Owner at Project Closeout.

1.5 QUALITY ASSURANCE

- A. Single Source Responsibility: Furnish self-adhering membrane flashing, window flashing, corner flashing, and weather barrier membrane system as a system by a single manufacturer. Do not combine products from multiple manufacturers into a single system, except under a single source responsibility.
- B. Mock-Ups: Provide under Quality Assurance provisions of Section 01 40 00.
 - 1. Provide mock-ups as required to complete work of other Sections for mock-ups specified by those Sections.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 01 60 00 and manufacturer's instructions.
- B. Deliver in manufacturer's unopened protective packaging with labels clearly visible identifying manufacturer and product.
- C. Store under cover, protected from damage, soiling, and to direct solar exposure, and with roll goods standing upright.
- D. Handle to protect from puncture and damage that may compromise product effectiveness.

PART 2 PRODUCTS

2.1 WEATHER RESISTANT BARRIER

- A. Manufacturers: DuPont Tyvek, Benjamin Obdyke, Fortifiber Building Systems Group, Kimberly-Clark, or approved equal.
- B. Basis of Design: Dupont Tyvek "DrainWrap," spunbonded polyolefin, non-woven, non-perforated, weather barrier and related assembly components or approved equal.
 - 1. Air Penetration: 0.004 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
 - 2. Drainage: >98%, when tested in accordance with ASTM E2273.
 - 3. Water Vapor Transmission: 50 perms, when tested in accordance with ASTM E96, Method B.
 - 4. Water Penetration Resistance: 210 cm when tested in accordance with AATCC Test Method 127.
 - 5. Basis Weight: 2.1 oz/yd², when tested in accordance with TAPPI Test Method T-410.
 - 6. Air Resistance: 300 seconds, when tested in accordance with TAPPI Test Method T-460.
 - 7. Tensile Strength: 30/30 lbs/in., when tested in accordance with ASTM D882, Method A.
 - 8. Tear Resistance: 7/9 lbs, when tested in accordance with ASTM D1117.
 - 9. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 5, Smoke Developed: 25.

2.2 ACCESSORIES

A. Seam Tape

1. Basis-of-Design: Three (3") inch wide DuPontTM Tyvek® Tape or approved equal.

B. Fasteners

1. Basis-of-Design: Tyvek® Wrap Caps or approved equal for use with wood construction: #4 nails with large one (1")-inch plastic cap fasteners, or one (1")-inch plastic cap staples with leg length sufficient to achieve a minimum penetration of 5/8-inch into the wood stud.

C. Sealants

1. Provide sealants that comply with ASTM C920, elastomeric polymer sealant to maintain watertight conditions. Reference Section 07 92 00 - Joint Sealants.

D. Adhesives

- 1. Liquid Nails® LN-109
- 2. Denso Butyl Liquid
- 3. 3M High Strength 90
- 4. SIA 655
- 5. Adhesives recommend by the weather barrier manufacturer.

E. Primers

- 1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.
- 2. Products: 3M High Strength 90, Denso Butyl Spray, SIA 655, Permagrip 105, ITW TACC Sta' Put SPH, or primers recommended by the flashing manufacturer

F. Liquid Flashing

1. Basis-of-Design: Dupont[™] Tyvek[™] Fluid Applied Flashing & Joint Compound+[™] or approved equal: Liquid flashing membrane compatible with weather resistant barrier for flashing at precast concrete sills.

G. Flexible Flashing

1. Basis-of-Design: DuPont[™] StraightFlash[™] or approved equal: Straight flashing membrane materials for flashing windows and doors and sealing penetrations.

H. Flexible Sill Flashing

1. Basis-of-Design: DuPont[™] FlexWrap[™] NF or approved equal: Flexible membrane flashing materials for window openings and penetrations.

I. Flashing Tape:

1. Basis-of-Design: Four (4") inch wide, DuPontTM Flashing Tape or approved equal: flexible membrane flashing materials for adhering metal head flashing.

J. Flashing Panels

1. Basis-of-Design: Manufactured by QuickFlash, Inc or approved equal. Size and type to suit application and conditions in field.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 INSTALLATION OF WEATHER RESISTANT BARRIER

- A. Conform to manufacturer's instructions and recommendations
- B. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations.
- C. Install weather barrier prior to installation of windows and doors.
- D. Start weather barrier installation at a building corner, leaving six to twelve (6"-12") inches of weather barrier extended beyond corner to overlap.
- E. Window and Door Openings: Extend weather barrier completely over openings.
- F. Overlap weather barrier:
 - 1. Exterior corners: minimum twelve (12") inches.
 - 2. Seams: minimum six (6") inches.
- G. Weather Barrier Attachment:
 - 1. Attach weather barrier to study through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space twelve to eighteen (12" -18") inches

vertically on center along stud line, and twenty-four (24") inches on center, maximum horizontally.

3.3 SEAMING

- A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams as recommended by weather barrier manufacturer.
- B. Seal any tears or cuts as recommended by weather barrier manufacturer.

3.4 FIELD QUALITY CONTROL

A. Notify manufacturer's designated representative to periodically observe weather barrier assembly installation as required to obtain manufacturer's ten (10) Year Limited Product and Labor Warranty.

3.5 PROTECTION

A. Protect installed weather barrier from damage.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes installation of fiber cement siding including but not limited to:
 - 1. Fiber cement panel,
 - 2. Fiber cement mounting block,
 - 3. Horizontal and vertical metal trim,
 - 4. Fasteners, metal furring, flashing, sealants and accessories.

1.2 REFERENCES

- A. American Society of Civil Engineers (ASCE) 7 Minimum Design Loads for Buildings and Other Structures.
- B. ASTM International (ASTM):
 - 1. ASTM E 72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 2010
 - 2. ATSM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 3. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials; 2010.
 - 4. ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C
 - 5. ASTM C 1185 Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards; 2008
 - 6. ASTM C1186 Standard Specification for Flat, Non-Asbestos, Fiber-Cement Sheets

1.3 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods, including nailing patterns.
 - 4. Applicable model code authority evaluation report (ICC, CCMC, etc.).
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum three (3) years documented experience in work of this Section.
- B. Obtain all siding materials from a single source manufacturer.
- C. Mockup:
 - 1. Size: Minimum 4 x 8 feet
 - 2. Show: Weather resistant barrier, siding, trim, flashings and joint sealers. Include one (1) window, and one (1) external corner.
 - 3. Location to be coordinated with Owner.
 - 4. Approved mockup may remain as part of the Work.
- D. Pre-Installation Conference:
 - 1. Convene at site two (2) weeks prior to beginning work of this Section.
 - 2. Attendance: Owner, Contractor, siding system installer and related trades.
 - 3. Review and discuss: Contract Documents, siding system manufacturer's literature, moisture barrier requirements, project conditions, scheduling and other matters affecting installation.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store off the ground, under cover. Maintain dry and well ventilated.
- B. Stack siding planks on edge or laid flat on smooth, level surface.
- C. Protect from dirt, dampness, and damage. Protect edges from chipping. Discard damaged pieces.

1.6 WARRANTIES

- A. Provide 50-year limited siding warranty.
- B. Provide 15 year limited paint warranty.
- C. Register manufacturer's warranty, made out in Owner's name, with copy to Owner.
- D. Provide installer's two (2) year warranty providing coverage against defects in installation. This is an extension of the Contractor's standard one (1) year warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Allura by Plycem, 396 W. Greens Rd Suite 300, Houston, Texas 77067 main: (844) 4 ALLURA or (844) 425-5872 email: info@elementia.com www.alluraUSA.com or approved equal.

2.2 MATERIALS

- A. Fiber Cement Siding System:
 - 1. Meet ASTM C1186, Grade A, Type II
 - 2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
 - 3. Surface texture: Smooth
 - 4. Fire hazard classification: Maximum flame spread/smoke developed rating of 0/5, tested to ASTM E84
 - 5. Combustibility; Noncombustible, tested to ASTM E136
 - 6. Panel Siding:
 - a. Size: Cut from 4' x 8' panels to conform to joint locations shown in Drawings
 - b. Thickness: 5/16 inch
 - c. Fasteners: Zinc plated steel truss-head screws, as acceptable by the panel manufacturer. Spot prime prior to painting.
 - 7. Finish: Factory prime painted, for field-applied paint finish
 - 8. Color: Specified 09 91 00

B. Metal Trim:

- 1. Material: Extruded aluminum, ASTM B221, 6063-T5 alloy and temper, clear anodized finish.
- 2. Shapes:
 - a. Vertical Metal Trim:
 - 1) Basis of Design: Xtreme Trim "Vertical Bead Reveal", Item ID BRV14516, 1-1/2" wide with 5/16" flanges to receive 5/16" Fiber Cement Panel, 1/4" reveal
 - 2) Exposed, vertical splines covering joints not acceptable, ½" reveal not acceptable
 - b. Horizontal Metal Trim:
 - 1) Basis of Design: Xtreme Trim "Horizontal Bead Reveal", Item ID BRH516, to receive 5/16" Fiber Cement Panel, 1/4" reveal
 - 2) Exposed, horizontal splines covering joints not acceptable, ½" reveal not acceptable

- c. Metal J-Channel Trim:
 - 1) Basis of Design: Xtreme Trim "J-Mold", Item ID JMS5168, to receive 5/16" Fiber Cement Panel, 3/8" flange overlap
- d. Metal Inside Corner Trim:
 - 1) Basis of Design: Xtreme Trim "Low Profile Panel Inside Corner", Item ID XICLP516, 1 ½" interior leg with 1/2" exposed flange to receive 5/16" Fiber Cement Panel
- e. Metal Outside Corner Trim:
 - 1) Basis of Design: Xtreme Trim "Low Profile Outside Corner", Item ID XOCLP516, 3/4" flange, to receive 5/16"Fiber Cement Panel
- C. Fiber Cement Mounting Block:
 - 1. Basis of Design: Sturdi Mount; 29797 Beck Rd, Wixom, MI 48393; Toll Free Tel: 800-521-8486; Fax: 888-459-3647; Email: wayne_sanderson@tapcoint.com; Web: www.sturdimount.com
 - 2. Split Mount:
 - a. Material: Fiber cement, 5/4" trim
 - b. Application: Hose bibs, gas lines, HVAC drip lines
 - c. Size: 6" by 8-1/2"
 - d. Color: Primed
 - 3. Receptacle Mount:
 - a. Material: Fiber cement, 5/4" trim
 - b. Application: Receptacle outlet
 - c. Size: 6" by 8-1/2"
 - d. Color: Primed
 - 4. Oversized Mount:
 - a. Material: Fiber cement, 5/4" trim
 - b. Application: Exterior wall mounted lights
 - c. Size: 8 1/4" by 15-1/4"
 - d. Color: Primed
 - 5. Parts and Installation Products: As required for a complete installation.
 - a. ABS plastic flange,
 - b. Stainless steel staples,
 - c. Roofing nails, 2-1/2" long,
 - d. Brad nails, 2" long,
 - e. Caulk/Sealant,
 - f. Trim coil.
- D. Metal Furring: Galvanized steel hat channel, 3/8" deep, minimum 20 gauge per manufacturer. Minimum 20 gauge flat stock galvanized steel horizontal strapping or equivalent is required to accommodate off-stud vertical joining per manufacturer.
- E. Fasteners: Stainless steel, T or pan head type as recommended by panel manufacturer, of equal or greater holding power than required by manufacturer's Code compliance reports; sized and nailing pattern per manufacturer's printed data.
- F. Sheet Metal Flashings and Trim: Specified in Section 076200.
- G. Edge Sealer: Type recommended by siding manufacturer.
- H. Joint Sealers: Specified in Section 079200.
- I. Field Finish Paint: Specified 099100.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine substrate and clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Verify that weather barrier has been installed over substrate completely and correctly.
- C. Do not begin until unacceptable conditions have been corrected. Correct conditions detrimental to timely and proper completion of work.
- D. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the Owner.

3.2 PREPARATION

- A. Coordinate installation of sheet metal flashing indicated in drawings and specified 07 62 00. Include miscellaneous flashings needed for completion of a weathertight envelope and incidental to the work of this Contract.
- B. Cut fiber-cement siding planks and panels by scoring and breaking or cutting with tools as instructed by manufacturer to give sharp clean edges.
- C. Do not install siding panels or trim that is not primed on all faces and edges.

3.3 INSTALLATION

- A. Install fiber cement siding system in accordance with manufacturer's instructions and approved Shop Drawings.
 - 1. Read warranty and comply with all terms necessary to maintain warranty coverage.
 - 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
 - 3. Use trim details indicated on drawings.
 - 4. Touch up all field cut edges before installing (need to prime all cut edges).
 - 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Over Wood and Plywood Sheathing: Fasten siding through sheathing into studs or into the sheathing as permitted by the manufacturer's installation instructions.
- C. Fasten siding system at maximum spacing per manufacturer's code compliance reports. Place fasteners exposed, minimum 3/8 inch from panel edges and 2 inches from top and bottom edges at panel corners, in orderly fastening pattern.
- D. Provide minimum six (6") inch clearance between siding system and finished grade.
- E. Leave gap between horizontal drainage flashings and bottom of siding above. Do not seal this space.
- F. Locate splices at least twelve (12") inches away from window and door openings.
- G. Allow minimum vertical clearance between edge of siding system and adjacent materials in accordance with manufacturer's instructions.
- H. Cut panels to fit around penetrations with maximum \(\frac{1}{4}\)-inch gap. Smooth and seal cut edges.
- I. Apply joint sealer between panel system and adjacent surfaces as specified in Section 07 92 00 Joint Sealants except at horizontal drainage flashings. Do not seal lap joints or vertical joints of lap siding. Paint all exposed cut edges.

3.4 TOLERANCES

- A. Maximum Variation from Plumb and Level: 1/4 inch per ten (10') feet.
- B. Maximum Offset From Joint Alignment: 1/16 inch.

3.5 ADJUSTING

- A. Repair or replace damaged siding and installations not meeting specified tolerances.
- B. Remove and replace siding with edge chips exceeding 1/4 inch in depth or 1/2 in length, or showing other avoidable defects.

3.6 CLEANING

- A. Clean and wash factory primed exposed surfaces with mild soap and rinse with water.
- B. Leave installations clean, premises free from residue of work of this section, ready for field painting specified in Section 09 9 100.

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes single-ply Thermoplastic Polyolefin (TPO) membrane roofing system with hot air welded seams, mechanically fastened to polyiso cover board, including but not limited to:
 - 1. Membrane flashings, clad metal flashing, pedestrian traffic membrane, fastenings, adhesives, and liquid flashing,
 - 2. Demolition of existing roof as work progresses.

1.2 REFERENCES

A. ASTM International

- 1. ASTM C1177 Standard Specifications for Glass Mat Gypsum Substrate Used as Sheathing.
- 2. ASTM D751 Method for Coated Fabrics.
- 3. ASTM D1149 Test Method for Rubber Deterioration Surface Ozone Cracking in a Chamber.
- 4. ASTM D2137 Test Method for Rubber Property Brittleness Point of Flexible Polymers and Coated Fabrics.
- 5. ASTM D5538 Standard Practice for Thermoplastic Elastomers-Terminology and Abbreviations
- 6. ASTM D6878 Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing
- 7. ASTM E84 Test Method for Surface Burning Characteristics of Building Materials
- B. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) Architectural Sheet Metal Manual
- C. National Roofing Contractors Association (NRCA)
- D. American Society of Civil Engineers (ASCE)
- E. Factory Mutual (FM Global) Approval Guide
- F. Underwriters Laboratories (UL) Roofing Systems and Materials Guide (TGFU R1306)

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
 - 1. Provide manufacturer's published architectural details in accordance with basis of design references in the Drawings.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Provide samples of insulations, fasteners, membrane materials and accessories for verification of quality.
- D. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.

PART 1 GENERAL

1.1 SUMMARY

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- C. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.

1.4 QUALITY ASSURANCE

- A. Single Source Responsibility: System, assembly, and components, under single roofing manufacturer responsibility, for complete and watertight system.
- B. Installer:

- 1. Company specializing in work of this Section.
- 2. Trained and certified by manufacturer as authorized installer for work of this Project.
- 3. 5 years documented experience installing single ply roofing of comparable scope and type.
- 4. Roofing Foreman:
 - a. Minimum 2 projects installing manufacturer's system.
 - b. On site for duration of roofing portions of Project

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Conference: Arrange, in conformance to Section 01 31 00.
 - 1. Attendance: Contractor, roofing subcontractor, manufacturer's representative, Owner, and as requested by attendees.
 - 2. Arrange conference and job walk-through prior to scheduled commencement of the roofing installation and associated work.

1.6 DELIVERY, STORAGE AND HANDLING

A. Conform to manufacturer's instructions.

1.7 FIELD CONDITIONS

- A. Weather Conditions: Conform to manufacturer instructions during extremes of temperature and humidity, when moisture is present, and imminent precipitation is forecast. Do not install over wet or moist substrates.
- B. Environmental Conditions: Do not expose roofing membrane to petroleum products, animal fats, and other grease and oils, and in conformance to manufacturer's instructions.

1.8 WARRANTY

- A. Manufacturer: Standard 20 year non-prorated, labor and materials watertightness System Warranty, including vapor barrier board, rigid insulation, fasteners, and membrane as a complete roofing system. Exclusions for conditions contributing to standing water, resulting from insufficient roof slope, and wind speeds up to 60 mph are not accepted.
- B. Contractor: 2-year workmanship warranty guaranteeing watertightness for system including at flashing, terminations, and penetrations.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Themoplastic Polyolefin Sheet (TPO) Roofing:
 - 1. Basis of design: GAF Materials Corporation;
 - 2. Carlisle SynTec Incorporated;
 - 3. Firestone Building Products Co.;
 - 4. Or approved equal.

2.2 VAPOR BARRIER

- A. Composite Self-Adhered Temporary Roofing, Air, and Vapor Retarder Membrane: Carlisle, 725TR Temporary Roof/ Air and Vapor Barrier or approved equal.
 - 1. 40 mil composite consisting of 35 mils self-adhering rubberized asphalt and release liner laminated to a 5 mil polyolefin film.

B. Air and Vapor Retarder Sheeting: 6 mil polyethylene or thermoplastic polyolefin and double stick tape as instructed by manufacturer.

2.3 INSULATION

- A. Tapered Extruded Polystyrene Insulation (XPS) meeting or exceeding the requirements for ASTM C578, Type IV [min 25 psi (1.8 kg/cm) compressive strength].
 - 1. Basis of design: Foamular Thermapink 25 Tapered Insulation.

2.4 COVER BOARD

- A. Rigid polyisocyanurate cover board, with a coated polymer-bonded glass fiber mat facers on both major surfaces of the core foam conforming to or exceeding the requirements of ASTM C 1289 / Class 4, Grade 1.
 - 1. Basis of design: EnergyGuard HD Polyiso
 - 2. Minimum Compressive Strength: 80psi

2.5 MEMBRANE MATERIALS

- A. Smooth type, polyester scrim reinforced thermoplastic polyolefin membrane with a nominal 0.060-inch (60 mil.) thickness, for use as a single ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D-6878. UL Listed, FM Approved, Dade County Product Approval, Florida Building Code Approved. White membrane is Energy Star Listed, CRRC Listed and Title 24 Compliant. Each full roll contains approximately 1000 sq.ft. of roofing material, 10' X 100', weighing 322 lbs. Each half sheet roll contains approximately 500 sq.ft. of roofing material, 5' X 100', weighing 162 lbs. Half sheet roll required for roof perimeter use in mechanically attached systems.
 - 1. Basis of design: EverGuard TPO 60 mil thermoplastic single-ply roofing membrane by GAF.
 - 2. Color: Slate Grey

2.6 ADHESIVES, SEALANTS, PRIMERS, AND LIQUID FLASHING

- A. Solvent-based Bonding Adhesive: Solvent based rubberized adhesive for use with TPO membranes.
 - 1. Basis of design: EverGuard 1121 Bonding Adhesive, by GAF.
- B. One-part moisture cure, self-leveling sealant designed for use in pitch pans.
 - 1. Basis of design: EverGuard One-Part Pourable Sealer by GAF.
- C. Solvent based liquid, required to protect field cut edges of TPO membranes. Applied directly from a squeeze bottle.
 - 1. Basis of design: EverGuard TPO Cut Edge Sealant, by GAF.
- D. Solvent based primer for preparing surfaces to receive butyl based adhesive tapes.
 - 1. Basis of design: EverGuard TPO Primer, by GAF.
- E. Solvent based seam cleaner used to clean exposed or contaminated seam prior to heat welding,
 - 1. Basis of design: EverGuard TPO Seam Cleaner, by GAF.
- F. Solvent based, trowel grade synthetic elastomeric sealant. Durable and UV resistant suitable for use where caulk is typically used. Available in 10 oz. tubes.

- 1. Basis of design: FlexSeal Caulk Grade by GAF.
- G. Commercial grade roofing sealant suitable for sealing the upper lip of exposed termination bars and penetrations and around clamping rings and comes with a 20 year limited warranty against leaks caused by manufacturing defects. Meets the performance criteria of ASTM D412, ASTM D2196, ASTM D1475 and ASTM D1644,
 - 1. Basis of design: FlexSeal Roof Sealant, by GAF.
- H. One-part butyl based high viscosity sealant suitable for sealing between flashing membrane and substrate surface behind exposed termination bars and for sealing between roofing membrane and drain flange.
 - 1. Basis of design: EverGuard Water Block, by GAF.
- I. 100% solids urethane based two-part sealant suitable for filling sealant pans at irregularly shaped penetrations.
 - 1. Basis of design: EverGuard Two-Part Pourable Sealant, by GAF.
- J. Liquid flashing, one-part moisture curing grey polyether sealant.
 - 1. Basis of design: MajorSeal Liquid Flashing, by GAF.

2.7 PLATES & FASTENERS

- A. Standard Screws: Standard duty alloy steel insulation fastener with CR-10 coating with a 0.215" diameter thread. Factory Mutual Standard 4470 Approved, #3 Phillips head for use on steel and wood decks.
- B. HD Screws: Heavy gauge alloy steel fastener with CR-10 coating with a 0.245" diameter thread. Miami Dade and Factory Mutual Standard 4470 Approved, #3 Phillips truss head for use on wood, concrete and steel decks.
- C. XHD Screws: Heavy gauge alloy steel fastener with CR-10 coating with a 0.275" diameter thread. Factory Mutual Standard 4470 Approved, #3 Phillips truss head for use on heavy steel decks, O.S.B or aluminum roof decks.
- D. Insulation Plates: Galvalume, 3" diameter, suitable for use with Standard and HD screws, and Spikes. Special design available for use with Polymer Screws.
- E. XHD Plates: Galvalume, 2 3/8" diameter, with a barbed underside. Suitable for use with Standard, HD, and XHD Screws, and Spikes.

2.8 ACCESSORIES

A. Flashing Accessories

- 1. A smooth type, unreinforced thermoplastic polyolefin-based membrane for use as an alternative flashing/reinforcing material for penetrations and corners. Required whenever preformed vent boots cannot be used. 0.055 inches (55 mils) nominal thickness and sheet size: 24in x 50ft.
 - a. Basis of design: EverGuard TPO Detailing Membrane, by GAF.
- 2. An 8-inch wide smooth type, polyester scrim reinforced thermoplastic polyolefin membrane strip for use as a cover strip over coated metal and stripping-in coated metal flanges and general repairs: 0.060 inches (60 mils) nominal thickness with 100-foot length.
 - a. Basis of design: EverGuard TPO Flashing Membrane, by GAF.

- 3. Extruded aluminum termination bar with angled lip caulk receiver and lower leg bulb stiffener. Pre-punched slotted holes at 6" on center or 8" on center. 3/4" x 10' with 0.090" cross section, Use only with counter-flashing.
 - a. Basis of design: Drill-Tec Termination Bar, by GAF.
- 4. 24-gauge steel with 0.025" thick TPO based film as required for fabrication into metal gravel stop and drip edge profiles, metal base and curb flashings, sealant pans, and scupper sleeves. Standard sheet size 4' x 10', sheet weight 47 lbs.
 - a. Basis of design: EverGuard TPO Coated Metal, by GAF.

B. Wall & Curb Accessories

- 1. .060" thick reinforced TPO membrane fabricated corners. Four corners are required to flash curbs.
 - a. Basis of design: EverGuard Corner Curb Wraps, by GAF.
- 2. 0.060" thick molded TPO membrane outside corners of base and curb flashing. Hot-air welds directly to TPO membrane. Size 4" x 4" with 6" flange.
 - a. Basis of design: EverGuard TPO Universal Corners by GAF.
- 3. 0.055" molded TPO membrane inside corners of base and curb flashing. Hot-air welds directly to TPO membrane. Size 6" x 6" x 5.5" high.
 - a. Basis of design: EverGuard TPO Preformed Corners by GAF.

C. Penetration Accessories

- 1. 0.075" thick molded TPO membrane sized to accommodate most common pipe and conduits, (1" to 6" diameter pipes), including square tube. Hot-air welded directly to TPO membrane, supplied with stainless steel clamping rings.
 - a. Basis of design: EverGuard TPO Preformed Vent Boots by GAF.
- 2. 0.60" thick molded TPO membrane preformed boots are split to accommodate most common pipes and conduits and available in three standard sizes,
 - a. Basis of design: EverGuard TPO Split Pipe Boots, by GAF.
- 3. 0.60" thick molded TPO membrane preformed square boots are split to accommodate most common square penetrations and conduits and available in three standard sizes,
 - a. Basis of design: EverGuard TPO Square Tube Wraps, by GAF.
- 4. 0.070 thick molded penetration pocket to provide structure and foundation for the application of a pourable sealant for a variety of roof penetrations, weldable and 9" x 6" x 4" (1 x w x h).
 - a. Basis of design: EverGuard TPO Pourable Sealer Pocket, by GAF.

D. Field of Roof Accessories

- 1. Pre-manufactured expansion joint covers used to bridge expansion joint openings in a roof structure. Fabricated to accommodate all roof to wall and roof to roof applications, made of 0.060" reinforced TPO membrane.
 - a. Basis of design: EverGuard TPO Expansion Joint Covers, by GAF.
- 2. 0.055" thick smooth type, unreinforced thermoplastic polyolefin membrane designed for use as a conforming membrane seal over T-joints in 60 and 80 mil membrane applications.

- a. Basis of design: EverGuard T-Joint Patches, by GAF.
- 3. 1/8" thick extruded and embossed TPO roll 30" x 50', heat welds directly to roofing membrane. Traction surface. Gray in color.
 - a. Basis of design: EverGuard TPO Walkway Rolls, GAF.

E. Rubber Conduit Support

- 1. Rubber support with 14 gauge galvanized steel channel (13/16" high).
 - a. Dimensions: 4 7/8" high x 6" wide x 9.6"-48" length
 - b. Material: 100% recycle rubber, UV resistant
 - c. Max load: 750 lbs. for each 9.6" long support

PART 3 EXECUTION

3.1 EXAMINATION

- A. Inspect substrate and report unsatisfactory conditions in writing. Beginning work means acceptance of substrate.
- B. Comply with roof system manufacturer's instructions and recommendations; clean, prime and prepare substrate.
- C. Begin roof installation only in presence of manufacturer's representative. Minimize seams and shingle overlaps to shed water.
- D. Install walkway protection over an additional layer of membrane at locations indicated and where required to provide access to roof.
- E. Restore or replace damaged components. Protect work from damage.

3.2 INSTALLATION

- A. Install in conformance to manufacturer's instructions and provisions of Contract Documents. Where in conflict, verify with Owner before beginning work.
- B. Install roofing, insulation, flashings and accessories as single system under manufacturer's Warranty provisions.
- C. Install only as much roofing as can be completed during same day or prior to commencement of inclement weather.
- D. At completion of each day's work or at commencement of inclement weather, seal off membrane edges as instructed by manufacture as necessary to prevent water penetration beneath completed roofing.

3.3 VAPOR BARRIER INSTALLATION

- A. Self-Adhering Sheet Vapor Barrier. Prime substrate if required by MFG. Install self-adhering sheet vapor barrier with Side laps of each sheet a minimum of 3.5", and end laps of each sheet a minimum of 6 inches.
- B. Completely seal vapor barrier at terminations, obstructions, and penetration areas with foam sealant. Connect vapor barrier to the air/water barrier at parapet walls to prevent air movement into the roofing system.

3.4 RIGID INSULATION BOARD INSTALLATION

A. Install with staggered end joints and side joints. Slope and align to make smooth terminations and tight meeting joints.

- B. Cut and tightly fit rigid insulation to penetrations, projections, conduit, and other construction.
 - 1. Leave between 1/8-inch to 1/4-inch-wide gap at adjacent board and construction.
 - 2. Fill gaps larger than 1/4-inch with rigid insulation cut to fit.
- C. Stagger end joints of alternate rows of insulation board.
- D. Install rigid insulation where possible in not less than 2 layers deep. Stagger joints of insulation layers with layer below to prevent thermal drift.
- E. Adhered Insulation Systems: Polyurethane foam adhesive
 - 1. Wood Decking at Fully-adhered Systems: Adhere insulation board to composite temporary roofing, air, and vapor retarder membrane and subsequent insulation layers.
- F. Mechanically Fastened Insulation Systems: Do no use at exposed to view ceiling areas.
 - 1. Wood Decking: Use FM approved fasteners as recommended by manufacturer to resist an equivalent FM-1-60 wind uplift pressure.
 - a. Penetrate wood deck minimum 3/4 inch.
- G. Temporarily hold insulation board in place with construction adhesive or other means acceptable to manufacturer prior to through fastening into place.
- H. Slope and align edges and meeting joints to make smooth transitions and tight meeting joints.
 - 1. Install to prevent telegraphing of joints thorough membrane.
 - 2. Install tapered insulation at crickets, slopes to roof drains, and roof areas requiring extra slope.
- I. Install no more rigid insulation than can be covered by completed membrane roofing during same day and before onset of inclement weather.

3.5 COVER BOARD INSTALLATION

- A. Install with staggered end joints and side joints. Slope and align to make smooth terminations and tight meeting joints.
- B. Cut and tightly fit to penetrations, projections, conduit, and other construction.
 - 1. Leave between 1/8 inch to 1/4-inch-wide gap at adjacent board and construction.
 - 2. Fill gaps larger than 1/4 inch with rigid insulation cut to fit.
- C. Decking: Use FM approved fasteners as recommended by manufacturer to resist an equivalent FM-1-60 wind uplift pressure.
 - 1. Penetrate wood deck minimum 3/4 inch.
- D. Temporarily hold board in place with construction adhesive or other means acceptable to manufacturer prior to through fastening into place.
- E. Slope and align edges and meeting joints to make smooth transitions and tight meeting joints.
 - 1. Install to prevent telegraphing of joints thorough membrane.
 - 2. Install tapered insulation around roof drains to create a sump.
- F. Install no more than can be covered by completed membrane roofing during same day and before onset of inclement weather.

3.6 MEMBRANE ROOFING INSTALLATION

A. Position sheet membrane in place.

- 1. Fold sheet back so that half of underside is exposed.
- 2. Lay in place free of wrinkles and buckles.
- 3. All exposed sheet corners shall be rounded a minimum of 1".
- B. Mechanically Attached Membrane Roofing: Mechanically fasten with specified fasteners in accordance with manufacturer's Guide Specifications and with layout for FM I-60 wind uplift.
 - 1. Hold disks 1-inch minimum back from edge of membrane.
 - 2. Install in approved pattern with 6-inch minimum overlaps, shingled where possible to direct the flow of water.
 - 3. Fasteners must be installed to achieve the proper embedment depth. Install fasteners without lean or tilt.
 - 4. Install fasteners so that the plate or termination bar is drawn down tightly to the membrane surface. Properly installed fasteners will not allow the plate or termination bar to move (underdriving), but will not cause wrinkling of the membrane (overdriving).

C. Hot Air Welding

- 1. Position adjoining sheet membranes with minimum 2 inch to 2-1/2 inch overlap.
- 2. Clean edges as instructed by manufacturer.
- 3. Heat weld minimum 1-1/2 inch wide seam using automatic heat welding machine or hand held gun as instructed by manufacturer. Do not use hand held gun at field seams except for piece work.
- 4. All cut edges of reinforced membrane must be sealed with manufacturer's recommended sealant
- 5. Manually probe entire length of seam with dull cotter key extractor after seam has cooled.
- 6. Make other tests as instructed by manufacturer and as necessary to verify waterproof seams.

3.7 FLASHINGS AND TERMINATIONS

- A. Perimeter Membrane Roofing Attachment: Securely attach roofing membrane at each perimeter condition including at walls, curbs, penetrations, expansion joints, and change of angle exceeding 2-inch vertical to 12-inch horizontal. Use fastening methods as instructed by manufacturer.
- B. All penetrations must be at least 24" from curbs, walls, and edges to provide adequate space for proper flashing.
- C. Membrane Flashing: Fully-adhere with bonding adhesive and hot air welded seams. Tie into manufacturer's termination bars, clad metal flashing systems, and as necessary to make watertight system.
 - 1. Vertical Wall Terminations: Install with reglets, specified Section 07 62 00, topped with silicone sealant specified Section 07 92 00. Where sealant contacts TPO membrane, verify compatibility with manufacturer, and follow manufacturer instructions.
 - 2. Vent Stack Flashing and Pipe Penetrations: Install manufacturer's standard one-piece manufactured thermoplastic membrane pipe boots.
 - 3. Corners: Install manufacturer's standard pre-molded inside and outside corners. Use unreinforced membrane only at inside and outside corners and where reinforced membrane is not practical

D. Membrane Clad Metal Flashings:

1. Install to make watertight transitions at roofing and membrane flashing as shown on Drawings and as instructed by manufacturer.

- 2. Install concurrently with membrane roofing and membrane flashing installation.
- 3. Tie into metal flashing work of Section 07 62 00.
- 4. Expansion Joints: Install in conformance to manufacturer's instructions at perimeter and membrane roofing areas where expansion control is required to relieve stress on membrane roofing.

3.8 TRAFFIC MEMBRANE

- A. Install using manufacturer's standard method using bonding adhesive or hot air welding.
- B. Pedestrian Walkway: Install 2-foot-wide at roof areas subject to foot traffic including around mechanical equipment on roofing.
- C. Walkway rolls can be cut into pads and must be spaced 2" apart to allow for drainage between the pads.

3.9 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Perform inspections by manufacturer's authorized technical representative during interim and completion of roofing work of this Section. Note deficiencies and promptly make oral and written report to Contractor and Owner.
- B. Contractor: Perform tests as instructed by manufacturer, including destructive tests at beginning and end of each hot air welding process.

3.10 CLEANING

A. Leave installations clean and premises free from residue and debris from work of this Section.

3.11 PROTECTION

- A. Make provisions to protect new and existing work to remain.
- B. Protect roofing system from traffic, storage of materials, and other potentially damaging conditions.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes miscellaneous exterior flashing including but not limited to:
 - 1. Flashings, counter-flashings, drip edges and the like as required for a weather-tight installation,
 - 2. Gutters, gutter debris protection, and downspouts,
 - 3. Miscellaneous flexible flashing and sealants as required for weather-tight performance.

1.2 REFERENCES

- A. Applicable provisions of the following standards shall apply to the work of this Section, except as modified herein, and are hereby made a part of these Contract Specifications to the extent required:
 - 1. ASTM A240-05 Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
 - 2. ASTM B32-04 Standard Specification for Solder Metal
 - 3. ASTM B370-03 Standard Specification for Copper Sheet and Strip for Building Construction
 - 4. FS SS-C-153C Cement, Bituminous, Plastic
 - 5. SMACNA Architectural Sheet Metal Manual, 6th edition 2003

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- **B.** Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish, including but not limited to gutters, downspouts and gutter debris protection.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Conform to Section 01 60 00 and SMACNA recommendations.
- B. Deliver, store, and handle to protect from twisting, soiling, scratching, and other damage.
- C. Do not store in direct sunlight, metal with strippable protective film.

1.5 WARRANTY

- A. Conform to Warranty provisions of Section 01 77 00.
- **B.** Pre-Finished Steel Sheet and Coil Coating Warranty: Manufacturer's 20-year Warranty against fading, color change, chalking, peeling, cracking, or delaminating.
- C. Contractor Warranty: Warranty work of this Section to be waterproof and weather-tight against ordinary wear and usage for two (2) years from date of Substantial Completion, including material and labor. This is an extension of the standard one (1)-year warranty.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Sheet metal not otherwise called for to be minimum gauges per SMACNA for comparable construction. Use heavier gauges where required by conditions of installation.
- B. Materials shall be best quality, thickness not less than that noted below.

2.2 MATERIALS

- A. Sill Pan Material: Fabricate from stainless steel, ASTM A240, Type 304, dead soft fully annealed, 0.018 inch thick, smooth surface, Number 4 finish.
 - 1. Fabricate to detail. Form end dams each side and solder to prevent water migration.
- B. Flashing Material: Fabricate from prefinished G90 galvanized sheet steel, 24 gauge, Kynar 500 (PVDF) finish. Color as selected by Owner from standard color chart, Charcoal Gray or similar.
 - 1. Perimeter edge flashings: Fabricate to detail. Provide minimum six (6") inch end-laps set in two (2) continuous beads of sealant.
 - 2. Clips and cleats: 20 gauge minimum.
 - 3. Miscellaneous flashings and counter-flashings not noted above.
- C. Gutters: Site rolled. Provide continuous five (6") inch wide (seamless) "K" style gutters. Attach with concealed hangers at twenty-four (18") inches o.c. Install expansion joints in gutter lengths greater than forty (40') feet.
 - 1. Material: Fabricate from coil aluminum, .027 gauge, Kynar 500 (PVDF) finish.
 - 2. Color as selected by Owner from manufacturer's standard colors.
- D. Gutter Debris Protection: Amerimax Home Products Metal Lock-in Gutter Guard, Raptor Gutter Guard Stainless Steel screwed in gutter guard, or approved equal. Color as selected by Owner from manufacturer's standard white.
- **E**. Downspout Material: Fabricate from coil aluminum, .027 gauge, Kynar 500 (PVDF) finish. Color as selected by Owner from manufacturer's standard white.
 - 1. Circular (4" x 4") inches, locations matching existing conditions.
- F. Stainless Steel Fabric Thru-Wall Flashing: Prosoco SS ThruWall or approved equal.

2.2 FASTENERS

- A. Nails shall be hot-dip galvanized or stainless steel. Bolts, and nuts, power driven fasteners, screws, washers, etc., shall be hot-dip galvanized or stainless steel. Exposed fasteners shall be a high-dome, neoprene gasketed, hex head type, or incorporate a washer with a laminated neoprene gasket. Concealed sheet metal fasteners shall be No. 12 to 14, panhead, self-drilling, self-tapping, non-corrosive fasteners, and as instructed by manufacturer.
- B. Silicone rubber washers.

2.3 ACCESSORIES

- A. Plastic Cement (as applicable): In accordance with referenced FS SS-C-153, Type I-asphaltic.
- **B**. Electrolytic Protection to separate dissimilar materials: Cold-applied asphalt-mastic complying with SSPC-Paint 12 requirements, containing no asbestos, formulated for 30-mil thickness per coat.

- C. Solder (as applicable): Conform to ASTM B32, commercial quality, type suited to material to be soldered.
- D. Miscellaneous Materials: Provide other incidental and accessory materials, methods, tools and equipment. Include materials of sheet metal, flashing and trim required.
 - 1. Uncured Butyl Tape. 1/4"x1" Minimum.
 - 2. Flexible Flashing: Specified 072500
- E. Sealant: Specified Section 07 9 200 Joint Sealants.
- F. Stainless Steel Sheet: Scuppers, saddle flashings, sill pans, and other fabrications requiring soldered joints.
 - 1. ASTM A240 or ASTM A666, Type 304, soft temper ("dead soft") unless required to be harder for proper forging and performance in application indicated; fully annealed; smooth surface; 2D finish, unless otherwise indicated.
 - 2. Exterior Exposed Stainless Steel: 2B mill finish.

2.4 FABRICATION

- A. Conform to SMACNA and as detailed. Conform to following general requirements:
 - 1. Form sections true to shape, accurate in size, square and free from distortion or defects.
 - 2. Fabricate cleats and starter strips same material as sheet, in widths required by SMACNA, inter-lockable with sheet.
 - 3. Form pieces in longest practical lengths.
 - 4. Provide expansion joints at minimum forty (40') foot intervals or as required by SMACNA or as indicated.
 - 5. Hem exposed edges on underside one-half (1/2) inch; fabricate separate corner pieces.
 - 6. Form material with cover plate type seam; butt adjacent sections to within one-eighth (1/8") inch, set cover plate under seam, minimum length of plate twelve (12") inches unless noted otherwise.
 - 7. Fabricate vertical faces with bottom edge formed outward one-quarter (1/4") inch and hemmed to form drip.
 - 8. Cap neat ends as required or indicated.

B. Flashing:

- 1. As detailed and in accordance with SMACNA. Self-supporting flashing 24 gage minimum.
- 2. Provide folded end dams at ends of horizontal flashing.
- 3. Seal laps. Provide a minimum six (6") inch end lap and seal with two (2) continuous beads of approved sealant.
- C. Sill Flashings: Fabricate to detail.
- D. Accessories: Furnish and install as indicated required by conditions of installation. Items of same materials as items to which applied.
- **E**. Solder and seal metal joints.
 - 1. After soldering, remove flux.
 - 2. Wipe and wash solder joints clean.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in conformance to SMACNA, NRCA, and provisions of Contract Documents.

SECTION 07 62 00 SHEET METAL, FLASHING AND TRIM

- B. Install flashings, counter-flashings, copings, and other sheet metal fabrications to detail, conforming to SMACNA recommendations and as required for watertight installations.
- C. Flash joints, terminations, and penetrations at roofing, door and window frames, and other construction.
- D. Neatly form and finish joints and seams. Make lines, moldings, and edges sharp and true. Reinforce as required for stiffness.
- **E**. Make surfaces free from waves and buckles. Build in expansion joints and make other provisions to allow for thermal expansion and contraction to prevent distortion and oil-canning.
- F. Slope copings and other horizontal installations for positive drainage to shed water.
- G. End Laps and Side Laps: Minimum 6-inch overlap with 2 continuous beads of non-skinning butyl and as required to make watertight.
- H. Form sheet metal shapes with minimum 4-inch-wide flanges.

I. Fasteners:

- 1. Install exposed fasteners at concealed locations and concealed clips at exposed locations, except as otherwise accepted by Owner.
- 2. Space fasteners conforming to provisions of SMACNA and NRCA.
- 3. Install additional fasteners at each side of end laps as necessary secure flashing end laps from water intrusion.
- 4. Seal penetrations through sheet metal and flashings by lapping with air barrier or with sealant.
- J. Electrolytic Protection: Prevent galvanic action where dissimilar metals are in galvanic range of each other. Separate with tape, bituminous protective backing, 2 coats of bituminous paint, or other isolation methods.

K. Flexible Flashing: Specified 07 25 00

- 1. Use flexible flashing and accessory materials in coordinated fashion with metal flashings and other waterproofing materials so as to achieve absolutely watertight, sealed, properly shingled and drainable assemblies.
- 2. Install per manufacturer recommendations.
- 3. Pre-treat substrates to be flashed where required for adequate adhesion.
- 4. Overlap adjacent pieces three to four (3-4") inches with sealant, and roll overlaps with a steel hand roller or blunt object. Shingle laps for proper drainage.
- 5. Seal metal flashing at tops, laps, terminations, and end dams with flexible flashing and mastic.
- 6. At horizontal terminations for flashing, turn up ends a minimum of two (2") inches, cut and make careful folds to form a pan and seal with mastic.
- 7. Apply a bead or trowel coat of mastic along top edges, seams, cuts and penetrations.
- 8. Shingle end dams.
- 9. Seal penetrations through flashing with mastic.

L. Sweat Soldering:

- 1. Pre-tin edges of sheet metal to a width of 1-1/2" inches before beginning soldering.
- 2. Fully sweat solder joints to a minimum depth of ½" by applying heat from iron to upper sheet, drawing solder fully into joint below.

3.2 GUTTERS AND DOWNSPOUT INSTALLATION

A. Conform to SMACNA and provisions of Contract Documents.

- B. Install continuous gutter cleats allowing for free thermal expansion and contraction.
- C. Install steel gutter spacer straps and gutter brackets not exceeding 3 foot on center spacing.
- D. Secure continuous eave hanger to solid wood framing.
- E. Insert downspouts into downspout outlets and sweat solder into place.
- F. Flash and seal with joint sealer for watertight connections and joints.
- **G.** Install expansion joints and covers at continuous gutter sections at 50 foot on center. Provide exposed splice plates and expansion joint covers.
- H. Support downspouts with downspout straps 8 to 10 foot on center, maximum, except not less than 2 per downspout. Space at even intervals.
- 1. Connect downspouts with neoprene downspout boot to below grade tightline storm drainage system. Do not connect into foundation drainage system.

3.3 JOINT SEALERS

- A. Conform to provisions of Section 07 92 00 and NRCA Manual, as required to make weathertight joints.
- **B**. Overlapping Metal Flashing Joints: Install lap sealant at copings, reglets, counterflashing, gutters, and other continuous flashing joint overlaps.
 - 1. Install minimum one bead of butyl bedding sealant between flashing overlaps.
 - 2. Seal exposed open ends of flashing with silicon joint sealant.
 - 3. Install bead of butyl or silicone sealant at joints under cap flashing and overlapped flashing. Install minimum one bead of butyl bedding sealant or silicone sealant on each side of joint.
 - 4. Install one bead of butyl bedding sealant or silicone sealant between substrate and flush mounted reglets, termination bars, and other overlaps or metal to metal or metal to other construction.
 - 5. Do not compress sealant beads between overlapping flashing.
- C. Sheet Metal Cover Plates: At cover plates under metal flashing joints, set minimum two beads of butyl bedding sealant between sheet metal at each side of joint.

3.4 ADJUSTING

- A. Make adjustments to make installations plumb and true to line.
- B. Repair installations as required to make watertight.
- C. Touch up scratched or marred surfaces to match adjacent finishes.

3.5 CLEANING

A. Leave installations clean, free from residue and debris from work of this Section.

PART 1 GENERAL

1.1 SUMMARY

A. Section includes but is not limited to general sealant work required for weather-tight installation of work of this Contract.

1.2 REFERENCES

- A. Applicable provisions of the following standards shall apply to the work of this Section, except as modified herein, and are hereby made a part of these Contract Specifications to the extent required:
 - 1. ASTM C661 Test Method for Indentation hardness of Elastomeric –Type Sealants by Means of a Durometer
 - 2. ASTM C719 Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)
 - 3. ASTM C834 Specification for Latex Sealing Compounds
 - 4. ASTM C920 Specification for Elastomeric Joint Sealants
 - 5. ASTM C1193 Standard Guide for Use of Joint Sealants
 - 6. ASTM C1330 Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants
 - 7. ASTM D2240 Standard Test Method for Rubber Property—Durometer Hardness
 - 8. ASTM D5893 Standard Specification for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Pavements
- B. Sealant, Waterproofing & Restoration Institute (SWRI), Tel. (816) 472-7979. Fax: (816) 472-7765, Email info@swrionline.org / Web Site http://www.swrionline.org

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4 QUALITY ASSURANCE

A. Installer Oualifications:

- 1. Applicator shall have at least three (3) years' experience in installing materials of types specified and shall have successfully completed at least three (3) projects of similar scope and complexity.
- 2. Applicator shall designate a single individual as project foreman who shall be on site at all times during installation.
- B. Single Source Responsibility for Joint Sealant Materials:
 - 1. Obtain joint sealants from a single manufacturer for each different product required to ensure compatibility.
 - 2. Manufacturer shall instruct applicator in procedures for intersecting sealants.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when temperature or weather conditions deviate from manufacturer's recommendations. Comply with manufacturer's recommended requirements for temperatures, relative humidity and substrate moisture content during application and curing of materials.
- B. Ensure proper ventilation in areas to receive solvent and moisture cured materials, and in enclosed spaces when installing two-component foam sealant.
- C. Comply with manufacturer's MSDS Sheets for use and handling of products.

1.6 SEQUENCING AND SCHEDULING

- A. Do not install work of this Section until work of other trades having an effect on this Section of work has been completed.
- B. Schedule applications of waterproofing, water repellents and preservative finishes after sealant installation unless sealant manufacturer approves otherwise in writing. Ensure that installed sealant is allowed to cure sufficiently prior to subsequent applications.

1.7 WARRANTY

- A. Deliver to the Owner signed copies of the following written warranties against adhesive and cohesive failure of the sealant and against infiltration of water and air through the sealed joint for a period of five (5) years from date of completion.
 - 1. Manufacturer's standard warranty covering sealant materials.
 - 2. Applicator's standard warranty covering workmanship.

PART 2 PRODUCTS

2.1 MATERIALS

A. General:

- 1. Color: White, or as selected by Owner from samples of manufacturer's standard color range.
- 2. Sealant must be compatible with back-up material.
- 3. Compatibility:
 - a. Provide joint sealants, joint fillers and accessory joint materials that are compatible with one another and with joint substrates under project conditions.
 - b. Install joint sealants, joint fillers and related joint materials that are non-staining to visible joint surfaces and surrounding substrate surfaces.
- 4. Pre-compressed foam joint sealant backup sealant at masonry and other rainscreen weather joints.
- 5. Sealing of vertical and horizontal construction joints, making air and watertight.
- 6. Primers: As required and recommended by the sealant manufacturer for surface conditions encountered.

2.2 SILICONE JOINT SEALANTS

- A. As manufactured by Dow Corning Corp, Sika Corporation, Tremco Incorporated or accepted equal.
- B. Silicone Joint Sealants:

1. Single-Component, Non-sag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, for Use NT.

2.3 LATEX JOINT SEALANTS

- A. As manufactured by Dow Corporation, Sika Corporation, Tremco Incorporated or accepted.
- B. Single Component Latex Joint Sealant: ASTM C834, acrylic latex or siliconized acrylic latex, non-hardening, non-corrosive, Type OP, Grade NF.

2.4 JOINT SEALANT BACKING

- A. Joint-Sealant Backing: ASTM C1330, polyethylene foam rod, closed or open cell to suit job conditions and approved in writing by joint sealant manufacturer; non-staining; compatible with joint substrates, sealants, primers and other joint fillers; and accepted for applications indicated by sealant manufacturer based on field experience and laboratory testing.
 - 1. Diameter twenty-five (25%) percent greater than width of joint where it is to be installed.
 - 2. Polystyrene foam not acceptable.
- B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Non-staining, non-absorbent material compatible with joint sealants and surfaces adjacent to joints.
- D. Firestop Joint Sealants (flamesafe safing sealant): Elastomeric sealing material intended to resist the passage of fire and toxic gasses in non-fire-resistance rated assemblies, acceptable to AHJ.
- E. Other Materials: Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor and approved by the sealant manufacturer as compatible, subject to review of the Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Applicator shall examine the areas and conditions under which work of this Section will be performed.
 - 1. Verify conformance with manufacturer's requirements.
 - 2. Report unsatisfactory conditions in writing to the Owner.

3. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Protection: Completely protect surfaces adjacent to joints. Apply masking around joints to protect adjacent surfaces from defacement and staining during sealing operations.

3.3 INSTALLATION, APPLICATION, PERFORMANCE

- A. Install in accordance with manufacturer's directions for conditions of installation.
- B. Apply sealants before application of water repellents or other coatings at surfaces to ensure sealant adhesion.
- C. Keep sealants back from adjacent faces of surfaces.
- D. Backing for surfaces:
 - 1. Apply foam rod back-up material allowing proper space for sealant per the sealant manufacturer's data guide.
 - a. Where more than 3/4" wide pack with foam backer rod material to within 1/2" of surface.
 - b. Where less than 1/2" wide install foam rod backer rod material to within 1/4" of surface.
 - 2. Where less than 1/2" deep, apply bond breaker tape to bottom of joints to prevent adhesion of sealant to bottom of joint.
 - 3. Provide backing materials in as long lengths as practicable; install with proper tool. Force backing into joint to proper depth for sealant.
- E. Sealing: Recess joints as indicated; minimum recess equal to joint width.
 - 1. Apply sealant in accordance with manufacturer's directions and the following:
 - a. Use sealant dispensing equipment to push sealant bead into opening. Fill joint opening to full and proper configuration. Apply in continuous operation, ensure sealant fills entire joint and firmly contacts all surfaces.
 - b. Install sealant vertically or horizontally as necessary to allow moisture to drain.
 - 2. Examine installation carefully. Repair any areas where sealant is not properly adhered due to bubbles, foreign matter or other defects.
 - 3. Seal joints before final coat of finish is applied to adjacent surfaces.

3.4 CURING

- A. General: Prior to painting or coating, allow sealant joints to cure as directed by sealant manufacturer, minimum seven (7) days for a single component and three (3) days for a multi-component.
- B. Environmental Conditions: Ambient temperatures and humidity affect the cure rate and time required for joint to be "tack-free". Notify Owner if cure times exceed the minimums listed.

3.5 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

- 1. Extent of Testing: Test completed and cured joints as follows:
 - a. Perform ten (10) tests for the first one thousand (1,000') feet of joint length for each type of elastomeric sealant and joint substrate.
 - b. Perform one (1) test for each one thousand (1,000') feet of joint length thereafter or one (1) test per each floor per elevation.
- 2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C1193 or Method A, Tail Procedure, in ASTM C1521.
 - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; do this by extending cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
- 3. Inspect joints for complete fill, for absence of voids and for joint configuration complying with specified requirements. Record results in a field-adhesion-test log.
- 4. Inspect tested joints and report on whether the sealants:
 - a. Filled joint cavities and are free of voids.
 - b. Dimensions and configurations comply with specified requirements.
 - c. In joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
- 5. Field-Adhesion-Test Log: Record test results. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration and sealant dimensions.
- 6. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
- B. Evaluation of Field Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.6 CLEANING, INSPECTION AND PROTECTION

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials accepted in writing by manufacturers of joint sealants and of products in which joints occur.
- B. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.7 SCHEDULE

JOINT SEALANT	APPLICATION
Single-Component Neutral Curing Silicone Sealant	 Exterior joins in exterior finish systems Exterior perimeter joints at frames of doors, and windows Exterior control and expansion joints in ceilings and other overhead surfaces Exterior vertical joints between different materials listed above All other exterior vertical and horizontal nontraffic joints unless noted otherwise
Single-Component Mildew-Resistant Neutral- Curing Silicone Sealant	Exterior joints with galvanized steel or insulated glass substrates
Latex Sealant	Perimeter joints between interior wall surfaces and frames of interior doors and windows

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes hollow metal door slabs at roof access.

1.2 REFERENCES

- A. American National Standard Institute (ANSI):
 - 1. ANSI A250.4 Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frame Anchors and Hardware Reinforcings
 - 2. ANSI A250.6 Hardware on Standard Steel Doors (Reinforcement Application)
 - 3. ANSI A250.8 Recommended Specifications for Standard Steel Doors and Frames (formerly SDI 100)
 - 4. ANSI A250.11 Recommended Erection Instructions for Steel Frames (formerly SDI 105)

B. ASTM International (ASTM):

- ASTM A366 Standard Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality
- 2. ASTM E152 Standard Methods of Fire Tests of Door Assemblies
- 3. ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.4 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.
- C. Performance Standards:
 - 1. Fire-Rated Assemblies: NFPA 80, and acceptable testing agency listing.
 - 2. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.
 - 3. Sound-Rated Assemblies at Mechanical Rooms: ASTM E 1408, and ASTM E 413.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Manufacturers/Products:
 - 1. Curries
 - 2. Steelcraft
 - 3. Stiles
 - 4. Windsor Republic

5. Or accepted.

B. Products:

1. Basis of Design: Curries specified herein for type, performance and quality.

a. Doors: Curries "707" hollow metal doors.

b. Frames: Existing to remain

2.2 MATERIALS

- A. Gavannealed/Galvanized Sheet Steel: ASTM A653/A924, Commercial Steel (CS), Type B; minimum A40/G40 zinc coating at interior conditions, and A60/G60 at interior conditions exposed to moisture and exterior conditions.
 - 1. Minimum thicknesses indicated are of base metal without coatings, per HMMA 803 or SDI A250.8
 - 2. Wipe Coat Galvanized Steel (WCGS) coating and ASTM A591 systems not accepted.

2.3 AUXILIARY MATERIALS AND ACCESSORIES:

- A. Inserts, Bolts, and Fasteners: Manufacturer's standard, hot-dip galvanized per ASTM A153, of type suitable for substrate and application indicated.
- B. Door Silencers: Three on strike jambs of single-door frames and two on heads of double-door frames, except weather-stripped doors and frames.
- C. Miscellaneous Accessories: Provide door accessories as indicated. For door stops, thresholds, and the like, refer to Section 08 71 00, Door Hardware.
- D. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15 mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.4 FABRICATION

A. General:

- 1. Fabricate units to be rigid, neat in appearance, free from defects, warp or buckle.
- 2. Wherever practicable, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled at project site. Field splice only at approved locations.
- 3. Fabricate exposed faces of doors/panels from cold rolled galvannealed steel sheet.
- 4. Fabricate concealed stiffeners, reinforcement, edge channels and the like, from either cold-rolled or hot-rolled (at fabricator's option), galvanized/galvannealed steel sheet.
- 5. Weld exposed joints continuously, grind, dress, and make smooth, flush and invisible.
- 6. Allow clearance for flooring as required by referenced standards and fire-ratings.
- Sound Reduction Assemblies: Provide door and frame assemblies fabricated as soundreducing type, tested according to ASTM E90 and ASTM E1408, and classified according to ASTM E413.
- 8. Coordinate finish hardware requirements.

B. Steel Doors:

- 1. General: Provide metal doors of welded construction, of types and styles as indicated in the Drawings or Schedules and the following:
 - a. Thickness: 1 3/4 inch.
 - b. Provide closed tops (steel top cap to seal door tops).
 - c. Factory cut openings in doors and install glazing, panels and louvers.

C. Steel Frames

1. General: Use existing.

D. Reinforcement:

- 1. Provide steel reinforcement at hinges, latches, closers and similar areas of high stress, minimum gauges as follows:
 - a. Hinge reinforcement: 7 gauge (0.167 inch) plate with additional high frequency 10 gauge hinge reinforcement welded to the top hinge.
 - b. Lock strike reinforcing: 10 gauge (0.123 inch).
 - c. Closer reinforcing: 10 gauge (0.123 inch).
- 2. Reinforce tops and bottoms of all doors with continuous steel channel not less than 16 gauge (0.053 inch), extending the full width of door and welded to face sheet. Doors with an inverted top channel shall have a steel closure channel welded in place so the channel web is flush with top of face sheets of door. Plastic fillers are NOT accepted.
- E. Fabrication Tolerances: Comply with SDI 117 and the following:
 - 1. Door Surface Flatness: 1/8 inch maximum.
 - 2. Clearance between Doors and Frames at Heads and Jambs: 1/8 inch.
 - 3. Clearance between Door and Stop: 1/16 inch.
 - 4. Clearance between Door and Sill:
 - a. At Doors with no Thresholds: Maximum 3/4 inch (1/4 inch above carpeting).
 - b. At Doors with Thresholds: Maximum 3/8 inch.
 - c. Fire-Rated Doors: Comply with requirements of NFPA 80 and AHJ.

2.5 PROVISIONS FOR HARDWARE

- 1. General: Comply with requirements of ANSI A115, NFPA, referenced standards, and the following:
 - a. Mortise, reinforce and tap frames at factory for mortise hardware.
 - b. Work to templates for hardware.
 - c. Reinforce for surface-applied hardware.
 - d. Drill stops for rubber door silencers.
 - 1) Single-Leaf Doors: Three each lock jamb frame.
 - e. Provide plaster guards at silencers and strike pockets.
 - f. Conform to standards of hardware manufacturer except as modified this Section.
 - g. Locate finish hardware as specified in Section 08 71 00, Door Hardware.

2.6 FACTORY FINISHES

- 1. Shop-Applied Primers General:
 - a. Lead-based primers not accepted.
 - b. Primer shall be fully cured prior to shipment.
 - c. Do not prime or paint over UL labels.
- 2. Field Touch-Up Galvanized Surfaces: Complying with ASTM A780, 2-4 mils dft., Tnemec "Series 394 PerimePrime" or accepted.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.
- B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./square foot degree F (ASTM C 236) for all exterior doors.
- C. Hardware: Prepare doors and existing frames to receive hardware on final schedule. Provide for 3 silencers on single doorframes; 2 on double doorframes.
- D. Shop Finish: Clean, treat and prime paint all work with rust-inhibiting primer comparable with finish paint specified in Division 9 section. Provide asphalt emulsion sound deadening coating on concealed frame interiors.
- E. Touch up damaged coatings ready to receive finish painting.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes doors and frames at exterior locations including but not limited to:
 - 1. Unit doors installed in existing openings at balconies.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 331 Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
- B. Environmental Protection Agency and Department of Energy:
 - 1. Energy Star Program Requirements Product Specification for Residential Windows, Doors, and Skylights
- C. Code of Federal Regulations:
 - 1. CFR 1201 Part 2 Safety Standard for Architectural Glazing Materials
- D. National Fire Protection Association
 - 1. NFPA 252 Standard Methods of Fire Tests of Door Assemblies

1.3 SUBMITTALS

- A. Product Data: Submit door manufacturer's current product literature, including installation instructions.
- B. Samples: Submit full-size or partial full-size verification sample of door illustrating glazing system, quality of construction, texture and color of finish.

1.4 QUALITY ASSURANCE

A. Mockup:

- 1. Provide sample unit of representative product size and using manufacturer's approved installation methods to determine acceptability of door installation methods.
- 2. Approved mockup shall represent minimum quality required for the work.
- 3. Approved mockup shall remain in place.
- B. Quality Assurance Submittals:
 - 1. Provide documentation for specified performance as required.
 - 2. Manufacturer's installation instructions.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver materials to site undamaged with labels clearly identifying manufacturer, product name and installation instructions
- B. Storage: Store materials in an upright position, off ground, under cover and protected from weather, direct sunlight, and construction activities.
- C. Handling: protect materials and finish during handling and installation to prevent damage.

1.6 WARRANTY

A. Manufacturer's standard limited warranty applies.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Therma-Tru Corp. Fiberglass Entry Doors or accepted. Therma-Tru products specified as basis of design. Refer to Section 01 60 00 for Substitution requirements.

2.2 MATERIALS

- A. Unit Balcony Door (101):
 - 1. Smooth Star Full Lite Flush: S118: Full Single-Lite Centered, Flat Lite Frame, Low-E Glass. Swing to match existing conditions.
 - 2. Frames: Composite, paintable. Factory primed and doors pre-hung for specified hinges. Include Therma-tru integral door gaskets.
- B. Door Bottom: Therma-Tru Door bottom.
- C. Additional Door Hardware: Specified in Section 08 71 00.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas to receive doors. Notify Owner in writing of any unacceptable conditions that would adversely affect installation or subsequent performance of the product. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Pre-Hang doors in frames specified.
- B. Install doors in accordance with manufacturer's written instructions and best practice.

3.3 FINISHING

A. Finish specified 09 91 00.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products prior to Substantial Completion in accordance with specifications.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes vinyl-framed, factory glazed single hung windows including hardware.

1.2 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors; American Architectural Manufacturers Association; 2011.
- B. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009.
- C. ASTM E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2000 (Reapproved 2008).
- D. ASTM E774 Sealed Insulating Glass Units.

1.3 SUBMITTALS

- A. Reference Section 01 33 00 Submittal Procedures; submit following items:
 - 1. Product Data: Submit Milgard product data.
 - 2. Shop Drawings: Include window schedule, elevations, sections, details and multiple-window assembly details. Include head, sill and jamb conditions, operable parts, direction/handing and special mullion reinforcement details.
 - 3. Samples: Submit selection samples for verification, include the following:
 - a. Exterior Color: Minimum one by four (1"x4") inch color chips on fiberglass substrate: White
 - b. Glass, showing specified tint color. Clear. Low-e.
- B. Quality Assurance/Control Submittals:
 - 1. Qualifications: Proof of Manufacturer's qualifications.
 - 2. U-Factor and Structural Rating charts required for NFRC and AAMA labeling requirements.
 - 3. Installation Instructions: AAMA 2400, ("Mounting Flange Installation") or AAMA 2410 ("Flush Fin Installation").
- C. Closeout Submittals: Reference Section 01 77 00 Submit following items:
 - 1. Temporary window labels to identify windows that labels were applied to.
 - 2. Owner's Manual/Maintenance Instructions.
 - 3. Special Warranties.

1.4 QUALITY ASSURANCE

- A. Overall Standards: Comply with ANSI/AAMA/101/I.S.2, except where noted herein.
- B. Manufacturer Qualifications:
 - 1. Minimum ten (10) years' experience in producing vinyl windows.
 - 2. Member AAMA & NFRC.
- C. Installer Qualifications: Company specializing in performing the work of this section and approved by manufacturer.

- D. Certifications for Insulated Glass Units:
 - 1. Insulated glass units are certified to ASTM E2188/E2190 per the Associated Laboratories Incorporated (ALI) guidelines.
- E. AAMA: Windows shall be Gold Label certified with label attached to frame per AAMA requirements.
- F. NFRC: Windows shall be NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent AAMA frame label.
- G. Source Limitations: Obtain vinyl windows through one source from a single manufacturer.
- H. Product Options: Information on Drawings and in Specifications establishes requirements for vinyl windows' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, profiles of components and assemblies as they relate to sightlines, to one another and to adjoining construction.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of General Conditions.
- B. Jig, brace and box the window frame assemblies for transport to minimize flexing of members or joints.
- C. Comply with Manufacturer's/Dealer's ordering instructions and lead time requirements to avoid construction delays.
- D. Delivery: Deliver materials in Manufacturer's standard packaging for protection of product.
- E. Storage & Protection: Store products away from exposure to environmental conditions that may be harmful to materials.
- F. Store materials off ground in an upright position. Provide cover from weather and construction activity.
- G. Follow Manufacturer's instructions on label applied to units.

1.6 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and after installation of sealants.
- B. Field Measurements: Verify vinyl window openings by field measurements before fabrication and indicate measurements on Shop Drawings. Confirm flashing dimensions.
- C. Coordinate work with trades of other specification sections.

1.7 WARRANTY

- A. Commercial Warranty:
 - 1. Ten (10) Year Manufacturer's Warranty. This is an extension of the Contractor's standard one (1) year warranty.
 - 2. Guarantee windows against defects in materials and workmanship including costs for replacement parts and labor.

1.8 PERFORMANCE REQUIREMENTS

- A. General: Provide vinyl windows of extruded tubular plastic sections, shop fabricated, vision glass, operators, related flashing flanges, anchorage and attachment devices.
 - 1. Configuration: Fixed and horizontal slider

- B. Structural Performance: Provide vinyl windows capable of withstanding the effects of the following loads, based on testing units representative of those indicated for Project that pass AAMA/WDMA 101/I.S.2/NAFS, Uniform Load Structural Test:
 - 1. Design Wind Loads: Determine design wind loads applicable to Project from basic wind speed indicated in miles per hour at thirty-three (33') feet above grade, according to ASCE 7, Section 6.5, "Method 2-Analytical Procedure," based on mean roof heights above grade indicated on Drawings.
- C. Thermal Movement: Design sections to permit movement caused by thermal expansion and contraction of plastic to suit glass, infill and perimeter opening construction.
 - 1. Thermal Performance: Comply with NFRC 100.
- D. Air Leakage, Water Resistance, Structural Test: Comply with ANSI/AAMA /NWWDA 101/I.S.2.
- E. Forced Entry Resistance: Conform to ASTM F588 requirements for performance level 10. Comply with CAWM 301-90.
- F. Performance Requirements: Conform to performance requirements of ASTM D4099 Grade 30.
- G. Assembly: To accommodate, without damage to components or deterioration of seals, movement between window and perimeter framing, deflection of lintel.
- H. Vapor Seal: No vapor seal failure at interior static pressure of 1 inch, 72 degrees F, and forty (40%) percent relative humidity
- I. System Internal Drainage: Drain water entering joints, condensation occurring in glazing channels, or migrating moisture occurring within system, to the exterior by a weep drainage network.
- J. Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with inside pane of glass and heel bead of glazing compound

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Windows shall be ENERGY STAR qualified products that meet or exceed the ENERGY STAR performance rating or better.
- B. Air Leakage, Water Resistance, Structural Test: Comply with ANSI/AAMA /NWWDA 101/I.S.2.
- C. Forced-Entry Resistance: Comply with CAWM 301-90.
- D. Thermal Transmittance: Provide vinyl windows with a whole-window, U-factor maximum indicated at 15-mph exterior wind velocity and winter condition temperatures when tested according to AAMA 1503 and NFRC 100.
 - 1. U-Factor: 0.3 Btu/sq. ft. x h x deg. F or better.
 - 2. Alternate glazing U-factor: 0.22 or better
- E. Solar Heat-Gain Coefficient (SHGC): Provide vinyl windows with a whole-window SHGC maximum of 0.40, determined according to NFRC 200 procedures.

2.2 MANUFACTURERS

- A. Products by Milgard Manufacturing, 1010 54th Avenue East, Tacoma, WA 98424 are specified as Basis of Design. Tel: (800) MILGARD (645-4273, Fax: (253) 926-0848, E-mail: mgallant@milgard.com, Website: http://www.milgard.com/.
- B. Or approved equal.

2.3 MATERIALS

- A. Integral color PVC compound containing impact-resistant solid plasticizer, titanium dioxide UV inhibitor, and surface and color stabilizers.
- B. Weatherstripping:
 - 1. Vinyl compression bulb seal.

2.4 WINDOW TYPES

- A. Per list below and as indicated on Drawings.
- B. Single Hung 1-3/8" nail fin setback, Tuscany 8220T Series
 - 1. Frame: 3-1/4" minimum depth. Multi-chambered vinyl profile.
 - 2. Sash: 1-1/4" minimum depth. Multi-chambered vinyl profile.
 - 3. Structural Class: H-LC30
 - 4. Hardware:
 - a. SmartTouch® direct action locking mechanism.
 - 1) Unlocking: Lock shall function such that the unlocking and movement of the sash are performed with the same continuous motion.
 - 2) Locking: Lock shall function such that the locking mechanism shall be actuated automatically upon closing of the sash.
 - 3) Concealed block and tackle balancer.
 - 4) Dual lift rails.
 - 5. Weatherstripping: Fin seal polypropylene pile.
- C. Fixed/Picture Window with Horizontal Slider Frame 1-3/8 inch nail fin setback. Tuscany 8120T Series
 - 1. Frame: Minimum 3-1/4 inch deep, multi-chambered vinyl profile.
- D. Bay Windows: Unit configuration and window types as shown on drawings, mulled together to form a single window unit.
- E. Grids & Muntins: Horizontal and vertical internal grid patterns to match existing. Muntin width to match existing.

2.5 GLAZING

- A. Insulated Glass Units: ASTM E 774, Class A, 7/8 inch thick overall. Clear, insulating- glass units, with low-E coating pyrolytic on second surface, double pane or sputtered on second or third surface, complying with Division 08 Section "Glazing."
 - 1. Glazing Type: Sun Coat Low E / Clear.
- B. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal. Units shall be able to be re-glazed without dismantling sash framing.
- C. Spacer Type: Warm edge stainless steel spacer.

- D. Gas Filled: Argon.
- E. Glass Thickness: Per Manufacturer's Specifications.

2.6 HARDWARE

- A. General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with vinyl; designed to smoothly operate, tightly close, and securely lock vinyl windows, and sized to accommodate sash or ventilator weight and dimensions. Do not use aluminum in frictional contact with other metals. SmartTouch direct action locking mechanism is to be used. Nylon rollers with stainless steel axles, extruded vinyl snap-on monorail roller track. Dual pull rails.
- B. Locks and Latches: Designed to allow unobstructed movement of the sash across adjacent sash in direction indicated and operated from the inside only.
- C. Sash lock: Lever handle with cam lock.

2.7 ACCESSORIES

A. Insect Screens:

- Rolled formed Aluminum insect screen frames: Manufacture's standard aluminum alloy complying with SMA 1004. Fabricate frames with mitered or coped joints or corner extrusions, concealed fasteners and removable PVC spline/anchor concealing edge of frame.
- 2. Screen Cloth: Pure View High Visibility fiberglass mesh.
- B. Passive Fresh Air Ventilation System: All windows to have fresh air ventilation system. Vents to be vinyl construction which match color of new windows and meet following features:
 - 1. No hood design.
 - 2. Positive open and close design.
 - 3. Full operation of window shall not be limited by vent.
 - 4. Installed insect screen.
 - 5. Meets Washington State Energy Code for fresh air ventilation.

2.8 FABRICATION

- A. Fabricate frames and sash with mitered and fusion welded corners and joints.
- B. Trim and finish corners and welds to match adjacent surfaces.
- C. Provide concealed metal reinforcements in sash frame for attachment of lock mechanism.
- D. Factory interior glaze (except Double Hung and Double Slider) with snap-on mitered PVC glazing stops matching bevels on the sash and frame. Insulated glass units shall be reglazeable without dismantling sash framing.
 - 1. Note: Field glazing is required for large window units (over 40 sq. ft.).

2.9 FINISHES

- A. Frame and Sash Color:
 - 1. Exterior: Almond
 - 2. Interior: As selected by Owner from Manufacturer's standard finish options.
- B. Hardware: Manufacturer's standard.

- C. Screen Frame Color:
 - 1. Matched to exterior frame color

2.10 SOURCE QUALITY CONTROL:

A. Inspect windows in accordance with Manufacturer's Quality Control Program as required by AAMA Gold Label Certification.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine openings in which windows will be installed.
 - 1. Verify that framing complies with AAMA 2400 (Mounting Flange Installation) & AAMA 2410 (Flush Fin Installation).
 - 2. Verify that fasteners in framed walls are fully driven and will not interfere with window installation.
- B. Coordinate with responsible entity to correct unsatisfactory conditions.
- C. Commencement of construction or installation means acceptance of existing conditions by Contractor as suitable for construction or installation.

3.2 INSTALLATION

- A. Comply with Drawings, Shop Drawings and manufacturer's written instructions for installing windows, hardware, accessories and other components.
- B. Install windows in framed walls in accordance with AAMA 2400 ("Mounting Flange Installation") and / or AAMA 2410 ("Flush Fin Installation"). Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in bed of sealant or with gaskets, as indicated, for weathertight construction
- D. Do not remove temporary labels.
- E. Install Insect Screens on operable sash.

3.3 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust work under provisions of General Conditions.
- B. Adjust hardware for smooth operation and secure weathertight closure.
- C. Remove protective material from pre-finished surfaces.
- D. Clean factory-glazed glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels and clean surfaces.
- E. Remove and replace glass that has been broken, chipped, cracked, abraded or damaged during construction period.
- F. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains or other contaminants. If contaminating substances do contact window

surfaces, remove contaminants immediately according to manufacturer's written recommendations.

- G. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.
- H. Lubricate operable portions as necessary after cleaning.
- I. Remove temporary labels and retain for Closeout Submittals.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes hardware for doors including, but not limited to:
 - 1. Locksets, hinges, closers, stops, kick plates, sweeps and thresholds.
 - 2. Weatherstripping, seals and door gaskets.
 - 3. Provide complete finish hardware and suitable fastenings for the Project in accordance with Drawings, Specifications and Schedules.
 - 4. Furnishing items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function.
 - 5. Furnishing items not specifically mentioned, but necessary to complete work. These are to match quality and finish of the items specified.
 - 6. Include all items as required by the authority having jurisdiction for Fire Rated Doors.
 - 7. Coordinate keying with Owner.
 - 8. Quantities: Those listed in any instance are for Contractor's convenience only and are not guaranteed.

1.2 REFERENCE STANDARDS

- A. 36 CFR 1191 Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities; Final Rule; current edition; (ADA Standards for Accessible Design).
- B. ANSI/ICC A117.1 American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2009.
- C. BHMA A156.1 American National Standard for Butts and Hinges; Builders Hardware Manufacturers Association, Inc.; 2006 (ANSI/BHMA A156.1).
- D. BHMA A156.2 American National Standard for Bored and Preassembled Locks & Latches; Builders Hardware Manufacturers Association; 2011 (ANSI/BHMA A156.2).
- E. E. BHMA A156.4 American National Standard for Door Controls Closers; Builders Hardware Manufacturers Association, Inc.; 2008 (ANSI/BHMA A156.4).
- F. BHMA A156.6 American National Standard for Architectural Door Trim; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.6).
- G. BHMA A156.7 American National Standard for Template Hinge Dimensions; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.7).
- H. BHMA A156.8 American National Standard for Door Controls Overhead Stops and Holders; Builders Hardware Manufacturers Association, Inc.; 2010 (ANSI/BHMA A156.8).
- I. BHMA A156.13 American National Standard for Mortise Locks & Latches; Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.13).
- J. BHMA A156.17 American National Standard for Self Closing Hinges & Pivots; Builders Hardware Manufacturers Association, Inc.; 2004 (ANSI/BHMA A156.17).
- K. BHMA A156.18 American National Standard for Materials and Finishes; Builders Hardware Manufacturers Association, Inc.; 2006 (ANSI/BHMA A156.18).
- L. BHMA A156.22 American National Standard for Door Gasketing and Edge Seal Systems, Builders Hardware Manufacturers Association; 2012 (ANSI/BHMA A156.22).
- M. DHI (LOCS) Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; Door and Hardware Institute; 2010.

- N. NFPA 80 Standard for Fire Doors and Other Opening Protectives; 2013.
- O. UL (BMD) Building Materials Directory; Underwriters Laboratories Inc.; current edition.

1.3 COORDINATION

- A. Refer to Section 01 31 00 Project Management and Coordination for additional requirements.
- B. Coordinate the manufacture, fabrication and installation of products onto which door hardware will be installed.
- C. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
- D. Convey Owner's keying requirements to manufactures during the course of the Work.
- E. Pre-installation Meeting: Convene a pre-installation meeting one (1) week prior to commencing work of this section; require attendance by all affected installers.
- F. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

1.4 SUBMITTALS

- A. Refer to Section 01 33 00 Submittal Procedures for additional submittal requirements.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.
- C. Hardware Schedule: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project. Submit manufacturer's parts lists, templates and special tools.
- D. Keying Schedule: Submit for approval of Owner.
- E. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.
- F. Maintenance Data: Include data on operating hardware, lubrication requirements and inspection procedures related to preventative maintenance.
- G. Submit manufacturer's parts lists and templates.
- H. Operation and Maintenance shall be included in Project Operation and Maintenance Manuals. To include in manuals: catalog cuts, manufactures names, address and phone numbers.
- I. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.
- J. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three (3) years of documented experience.
- B. Hardware Supplier Qualifications: Company specializing in supplying commercial door hardware approved by manufacturer.
 - 1. Supplier to maintain stock and parts inventory of all standard items for future service by the Owner.

- 2. Authorized representatives for door closers and locksets are to inspect and adjust their hardware.
- 3. To be factory direct authorized distributor not a broker.
- C. To be staffed with a certified Architectural Hardware Consultant (AHC) and locksmiths available at all reasonable times during construction to meet with Owner, and Contractor for hardware or keying problems.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01 60 00 Product requirements for additional requirements.
- B. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.
- C. Storage of hardware shall be protected, under lock and key, and storage kept dry for protection of the hardware.

1.7 WARRANTY

- A. Refer to section 01 77 00 Closeout Procedures for additional warranty information.
- B. Provide twenty-five (25) year warranty against ordinary wear and usage for door closers from date of substantial completion.

PART 2 PRODUCTS

2.1 DOOR HARDWARE – GENERAL

- A. Provide all hardware specified or required to make doors fully functional, compliant with applicable codes and secure to the extent indicated.
- B. Provide all items of a single type of the same model by the same manufacturer.
- C. Provide products that comply with the following:
 - 1. Applicable provisions of Federal, State and local codes.
 - 2. ADA Standards for Accessible Design.
 - 3. ANSI/ICC A117.1, American National Standard for Accessible and Usable Buildings and Facilities.
 - 4. Applicable provisions of NFPA 101, Life Safety Code.
 - 5. All Hardware on Fire-Rated Doors: Listed and classified by UL as suitable for the purpose specified and indicated.
 - 6. Hardware for Smoke and Draft Control Doors (Indicated as "S" on Drawings):
 - a. Provide hardware that enables door assembly to comply with air leakage requirements of the applicable code.
 - 7. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.
- D. Finishes: All door hardware the same finish unless otherwise indicated.
 - 1. Primary Finish: Satin chrome plated over nickel on brass or bronze, 626 (approx. US26D).
 - 2. Finish Definitions: BHMA A156.18.
 - 3. Exceptions:
 - a. Where base metal is specified to be different, provide finish that is an appearance equivalent according to BHMA A156.18.

2.2 HINGES AND PIVOTS

- A. Hinges, Pivots and Butts: Provide hinges on every swinging door.
 - 1. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
 - 2. Provide ball bearing hinges for in-swinging doors.
 - 3. Provide hinges in the quantities indicated.
 - 4. Provide non-removable pins on exterior out-swinging doors.
 - 5. Provide hinges in the quantities indicated.
- B. Butt Hinges: Comply with BHMA A156.1 and A156.7; standard weight, unless otherwise indicated.
 - 1. Provide hinge width required to clear surrounding trim.
- C. Quantity of Hinges Per Door:
 - 1. Three (3) hinges per leaf to 7 feet, 6-inch height. Add one for each additional 30 inches in height or any fraction.
- D. Approved manufacturers:
 - 1. Ives: www.ives.allegion.com
 - 2. Therma-Tru: www.thermatru.com
 - 3. Hager Companies: www.hagerco.com
 - 4. Bommer Industries, Inc.: www.bommer.com

2.3 LOCKS

- A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
 - 1. Hardware Sets indicate locking functions required for each door.
 - 2. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
 - 3. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.
- B. Lock Cylinders: Manufacturer's full size interchangeable core (FSIC) six (6) pin cylinder.
 - 1. Provide cams and/or tailpieces as required for locking devices required.
- C. Keying: Grand master keyed per Owner's approval.

2.4 CYLINDRICAL LOCKSETS

- A. Locking Functions: As defined in BHMA A156.2, and as selected by Owner.
- B Approved manufacturers:
 - 1. Schlage: www.schlage.com

2.5 CLOSERS

- A. Closers: Complying with BHMA A156.4.
 - 1. Provide surface-mounted, door-mounted closers unless otherwise indicated.
 - 2. Provide a door closer on every exterior entry door.
 - 3. Furnish sex nuts and bolts for all doors.
 - 4. Closers shall have a 10-year guarantee.
- B. Approved manufacturers:
 - 1. LCN: www.lcnclosers.com
 - 2. Hager Companies: www.hagerco.com

2.6 STOPS AND HOLDERS

- A. Stops/Holders: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
 - 1. Provide wall mounted stops and floor mounted stops where wall mounted is impractical. Where no stop can be installed provide closer with cushion type arm. Anvils to be

- sufficient length to permit closers to be mounted on the pull side of the door.
- 2. If wall stops are not practical, due to configuration of room or furnishings, provide overhead stop.
- 3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.
- B. Approved Manufacturers:
 - 1. Ives: www.ives.allegion.com
 - 2. Glynn-Johnson: <u>www.glynn-johnson.com</u>.
 - 3. Trimco: www.trimcobbw.com

2.7 GASKETING, DOOR BOTTOMS, AND THRESHOLDS

- A. Gaskets: Comply with BHMA A156.22
 - 1. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
 - a. Where exterior door is also required to have fire or smoke rating, provide gaskets functioning as both smoke and weather seals.
- B. Door Bottoms:
 - 1. On each exterior door, provide door bottom shoe or sweep, unless otherwise indicated.
- C. Thresholds:
 - 1. At each exterior door, provide door manufacturers standard threshold.
 - 2. Provide ADA thresholds at accessible unit doors.
- D. Silencers:
 - 1. Quantity: Furnish three (3) for each single door frame.
- E. Approved manufacturers:
 - 1. Therma-Tru: www.thermatru.com

2.8 KEYING REQUIREMENTS

- A. Key Management System: For each keyed lock on project, provide one set of consecutively numbered duplicated key tags with hanging hole and snap catch.
- B. All keyed cylinders shall be subject to the existing Schlage Grand Masterkey system, coordinate with Owner.
- C. Furnish cylinders with construction cores. Following construction supply permanent keyed cores.
- D. Provide key quantities as listed or as approved by Owner:
 - 1. Four (4) Master Keys,
 - 2. Four (4) Control Keys,
 - 3. Four (4) Change Keys for each lock at unit doors,
 - 4. Four (4) Keys per keyed alike group,
 - 5. Six (6) Extra Cores in set of Two with (2) Cores keyed alike,

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. In the event of any discrepancies between job site conditions and the drawings, stop work immediately. Immediately call the Owner and report the nature, extent and impact of the

- discrepancy. Do not proceed with any and all work relating to the discrepancy until a resolution has been attained.
- C. Commencement of construction or installation means acceptance of existing conditions by contractor as suitable for construction or installation.
- D. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the owner.
- E. Verify that doors and frames are ready to receive work; labeled, fire-rated doors and frames are present and properly installed, and dimensions are as instructed by the manufacturer.

3.2 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Use templates provided by hardware item manufacturer.
- C. Install hardware on fire-rated doors and frames in accordance with code and NFPA 80.
- D. Mounting heights for hardware from finished floor to center line of hardware item: As listed in Schedule, unless otherwise noted:
 - 1. For wood, fiberglass or composite doors: Comply with DHI "Recommended Locations for Architectural Hardware for Wood Flush Doors."

3.3 ADJUSTING

- A. See Division 1 Project Administration regarding adjustment work under provisions of Owner. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.
- B. Hardware damaged by improper installation or adjustment methods to be repaired or replaced to the Owner's satisfaction.
- C. Adjust hardware for smooth operation.
- D. Replace units which cannot be adjusted to operate freely and smoothly.

PART 4 HARDWARE SETS

4.1 GENERAL

A. These Hardware Sets indicate requirements for single doors of that type, with conditional requirements for pairs and other situations.

HW 01 - UNIT BALCONY DOOR (101)

3	EA	HINGE	BY FIBERGLASS DOOR MFR		MFR
1	EA	PASSAGE SET	F10ELA	626	SCHLAGE
1	EA	SGL CYL DEADBOLT	B660R	626	SCHLAGE
1	EA	FSIC CORE	23-030	626	SCHLAGE
1	EA	DOOR STOP	061	F26	IVE
1	EA	SEAL	BY FIBERGLASS DOOR MFR		MFR
1	EA	DOOR BOTTOM	209AV	AL	PEMKO
1	EA	THRESHOLD	BY FIBERGLASS DOOR MFR,		MFR
			COMPOSITE ADJUSTABLE		

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SECTION 08 71 00 DOOR HARDWARE

HW 02 – ROOF ACCESS DOOR (102 & 103)

3	EA	HINGE	BY STEEL DOOR MFR	626	MFR
1	EA	STOREROOM LOCK	AL80RD SAT	626	SCHLAGE
1	EA	LOCK GUARD	LG10	630	IVE
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	1461 EDA	689	LCN
1	EA	RAIN DRIP	346C	AL	PEMKO
1	EA	SEAL	BY STEEL DOOR MFR		MFR
1	SET	SEALS	18100CNB	AL	PEMKO
1	EA	THRESHOLD	BY STEEL DOOR MFR		MFR

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes miscellaneous gypsum wallboard including but not limited to:
 - 1. Replacement of existing damaged exterior sheathing, assume 25 sheets to be replaced,
 - 2. Minor repairs necessary to repair damage on the interior of the units that may occur during the removal of the existing windows and the installation of replacement windows,
 - 3. Joint treatment and accessories.

1.2 REFERENCE STANDARDS

- A. ASTM C 475/C 475M Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2002. (Reapproved 2007).
- B. ASTM C 840 Standard Specification for Application and Finishing of Gypsum Board; 2011.
- C. ASTM C 1396/C1396M Standard Specification for Gypsum Board; 2011.
- D. ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 2005.
- E. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2013a.
- F. GA-216 Application and Finishing of Gypsum Board; Gypsum Association; 2010.
- G. GA-600 Fire Resistance Design Manual; Gypsum Association; 2009.
- H. UL (FRD) Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.3 SUBMITTALS

A. Product Data: Manufacturer's published descriptive literature for gypsum board types, trim accessories, and control joints pertinent to this Section.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum three (3) years of documented experience.

PART 2 PRODUCTS

2.1 GLASS MAT BACKING BOARD

- A. Manufacturers: CertainTeed Corporation, Georgia-Pacific Gypsum, National Gypsum Company, USG Corporation or accepted.
- B. Material Standard: ASTM C1178.
 - 1. Type: Regular and fire-resistant as required.
 - a. Application: Use for exterior vertical surfaces.
 - b. Thickness: 5/8 inch.

2.2 GYPSUM BOARD ASSEMBLIES

A. Manufacturers: CertainTeed Corporation, Georgia-Pacific Gypsum, National Gypsum Company, USG Corporation or accepted.

- B. Material Standard: ASTM C1396/C1396M
 - 1. Regular Type:
 - a. Application: Use for interior vertical surfaces and ceilings.
 - b. Thickness: 1/2 inch to match existing adjacent surfaces.
 - c. Edges: Tapered.
 - 2. Fire Resistant Type: Complying with Type X requirements; UL or WH rated.
 - a. Application: Use for interior vertical surfaces and ceilings at fire rated assemblies.
 - b. Thickness: 5/8 inch to match existing adjacent surfaces.
 - c. Edges: Tapered.
 - 3. Joint Treatment: ASTM C474 and ASTM C840, 3-coat system, paper or fiberglass tape.
- C. Provide completed assemblies complying with ASTM C840 and GA-216.

2.3 ACCESSORIES

A. Nails and screws of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. In the event of any discrepancies between job site conditions and the drawings, stop work immediately. Immediately contact the Owner and report the nature, extent and impact of the discrepancy. Do not proceed with any and all work relating to the discrepancy until a resolution has been attained.
- C. If substrate preparation is the responsibility of another installer, notify Owner of unsatisfactory preparation before proceeding.
- D. Commencement of construction or installation means acceptance of existing conditions by contractor as suitable for construction or installation.
- E. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the Owner.

3.2 INSTALLATION

A. Fire-Rated Construction: Install in strict compliance with requirements of assembly listing.

3.3 INSTALLATION OF TRIM AND ACCESSORIES

A. Corner Beads: Install at external corners, using longest practical lengths.

3.4 JOINT TREATMENT

- A. Finish gypsum board in scheduled areas in accordance with levels defined in ASTM C 840.
 - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.

- 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.

3.5 TOLERANCES

- A. Shim panels as necessary to conform to tolerances.
- B. Between Board Faces: 1/16 inch offset.
- C. Plane, Level, Warp, and Bow: 1/8 inch in 8 foot.

3.6 CLEANING AND PROTECTION

- A. Clean soiled surfaces with cleaning solution.
- B. Touch-up, repair or replace damaged products / materials / connections before Substantial Completion.
- C. Protect installed products until completion of project.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes fluid applied deck coating and floor preparation applied to concrete balconies.

1.2 REFERENCES

- A. ASTM D570 Standard Test Method for Water Absorption of Plastics; 1998 (Reapproved 2010).
- B. ASTM D412 Standard Test Method for Tensile Strength.
- C. ASTM D2240 Standard Test Method for Hardness (Shore D).
- D. ASTM D4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser; 2010.
- E. ASTM D624 Standard Test Method for Tear Resistance (pli).
- F. ASTM E96/E96M Standard Test Methods for Water Vapor Transmission of Materials; 2010.

1.3 SUBMITTALS

- A. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available.
- B. Manufacturer's Installation Instructions: Indicate special procedures.
- C. Maintenance Data: Include maintenance procedures, recommended maintenance materials, procedures for stain removal, repairing surface, and suggested schedule for cleaning.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five (5) years documented experience.
- B. Applicator Qualifications: Company specializing in performing work of this section with minimum ten (10) years' experience.

1.5 MOCK-UP

- A. Provide mock-up of deck coating illustrating coating for each specified coating at one deck.
- B. Mock-up may remain as part of Work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store resin materials in a dry, secure area.
- B. Store materials for three days prior to installation in area of installation to achieve temperature stability.

1.7 FIELD CONDITIONS

- A. Maintain minimum temperature in storage area of 55 degrees F.
- B. Store materials in area of installation for minimum period of 24 hours prior to installation.

C. Maintain ambient temperature required by manufacturer 72 hours prior to, during, and 24 hours after installation of materials.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Deck Liner: Two component, rapid curing, elastomeric polyurea, lining system
 - 1. Product: Rhino Extreme 11-50 GT Iso, Part #60062-1 and 11-50 GT Resin, Part #60067-1 manufactured by Rhino Linings Corporation: www.rhinolinings.com.
 - 2. Cured Thickness: 80 mils (0.80 inches), minimum.
 - 3. Hardness (Shore A): 50+/-5, when tested in accordance with ASTM D2240.
 - 4. Tensile Strength: 2800-3200 psi, when tested in accordance with ASTM D412.
 - 5. Compressive Strength: 800 psi, when tested in accordance with ASTM D695.
 - 6. Water Absorption: Less than or equal to 1 percent, when tested in accordance with ASTM D570 for 24 hr.
 - 7. Abrasion Resistance: Maximum weight loss of 10-15 mg/1000 cycles, when tested in accordance with ASTM D4060.
 - 8. Color: Selected by Owner from manufacturer's standard line.

2.2 ACCESSORIES

- A. All items incorporated into this system shall be compatible with and approved by the coating manufacturer.
- B. Primers and Cleaners: Recommended by manufacturer.
- C. Install approved skid resistant material at 1 lb. per 50sf.
- D. Deck Coating to have UV resistance.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations or foreign matter detrimental to adhesion or application of deck coating.
- B. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
- C. Verify that items that penetrate surfaces to receive deck coating are securely installed.

3.2 PREPARATION

- A. Protect adjacent surfaces not designated to receive deck coating.
- B. Clean and prepare surfaces to receive deck coating in accordance with manufacturer's instructions. Vacuum substrate clean.
- C. Seal joints with bond breaker and acceptable sealant in accordance with manufacturer.
- D. Install cant strips at inside corners.
- E. Apply primer to surfaces as required by manufacturer.
- F. Do not apply deck coating to surfaces unacceptable to manufacturer.

1. Ensure the surface to be primed and finished is dry and clean, free of dirt, oil and other contaminants.

3.3 INSTALLATION

- A. Apply in accordance with manufacturer's instructions.
- B. Apply each coat to minimum thickness indicated by manufacturer.
- C. Finish to smooth level surface.
- D. Cove at vertical surfaces.
- E. Extend into door openings and around columns as indicated in drawings.
- F. Surfacing:
 - 1. Slope to drain.
 - 2. Install in a weather tight manner.
 - 3. Install a minimum of 80 mils thick.
 - 4. Do not apply to high density polyethylene or thermoplastics without proper primers.

3.4 PROTECTION

- A. Prohibit traffic over unprotected or uncovered membrane per manufacturer's recommendation.
- B. Barricade area to protect coating until cured.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes painting of fiber cement siding, fiber cement trim, wood trim, fiberglass entrance doors, and other exterior surfaces as required for a complete paint job. Work includes:
 - 1. Surface preparation,
 - 2. Field applied primers, sealers, coatings and paints,
 - 3. Powder coat metal railings and awnings,
 - 4. Pre-paint off-site all interior finish trim,
 - 5. Painting and coating schedule.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM D523 Standard Test Method for Specular Gloss.
 - 2. ASTM D5324 Standard Guide for Testing Water-Borne Architectural Coatings.
- B. The Master Painters Institute (MPI): Tel 1-888-674-8937, Fax 1-888-211-8708, Email info@paintinfo.com, Web Site http://www.paintinfo.com
 - 1. MPI Approved Product List.
 - 2. MPI Architectural Painting Specification Manual.
- C. United States Environmental Protection Agency (EPA):
 - 1. EPA 40 CFR Part 59 (AD-FRL-6149-71 RIN 2060 National Volatile Organic Compound Emission Standards for Architectural Coatings, Final Rule, Federal Register / Vol. 63, No.176, September 11, 1998/Rules and Regulations.)
 - 2. Web Site: http://www.epa.gov/ttn/uatw/183e/aim/fr1191.txt

1.3 COORDINATION

- A. Refer to Section 01 31 00 Project Management and Coordination for additional requirements including the following:
 - 1. Pre-Installation Conference:
 - a. Attendance: Contractor, painting subcontractor, Owner and others as requested to attend.
 - b. Meeting Time: Minimum two (2) weeks before beginning work of this Section and work of related Sections affecting work of this Section and as necessary to meet Project Schedule.
 - c. Location: Project Site.

1.4 SUBMITTALS

- A. Product Data: Provide in the same order as scheduled by this Section:
 - 1. Manufacturer's Product Data Sheets for each product.
 - 2. Product/Label Analysis for paint products:
 - a. Pigment and vehicle percentages by weight.
 - b. Pigment composition analysis, including fillers in percent by weight.
 - c. Vehicle composition analysis, including resins, solvents and additives by weight.

- 3. Material Data Safety Sheets (MSDS):
 - d. Solvents, driers, additives and fillers.
 - e. Volatile organic compounds (VOC) emissions in grams per liter.
- B. Chip Color Samples: Manufacturer's complete selection.
- C. Paint Drawdown Color Samples: Size not less than 8 by 10 (8"x10") inch draw-down for each color selected for final acceptance prior to beginning work.
 - 1. Label back of each drawdown with manufacturer, product, color name and number, and gloss level.
 - 2. Furnish additional samples as required for acceptance of colors, finishes and textures.
 - 3. Retain approved samples for reference.

1.5 CLOSEOUT SUBMITTALS

- A. Refer to Section 01 33 00 Submittal Procedures and the following:
 - 1. Maintenance Data: Product data sheets, manufacturer's application instructions, MSDS, product color name and number, cleaning instructions and spot repair and repaint instructions.
 - 2. Invoices and other data as necessary to verify quantities of each paint product suitable for coverage in conformance to manufacturer's instructions.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Minimum one (1) gallon of each paint and coating type and color.
- B. Identify each container as to manufacturer, product, color name, and number with minimum five (5") inch press type. Tape over with clear tape.
- C. Include manufacturer's instructions and SDS for each product submitted.
- D. Turn over to Owner prior to project completion. Obtain signed receipt.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Manufacturer: Employ full time, locally available architectural product representative, technical field representative, testing equipment and services as necessary to perform inspections and to determine compliance with manufacturer's instructions and provisions of Contract Documents.

B. Applicator Qualifications:

- 1. Able to document minimum ten (10) years continuous experience in commercial quality projects of similar type and scope.
- 2. Employ qualified journeymen painters with apprentices under direction of qualified journeymen, conforming to trade regulations.

C. Field Samples:

- 1. Minimum three (3), ten (10) square foot area field sample for each accepted color and substrate type. Provide as a step-down field sample, showing each step of system, including surface preparation.
- 2. Locate as accepted by Owner.
- 3. Protect and retain accepted field samples as standard of quality for work of this Section.
- 4. Accepted field samples may be incorporated into finished work.
- D. Work of this Section to be performed by or under direct supervision of one (1) installer.

E. A pre-application meeting per General Requirements is required between all parties including painting Sub-contractor, Contractor, paint manufacturer's representative and Owner before work of these sections begin.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Conform to manufacturer's instructions.
- B. Deliver in unopened, sealed containers, bearing manufacturer's original labels with manufacturer's brand name, product name and number, color designation, surface preparation, mixing and reducing instructions, coverage, drying time, clean-up instructions, MSDS and VOC content. Include invoice statements showing quantities of each paint product. Submit to Owner upon request as a means to verify quantities suitable for coverage.
- C. Store and utilize paint in original containers bearing manufacturer's label for ease of identification. Do not put paint in containers bearing labels for other products.
- D. Store at ambient temperature between 45 degrees F and 90 degrees F. Store and mix material outside building.
- E. Take special safety precautions against hazards from toxic and flammable materials.
- F. Place paint and solvent contaminated cloths and materials, subject to spontaneous combustion, in containers and remove from job site each day.

1.9 FIELD CONDITIONS

- A. Environmental Requirements: Do not apply paints and coatings at surface and air temperatures below 50 degrees F, except as specified by this Section or as instructed or accepted by manufacturer.
- B. Weather: Do not apply exterior coatings when precipitation is predicted or appears imminent.
- C. Ventilation: Maintain continuous air exchange ventilation. Move moisture, odors and fumes from painting to outside of building.
- D. Illumination: Maintain lighting level of 50 foot candles measured at mid height at substrate surfaces.

1.10 WARRANTY

A. Manufacturer: Five (5) year materials warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. The following manufacturers are acceptable: Benjamin Moore, Kelly-Moore, Miller Paint Company, Rodda Paint, Cloverdale and Sherwin-Williams. Benjamin Moore products are specified as the basis of design.
- B. Substitution Requests: Submit for acceptance under provisions of Section 01 60 00 Product Requirements.
 - 1. Indicate that manufacturer will conform to specified Qualifications, including requirement for manufacturer to employ and maintain full time architectural product representatives, technical field representatives and testing equipment.
 - 2. Product/Label Analysis: Submit indicating pigments and vehicles in percentages by weight and composition breakdown of pigments and vehicles in percentages by weight.

2.2 PERFORMANCE CRITERIA

- A. Single Source Responsibility: Supply primers, intermediate and finish coats for each paint and coating system from a single manufacturer, except as otherwise specified.
- B. Surface Preparation: Conform to MPI Architectural Painting Specifications Manual, SSPC, manufacturer's instructions and provisions of this Section for work as needed to prepare substrates to be free of conditions that may impair adhesion and uniformity.
 - 1. Remove bond breakers, dust, foreign matter and surface irregularities.
 - 2. Prepare to prevent bleed-through of substrate material.
- C. Paint System Application: Conform to MPI Architectural Painting Specifications Manual and manufacturer's instructions.
 - 1. Paint Grade: Conform to Premium Grade, except as otherwise specified.
 - a. Minimum one (1) primer coat and two (2) finish coats, except as otherwise specified.
 - b. Additional coats as necessary to cover with no holidays or other surface imperfections.
 - 2. Dry film thickness (DFT) and wet film thickness (WFT), as instructed by manufacturer.

2.3 MATERIALS

- A. Painting and Coating Schedule: Refer to Schedule at end of this Section for products specified for specific finishes.
- B. Surfaces Not Scheduled for Paints and Coatings: Where unscheduled surfaces are discovered following Bid, assume premium commercial quality paint or coating, meeting or exceeding Approved Product List, and as instructed by manufacturer's technical representative. Submit to Owner for acceptance prior to beginning work.
- C. Coatings: Ready mixed, except catalyzed coatings. Process pigments to consistency for uniform and homogeneous coatings, good flow and brushing qualities, drying or curing free of streaks and sags.

2.4 GLOSS AND SHEEN LEVELS

A. Conform to Gloss and Sheen Levels as tested in accordance with ASTM D523, regardless of that stated by manufacturer product data and shown on paint containers.

GLOSS AND SE	IEEN LEVELS	GLOSS @ 60 DEGREES	SHEEN @ 85 DEGREES
Gloss Level 1	Matt or Flat	Maximum 5 Units	Maximum 10 Units
Gloss Level 2	Low Sheen	Maximum 10 Units	10 to 35 Units
Gloss Level 3	Eggshell	10 to 25 Units	10 to 35 Units
Gloss Level 4	Satin	20 to 35 Units	Minimum 35 Units
Gloss Level 5	Semi-Gloss	35 to 70 Units	(N/A)
Gloss Level 6	Gloss	70 to 85 Units	(N/A)
Gloss Level 7	High Gloss	More than 85 Units	(N/A)

2.5 FINISHES AND COLORS

- A. Field Painting Product Systems and Gloss Levels: As Schedules this Section.
- B. Paint and Stain Colors: Match paint colors at existing building from paint drawdown, as accepted by Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section before beginning work.
- B. Arrange for adequate lighting, temporary heat, and ventilation.
- C. Maximum Moisture Content of Substrates: Conform to manufacturer's instructions and guidelines. Perform tests using commercial quality electronic moisture meter. Where exceeding following values, promptly notify Owner and obtain direction before beginning work.
 - 1. Exterior Wood: Fifteen (15%) percent.

3.2 MATERIALS TO BE FINISHED

- A. Prepare and finish surfaces of materials, except as specifically excluded or otherwise specified.
- B. Field paint exposed-to-view surfaces, whether or not indicated to receive coatings, except where specifically excluded by Contract Documents.

3.3 MATERIALS NOT TO BE FINISHED

- A. Refer to Finish Schedule for rooms or areas not required to be field painted.
- B. Metals: Brass, bronze, copper, stainless steel, pre-finished metal and plated metals other than galvanized metal, except as specifically indicated.
- C. Plastic laminate, melamine and other finished plastic surfacing.
- D. Roofing, masonry, stone and concrete, except as otherwise indicated.
- E. Glass and clear plastic, except as otherwise indicated.
- F. Substrates with specified factory-applied colored finishes and normally unfinished substrates:
 - 1. Includes: Door hardware, electrical switch plates, fabrics, tackboards, porcelain enameled metal fabrications and lighting fixtures.
 - 2. Exception: Wire mold and other normally prefinished items mounted on surfaces receiving coatings: Paint out to match and blend with field surface.
- G. Inaccessible materials permanently enclosed behind building construction and structural components.

3.4 SURFACE PREPARATION UNDER WORK OF OTHER SECTIONS

A. Field Substrate Preparation Specified Under Work of Related Sections: Crack free, finished, clean as needed to make substrates suitable for primers and finished coats specified for work of this Section, except minimal spot filling, spackling and other preparation normally performed by work of this Section.

3.5 SURFACE PREPARATION PROCEDURES

A. Conform to:

- 1. MPI Architectural Painting Specification Manual, Surface Preparation.
- 2. SSPC- Surface Preparation Procedures.
- 3. Manufacturer's instructions.
- 4. Contract Document provisions.

B. Mildew removal:

- 1. Do not use bleach to remove mold from carbon-based materials. These include paper, cellulous, wood, sucrose (sugar), gypsum board and materials that are considered food for mold.
- 2. Contact Owner for remediation method for mold contamination of carbon-based materials.
- 3. Proceed with methods to remove stains as specified for non-carbon based materials.

C. Wood Products Receiving Opaque Finishes:

- 1. Clean to remove dirt, bond breakers and all material that is not suitable for paint adhesion to substrate. Remove and replace rotten, cracked, delaminated or water damaged wood prior to applying prime coat.
- 2. Scape and sand smooth all knots and pitch streaks prior to applying prime coat.
- 3. Remove loose and peeling paint. Sand surface smooth.
- 4. Sand hard glossy surfaces to create profile to promote adhesion of paint coating.
- 5. Wipe off dust and minor grit prior to applying prime coat.
- 6. Fill nail holes and fine cracks after primer has dried.
- 7. Sand smooth and level with surface, ready for finish coat.
- 8. Seal joints between wood surfaces specified 07 92 00.
- 9. Maintain surface condition for subsequent finish coats.

D. Back Priming Wood:

- 1. Prior to installation, back prime concealed faces of panels, moldings, siding and other thin wood, plywood and panel material subject to warping and bowing.
- 2. Apply two (2) coats of sealer, primer or suitable finish system to balance finish on exposed face.
- E. Surfaces Not Specified by MPI, SSPC, or manufacturer's Instructions: Verify with Owner for surface preparation procedures.
- F. Steel and Iron: Put in condition to receive paint. Remove grease, rust, scale, dirt, and dust. Use prime paints compatible with finish coats.
 - 1. Field Welded or Abraded Spots: Power tool, clean, and prepare, conforming to SSPC-SP-3. Spot prime by end of same day.
 - 2. Surfaces Shop Primed Conforming related Sections: Solvent clean free of oil and grease before coating, conforming to SSPC-SP-1.
 - 3. Surfaces Shop Primed with Alkyd Coatings and Coatings not Conforming to related Sections:
 - a. Machine clean to SSPC SP-3.
 - b. Hand tool clean to SSPC SP-2 as required for removal of rust and scaling at difficult to reach locations.
 - c. Solvent clean free of oil and grease before coating, conforming to SSPC-SP-1.
 - 4. Surfaces Not Previously Shop Primed:
 - a. Remove Rust and Scale: Power tool clean and prepare, conforming to SSPC-SP-3. Apply prime coat when thoroughly dry and before forming of visible rust.
 - b. Oil and Grease: Solvent clean, conforming to SSPC-SP-1, before applying finish coat.
- G. New Pre-Primed and Prefinished Metals: Solvent clean in accordance with SSPC-SP-1.

- H. Uncoated, Ungalvanized, and Existing Ferrous Metals: Power tool clean and prepare in accordance with SSPC-SP-3. Prime by end of same work day and before forming of visible rust.
 - 1. Remove oil, grease, and other foreign substances by lacquer thinner, conforming to SSPC SPC-1.
 - 2. Lightly scuff sand with 120 grit paper to break surface sheen without scratching or scaring surface.
- Hot-Dipped Galvanized Steel Treatment: Conform to ASTM D6386 for preparation of galvanized surfaces prior to application of primers and other coatings directly to galvanized surfaces.
 - 1. Newly Galvanized Steel:
 - a. Within 48 hours of galvanizing, and before zinc oxide or zinc hydroxide formations on surface, clean surfaces of oil and grease.
 - b. Smooth high spots and rough edges by sanding or sweep blasting.
 - c. Apply zinc-phosphate treatment or other acceptable adhesion promoter.
 - 2. Partially weathered Galvanized Steel:
 - a. Test for and remove chromatic conversion coatings that may have been applied at factory.
 - b. Clean surfaces of oil and grease. Smooth high spots and rough edges by sanding or sweep blasting.
 - c. Remove wet storage stain using a mild ammonia solution, rinse with water, and air blow dry.
 - d. Apply paint coating within 30 minutes before zinc oxides begin to reform or apply zinc-phosphate treatment or other acceptable adhesion promoter.
 - 3. Weathered Galvanized Steel:
 - a. After 1-1/2 to 2 years following formation of a hard zinc-carbonate surface, clean surfaces of oil, grease, and loose particles.
 - b. Smooth high spots and rough edges by sanding or sweep blasting.
 - c. Scuff and brighten using 3M metal finish pad to remove zinc oxidation.
 - d. Clean to remove surface contamination, conforming to 25, Etching Cleaner or SSPC-SP-1 Solvent Cleaning and Manufacturer's priming instructions.
 - 4. Verify preparation with manufacturer.
- J. Surfaces Not Specified by MPI, SSPC, or manufacturer's Instructions: Verify with Owner for surface preparation procedures.

3.6 RECOATING SURFACE PREPARATION

- A. Prepare existing coated substrates as needed to make suitable for work of this Section. Proceed as for new work following initial preparation conforming to Architectural Painting Specification Manual, Surface Preparation, manufacturer's instructions and Contract Document provisions.
- B. Wood, Prior to Recoating:
 - 1. Remove and clean existing deteriorated painted surface down to sound substrate, suitable for new coatings.
 - 2. Sand thick and sharp edges to make feather-edge transitions needed to prevent telegraphing through finished paint surface.
 - 3. Fill and patch checks, blemishes and deteriorated surfaces.

3.7 PROTECTION

- A. Take measures to protect surfaces not receiving work of this Section including protection from overspray, adjacent surfaces and downwind surfaces.
 - 1. Provide drop cloths, shields and protective equipment.
 - 2. Repair or replace damaged surfaces caused by failure to provide suitable protection.
- B. Remove or mask electrical outlets and switch plates, mechanical diffusers, escutcheons, registers, surface hardware, fittings, fastenings and other items not receiving coating system.
- C. Correct minor defects and clean substrate surfaces included under work of this Section.
- D. Remove coatings that exhibit surface defects or unsuitable surface adhesion.

3.8 APPLICATION

- A. Conform to manufacturer's instructions, Architectural Painting Specification Manual and provisions of Contract Documents.
- B. Conform to Premium Grade, including application of two (2) finish coats over prepared and primed substrates.
- C. Apply as many additional coats for complete coverage and for acceptable finished appearance, free of holidays and color irregularities.
- D. Back-roll, back-brush and perform other work as necessary to lay down gypsum board fuzz, push spray-applied coatings into surfaces, and to even out and make for smooth, uniform coated surfaces.
- E. Apply primer and each finish coat in slightly different hue as means to verify multiple coat coverage.
- F. Conform to manufacturer's instructions for wet film and dry film thickness of coatings.
 - 1. Verify wet film thickness (WFT) by use of wet film gage during application.
 - 2. Test dry film thickness (DFT) using Tooke or other accepted measuring device.

3.9 PATCHING

A. Repair surfaces damaged during construction activities. Spot repair and refinish as necessary for finished appearance prior to Substantial Completion and Owner occupancy.

3.10 REPLACEMENT OF HARDWARE AND MISCELLANEOUS ITEMS

- A. Reinstall items previously removed for painting, including hardware, electrical plates.
- B. Manufacturer's Field Services: Conduct field services by manufacturer's local senior technical field representative.
 - 1. Attend Pre-Construction Conference, view mockups, make intermittent site visits, make final site visit at project completion.
 - 2. Verify conformance to manufacturer's instructions and provisions of Contract Documents for products and procedures.
 - 3. Provide technical assistance to help achieve high quality results.
 - a. Verify mil thickness with wet film gauge, in selected locations.
 - b. Test surfaces with Tooke or approved dry film gauge, for total DFT in selected areas.
 - 4. Promptly notify Owner of suspected non-conforming work and other irregularities.

3.11 ADJUSTING

A. Take measures as necessary and as directed by Owner to repair, prepare and recoat systems not conforming to Contract Document provisions.

3.12 CLEANING

- A. As Work proceeds, promptly remove spilled and splattered paint and coating products so as not to damage surfaces.
- B. Maintain premises free from unnecessary accumulation of tools, equipment, surplus materials and debris.
- C. At conclusion of work, thoroughly clean paint and coatings from surfaces not designated to be painted.
 - 1. Do not scratch or damage surfaces.
 - 2. Verify chemical compatibility of cleaners to materials to be cleaned.
- D. Leave premises neat and clean; free from debris and residue from work of this Section.
- E. Do not dump paint, stains, chemicals and clean/wash painting equipment anywhere in the landscaping around the building, site or property, including the adjoining property.

3.13 EXTERIOR PAINTING AND COATING SCHEDULE

- A. Exterior Finish for Wood Trim:
 - 1. Exterior Two (2)-Coat Acrylic Low Luster/Eggshell Finish (Gloss Level 2):
 - a. Benjamin Moore, Regal Select Exterior High Build, Low Lustre (401), two (2) coats.
 - b. Color: Match adjacent.
- B. Exterior Finish for Fiber Cement Siding:
 - 1. Exterior Two (2)-Coat Acrylic Low Luster/Eggshell Finish (Gloss Level 2):
 - a. Benjamin Moore, Regal Select Exterior High Build, Low Lustre (401), two (2) coats.
 - b. Color:
 - 1) Fiber Cement Panel Siding Color 1: BM 055 "Pumpkin Patch".
 - 2) Fiber Cement Panel Siding Color 2: BM 056 "Montana Agate".
 - 3) Fiber Cement Panel Siding Color 3: BM 1128 "Adobe Beige".
- C. Exterior Finish for Fiberglass Doors
 - 1. Exterior Two (2)-Coat Acrylic Semi-Gloss/Soft Gloss (Gloss Level 5):
 - a. Benjamin Moore, Regal Select Exterior High Build, Soft Gloss (403), two (2) coats.
 - b. Color: BM 2061-10 "Deep Royal".
- D. Exterior Shop Primed and Galvanized Ferrous Metal:
 - 1. Pre-Treatment, Preparation, and Shop Primers for Ferrous Metals and Aluminum: As specified under work of related Sections and pre-primed metal under work of related Sections.
 - 2. Field Applied Etching Cleaner: Etching Cleaner. Use in lieu of SP-1 Solvent Cleaning, specified under preparation.
 - a. Kelly Moore, Jasco, Metal Etch, 0700-0703.

- b. Rodda / Cloverdale, Henkel Amchem Galvaprep / ClovaClean, 78100.
- c. Sherwin-Williams, Sherwin-Williams, Clean & Etch.
- 3. Exterior Water Based Rust-Inhibitive Metal Primer for Cleaned/Etched Galvanized Ferrous Metal and As Spot repair for Shop Primed Surfaces: Do not apply alkyd primers or coatings directly to galvanized surfaces.
 - a. Benjamin Moore, SuperSpec HP Acrylic Metal Primer, P04.
 - b. Kelly Moore, Acry-Shield 100% Acrylic Metal Primer, 1725.
 - c. Miller, Acrimetal DTM Primer/Finish, 5000.
 - d. Rodda, Barrier III High Solids Primer, 708225 [Multi Master Primer, 50890].
 - e. Sherwin-Williams, DTM Acrylic Primer/Finish, B66W1.
- 4. Two-Coat, Acrylic Semi-Gloss Finish Gloss Level 5:
 - a. Benjamin Moore, Super Spec HP Acrylic Semi-Gloss, P29.
 - b. Color: BM 2061-10 "Deep Royal".

3.14 INTERIOR PAINTING AND COATING SCHEDULE

- A. Interior Gypsum Board Primer:
 - 1. Acrylic Primer/Sealer:
 - a. Benjamin Moore, Sure Seal Multi-Purpose Latex Primer Sealer (027).
- B. Interior Wood Primer:
 - 1. Primer for Acrylic Enamel and Alkyd Enamel Finishes:
 - a. Benjamin Moore, Fresh Start enamel Underbody Primer (217).
- C. Interior Finish Coating: Gypsum Board and Wood:
 - 1. Two (2)-Coat Acrylic Finish:
 - a. Benjamin Moore Regal Select Waterborne Interior. Match finish to existing conditions.
 - 1) Walls: Flat or Eggshell.
 - 2) Trim: Semi-Gloss.
 - 3) Doors: Specified above.
 - b. Color: Match existing.

1.1 SUMMARY

A. Section includes design and engineering by Contractor for rooftop engineered fall restraint and fall arrest for worker safety on roofs, including permanent roof fall restraint anchors as required by OSHA and WISHA.

1.2 REFERENCES

- A. American National Standards Institute (ANSI): Z359 Safety Requirements for Personal Fall Arrest Systems.
- B. OSHA 29 CFR Part 1926.502, Subpart M, including appendices.
- C. WISHA WAC 296-155-24501 through -25, Part C-1, Fall Restraint and Fall Arrest.
- D. American Welding Society (AWS):
 - 1. AWS D1.1 Structural Welding Code -Steel.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 - 1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the state of Washington.
- C. Engineering Calculations: Engineering calculations including anchorage of system to structure shall be stamped by qualified engineer, employed by manufacturer and licensed in the State of Washington. Provide project specific calculations where manufacturer's calculations do not exactly match project conditions.
- D. Manufacturer Instructions: Installation Instructions, special procedures, and conditions requiring special attention.
- E. Certification: Written statement signed by manufacturer's authorized representative. Certify:
 - 1. System: Engineered and designed to accommodate roof deck, roofing type, structural requirements, and watertight seal at roofing system.
 - 2. Installer: Certified as authorized by manufacturer.

1.4 CLOSEOUT SUBMITTALS

- A. Project Record Drawings: Submit under provisions of Section 01 78 39. Show location of each fall restraint anchor as installed.
- B. Maintenance and Operating Data: Submit under provisions of Section 01 78 23.
 - 1. Include manufacturer's maintenance procedures, safety inspection logbook for yearly inspections and User Guide, including instructions on how safely to use system.
- C. Accessory Equipment (Submit to Owner): Product data, manufacturer's instruction, and test data for lifelines and other accessory equipment. Submittal does not imply purchase by Owner.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

- 1. Company specializing in work of this Section with minimum 5 years' documented experience.
- 2. Employing complete engineering and technical personnel needed to engineer, design, and perform work of this Section.

B. Installer Qualifications:

- 1. Manufacturer or certified by manufacturer as qualified to perform work of this Section.
- 2. Able to document minimum 3 years' experience in successful installations of manufacturer's fall restraint systems.
- C. Welders: AWS Certified in conformance to Washington Association of Building Officials (WABO), Standard Qualification Procedure.

1.6 WARRANTY

- A. Provide warranties in accordance with Section 01 78 00, Closeout Submittals and following:
 - 1. Specified Product Warranty:
 - a. Anchors/Tie-Offs: Manufacturer's standard Lifetime Warranty, that product will be free from defects in materials and workmanship.
 - b. Track/Monorail System: Manufacturer's standard 10-year Warranty, that product will be free from defects in materials and workmanship.
 - 2. Special Project Warranty: Manufacturer's and installer's Labor and Materials warranty against defects and failures in installation including water tightness at penetrations.

PART 2 PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

- A. General: Provide systems meeting requirements of OSHA, ANSI, WISHA, and as indicated.
 - 1. Verify compatibility of other related safety components to assure their compliance with current local, state and federal safety standards.

B. Performance

- 1. Delegated Design: Design and Shop Drawings for systems shall be signed by a qualified structural engineer licensed in the State of Washington.
- 2. Comply with OSHA, ANSI and WISHA requirements for fall restraint systems.
- 3. General: The system shall allow a workman to safely perform any task needed, such as roof covering application, maintenance, other roof top work, or interior work.
- 4. Fall restraint anchor system shall allow free movement of one person over entire roof or floor area while attached by an accepted, compatible connector and harness system (vertical lifeline, lanyard or retractable) designed to withstand downward impact. Include quick release attachments.
- 5. Fall restraint anchorage with permanent attachments to structure shall resist 5,000 pounds pull-out force. Include design as necessary to transfer design loads.
- 6. Fall restraint system shall limit fall distance and force as required by OSHA standards.

2.2 FALL PROTECTION ANCHOR

A. Manufacturer:

- 1. Atlas Anchor Systems,
- 2. Gravitec.
- 3. Guardian Fall Protection Inc.,
- 4. Pro-Bell Enterprises Inc.,
- 5. Or approved equal.
- B. Product: Basis of Design: Guardian Fall Restraint system indicated.
 - 1. Subject to compliance with specified requirements, other manufacturer/products accepted for review. Submit substitution requests in accordance with Section 01 60 00, Substitutions and Product Options, and the following:
 - a. Include detailed specifications of construction and fabrication.
 - b. Sample of anchorage and fasteners; and rail system.

C. Roof Fall Restraint Tie-Off Anchors:

- 1. Basis of Design: Guardian Fall Protection "CB Series Anchor Points", CB-18 Roof Anchors.
- 2. Description: Pipe upright with tie-down eyelet and welded base plate for anchorage to structure indicated.
- 3. Materials: In accordance with regulatory requirements for conditions of installation but not less than following:
 - a. Tie Offs:
 - 1) Pipe: 3 inch I.D.
 - 2) Basic Plate: 1/2 inch minimum thickness; unless otherwise indicated on Drawings.
 - 3) D-Ring Eyelets: Manufacturer's standard capable of resisting 5,000 lbs. proof load.
 - 4) Material: Heat resistant austenitic stainless steel, type, alloy and finish as recommended by manufacturer for maritime environment.

D. Horizontal Life-Line Components:

- 1. Basis of Design: Guardian Absorbinator Horizontal Lifeline Kit.
- 2. Horizontal Cable Life Line: ASTM A492 Type 304 stainless steel wire rope with swaged end. 3/8 inch diameter with minimum breaking strength of 8,000 pounds.
 - a. Energy Absorber; Locate at one terminal end fitting of cable.
 - 1) Utilize to dissipate energy generated in a fall and to reduce the end anchorage forces.
 - 2) Exceed minimum breaking strength of 8,000 pounds.
 - b. Tensioner: Locate at opposite end fitting of cable to allow cable tension adjustment.
 - 1) Include pretension indicator to verify and adjust correct tension of the lifeline cable.
 - 2) Calculate cable tensions with minimum breaking strength exceeding 8,000 pounds and in conformance to manufacturer's instructions.
- 3. Slider Shuttle: Thaler, Easy Shuttle, design to slide, hands-free length of horizontal cable and intermediate brackets.
- 4. Double Locking Carabineers: Locate at shuttles and brackets for attachment of horizontal lifeline cable, lifelines, and lanyards to system.

E. Accessories

- 1. Flashing and Sealing Materials: Comply with requirements in Section 07 54 00, Thermoplastic Membrane Roofing
- 2. Joint Sealants: As specified in Section 07 92 00, Joint Sealants, to suit conditions of installation. Polyurethane sealant not accepted.

F. Fabrication - General:

- 1. Fabricate engineered fall restraint system suitable for mounting conditions on Project.
- 2. Tie-Off: Pre-drill holes for fasteners at base plate.
- 3. Welded Connections: Weld and grind smooth in accordance with Section 05 05 23.
- G. Fill steel pipe uprights with polyurethane foam insulation or other accepted insulating filler.

PART 3 EXECUTION

3.1 EXAMINATION

- A. 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.
- B. Examine framing and roof surface for adequacy and compliance with anchorage structural requirements. The structure to which the anchorage is attached shall be void of any cracks, corrosion, and defects that may weaken the structure.
- C. Verify exact locations of elements of finished roof which conflict with fall restraint anchorage systems prior to installation of anchor system.

3.2 INSTALLATION

- A. Installation of anchor posts and horizontal life-line components to be performed by contractor according to manufacturer's instructions and recommendations.
- B. Anchor securely to structure. Install as indicated and as necessary for watertight, secure, permanent attachments.
- C. Electrolytic Protection: Isolate and or separate dissimilar metals to prevent contact, as recommended by manufacturers of affected materials.

3.3 FIELD QUALITY CONTROL

- A. Verify that manufactured units have been installed in accordance with specifications and details, and will function as intended. Adjust where necessary to ensure proper operation.
- B. Manufacturer's Field Services: Arrange for roofing fall protection system manufacturer's technical personnel to inspect during installation and on completion as needed, to confirm that system meets specified Warranty provisions.
- C. Provide necessary documentation certifying systems are acceptable for service.

1.1 SUMMARY

A. Section includes vertical slat louver blinds at windows and operating hardware.

1.2 REFERENCES

A. Reference Standards: Editions current as of date of Project Manual.

1.3 SUBMITTALS

A. Product Data:

- 1. Description and specifications for components, features and assembly.
- 2. Opening size limitations, method of attachment and operation specific to work of this Section.
- 3. Backing requirements and method of attachment.

B. Manufacturer's Instructions:

- 1. Installation requirements, tolerances and clearances required for installation.
- 2. Installation for different openings and mounting substrates.

C. Samples:

- 1. One (1) sixteen (16") inch wide fully functional vertical headrail.
- 2. Manufacturer's complete fabric and color selection on actual material.
- 3. Manufacturer's color selection for exposed metal components.

1.4 OUALTITY ASSURANCE

A. Installer:

- 1. Specializing in fabricating and installing work of this Section.
- 2. Able to document minimum three (3) years' experience for projects of equivalent or greater scope and quality.
- 3. Authorized as qualified to perform work of this Section by manufacturer.
- B. Field Verify: Opening sizes, method of attachment, operation, and interface with adjacent construction, tolerances, and clearances required for installation prior to fabrication.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Conform to provisions of Section 01 60 00 and manufacturer's instructions.
- B. Deliver materials in manufacturer's protective packaging with manufacturer's product identification clearly labeled.
- C. Store materials in dry area maintained at building's operating temperature and humidity.

1.6 PROJECT CONDITIONS

A. Building: Fully enclosed, with wet and dust-creating work complete and dry, environmental controls in place, maintaining temperatures between 60 and 90 degrees F, and relative humidity maintained at maximum eight (80%) percent.

1.7 WARRANTY

A. Manufacturer:

- 1. Standard Lifetime Warranty for headrail including operating components.
- 2. Standard three (3) year Warranty for fabrics.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Vertical blinds:

- 1. Graber,
- 2. Hunter Douglas,
- 3. Levolor Inc,
- 4. Or accepted equal.

2.2 VERTICAL BLINDS AT WINDOWS

A. Headrail:

- 1. Basis of Design: Graber Super-Vue (G-71).
- 2. Include covered end caps.
- B. Carrier: Track and carriage traversing system on self-lubricating wheels.
- C. Wand: Pultruded fiberglass to rotate louvers and transverse louvers. Include clutch to prevent damage from over-rotation.

D. Vertical blinds:

- 1. Solid PVC louvers.
- 2. Color: White.
- 3. Stain and fade resistant.
- 4. Not less than 3/8-inch overlap when vanes are rotated fully closed.
- 5. Nominal 3 1/2-inch width.
- 6. Weighted at bottom. Chains not accepted.
- 7. Fire-resistant, conforming to NFPA 701.
- E. Wall and ceiling mounts as applicable to installation. Zinc-plated, heat-treated spring steel. Provide brackets at ends and at intervals as instructed by manufacturer.
- F. Fasteners: Corrosion-resistant, coated to match metal components and as instructed by manufacturer.

2.3 FABRICATION

- A. Fabricate blinds to fill each opening completely from jamb to jamb and from head to sill.
- B. Determine sizes by field measurement.
- C. Locate blind divisions at mullions and perimeter framed openings.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Conform to manufacturer's installation instructions and provisions of Contract Documents.
- B. Install with sufficient brackets to prevent deflection of headrail.
- C. Located and adjust to be plumb, level.
- D. Allow for necessary clearances for operating hardware.

3.2 ADJUSTING

- A. Adjust blinds for smooth operation.
- B. Replace defective and damaged units.

3.3 CLEANING

- A. Vacuum blinds to remove dust. Remove soiling and staining using a mild detergent in conformance to manufacturer's instructions.
- B. Leave installation area clean and free of debris and residue resulting from this Section.

1.1 WORK INCLUDED

- A. Provide all labor, materials, tools, equipment, supervision, and services required for the construction, installation, connection, testing and operation of electrical work described herein and shown on the drawings. This section applies to all Division 26 sections.
- B. General Requirements: The provisions and intent of the General Conditions, Special Conditions, and Division 01 apply to Work in this section.

1.2 PERMITS

A. Purchase the necessary permits, including State of Washington Labor and Industries permit fees, licenses and approvals required for execution of this work and include all costs in the bid

1.3 CODES AND STANDARDS

- A. Execute electrical work in strict accordance with the 2020 National Electrical Code, and the current Washington State Electrical Rules and Regulations; and local ordinances and regulations.
- B. Conform to applicable industry standards, UL standards, NEMA standards, and other standards as noted.
 - Notify the Owner 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.
 - 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 may exceed code
 requirements and not contrary to same.

1.4 DEFINITIONS AND ABBREVIATIONS

- A. Refer to Division 01 for definitions and abbreviations. Additional definitions and abbreviations are as follows.
- B. "Approved" or "Approval" means written approval by the owner.
- C. "Codes" means AHJ adopted codes, rules, and ordinances and additional codes as specified herein.
- D. "Concealed" means spaces out of sight. For example, above ceilings, below floors, between double walls, furred-in areas, pipe and duct shafts, and similar spaces.
- E. The word "Contractor", as used in Division 26 sections, means the electrical subcontractor.
- F. "Coordination", "Coordinating", and "Coordinate" means to bring, or the bringing, into a common action, movement, or combination so as to act together in a smooth concerted way.
- G. "Directed", "Requested", "Accepted", and Similar Terms means these terms imply "by the Owner" unless otherwise indicated.
- H. "Exposed" means open to view. For example, raceways installed in a tunnel or raceways installed in a room and not covered by other construction.

- I. "Furnish" means supply and deliver to the project site ready for unloading, unpacking, assembly, installation, and similar activities.
- J. "Indicated" and "Indicated on the Drawings" means shown on Drawings by notes, graphics or schedules, or written into other portions of Contract Documents. Terms such as "shown", "noted", "scheduled" and "specified" have same meanings as "indicated", and are used to assist the reader in locating particular information.
- K. "Install" means to place in position for service or use. Includes operations at project site, such as unloading, unpacking, assembly, erection, placing, preserving, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar activities.
- L. "Provide" means furnish and install for a complete, finished, and operable system and ready for intended use.
- M. "Shop Drawings" means Document which fully details equipment and intended installation relative to this specific Project.
- N. "Substantial Completion" shall mean that the entire project (or readily definable portion thereof if so designated in the Contracted Documents) is acceptable to code enforcement authorities and to extent required by such authorities, has been inspected and approved by such authorities, and is suitable for occupancy by the Owner or occupant for the purpose intended. Refer to Division 0 and 1 for additional requirements.
- O. "Work" or "Project" means entire scope of work required by the Contract Documents.

P. Abbreviations:

AHJ Authorities Having Jurisdiction

ANSI American National Standards Institute
ASTM American Society for Testing and Materials

C Degrees Celsius

ETL Environmental Technology Laboratory

F Degrees Fahrenheit

FM Factory Mutual Engineering Corporation

IBC International Building Code

NEC National Electrical Code, NFPA 70 (latest adopted edition with Amendments)

NEMA National Electrical Manufacturer's Association

NFPA National Fire Protection Association

OSHA Occupational Safety and Health Administration

UL Underwriters Laboratories Inc.

RMS Root Mean Square

THD Total Harmonic Distortion

V Volts

1.5 MATERIALS

- A. Where 2 or more manufacturers are listed, select for use any of those listed. The first mentioned, in general, was used as the basis of design. Bids on any manufacturer named acceptable as long as that manufacturer meets every aspect of the Contract Documents. Note that equipment layout is based on equipment listed in equipment schedules.
- B. Where other than the first named manufacturer is selected, include cost of resulting work and redesign of associated services and structure. Include redesign drawings with Shop Drawings.
- C. Ensure that equipment will fit within available space, including manufacturer's recommended clearances.

1.6 STANDARDS OF QUALITY

- A. Materials and Equipment: UL listed and labeled or other AHJ approved testing laboratory and in compliance with other industry standards as specified.
- B. Equipment shall be manufacture's regularly catalogued items and shall be supplied as a complete unit in accordance with manufacturer's standard specifications and any optional items required for proper installation for equipment unless otherwise noted. Equipment and materials shall be installed in accordance with the manufacturer's recommendations and best trade practices.
- C. Products shall be new unless indicated otherwise in the Contract Documents.
- D. Fabricator and Manufacturer Qualifications: Specialists with at least 5 years' experience and regularly engaged in the manufacture of equipment and materials specified.
- E. Furnish products of a single manufacturer for items which are used in quantity. A Product, for the purpose of this paragraph, is an assembly of components such as switchboards, transformers, panelboards, and similar items. Materials such as wire and cable, raceways, outlet boxes, and similar items not requiring maintenance are not included in the single manufacturer requirement of this paragraph.
- F. Installer Qualifications: Specialists with at least 5 years' experience and regularly engaged in the installation of the system, equipment, and materials specified. Where required by the AHJ, employ licensed trades persons.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle products in accordance with manufacturer's recommendations, using means and methods to prevent damage, deterioration, and loss, including theft.
- B. Deliver products to site in manufacturer's original containers, complete with labels.
- C. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- D. Store products subject to damage by weather conditions above ground, under cover in weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

1.8 SUBSTITUTIONS

- A. Comply with requirements in Division 01 with additional requirements indicated in this article.
- B. Substitutions will be considered following bid award only when a product becomes unavailable through no fault of the Contractor.
- C. Where "Manufacturer" paragraphs include the words "or approved", prior approval of the proposed substitution is required. The Owner is sole judge of quality of proposed substitution.
- D. When the Owner approves a substitution request, the approval is given with the understanding that the Bidder:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.

- E. Whenever a Product is described by detail, specification, trade name, manufacturer's name or catalog reference, use only such Product, unless written approval is given for substitution prior to bid. Submit written requests on substitution request form included in Division 01. Approved substituted manufacturers will be listed by Addendum.
- F. Provide as specified certain products, materials, and systems where "manufacturer" paragraphs are followed by the words "no substitutions".
- G. Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals, without separate written prior approval, or when approval will require revision to the Contract Documents.

1.9 DRAWINGS AND SPECIFICATIONS

- A. General: The electrical drawings are diagrammatic. Complete details of building features which affect electrical installation may not be shown. For additional details, refer to other Contract Documents. Report any discrepancies to the Owner along with suggested revisions. Obtain written response from the Owner before proceeding with changes.
- B. Depiction of Work: Drawings do not show the exact characteristics of the work including, physical arrangement of equipment, lengths of wiring or conduit runs. Base work on actual field measurements and conditions. Provide work required to complete the installation.
- C. Dimensions: Do not scale drawings. Dimensional accuracy is not guaranteed, and field verification of dimensions, locations, and levels to suit field conditions is required.
- D. Since the Drawings of floor, wall, and ceiling installation, are made at small scale, outlets, devices, equipment, and similar items are indicated only in their approximate location. Locate outlets and apparatus symmetrically on floors, walls, and ceilings where not dimensioned and coordinate such locations with work of other trades to prevent interferences.
- E. Discrepancies: Field verify dimensions and existing conditions prior to performing work. Bring to the Owner's attention any discrepancies within the Contract Documents and between the Contract Documents and field conditions. Also for any design and layout changes required due to specific equipment selection, prior to the Contractor's work (equipment and material purchasing and installation). Any corrective work required by the Contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be at no additional cost to the Owner.
- F. Specifications: These specifications are written in imperative mood and streamlined form. The imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

1.10 RECORD DRAWINGS

- A. Comply with requirements in Division 01, with additional requirements as indicated in this article.
- B. Prepare Record Drawings. Record Drawings shall be new blue line prints (pencil and black pen not acceptable) and shall show the measured locations of portions of the Work and changes the Contractor has made.
- C. Record corrections and changes made during the progress of the work, showing work as actually installed. In general, tolerance plus or minus 1'-0" from actual location. Indicate installed locations for underground raceways. Neatly hand-draft on daily basis. Keep readily available at project site. Use latest revisions and keep neat and clean. Do not use Contractor's working drawings.

- D. Record Drawings are subject to review by the Owner on a regular basis throughout construction. At end of construction, check drawings for completeness and accuracy.
- E. Drawings shall show addendum items, change orders, clarifications, supplemental instructions, and deviations from the Drawings.
- F. Per project closeout procedures, submit in AutoCAD format along with corrected blue line drawings. Each sheet shall be noted as "RECORD DRAWING".

1.11 COORDINATION

- A. Coordinate Division 26 work with other trades.
- B. Be aware of restricted space for installation of electrical systems. Include offsets and perform rerouting and coordination to fit elements in available space. Include provisions for such requirements in bid.
- C. Electrical equipment and systems shown are based on existing drawings as available and on limited project site observations to the extent possible under current conditions. Field verify existing conditions prior to commencement of work. Obtain specific locations of structural and architectural features or equipment items from referenced drawings, field measurements, or trade providing material or equipment.
- D. Coordinate raceway installations to clear light fixtures and electrical cable trays. Include clearance over light fixtures to allow removal and replacement. Include minimum 6 inch clearance above and to sides of cable trays.

E. Existing Conditions:

1. General Construction:

- a. Installation of electrical work will require openings, removal and replacement of ceilings, sleeves, and restoration of general construction to match existing. Some work occurs in areas not requiring alterations as part of architectural work. Coordinate new openings and restoration work so that there is no additional cost to the Owner.
- b. General construction work shown on the architectural drawings may require removal, relocation, and reinstallation of existing electrical work. Since existing conditions cannot be completely detailed on the Drawings, survey the site and perform required Work at no additional cost to the Owner.
- 2. This project may require work in the presence of asbestos containing material (ACM). Division 26 does not provide for or cover the identification, removal, encapsulation, or disposal of such material. If the presence of ACM is suspected, notify the general contractor prior to proceeding with in the vicinity of ACM.
- F. Be responsible for beam penetrations as they relate to the electrical work. Submit sizes and locations to the structural engineer for review and determination of structural details.
- G. Coordinate attachments to structure to verify that attachment points on equipment and structure can accept seismic, weight, and other loads imposed.
- H. Refer to architectural and structural drawings for location of expansion and seismic joints. Provide flexible loops for raceways and cable trays crossing expansion and seismic joints.

1.12 WORKMANSHIP

A. Work shall be in accordance with best trade practices. Remove substandard workmanship and provide new material at no extra cost to the Owner.

1.13 SITE VISIT

- A. The Contractor shall visit site during bidding period to note conditions affecting installation of Work. No additional charges allowed due to failure to adequately review conditions.
- B. Investigate each space through which equipment must be moved. Where necessary, arrange with equipment manufacturers to ship equipment in sections with suitable dimensions for moving through restricted spaces. For movement through occupied spaces, ascertain from the Owner as acceptable times of day or night that movement could occur. Include costs in bid for off-hours labor, reassembly, and field testing.

1.14 CERTIFICATION

- A. By submitting a bid for the electrical systems, the Contractor and his subcontractors acknowledge and certify the following:
 - 1. That they have carefully examined and fully understand the Drawings and Specifications (including but not limited to architectural, site, utility, mechanical, structural and electrical drawings and specifications. In addition, they have determined that the Drawings and Specifications are adequate to complete the electrical systems and that they can provide a complete finished and operable system in accordance with the Contract Documents.
 - 2. That they have had a reasonable opportunity to discover any ambiguities in the Contract Documents and such ambiguities have been brought to the attention of the Owner in writing prior to submitting the bid.
 - 3. That they have reviewed the project progress schedule with the general contractor, fully understand the schedule, and they have verified, prior to submitting a bid, availability of necessary labor and materials, including supervision and office backup, and can comply with the schedule requirements.
 - 4. That there may be changes to the scope of work and that they understand that any proposal submitted for performance of additional work shall include costs associated with such change including but not limited to labor, materials, subcontracts, equipment, taxes, fees, schedule impact, loss of efficiency, supervision, overhead and profit.
 - 5. That the Contract requires them to coordinate their work with that of other trades and that responsibility for coordination includes rerouting, offsets, and similar provisions, to fit Work and address manufacturer's recommended clearances for service access, maintenance, and replacement of equipment in a manner that is compatible with work of other trades in the same area.
 - 6. That routing of elements of electrical systems shown on the Drawings is schematic only and that offsets and rerouting probably will be required in installation and that labor and materials have been included for such in their bids.
 - 7. That they have consulted with affected utilities and included in their bids labor and materials to meet requirements which may be imposed by each utility and have included in their bids costs and fees to be paid to such utilities, including temporary services and temporary and permanent connections unless specifically excluded in the Contract Documents.
 - 8. That they understand submittals of material and equipment to the Owner is for the purpose of establishing what they are providing for the project. Any review undertaken by the Owner does not relieve them of their responsibilities to furnish and install materials and equipment required for work in the project nor does such review relieve them of their responsibilities for coordination with other trades and designers to ensure that such materials and equipment will fit and be suitable for purpose intended.
 - 9. That they agree to receive payment for bid amounts as full compensation for furnishing materials and labor which may be required in prosecution and completion of work required under the Contract Documents, and in respects to complete the contract work to

the satisfaction of the Owner.

10. That they include in their bids costs to furnish bonds as specified in the Contract Documents.

1.15 WARRANTY

A. Conform to requirements in General Conditions, Supplementary Conditions, and Division 01. Where not so prescribed or defined, the period shall be 1 year. Warranty periods within Division 26 and 28 shall not commence until Substantial Completion. Contractor shall extend longer warranties specified in other sections.

1.16 EQUIPMENT FURNISHED BY OWNER INSTALLED BY CONTRACTOR (FOIC)

- A. Material Handling and Delivery: Coordinate delivery of FOIC equipment. Receive, off load, transport, store, hoist, unpack, dispose of packing, same as for other project equipment arriving at job site. Requirements of the Contract Documents apply to FOIC equipment.
- B. Operation and Maintenance Data: Obtain from the Owner operation and maintenance data for the FOIC equipment and incorporate them into the Operations and Maintenance Manuals.
- C. Start-up and Warranty:
 - 1. FOIC equipment suppliers will pass on to the Contractor start-up information, maintenance and parts information, and warranty provisions of their products in accordance with the equipment suppliers contract requirements. Organize and coordinate start-up and warranty requirements for the FOIC equipment.
 - 2. Include one year warranty on FOIC equipment starting at Substantial Completion regardless of shorter time limits by FOIC suppliers.

1.17 DEMONSTRATION

- A. Comply with requirements in Division 01 with additional requirements indicated in this article.
- B. Following installation of electrical work and prior to final acceptance, demonstrate that equipment and systems operate as indicated in the Contract Documents and in accordance with manufacturer's recommendations.
- C. Perform in presence of the Owner and Owner's representative, unless otherwise directed by the Owner. Give minimum 1 week notice prior to demonstrations.
- D. Provide instruments and personnel required to conduct demonstrations.

1.18 SUBSTANTIAL COMPLETION

- A. Comply with requirements in Division 01.
- B. Prepare list of items that are not complete prior to asking for a substantial completion review by the Owner.

1.19 CONTINUITY OF EXISTING UTILITY SERVICES

- A. Shutdown Duration: Comply with requirements in Division 01. Perform work without shutdown of more than 4 hour duration of existing electrical systems. Schedule each shutdown in writing with the Owner at least 14 days in advance of shutdown and obtain advance written approval from the Owner.
- B. Temporary Services: Provide during necessary interruptions of existing utilities.

C. Owner Occupancy:

- 1. Perform work in the existing building with respect for the necessity of the Owner's employees to perform their regular work.
- 2. Plan installation of new work and connections to existing work to assure minimum interference with regular operation of existing facilities. Do not remove, disconnect, or shutdown systems without prior review by the Owner to confirm that areas needed to remain in operation are not affected.
- Provide temporary, wiring, lighting, and similar systems and connect to existing systems
 to keep existing electrical systems in operation to service areas that need to remain
 occupied.

1.20 OPERATION AND MAINTENANCE MANUALS

- A. Prepare Operation and Maintenance Manuals for equipment and materials furnished under Division 26.
- B. Comply with requirements in Division 01 with additional requirements indicated in this article.

PART 2 PRODUCTS

2.1 GENERAL

- A. Furnish specified items acceptable to AHJ as suitable for intended use.
- B. Furnish new materials, unless otherwise indicated, free from defects and the standard products of reputable manufacturers regularly engaged in production of such equipment.
- C. Furnish materials of the same type or classification and used for the same purpose by the same manufacturer.
- D. Materials and Equipment: Shall be UL listed and labeled or other AHJ approved testing laboratory, approved by inspection authorities, and rated by the manufacturer as suitable for the intended use.
- E. Remove rejected or damaged material from site.
- F. Samples may be required for non-standard or substituted items before installation. Submit samples as required in specific specification sections.
- G. Furnish required items necessary for installation and testing procedures.

2.2 POSTED INSTRUCTIONS

- A. Posted Operating Instructions: Furnish simplified, consolidated equipment control and power diagrams. Graphically represent entire system and actual equipment installed. Include concise written instructions on how to start and stop systems. Show settings and conditions to be observed. Indicate what control adjustments are to be made or maintained by the operator.
 - 1. Include control diagrams and specific operating instructions.
 - 2. Indicate how to energize each major component of systems. Show what action must be taken in an emergency, how to restore power following an outage, and what precautions to be taken when maintenance is required.
 - 3. Include photographic or comparable non-fading reproductions, either framed under glass or encased in non-discoloring plastic.
 - 4. Include one-line diagrams of electric power distribution riser.
- B. Copies of operating instructions shall be used with Operation and Maintenance Manuals as

basis in training Owner's employees in the operation and maintenance of systems and related installed equipment.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify installation conditions as satisfactory to receive work of the various sections. Do not install until unsatisfactory conditions are corrected.

3.2 INSPECTIONS

A. Confirm that installations have been inspected before enclosure within building features, buried, or otherwise hidden from view. Pay costs associated with uncovering or exposing installations and features not previously inspected and for repair to exposed surfaces.

3.3 PREPARATION

- A. Protect surrounding areas and surfaces to prevent damage as work is installed.
- B. Obtain equipment roughing-in dimensions from approved Shop Drawings or actual measurements.
- C. Be familiar with the location of other trade's equipment. Eliminate conflicts. Check door swings before installing switches. Locate switches on strike side of doors unless noted otherwise.
- D. Layout electrical work in advance of construction to eliminate unnecessary cutting, drilling, channeling, and similar activities. Where such cutting, drilling, channeling and similar activities become necessary for proper installation, perform with care using skilled mechanics of trades involved. Repair damage to building and equipment at no additional cost to the Owner.
- E. Provide all openings required for the electrical work. Perform cutting work of other trades only with consent of that trade. Cutting structural members not permitted without consent of the Owner.

3.4 INSTALLATION

- A. Install Work as specified and in accordance with the Drawings and manufacturer's instructions. Where these conflict, manufacturer's instructions govern.
- B. Review Architectural, Mechanical and other applicable drawings and applicable Shop Drawings to prevent switches, outlets, and other equipment from being hidden behind doors, cabinets, counters, heating equipment, and similar items, or from being located in whiteboards, tackboards, glass panels, and similar items. Relocate electrical devices and connections as directed by the Owner at no additional cost to the Owner if the work is not properly coordinated.
- C. Where conduit, outlets, and apparatus are encased in concrete, locate and secure at point of installation. Check locations of electrical items before and after concrete and masonry installation and relocate displaced items.
- D. Provide block-outs, sleeves, demolition work, and similar items required for installation of Work specified in this division.

3.5 WORKMANSHIP

A. Work and materials will be subject to observation at any time by the Owner and the Owner.

- B. Install equipment and material in a neat and workmanlike manner and align, level and adjust for satisfactory operation. Install equipment so that all parts are easily accessible for inspection, operation, maintenance and repair. Install material and equipment in accordance with manufacturer's instructions. Provide calibrated torque wrenches and screwdrivers as required.
- C. Cutting and Patching: Do not weld to, cut, or notch structural members or building surfaces without approval of the Owner. Restore surfaces neatly to original condition after cutting, channeling, chasing, and drilling of walls, partitions, ceilings, paving, and anchorage of conduit, raceways, and other electrical equipment.

3.6 WELDING, CUTTING, AND DRILLING

A. Perform in accordance with American Welding Society Standards.

3.7 CLEANING

- A. Clean equipment, conduit, and fittings and remove packing cartons and other debris created by Division 26 Work.
- B. Before Substantial Completion, carefully clean equipment, fixtures, exposed raceways and similar items. Remove construction labels, dirt, cuttings, paint, plaster, mortar, concrete, and similar items. Clean fixtures, interiors and exteriors of equipment and raceways.
- C. The premises must be kept free of accumulated materials, rubbish and debris at all times. Surplus material and equipment must not be stored at the job site.

3.8 IDENTIFICATION

- A. Provide nameplates and decals required to identify equipment and components, comply with requirements in Section 26 05 53.
- B. Mount operating instructions and diagrams near equipment or elsewhere as otherwise designated by the Owner.

3.9 PROTECTION

A. Protect equipment during and after electrical hookup, painting, and final testing.

3.10 PROJECT TRAINING

- A. Upon completion and testing of equipment and system installation, assemble equipment factory representatives and subcontractors for system training with Owner's representatives as required in specific specification sections.
- B. Each representative and subcontractor shall assist in start-up, check out, and training for their respective system and remain on-site until the total system operation is thoroughly reviewed by the Owner's representatives and are thoroughly trained. Return for additional training sessions as required to completely train Owner's Representatives.
- C. Factory representative and system subcontractor shall give personal instruction on operating and maintenance of their equipment to the Owner's maintenance and operation personnel. To certify acceptance of operation and instruction by the Owner's representative, prepare a written statement.
- D. Submit copy of acceptance to Owner.

3.11 PUNCHLIST AND FINAL REVIEWS

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SECTION 26 05 00 GENERAL ELECTRICAL PROVISIONS

A. At the time of punchlist and final reviews, the project electrical foreman shall accompany the reviewing party, and remove coverplates, panel covers and other access panels as requested to allow review of entire electrical system.

1.1 WORK INCLUDED

- A. Description: Work includes final electrical connection to equipment having electrical requirements. Contractor shall make final connections for Owner furnished equipment including switches, receptacles, and similar items.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01, and Section 26 05 00 apply to Work in this section.
- C. Refer to sections of other divisions for specific individual equipment power requirements.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. NEC Compliance: Comply with applicable portions of NEC as to type of products used and installation of electrical power connections.
- C. Comply with applicable NEMA standards and refer to NEMA standards for definitions of terminology herein. Comply with NEC for workmanship and installation requirements and to applicable Division 26 sections.
- D. UL Labels: Provide electrical connection products and materials which have been UL listed and labeled.

PART 2 PRODUCTS

2.1 ELECTRICAL CONNECTIONS MATERIALS

- A. For each electrical connection indicated, include complete assembly of materials, including but not limited to, raceways, conductors, cords, cord caps, wiring devices, pressure connectors, terminals (lugs), electrical insulating tape, heat-shrinkable insulating tubing, cable ties, solderless wire nuts, and other items and accessories to complete splices, terminations, and connections.
- B. Comply with requirements in Section 26 05 19 for wires and cables and Section 26 05 33 for raceway systems.
- C. Include Final Connections for Equipment Consistent with the Following:
 - 1. Permanently Installed Fixed Equipment: Flexible seal-tite conduit from branch circuit terminal equipment, and raceway to equipment, control cabinet, terminal junction box, and wiring terminals. Totally enclose wiring in raceway.
 - 2. Movable and/or Portable Equipment: Wiring device, cord cap, and multi-conductor cord suitable for equipment and in accordance with NEC requirements.
 - 3. Other methods as required by NEC and as required by special equipment and field conditions.

PART 3 EXECUTION

3.1 INSTALLATION OF ELECTRICAL CONNECTIONS

A. Make electrical connections in accordance with connector manufacturer's written instructions and with recognized industry practices, and complying with requirements of

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NEC and NECA's "Standard of Installation" to ensure that products fulfill requirements.

- B. Connect electrical power supply conductors to equipment conductors in accordance with equipment manufacturer's written instructions and wiring diagrams.
- C. Coordinate installation of electrical connections for equipment with installed equipment.
- D. Verify electrical loads (voltage, phase, full load amperes, number and point of connections, minimum circuit ampacity, and similar characteristics) for equipment furnished under other divisions, by reviewing respective shop drawings furnished under each division. Meet with each subcontractor furnishing equipment requiring electrical service and review equipment electrical characteristics. Report variances from electrical characteristics noted on electrical drawings to the Owner before proceeding with rough-work.
- E. Obtain and review equipment submittals and shop drawings to determine particular final connection requirements before rough-in begins for each equipment item.
- F. Comply with requirements in Section 26 05 53 for identification of electrical power supply conductor terminations.

1.1 WORK INCLUDED

- A. Description: Work includes wire, cable, splices, and terminations for systems 600 Volts and less and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 26 05 00 apply to Work in this section.
- C. The word "Cable" in this section relates to wire only. It does not infer Metal Clad Cable.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county and state codes and ordinances
- B. Codes and Standards:
 - 1. NFPA 70, National Electrical Code (NEC).
 - 2. UL 83, Thermoplastic-Insulated Wires and Cables.
- C. Comply with NEC as applicable to construction and installation of electrical wire and cable. Electrical wire and cable UL listed and labeled.
- D. Comply with applicable portions of NEMA/Insulated Cable Engineers Association standards pertaining to materials, construction and testing of wire and cable.
- E. Comply with applicable portions of ANSI/ASTM and IEEE standards pertaining to construction of wire and cable.

1.3 SUBMITTALS

- A. Comply with requirements in Division 01 and Section 26 05 00.
- B. Product Data: Submit manufacturer's technical product data for each type of wire, cable, and appurtenance.
- C. Test Reports:
 - 1. Field test reports.
 - 2. Submit completed copy of reports and include copy in the Operation and Maintenance

PART 2 PRODUCTS

2.1 POWER AND LIGHTING CIRCUITS

- A. Factory-fabricated conductors of sizes, ratings, materials and types indicated on the Drawings for each service. Where not indicated, select to comply with project's installation requirements and NEC standards. Comply with the following:
 - 1. UL 83.
 - 2. Copper Conductor. Wire and cable stranded for all sizes.
 - 3. Insulation type THHN/ THWN dual rated, 600 Volt for circuits from 115 to 600 Volts.
 - 4. Use only 90° C insulated conductors based on 75° C ampacity tables of the NEC.
- B. Aluminum Conductors: Use of aluminum conductors is not permitted.

2.2 REMOTE CONTROL AND SIGNAL CIRCUITS

- A. Class 1:
 - 1. UL 83.
 - 2. Stranded copper conductor.
 - 3. Insulation type THHN, or THWN, 600 Volt for circuits from 115 to 600 Volts.
- B. Class 2 and 3:
 - 1. Copper conductor, 300 Volt insulation, rated 75° C in dry locations and 60° C in wet locations. Individual conductors twisted together and covered with non-metallic jacket unless otherwise noted on the Drawings.
 - 2. UL listed for use in air handling ducts and hollow spaces used as ducts and plenums.

2.3 PLASTIC CABLE TIES

A. Teflon or nylon, locking type.

PART 3 EXECUTION

3.1 INSPECTION

A. General: 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.

3.2 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.

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 WIRING AND CABLE INSTALLATION, GENERAL

- A. Install electric conductors and cables as indicated on the Drawings, in compliance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standards of Installation," and in accordance with recognized industry practices.
- B. Coordinate installation work with electrical raceway and equipment installation work for proper interface.
- C. Pull cables by direct attachment to conductors or by use of basket weave pulling grip applied over cables. Attachment to pulling device made through approved swivel connection. Non-metallic jacketed cables of small size may be pulled directly by conductors by forming them into a loop to which pull wire can be attached. Remove insulation from conductors before forming loop. Larger sizes of cable may be pulled by using basket weave pulling grip, if pulling force does not exceed limits recommended by manufacturer. If pulling more than one cable, bind them together with friction tape before applying grip. For long pulls requiring heavy pulling force, use pulling eyes attached to conductors.

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- D. Do not exceed manufacturer's recommendations for maximum allowable pulling tension, side wall pressure, and minimum allowable bending radius. In all cases, pulling tension applied to conductors limited to 0.008 lbs. per circular mil of conductor cross-section area.
- E. Pull in cable from end having the sharpest bend (bend closest to reel). Keep pulling tension to minimum by liberal use of lubricant, turning of reel, and slack feeding of cable into duct entrance. Employ not less than one man at reel and one in pullhole during this operation.
- F. For training of cables, minimum bend radius to inner surface of cable shall be 12 times cable diameter.
- G. Where cable is pulled under tension over sheaves, conduit bends, or other curved surfaces, make minimum bend radius 50 percent greater than specified above for training.
- H. Apply wire and cable pulling compound recommended by specific cable manufacturer.
- I. Seal cable ends unless splicing is done immediately.
- J. Support cables in pullholes, concrete trenches, and similar locations by cable racks. Secure to rack insulators with nylon cord or self-locking nylon cable ties. Place each cable on separate insulator.
- K. Follow manufacturer's instructions for splicing and cable terminations.

3.5 WIRING METHODS, GENERAL

- A. Install all wiring in raceways unless shown otherwise on the Drawings or authorized by the Owner.
- B. Install Wire After:
 - 1. Interior of building is protected from weather.
 - 2. Mechanical work likely to injure conductors is completed.
 - 3. Conduits have been cleaned and moisture removed.
- C. Neatly train and lace wiring inside boxes, equipment, and panel boards.
- D. Clean raceway system before installing conductors.
- E. Use half-lapped synthetic tape if taping is utilized for insulation purposes.
- F. Provide conductor support devices as required by NEC in vertical conduit runs.
- G. Torque conductor connections and terminations to manufacturer's recommended values.
- H. Maintain minimum 12-inch clearance between open cabling and heat sources such as flues, steam pipes, and heating appliances.

3.6 MINIMUM SIZES

- A. Minimum No. 12 AWG for power and lighting circuits.
- B. Minimum No. 14 AWG for control wiring.

3.7 CABLE INSTALLATION

- A. Support cable with bridle rings, drive rings, or Teflon cable ties. Support from conduit not acceptable.
 - 1. Install all exposed low voltage cable in conduit where it is visible.
- B. Protect exposed cables where subject to damage.

- C. Support cables above accessible ceilings. Do not rest on ceiling tiles.
- D. Use suitable cable fitting and connectors.

3.8 WIRING SPLICES AND TERMINATIONS

- A. Splice only in accessible junction boxes.
- B. Use compression-set pressure connectors with insulating covers or screw-on pressure (wire nuts) for wire splices and taps sizes No. 10 AWG and smaller.
- C. Use compression-set pressure connectors with insulating covers for wire splices and taps sizes No. 8 AWG and larger. Split bolt splices and connectors not acceptable.
- Except where equipment is furnished with bolted or screw type lug, use compression set pressure connectors with insulating covers for wire terminations.
 Tape un-insulated portions of conductor and connectors with electrical tape to 150 percent of conductor insulation value.
- E. Clean wires before installing lugs and connectors.
- F. Make splices, taps, and terminations to carry full capacity of conductors without perceptible temperature rise.
- G. Leave minimum 8 inches of pigtail at outlet boxes for connection to fixtures and devices. Where wiring is continued to other outlets, splice connection wire in a tap. In no case will continuity through double terminal of device be allowed for either hot or neutral leg of circuit.
- H. Insulate ends of spare conductors with electrical tape or wire nut.
- I. Terminate control circuit conductors at terminal blocks only.
- J. Utilize eye or forked tongue type compression set terminator for conductors No. 12 AWG and smaller when termination is to a bolted or screw set type terminal block or terminal cabinet.
- K. Make below grade splices in manholes watertight with epoxy resin type splicing kits similar to Scotchcast.

3.9 FIELD OUALITY CONTROL

- A. Test for Cables 600 Volts and Less:
 - 1. After installation and prior to energization, test cable and wire for continuity of circuitry and for short circuits. Megger circuits of 100 Amp and greater rating. Correct malfunctions. Submit record of megohmmeter readings to Owner.
 - 2. Subsequent to wire and cable connections, energize circuitry and demonstrate functioning in accordance with requirements of the Contract Documents.
 - 3. Inspect wire and cable for physical damage and proper connection.

1.1 WORK INCLUDED

- A. Description: Work includes conduit and equipment supports, fastening hardware, and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 26 05 00 apply to Work in this section.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.

1.3 SUBMITTALS

A. Comply with requirements in Division 01 and Section 26 05 00.

PART 2 PRODUCTS

2.1 MATERIAL

- A. General: Built-up framing for electrical raceway and equipment supporting systems, including but not limited to channel, rod, clamps, and hardware. Comply with manufacturer's requirements. Unless design is shown on the Drawings, size for 400 percent of calculated load.
 - 1. Channel: 12 gage galvanized formed metal with or without pre-drilled holes, epoxy coated. Cooper B-Line Dura Green, Unistrut, Powerstrut, or approved.
 - 2. Beam Clamps, in Pairs, at each Supporting (Structural) Beam: B-line B441-22 and B441-22A; Superstrut U-501 and U-502; Unistrut P2785, P2786, and P1379S, or approved. Submit other manufacturers for approval with evidence proving clamp complies with IBC and ASCE 7-05 for seismic requirements. Submitted proof can consist of letter signed and stamped by a professional engineer licensed in engineering in the state in which the Work is performed.
 - 3. Beam Clamps for Use with Rods: B-Line B751-J4, B751-J6, B751-J9, and B751-J12; Superstrut U-569; Unistrut P2824-6, P2824-9, and P2824-12, or approved. Submit other manufacturers for approval with evidence proving clamp complies with seismic requirements. Submitted proof can consist of letter signed and stamped by a professional engineer licensed in engineering in the state in which the Work is performed.
 - 4. Fittings for Attaching Channel-to-Channel for Built-Up Framing: Unistrut P6028, P6033, P6069, P6290, P6291, P6326, P6331, P6332, P6346, P6358A, P6359, P6381, P6382, P6726A, P6917, P6962, or approved.
 - 5. Connectors for Bracing: Unistrut P6186, P7097, P7098, P7100, P7101, P7108, P7109, P7110, P6546, or approved.
 - 6. Unless otherwise shown on the Drawings, attach connectors to vertical framing members with 2 bolts.

B. Hardware, including Nuts (Locking Type), Bolts, and Set Screws: Corrosion resistant, designed for intended use.

PART 3 EXECUTION

3.1 INSPECTION

A. General: 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.

3.2 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.

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 SUPPORTING DEVICES INSTALLATION

- A. Fasten hanger rods, conduit clamps, and outlet and junction boxes to building structure using expansion anchors or beam clamps. Spring steel clips and clamps not acceptable.
- B. Install toggle bolts or hollow wall fasteners in hollow masonry, plaster, and gypsum board partitions and walls. Install expansion anchors or preset inserts in solid masonry walls, self-drilling anchors, and expansion anchors on concrete surfaces. Comply with manufacturer's requirements.
- C. Do not fasten supports to piping, ductwork, mechanical equipment, and conduit.
- D. Powder actuated fasteners not acceptable.
- E. Drilling and welding to structural steel members not acceptable except as indicated on the Drawings.
- F. Fabricate supports from structural steel or steel channel, rigidly welded or bolted to present a neat appearance. Use hexagon head bolts with spring lock washers under nuts.
- G. Bridge studs top and bottom with channels to support flush-mounted cabinets and panelboards in stud walls.
- H. Lighting Fixture Supports: Comply with requirements in Section 26 51 00.

I. Conduit:

- 1. Perforated pipe straps, ceiling support wires, fixture support wire, and wires installed primarily to support single runs of conduit not acceptable.
- 2. Install trapeze support systems for 2 or more parallel runs of conduit with 25 percent space (6 inches minimum) for future conduit runs.
- 3. Welding conduit and conduit fittings to structure not acceptable.
- 4. Space conduit so that conduit fittings are accessible to accommodate pulling or

splicing.

1.1 WORK INCLUDED

- A. Description: Work includes outlet, junction, and pull boxes and associated appurtenances required to enclose devices, permit pulling conductors, and for wire splices and branches.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 26 05 00 apply to Work in this section.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. NEMA 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
 - 2. NFPA 70, National Electrical Code (NEC).
 - 3. UL 514A, Metallic Outlet Boxes.

1.3 SUBMITTALS

- A. Comply with requirements in Division 01 and Section 26 05 00.
- B. Product Data: Submit manufacturer's technical product data for each type of outlet box and appurtenance.

PART 2 PRODUCTS

2.1 OUTLET BOXES FOR INTERIOR WIRING

- A. General: Outlet and pull boxes pressed steel, zinc coated with plaster ring where applicable, minimum 4 inch size.
- B. Surface Metal Raceway: Boxes of same manufacturer and to match raceway. Boxes shall accommodate standard devices and device plates.
- C. Concrete and Masonry: Boxes for casting in concrete and mounting in masonry walls of type specifically designed for that purpose.
- D. Ceiling Outlet Boxes: Galvanized octagonal 4 inch, 1-1/2 inches deep (without fixture stud) and 2-1/8 inch deep (with fixture stud).
- E. Sheet Metal Boxes Larger than 12 Inches in any Dimension: Include hinged enclosure.

2.2 OUTLET BOXES FOR EXTERIOR WIRING

- A. General: Weather resistant and rain tight, with appropriate covers, gaskets, and screws.
- B. Above Grade: Outlet and junction boxes cast or malleable iron or cast of corrosion resistant alloy compatible with raceway to which they are connected. Pull boxes fabricated of hot dipped galvanized heavy gage steel. Boxes with gasketed covers.
- C. Below Grade: Where exposed to earth, boxes (handholes) constructed of precast concrete with size, configuration, cover, grates and reinforcing as required by particular installation. Utility Vault Co. or approved.

2.3 OUTLET BOXES CONTAINING MULTIPLE DEVICES

- A. Outlet Boxes Containing Emergency and Normal Devices: Permitted only with steel barriers manufactured especially for purpose of dividing outlet box into 2 completely separate compartments.
- B. Outlet Boxes Containing Multiple Devices and Wiring Rated over 150 Volts to Ground and Over 300 Volts between Conductors: Permitted only with steel barrier manufactured especially for purpose of dividing outlet box into separate compartments for each device having exposed live parts.

PART 3 EXECUTION

3.1 INSPECTION

A. General: 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.

3.2 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.

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 COORDINATION OF OUTLET BOX LOCATIONS

- A. Locate as shown on the Drawings and as required to facilitate pulling. Limit number of bends per NEC.
- B. Electrical box locations shown on the Drawings are approximate unless dimensioned. Verify location of floor boxes and outlets before roughing in.
- C. Locate outlet boxes to allow access. If inaccessible, furnish, arrange, and pay for installation of access doors.
- D. Coordinate Work of this section with the Work of other sections and trades to avoid conflicts. Check and verify door swings and locations of built-in cabinets, plumbing, heating, and ventilating equipment.
- E. Install outlet boxes of sizes and at locations necessary to serve equipment furnished under this or other divisions of the specifications. Make final connections thereto. Outlet boxes required if equipment is furnished with pigtail for external connection, does not have space to accommodate branch circuit wiring, or requires wire with insulation rating different from branch circuit wiring. Review equipment Shop Drawings for required outlet locations.
- F. Where more than one outlet box is shown on the Drawings, and indicated to be at same elevation or one above the other, align them exactly on center lines horizontally or vertically. Relocate outlet boxes which are not so installed (including lighting, receptacle, power, signal, and temperature control outlets) at no additional cost to the Owner.

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- G. Centered on Built-In Work: In the case of doors, cabinets, recessed or similar features, or where outlet boxes are centered between such features, such as between door jamb and cabinet, make these outlet box locations exact. Relocate outlet boxes which are not centered.
- H. Flush mount boxes with front edge of box or plaster ring even with finished surface of wall and ceiling, except those mounted above accessible ceilings and where surface mounting is permitted.
- I. Locate to maintain headroom and to present a neat appearance.
- J. Route conduit from switch and receptacle boxes in walls vertically to space above ceiling. Install junction box before horizontal run.
- K. Offset outlet boxes minimum of one stud horizontal separation between flush boxes mounted on opposite sides of acoustic rated common wall.
- L. Install outlet boxes with minimum 6 inch horizontal separation between closest edges of flush boxes mounted on opposite sides of common wall.
- M. Ceiling Locations: Locate outlet either at corner joint or in center of a panel, whichever is closer to normal spacing. Locate outlet boxes in same room in same panel locations.
- N. Conceal outlet boxes for electric water coolers behind cooler unit housing.

3.5 OUTLET BOX INSTALLATION

- A. Anchor boxes so they will not shift or rock when devices are operated (including insertion and removal of cord caps).
- B. Firmly anchor flush outlet boxes directly or with concealed bracing to studs and joists.
- C. Close unused openings.
- D. Support boxes independently of conduit except for cast outlet boxes that are connected to 2 rigid metal conduits, both supported within 12 inches of outlet box.
- E. Use multiple-gang outlet boxes where 2 or more devices are mounted together. Do not use sectional boxes.
- F. Install blank covers or plates over outlet boxes that do not contain devices.
- G. In inaccessible ceiling areas, install outlet and junction boxes within 6 inches of recessed luminaire to be accessible through luminaire ceiling openings.
- H. Install recessed outlet boxes in finished areas. Secure outlet boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness. Use stamped steel stud bridges for flush outlets in hollow stud wall and adjustable steel channel fasteners for flush ceiling outlet boxes.
- I. Install outlet boxes in walls without damaging wall insulation.
- J. Seal conduit boxes, telephone boxes, and similar items air tight with acoustical caulk where located in acoustical rated walls that are not fire rated.
- K. Install outlet boxes in masonry walls to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat openings for outlet boxes. Use outlet boxes with sufficient depth to permit conduit hubs to be located in masonry void space.
- L. Install pull boxes to be accessible after completion of building construction.

KCHA GUSTAVES MANOR – ENVELOPE UPGRADE SECTION 26 05 32 AUBURN, WASHINGTON OUTLET BOXES FOR ELECTRICAL SYSTEMS

- 3.6 ELECTRICAL WORK IN COUNTERBACKS, MILLWORK, AND CASEWORK
 - A. Install as shown on the Drawings. Furnish templates to other trades for drilling and cutting to ensure accurate location of electrical fixtures (outlets and devices) as verified with the Owner. Install wiring, devices, plates, and connections required by said fixtures.

1.1 WORK INCLUDED

- A. Description: Work includes conduit, electrical metallic tubing, wireway, surface metal raceway, and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 26 05 00 apply to Work in this section.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. UL 1, Standard for Flexible Metal Conduit.
 - 2. UL 5, Standard for Surface Metal Raceways and Fittings.
 - 3. UL 6, Standard for Rigid Metal Conduit.
 - 4. UL 360, Standard for Liquid-Tight Flexible Steel Conduit.
 - 5. UL 514B, Standard for Conduit, Tubing, and Cable Fittings.
 - 6. UL 651, Standard for Schedule 40 and 80 Rigid PVC Conduit.
 - 7. UL 651A, Standard for Type EB and A Rigid PVC Conduit and HDPE Conduit.
 - 8. UL 797, Standard for Metallic Tubing Steel.
 - 9. UL 870, Standard for Wireways, Auxiliary Gutters, and Associated Fittings.
 - 10. UL 1242, Standard for Intermediate Metal Conduit Steel.
- C. NEC Compliance: Comply with applicable portions of NEC as to type of products used and installation of electrical power connections.
- D. Comply with applicable NEMA standards and refer to NEMA standards for definitions of terminology herein. Comply with NEC for workmanship and installation requirements of raceway systems.
- E. Manufacturers: Firms regularly engaged in manufacture of raceway systems of types and sizes specified and whose products have been in satisfactory use in similar service for not less than 3 years.

1.3 SUBMITTALS

- A. Comply with requirements in Division 01 and Section 26 05 00.
- B. Product Data: Submit manufacturer's technical product data for each type of raceway system and appurtenance.

PART 2 PRODUCTS

- 2.1 ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS
 - A. Ferrous Metal Conduit: Steel, UL 797, hot-dip galvanized.
 - B. Fittings: UL 514B, galvanized steel, insulated throat, rain-tight compression ring type

through 1-1/4 inch, set screw type for 1-1/2 inch and larger. Drive-on type and cast fittings not acceptable.

C. Use of aluminum EMT not permitted.

2.2 FLEXIBLE METAL CONDUIT AND FITTINGS

- A. Ferrous Metal Conduit: Steel, UL 1, galvanized. UL listed for grounding as available. Aluminum and flexible metallic tubing not acceptable.
- B. Fittings: Insulated throat, UL 514B, galvanized steel, UL listed for grounding as available.
- C. Use of aluminum Flexible Metal Conduit not permitted.

2.3 LIQUID-TIGHT FLEXIBLE METAL CONDUIT AND FITTINGS

- A. Ferrous Metal Conduit: Galvanized with PVC weatherproof cover, UL 360 listed for grounding as available.
- B. Fittings: Insulated throat, UL 514B, galvanized steel, UL listed for grounding as available.

2.4 RIGID NON-METALLIC CONDUIT

- A. PVC Conduit: Schedule 40, UL 651, rigid type unless noted otherwise. UL 651A Type A permitted for underground concrete duct banks.
- B. Fittings: UL 651 and UL 651A.
 - 1. For electric (power) duct, 90 degree elbows factory manufactured PVC coated rigid steel with minimum 48 inch radius.
 - 2. For telephone and cable television duct, 90 degree elbows factory manufactured PVC coated rigid steel with minimum 60 inch radius.

2.5 CONDUIT BODIES

A. Conduit bodies cast malleable iron, zinc or cadmium plated with threaded connections. Covers gasketed, blank steel, or cast malleable iron, zinc or cadmium plated, and of same manufacturer as conduit body. Where conduit bodies are used as junction or splice boxes, comply with NEC.

2.6 WIREWAY AND AUXILIARY GUTTER

- A. UL 870, lay-in type, with hinged cover but without knockouts.
- B. Size: As shown on the Drawings, 4 by 4 inch minimum.
- C. Finish: Rust-inhibiting primer coat with manufacturer's standard enamel finish.

2.7 EXPANSION FITTINGS

A. Malleable iron, hot-dip galvanized allowing 4 inches (plus or minus 2 inches) conduit movement. OZ/Gedney Type AX Series or approved.

2.8 SEALING FITTINGS

- A. Wall Sealing Fittings: At each wall sealing fitting, include conduit seal fitting, OZ/Gedney FSK Series, Crouse Hinds EYS Series, or approved.
- B. Raceway Stubups and Stubouts: Conduit seals together with wall sealing fittings. OZ/Gedney CSB Series or approved.
- C. For Exterior Wall Penetrations below Grade: Include sealing bushing at interior end of

penetrating raceway. Only threaded fittings are permitted in entering raceways ahead of sealing bushing. OZ/Gedney Type CSB or approved.

2.9 CONDUIT SUPPORTS

A. Conduit Clamps, Straps, and Supports: Steel or malleable iron. Comply with requirements in Section 26 05 29.

2.10 FIRE RATED SEALING COMPOUND

- A. Dow Corning 3-6548 Silicone RTV Foam or approved.
- B. 3M Fire Barrier Moldable Putty Stix MP+ or approved.
- C. 3M Fire Barrier Moldable Putty Pads MPP+ or approved.
- D. 3M Fire Barrier Pillows and Self-Locking Pillows or approved.

PART 3 EXECUTION

3.1 INSPECTION

A. General: 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.

3.2 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.

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 RACEWAY SIZING, ARRANGEMENT, AND SUPPORT

- A. Unless otherwise shown on the Drawings, size conduit for conductor type installed. Minimum size 3/4 inch.
- B. Install conduit to maintain headroom and present neat appearance in unfinished spaces. Install a minimum of 9'-6" above finished floor in spaces unless otherwise indicated on the Contract Drawings.
- C. Install conduit concealed in walls, below floors, and above ceiling in spaces, except conduit may be exposed in mechanical rooms, electrical rooms, and similar unfinished spaces.
- D. Horizontal conduit installation is not allowed in floor slab unless specifically noted on electrical and structural Contract Drawings.
- E. Route conduit parallel and perpendicular to building planes.
- F. Maintain minimum 6 inch clearance between conduit and piping. Maintain 12 inch clearance between conduit and heat sources such as flues, steam pipes, heating and hot water pipes, and heating appliances.

- G. Brace conduit or conduit supports to prevent distortion of alignment by wire-pulling operations.
- H. Where conduit is run in parallel, group on formed channel supports. Comply with requirements in Section 26 05 29.
- I. Do not fasten or support with wire or perforated pipe straps. Remove temporary conduit supports used during construction before conductors are pulled.
- J. Do not cut structural members for passage of raceway.

3.5 RACEWAY INSTALLATION

- A. Cut conduit square using a saw or pipe cutter. Deburr cut ends.
- B. Bring conduit to shoulder of fittings and couplings and tighten securely.
- C. Use conduit hubs for fastening conduit to cast boxes and for fastening conduit to sheet metal boxes in damp or wet locations.
- D. Do not use conduit bodies to make sharp changes in direction unless shown on the Drawings.
- E. Use hydraulic one-shot conduit bender or factory elbows for bends in 2 inch conduit and larger.
- F. Provide plastic bushings on conduit stubs used for transition from conduit to open cable runs.
- G. During construction, use suitable conduit caps to protect installed conduit against entrance of dirt and moisture.
- H. Distance Between Supports:
 - 1. Threaded Rigid Metal Raceways: Maximum 8 foot centers and within 18 inches of each outlet, junction box, and bend.
 - 2. Electrical Metallic Tubing: Maximum 8 foot centers at each bend and within 12 inches of each outlet, junction box, and coupling.
 - 3. Surface Metal Raceway, Auxiliary Gutter, and Wireway: Maximum 5 foot centers or in accordance with manufacturer's instruction, whichever is less, unless otherwise shown on the Drawings.
- I. Install nylon pull string with printed footage indicators secured at each end of each empty conduit, except sleeves and nipples. Identify with tags at each end origin and destination of each empty conduit.
- J. Route conduit through roof inside openings for ductwork where possible. Otherwise, install through roof jack and seal weather tight.
- K. Install no more than equivalent or four 90 degree bends between boxes.
- L. Avoid moisture traps where possible. Where unavoidable, install junction box with drain fitting at conduit low point.
- M. Sealing of Conduit Penetrations:
 - 1. Exterior Wall Surfaces above Grade: Seal around penetrations with caulking approved by the Owner. For concrete construction above ground level, cast conduit in wall or core drill wall and hard pack with mixture of equal parts of sand and cement.
 - 2. Exterior Wall Surfaces below Grade: Cast conduit into wall (and floor) or use manufactured seal assembly cast in place.

- 3. Roofs: Install mopped and flashing roof jack and where conduit penetrates roof membrane.
- 4. Fire Rated Construction: Seal penetrations with fire rated sealing compound to maintain fire rating of construction penetrated.
- N. Sealing of Raceways: Seal interior of raceways that pass through building roof and through outside walls of building, above or below grade. Seal on end inside building. Use raceway sealing fittings manufactured for purpose sealed with non-hardening, compound-type mastic, specially designed for such service. Pack around wires in raceways.
- O. Do not install conduit on exterior surface of building, except as shown on the Drawings and as approved by the Owner.
- P. Where flexible metal or liquid tight flexible metal conduit is installed, install bonding conductor to insure electrical continuity of raceway. Route bonding jumper inside conduit and terminate at grounding bushing or grounding locknut installed on inside of junction boxes at each side of flexible section. In instances where this method is not feasible (such as when cast boxes with hubs are used or where required by the NEC, route bonding jumper on outside of flexible conduit and terminate in accordance with methods acceptable to the AHJ.
- Q. Raceway shall not penetrate sheet metal ducts unless approved by the Owner. Install sleeves for raceway installation.
- R. In finished areas with exposed structure, subject to the approval of the Owner, raceways may be installed exposed. Install raceways as high as possible, tight to the ceiling deck, and neatly arranged. Submit shop drawing indicating routing of proposed surface raceways and boxes in finished areas.
- S. At locations above first floor slab, conduit runs are not permitted within concrete slab. Route conduits in walls, above ceiling, and below floor. Install additional knockouts in floor boxes to serve them from below.

3.6 RACEWAY SCHEDULE

- A. PVC Coated Rigid Metal Conduit:
 - 1. Required in corrosive environments or where indicated on the Contract Drawings.
- B. Intermediate Metal Conduit:
 - 1. May be used in lieu of rigid metal conduit unless otherwise prohibited by code or indicated on the Contract Drawings.
 - 2. Not acceptable for circuits over 600 Volts.
- C. Electrical Metallic Tubing:
 - 1. Acceptable for dry interior locations where not exposed to moisture or physical damage.
 - 2. Not acceptable for circuits over 600 Volts.
- D. Rigid Non-Metallic Conduit:
 - 1. Acceptable underground with minimum 24 inches of cover.
 - 2. Acceptable below concrete slab on grade installed a minimum of 2 inches below bottom of slab.
 - 3. Acceptable within masonry walls subject to approval by structural engineer.
 - 4. Not acceptable for raceways extending through concrete; utilize Rigid Metal Conduit.

- 5. Not acceptable for bends 45 degrees and greater unless concrete encased; utilize Rigid Metal Conduit as specified herein or PVC Coated Rigid Metal Conduit. Field bends not acceptable.
- 6. Concrete encased were indicated on Contract Drawings or where required by Code or Utility.

E. Flexible Steel Conduit:

- 1. For connections to recessed light fixtures and devices installed in suspended ceilings, maximum six foot length.
- 2. For connections to motors, transformers and other equipment subject to vibration. Minimum of three foot and maximum of six foot length with 90 degree loop.

F. Liquid-Tight Flexible Metal Conduit.

1. For pump motors and equipment subject to vibration in damp and wet locations, in areas subject to being washed down, and for machinery where cutting oil is used. Minimum of three foot and maximum of six foot length with 90 degree loop.

1.1 DESCRIPTION

- A. This section specifies the De-construction and restoration of the existing rooftop solar array and electrical infrastructure required for roof replacement and envelope improvements per the plans and bid documents.
- B. The requirements of this Section apply to all sections of Division 26 related to solar energy electrical power generation systems.

1.2 RELATED WORK

- A. Division 01, General Requirements: General construction practices.
- B. Section 26 05 00, General Electrical Provisions: Requirements that apply to all sections of Division 26.
- C. Section 26 05 19, Low-Voltage Electrical Power Conductors: Requirements for low-voltage conductors.
- D. Section 26 05 33, Raceway Systems: Requirements for boxes, conduits, and raceways.

1.3 DEFINITIONS

- A. Unless otherwise specified or indicated, electrical and electronics terminology used in these specifications, and on the drawings, shall be as defined in IEEE 100 CD.
- B. Unless otherwise specified or indicated, solar energy conversion and solar photovoltaic energy system terminology used in these specifications, and on the drawings, shall be as defined in ASTM E772.

1.4 QUALITY ASSURANCE

- A. Products and Services pertaining to this specification shall comply with Section 26 05 00, General Electrical Provisions.
- B. Solar Energy Electrical Power Generation System installer(s) shall demonstrate that they have successfully installed at least four projects within the past five years that, in aggregate, equal or exceed the size of the proposed project. References shall be provided for each of the referenced qualified projects. Solar installer shall be NABCEP Certified PV Installation Professional.
- C. Electrical design to reference current equipment approved by submittal and installed. Contractor to submit to area having jurisdiction for all required plan review and permits.
- D. Investigate any other local ordinances that may apply to installation of a solar energy electrical generating system in the proposed location. Bring any conflicts with the drawings and specifications to the attention of the design team.

1.5 APPLICABLE PUBLICATIONS

- A. Publications listed below (including amendments, addenda, revisions, supplements and errata) form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
- B. American Society for Testing and Materials (ASTM):
 - 1. E772-15 Standard Terminology of Solar Energy Conversion
 - 2. E1038-15 Standard Test Method for Determining Resistance of Photovoltaic Modules to Hail by Impact with Propelled Ice Balls
- C. Institute of Electrical and Electronics Engineers (IEEE):
 - 1. CD-13 The Authoritative Dictionary of IEEE Standards Terms
 - 2. 519-14 Recommended Practices and Requirements for Harmonic Control in Electric Power Systems
 - 3. 937-07 Recommended Practice for Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems
 - 4. 1013-07 Recommended Practice for Sizing Lead-Acid Batteries for Stand-Alone Photovoltaic (PV) Systems
 - 5. 1361-14 Guide for Selection, Charging, Test and Evaluation of Lead-Acid Batteries Used in Stand-Alone Photovoltaic (PV) Systems
 - 6. 1526-03 Recommended Practice for Testing the Performance of Stand-Alone Photovoltaic Systems
 - 7. 1547-03 Standard for Interconnecting Distributed Resources with Electric Power Systems
 - 8. 1561-07 Guide for Optimizing the Performance and Life of Lead-Acid Batteries in Remote Hybrid Systems
 - 9. 1562-07 Guide for Array and Battery Sizing in Stand-Alone Photovoltaic (PV) Systems
 - 10. 1661-07 Guide for Test and Evaluation of Lead-Acid Batteries Used in Photovoltaic (PV) Hybrid Power Systems
- D. International Code Council (ICC):
 - 1. IBC-15 International Building Code
 - 2. IFC-15 International Fire Code
- E. National Electrical Manufacturer's Association (NEMA):
 - 1. 250-14 Enclosures for Electrical Equipment (1000 Volts Maximum)
- F. National Fire Protection Association (NFPA):
 - 1. 70-17 National Electrical Code (NEC)
- G. Underwriters Laboratories (UL):
 - 1. 6-07 Electrical Rigid Metal Conduit Steel
 - 2. 94-13 Tests for Flammability of Plastic Materials for Parts in Devices and Appliances; Ed 6
 - 3. 797-07 Electrical Metallic Tubing Steel
 - 4. 969-17 Standard for Marking and Labeling Systems
 - 5. 1242-14 Standard for Electrical Intermediate Metal Conduit Steel
 - 6. 1703-02 Standard for Flat-Plate Photovoltaic Modules and Panels
 - 7. 1741-10 Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources

PART 2 PRODUCTS

2.1 GENERAL

- A. Provide materials to fabricate functioning photovoltaic system in accordance with NEC, Electric Utility, AHJ, ASTM, IEEE, NEMA, NFPA, and UL, as specified in this section, and as shown on the drawings.
- B. Factory-prefabricated solar equipment packages which include photovoltaic modules, inverters, racking and controls and which meet the requirements of this section are acceptable.

2.2 GROUNDING

- A. All applicable components of the solar energy electrical power generating system must be grounded per latest NEC requirements.
- B. DC Ground-Fault Protector:
 - 1. Shall be listed per UL 1703.
 - 2. Shall comply with requirements of the NEC.

2.3 SWITCH/DISCONNECTING MEANS

- A. Shall be UL-listed, in accordance with the NEC, as shown on the drawings, and as specified.
- B. Utility External Disconnect Switch as several states do not require UEDS for small solar photovoltaic systems if the inverter provides the same function per NEC. Coordinate requirements with serving electric utility.

2.4 WIRING SPECIALTIES

- A. Direct Current Conductors:
 - 1. If Exposed: Shall be PV Wire or USE-2, UF (inadequate at 60°C [140°F]), or SE, 90°C [194°F] wet-location rated and sunlight-resistant (usually for tracking modules).
 - 2. If in Conduit: Shall be RHW-2, THWN-2, or XHHW-2 90°C [194°F], wet-location rated.
- B. Conduits and Raceways:
 - 1. Shall use steel conduit listed per UL 6, UL 1242, UL 797 (as appropriate), except for tracking modules. Weathertight EMT installations shall be allowed for DC wiring in weather-protected areas.
 - 2. Shall use expansion joints on long conduit runs.
 - 3. Shall not be installed on photovoltaic modules.
- C. Enclosures subject to weather shall be rated NEMA 3R or better.
- D. Cable Assemblies and Junction Boxes:
 - 1. Shall be UL-listed.
 - 2. Shall be rated to 5VA flammability per UL 94.
- E. Prohibited Wiring Materials: Those which are not UL-listed, or listed materials used in environments outside those covered in their listing.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install the solar photovoltaic system in accordance with the NEC, this section, and the printed instructions of the manufacturer.
- B. Prior to system start-up, ensure no copper wire remains exposed with the exception of grounding wire as allowed in certain circumstances per manufacturer's instructions.
- C. In seismic areas, systems shall be adequately anchored and braced per structural engineering details to withstand seismic forces at the locations where installed.
- D. Wiring Installation: Workers shall be made aware that photovoltaic modules will be live and generating electricity when there is any ambient light source and shall take appropriate precautions. Utilize on-site measurements in conjunction with engineering designs to accurately cut wires and layout before making permanent connections. Locate wires out of the way of windows, doors, openings, and other hazards. Ensure wires are free of snags and sharp edges that have the potential to compromise the wire insulation. All cabling shall be mechanically fastened. If the system is roof-mounted it shall have direct current ground fault protection according to NEC. Ensure breakers in combiner box are in the off position (or fuses removed) during combiner box wiring.
- E. Instrumentation: Install instruments as recommended by the manufacturer. Locate control panels inside a room accessible only to qualified persons.
- F. Rack-Mounted Photovoltaic Installations: Rack-mounted photovoltaic modules shall be installed in accordance with the manufacturer's installation instructions.
- G. Provide safety signage per NEC.
- H. Remove, replace, patch, and repair existing roofing materials and surfaces cut or damaged during installation of the solar energy electrical power generation system, by methods and with materials so as not to void existing roofing system warranty. Notify roof warrantor before proceeding.

3.2 FIELD QUALITY CONTROL

- A. Field Inspection: Perform in accordance with manufacturer's recommendations. Prior to initial operation, inspect the solar energy electrical power generation system for conformance to drawings, specifications, and NEC. In addition, include the following:
 - 1. Visual Inspection and Tests:
 - a. Compare equipment nameplate data with specifications and approved shop drawings.
 - b. Inspect physical, electrical, and mechanical condition.
 - c. Verify required area clearances.
 - d. Verifying tightness of accessible bolted electrical connections by calibrated torque-wrench method or performing thermographic survey after energization.
 - e. Verify the correct operation of all sensing devices, alarms, and indicating devices.
 - f. Verify that all cable entries from top of junction boxes are sealed per junction box rating.

- g. Verify all connections and integrity of printed circuit boards in all applicable junction boxes.
- B. Tests: Provide equipment and apparatus required for performing tests. Correct defects disclosed by the tests and repeat tests. Conduct tests in the presence of the commissioning agent and their guidelines.
 - 1. Module String Voltage Test: Prior to connecting wiring to the combiner box, use a digital multi- meter to ensure each series string's polarity is correct.
 - 2. Operational Tests: Perform tests in accordance with the manufacturer's written recommendations. Tests for stand-alone systems shall be performed per IEEE 1526.

3.3 FOLLOW-UP VERIFICATION

A. Upon completion of acceptance checks, settings, and tests, the Contractor shall show by demonstration in service that the solar photovoltaic electrical power generation system is in good operating condition and properly performing the intended function. Inverter and online monitoring review shall be conducted with commissioning agent and facility operator during owner training.

3.4 COMMISSIONING

- A. Comply with the requirements of Division 1 with additional requirements indicated in this section.
- B. Connect the solar photovoltaic electrical power generation system to the serving electric utility grid only after receiving prior approval from the utility company.
- C. Only qualified personnel shall connect the solar photovoltaic electrical power generation system to the serving electric utility grid.
- D. Conduct commissioning with commissioning agent follow their guidelines to verify system function and performance.

3.5 INSTRUCTION

A. Furnish the services of a factory-trained technician for one, 1-hour training period for instructing personnel in the maintenance and operation of the solar photovoltaic electrical power generation system, on the date requested by the facility operator.

1.1 SECTION INCLUDES

- A. Description: Work includes interior and exterior light fixtures, drivers, LED's and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01, and Section 26 05 00 apply to Work in this section.
- C. Comply with requirements in other specification sections for concrete for embedding poles, pole foundations, and footings for exterior area lighting poles, standards, and foundations. Pole bases included in this section.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards: NFPA 70, National Electrical Code (NEC).
- C. Comply with NEC and NEMA for installation and construction of lighting fixtures. Comply with NEC for recessed incandescent lighting fixtures. Lighting fixtures UL listed and labeled.

1.3 SUBMITTALS

- A. Comply with requirements in Division 01 and Section 26 05 00.
- B. Product Data: Submit manufacturer's technical product data and maintenance data for each type of lighting fixtures and appurtenance. Submit product data for each lamp type and each ballast type, with a matrix indicating which fixtures apply to submitted ballast and lamp type.

C. Shop Drawings:

- 1. Submit dimensioned drawings of each type of lighting fixtures. Submit in booklet form with separate sheet for each fixture, assembled in luminaire "type" in alphabetical order with proposed fixture and appurtenance clearly indicated on each sheet.
- 2. Submit support and hanging details for lighting fixtures weighing more than 56 pounds and pendant hung lighting fixtures requiring support design approved by the AHJ.

D. Test Reports:

- 1. Field test reports.
- 2. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.

1.4 DEFINITIONS

- A. Average Life: The time after which 50 percent will have failed and 50 percent will have survived under normal conditions.
- B. CCT: Correlated color temperature.
- C. CRI: Color-rendering index.
- D. Fixture: A complete lighting unit or exit sign. Fixtures include lamps and parts required to distribute the light, position and protect lamps, and connect lamps to the power supply.
- E. LER: Luminaire efficacy rating.

- F. Lumen: Measured output of lamp and luminaire, or both.
- G. Luminaire: Fixture.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products of one of the following (for each type of fixture):
 - 1. Luminaires: Refer to Light Fixture Schedule on Contract Drawings.
- B. Comply with manufacturer's written recommendations for lamp and ballast combinations.

2.2 FIXTURE COMPONENTS, GENERAL

- A. Metal Parts: Free from burrs and sharp corners and edges.
- B. Sheet Metal Components: Steel, except as indicated. Components are formed and supported to prevent warping and sagging.
- C. Doors, Frames, and Other Internal Access: Smooth operating and free from light leakage under operating conditions. Arrange to permit re-lamping without use of tools. Arrange doors, frames, lenses, diffusers, and other pieces to prevent accidental falling during re-lamping and when secured in the operating position.
- D. Lenses, Diffusers, Covers, and Globes: 100 percent virgin acrylic plastic or water white, annealed crystal glass except as indicated.
 - 1. Plastic: Highly resistant to yellowing and other changes due to aging, exposure to heat and UV radiation.
 - 2. Lens Thickness: 0.156 inches minimum.

2.3 EXTERIOR LIGHT FIXTURES

A. General:

- 1. Light fixtures of sizes, types, and ratings indicated on the Drawings complete with, but not necessarily limited to, housings, lamps, reflectors, starters, and wiring.
- 2. Label each fixture with manufacturer's name and catalog number.
- 3. Include positive latch mechanisms for enclosed fixtures. Spring tension clips not acceptable.
- 4. Include exterior fixtures with damp or wet location label as required by application.
- B. LED's: Rated for utilization voltage.

C. Diffusers:

- 1. 100 percent virgin acrylic compound.
- 2. Minimum thickness 0.125 inches.
- D. Fuses for Exterior Parking Area Fixtures: Include fuses in each phase conductor, sized for 1-1/2 times maximum full load ballast current served by each conductor, Bussman KTK or approved. Do not exceed circuit overcurrent protective device rating. Include fuse holder at hand hole or in base junction box with "breakaway" receptacles for conductors running to top of poles, Bussman HEB or approved. Include fuse blanks in neutral conductors.

- E. Support Requirements:
 - 1. Include flexible ball joint hangers for pendant and stem hung fixtures at points of support.
 - 2. Equip hooks used to hang fixtures with safety latches. Include supports, brackets, clips, screws, and miscellaneous items for mounting fixtures.
 - 3. Include locking catches, screws, safety chain, or safety cable for detachable fixture parts, luminous ceiling accessories, louvers, diffusers, lenses, and reflectors.

PART 3 EXECUTION

3.1 INSPECTION

A. General: 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.

3.2 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.

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 FIELD QUALITY CONTROL

- A. Upon completion of installation of lighting fixtures and electrical circuitry, energize circuitry and demonstrate capability and compliance with requirements. Repair malfunctioning units on site, then retest to demonstrate compliance. If not possible to repair on site, remove and provide new units and retest. Include copy of test reports in the Operation and Maintenance Manual.
- B. At Substantial Completion, remove and provide new lamps in interior lighting fixtures which are observed to be noticeably dimmed due to Contractor's use and testing as judged by the Owner.