

# **REQUEST FOR BIDS**

## **600 BUILDING ELECTRICAL UPGRADES**

600 Andover Park West  
Tukwila, WA 98188

RELEASED BY:



**CAPITAL CONSTRUCTION DEPARTMENT**  
700 ANDOVER PARK WEST, SUITE C  
TUKWILA, WA 98188

### **BID DATES**

**ISSUANCE DATE: MARCH 14, 2024**

**DUE DATE: APRIL 4, 2024**

**TIME: 1:00 PM**



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# **A - SECTION**

## **INFORMATIONAL FORMS**

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**INVITATION FOR BID** **DUE DATE: APRIL 4, 2024**

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: 600 BUILDING ELECTRICAL UPGRADE**

The 600 building is a two-story concrete tilt-up construction built in 1979. The electrical upgrade will include (but not be limited to) the following items: demolition, removal, and upgrading of the existing electrical panel boards, new feeder conductors, gutter cans, meter bases, transformers, and switchboards. The 600 Electrical project will include a new main transformer, which will be under another contract. However, it will be up to the Contractor to run new feeder conductors to the updated electrical equipment. The building houses several KCHA employees, who will work off-site during construction, leaving the building partially occupied. The building power will be off during the upgrade, and the Contractor will be responsible for supplying 24/7 temporary power while new electrical panels are being installed. It will be up to the Contractor to supply and install all the necessary parts and materials to tap into the contractor supplied backup generator and to incorporate KCHA’s existing backup generator. KCHA’s backup generator will now back up the Contractors auxiliary generator to power the building. The Contractors auxiliary generator will provide power for KCHA’s servers, and some lighting circuits, auxiliary power will not power up the entire building. Only selected areas of the building will be online.

**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>

**PRE-BID CONFERENCE:**

Date: **March 21, 2024**  
Time: **11:00 AM**  
Jobsite Address: **600 Andover Park West Tukwila, WA 98188**  
Notation: Attendance of the Pre-Bid Site Visit is **MANDATORY**.  
Questions / Direct Questions, Requests or Clarification by Email or Fax to:  
Contact Person: Project Manager: Don Hatfield  
Email Address: donaldh@kcha.org  
Phone Number: 206-574-1213  
No Later Than: March 28, 2024  
Website Posting: <https://www.kcha.org/business/construction/open>  
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 04, 2024**  
Time: **1:00 pm**  
Address: King County Housing Authority  
600 Andover Park West, Tukwila, WA 98188  
Submittal Procedure: **Envelope MUST BE:**  
a. Sealed  
b. List Name and Address of your Firm/Company



- c. List Due Date and Time
- d. List Project Name:  
**600 BUILDING ELECTRICAL UPGRADE**
- e. Mailing / Shipping Package or Wrapping **must also be marked** with this information.

KCHA Process: **All Bids MUST BE Time and Date Stamped at King County Housing Authority’s Central Campus by the above Due Date and Time.**

- a. No Bids will be accepted after that Date and Time.
  - b. No Bids Faxed or Emailed will be accepted.
  - c. A KCHA representative will be present at the front desk at **600 Andover Park West, Tukwila, WA 98188** to time stamp bids.
  - d. Bids will be accepted between **NOON – 1:00PM ONLY**.
  - e. At 1:00PM bidding will be closed and no further bids will be accepted.
  - f. Bids received on or before 1:00 PM will be opened and read in the presence of one or more witnesses which includes KCHA staff (project manager and project specialist). **Bidding Contractors are invited to attend the public opening.**
  - g. Bids will be tabulated and bidders notified 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.

**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**

**MASKING COMPLIANCE**

Contractor’s employees and all sub-contractors’ employees will be required to wear a mask if they are asked to do so by a resident or property manager while in a building or a resident’s unit.

**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 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.

**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](http://www.bxwa.com)  
425-258-1303

CONTRACTOR PLAN CENTER  
5468 SE International Way  
Milwaukie, OR 97222  
[www.contractorplancenter.com](http://www.contractorplancenter.com)  
503-650-0148

DAILY JOURNAL OF COMMERCE  
[www.djc.com](http://www.djc.com)  
206-622-8272

DODGE CONSTRUCTION  
NETWORK  
[www.construction.com](http://www.construction.com)  
877-784-9556

ISQFT  
[www.isqft.com](http://www.isqft.com)  
800-364-2059 x7051

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**KCHA – 600 BUILDING ELECTRICAL UPGRADES  
CAPITAL CONSTRUCTION DEPARTMENT**

**PUBLICATION:** Daily Journal of Commerce      Daily  
The Seattle Medium                              Wednesday  
Northwest Asian Weekly                        Thursday  
KCHA Web Site                                      [www.kcha.org/business/construction/open](http://www.kcha.org/business/construction/open)

**CONTACT PERSON:** Don Hatfield                              Project Manager  
206-574-1213                                      Phone Number  
Donaldh@kcha.org                                Email Address

**EXAMPLE OF SEALED ENVELOPE PROCEDURE / PREPARATION:**

<p>FROM:</p> <p>ENTER YOUR COMPANY NAME Street Address City, State, Zip Code</p> <p>TO:</p> <p>KING COUNTY HOUSING AUTHORITY CAPITAL CONSTRUCTION DEPARTMENT 700 Andover Park West, Suite C Tukwila, WA 98188</p> <p>BID DUE:</p> <p>Date: April 4, 2024 Time: 1:00 PM</p> <p>PROJECT NAME:      600 BUILDING ELECTRICAL UPGRADE</p>
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**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 **MUST** submit Signed Section B forms no later than the **Bid Due Date and Time**:

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

(c) ~~Bidders must submit as part of their bid a completed form HUD-5369-A, "Representations, Certifications, and Other Statements of Bidders."~~

(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.

HUD 5369-A is covered by other forms within this project Bid Document. See last page for listing.

### 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, except 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.

**9. 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] —

(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.

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

(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.

**11. 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 Indian-owned 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~~

~~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 be 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 prospective 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.~~

The following documents cover all sections in HUD form HUD-5369-A:

- Bid Form (Return Form B.1)
- Contractor Certification (Return Form B.3)
- Non-Collusive Affidavit (Return Form B.4)
- Equal Opportunity Form (Return Form B.5)
- WMBE (Return Form B.11)
- Certification of Payments to Influence Federal Transactions (Contract Form C.7)
- Disclosure of Lobbying Activities (Contract Form C.8)

## 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](http://www.kcha.org/business/requirements)

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



## PROJECT WAGE RATES

### A. WASHINGTON STATE PREVAILING WAGE

**TYPE OF WAGE RATES:** COMMERCIAL RATES

**WAGE DECISION DATE:** MARCH 1, 2023

**COUNTY:** KING

**LINK TO LNI PREVAILING WAGE RATE LOOKUP:** <https://secure.lni.wa.gov/wagelookup/>

Lock-In Date: For contracts entered into pursuant to competitive bidding procedures, the bid opening date “locks-in” the wage decision provided that the contract is awarded within ninety (90) days. If the contract is awarded more than ninety (90) days after bid opening, the contract award date “locks-in” the wage decision.

**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.

### B. HUD NON-ROUTINE MAINTENANCE WAGES (NA)



## 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.

(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

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](mailto: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:
    - 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:

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 five percent (5%) higher than the total bid price for the lowest responsive bid from any responsible, bidder.

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.

**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](mailto:Section3@kcha.org) to obtain a list of local hiring resources.

**SECTION 3 – 2023 INCOME GUIDELINES**

Location	Income Limit 1 person		
	Extremely Low Income	Very Low Income	Low Income
Kitsap County (Bremerton, Silverdale)	\$22,900	\$38,150	\$61,000
King/ Snohomish Counties (Seattle, Bellevue, Everett)	\$28,800	\$47,950	\$70,650
Pierce County (Tacoma)	\$22,600	\$37,650	\$60,200
Skagit County (Sedro-Woolley)	\$19,150	\$31,900	\$51,050
Thurston County (Olympia, Tumwater)	\$21,550	\$35,900	\$57,400

## 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.

(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



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

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.

[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

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.

[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](http://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:

1. 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. **Washington State Prevailing Wage**
    - 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.
  - 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

<b>STEP 1</b> Select Contract Type	<b>STEP 2</b> Project Details	<b>STEP 3</b> Intent Details	<b>STEP 4</b> Add Wages	<b>STEP 5</b> Review Intent	<b>STEP 6</b> Payment Details
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**Project Details****Contract Type****Bid-Build (Traditional)**Bid Due Date (required) 

mm/dd/yyyy

Contract Award Date (required) 

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) 

Project Name (required)


Is apprentice utilization required? (required)

 Yes  No

Is OMWBE utilization required? (required)

 Yes  No

Is this a Housing Act of 1937 project? (required)

 Yes  NoProject Site Address or Directions 

0/1000

## DAVIS BACON & RELATED ACTS PROVISIONS; CONTRACT WORK HOURS & SAFETY STANDARDS ACT; GENERAL INFORMATION

### A. The Davis-Bacon Act (DBA)\*

The DBA, enacted in 1931, applies to contracts in excess of \$2,000 for construction, alteration, and/or repair of public buildings or public works, including painting and decorating, to which the United States or the District of Columbia is a party. This type of applicability is referred to as direct Davis-Bacon Act or DBA coverage. An example of DBA coverage is when HUD contracts directly for repairs to HUD-owned properties. HUD's Office of the Chief Procurement Officer manages these types of contracts. The DBA requires that the advertised specifications for such contracts contain a provision stating that the minimum wages to be paid to various classes of laborers and mechanics must be based upon the wages found to be prevailing by the Secretary of Labor.

Most HUD construction work is not covered by the DBA since HUD does not usually contract directly for construction work. Rather, Davis-Bacon wage rates apply to HUD programs because of prevailing wage requirements expressed in HUD "Related Acts" such as the U. S. Housing Act of 1937 and the Housing and Community Development Act of 1974, as amended. The Related Acts (referred to throughout this Guide as the Davis-Bacon and Related Acts or DBRA) are discussed further in Section 5.9.

The DBA includes provisions that:

1. Require the contractor or subcontractor to pay all mechanics and laborers at least once per week;
2. Prohibit contractors or subcontractors from taking deductions or rebates from wages earned by laborers and mechanics;
3. Require the contractor or subcontractor to pay Davis-Bacon wages to all laborers and mechanics employed on the site of the work regardless of their skill level, and regardless of any contractual relationship alleged to exist between the laborers and mechanics and the contractor or subcontractor;
4. Require the contractor or subcontractor to post the scale of wages to be paid (i.e., the applicable Davis-Bacon wage decision) in a prominent and accessible place at the work site;
5. Define prevailing wages to include fringe benefits;
6. Permit the withholding of payments due to the contractor on account of wage restitution that may be found due to the laborers and mechanics;
7. Permit the payment of wage restitution from amounts withheld from contract payments;
8. Permit the termination of the contract where it is found that any laborer or mechanic is underpaid; and
9. Permit the debarment of persons or firms found to have disregarded their obligations to employees and subcontractors.

### B. The Contract Work Hours and Safety Standards Act (CWHSSA)

The CWHSSA applies to both direct federal contracts and to federally-assisted contracts where those contracts require or involve the employment of laborers and mechanics and where federal wage standards (e.g., Davis-Bacon or HUD-determined prevailing wage rates) are applicable.

CWHSSA provisions apply to all laborers and mechanics, including watchmen and guards, employed by any contractor or subcontractor. CWHSSA also applies to maintenance laborers and mechanics employed by contractors or subcontractors engaged in the operation of Public Housing Agencies (PHA), Tribally Designated Housing Entities (TDHE), and Indian Housing Agencies

(IHA) developments. CWHSSA O/T provisions do not apply to laborers and mechanics employed directly by PHAs or IHAs. However, O/T provisions generally apply to these workers under the Fair Labor Standards Act (FLSA). HUD does not have authority to enforce FLSA violations. Refer complaints of FLSA violations to DOL, Wage and Hour Division.

CWHSSA provides that all O/T hours (defined as hours worked in excess of 40 during any workweek on the CWHSSA-covered project site) must be compensated at a rate not less than one and one-half times the regular basic rate of pay. Where CWHSSA O/T provisions are applicable, compensatory time in lieu of premium pay for O/T hours is not permissible. In the event of O/T violations, the CWHSSA renders the contractor liable to the underpaid workers for wage restitution and to the United States Government for liquidated damages computed per person per day at a rate that DOL publishes annually. It is a federal criminal misdemeanor to intentionally violate CWHSSA standards.

Exemptions:

1. CWHSSA O/T provisions do not apply where the federal assistance is only in the nature of a loan guarantee or insurance.
2. CWHSSA O/T provisions do not apply to prime contracts of \$100,000 or less.

\*The Davis Bacon provisions also apply to HUD-determined prevailing wage rates.

<http://www.ecfr.gov/current/title-29>

## C. GENERAL INFORMATION

### 1. Employer Responsibilities

- a. All employers (contractors, subcontractors, and any lower-tier subcontractors) are required to pay all laborers and mechanics employed or working on the site of the work unconditionally and not less often than once per week the full amount of wages and bona fide fringe benefits computed at rates not less than those contained in the wage decision.
- b. Employers must prepare, certify, and submit weekly payroll reports reflecting all the laborers and mechanics (employees) engaged in construction on the site of the work.
- c. Employers may also be required to submit related documentation in order to demonstrate compliance.

### 2. Agency Responsibilities

- a. State, tribal, and local contracting agencies (LCAs) that administer HUD programs agree to administer and enforce Davis-Bacon requirements as a condition for receiving HUD program assistance. LCAs have the following responsibilities:
- b. Conduct on-site inspections including interviews with laborers and mechanics employed on the construction project. Ensure that the applicable Davis-Bacon wage decision, DOL's Davis-Bacon poster (Form WH-1321), and additional classifications are displayed at the job site.
- c. Review certified payroll reports (CPRs) and related documentation. Identify any discrepancies and/or violations. Ensure that any needed corrections are made promptly, including the payment of wage restitution as needed, and the assessment and collection of liquidated damages, as appropriate.
- d. Comply with all HUD requirements concerning statutory, program, and/or other requirements.

### 3. Definitions

#### a. Employee

Every person who performs the work of a laborer or mechanic is “employed” regardless of any contractual relationship that may be alleged to exist between a contractor or subcontractor and such person.

#### b. Working subcontractors

Persons who perform the work of laborers or mechanics and who represent themselves to be owners of businesses, sole proprietors, or self-employed are not exempt from prevailing wage requirements. These laborers and mechanics are “employed” and are entitled to the prevailing wage for the type of work they perform, and must be reported on the payroll report for their craft, hours of work, and wages paid.

#### c. Apprentice

A person employed and individually registered in a bona fide apprenticeship program. Bona fide programs are those that have been registered with DOL, Employment and Training Administration, Office of Apprenticeship, or with a DOL-recognized State Apprenticeship Agency (SAA). (Note that an SAA must also partner with a State Apprenticeship Council (SAC). The SAC must consist of an equal number of representatives of employer and employee organizations.)

#### d. Prevailing wages or wage rates

Davis-Bacon prevailing wage rates generally appear as a basic hourly rate plus fringe benefits, if any. “Prevailing wage” is made up of two interchangeable components: the basic hourly wage, and fringe benefits. The total of the basic hourly wage and fringe benefits comprises the “prevailing wage” obligation. This obligation may be met by any combination of cash wages and creditable “bona fide” fringe benefits provided by the employer.

#### e. Overtime

Overtime (O/T) hours are defined as all hours worked in excess of 40 hours in any workweek. Where governed by Federal labor standards, O/T hours shall be compensated at not less than one and one-half times the regular rate of basic pay plus the straight-time (S/T) rate of any required fringe benefits.

#### f. Site of work

The “site of work” is limited to the physical place or places where the construction called for in the contract will remain when work on it has been completed. “Site of work” includes other adjacent or nearby properties used by the contractor/subcontractor in the construction of the project (e.g., fabrication sites) provided they are dedicated exclusively or nearly so to the performance of the contract or project, and are so located in proximity to the actual construction location that it would be reasonable to include them.

#### g. Proper designation of trade

Each laborer and mechanic shall be classified in accordance with the work classifications listed on the wage decision and the actual type of work they perform and shall be paid the appropriate wage rate and fringe benefits for the classification regardless of their level of skill. In other words, if someone is performing carpentry work on the project, they must be paid no less than the wage rate on the wage decision for carpenters even if they aren’t considered by the employer to be fully trained as a carpenter. The only people who can be paid less than the rate for their craft are apprentices and trainees registered in approved programs.

**h. Split classification**

Laborers and mechanics that perform work in more than one classification may be compensated at the rate specified for each classification provided that the employer maintains time records that accurately set forth the time spent in each classification in which the work was performed. If accurate time records are not maintained, the employee shall be compensated at the highest of all wage rates for the classifications in which work was performed.



## B - SECTION

**600 BUILDING ELECTRICAL UPGRADES**  
600 ANDOVER PARK WEST TUKWILA, WA 98188  
**DUE DATE:** April 4, 2024  
**TIME:** 1:00 pm

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

### Forms to Return if Bidding

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

600 Building Electrical Upgrades  
600 Andover Park West Tukwila, WA 98188

**SCOPE OF WORK:**

The 600 building is a two-story concrete tilt-up construction built in 1979. The electrical upgrade will include (but not be limited to) the following items: demolition, removal, and upgrading of the existing electrical panel boards, new feeder conductors, gutter cans, meter bases, transformers, and switchboards. The 600 Electrical project will include a new main transformer, which will be under another contract. However, it will be up to the Contractor to run new feeder conductors to the updated electrical equipment. The building houses several KCHA employees, who will work off-site during construction, leaving the building partially occupied. The building power will be off during the upgrade, and the Contractor will be responsible for supplying 24/7 temporary power while new electrical panels are being installed. It will be up to the Contractor to supply and install all the necessary parts and materials to tap into the contractor supplied backup generator and to incorporate KCHA’s existing backup generator. KCHA’s backup generator will now back up the Contractors auxiliary generator to power the building. The Contractors auxiliary generator will provide power for KCHA’s servers, and some lighting circuits, auxiliary power will not power up the entire building. Only selected areas of the building will be online.

**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 current Washington State Prevailing Wage** as the Minimum Wages and Fringe Benefits for the construction workers under this contract.

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_





**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.

<b>BASE BID PRICE</b>		
<b>A.</b>	<b>Materials</b> , including all applicable <b>Taxes</b>	<b>\$</b>
<b>B.</b>	<b>Labor</b>	<b>\$</b>
<b>C.</b>	<b>O &amp; P</b> , including all applicable <b>Fees</b>	<b>\$</b>
<b>D.</b>	<b>Owner Allowance</b> for added work contingency, as authorized by KCHA	<b>\$20,566.00</b>
<b>TOTAL BID AMOUNT: (all costs inclusive – A, B, C&amp; D)</b> <b>Round to Nearest Dollar</b>		<b>\$</b>
<b>And No/100 Dollars</b>		
<b>PRINT (in words) Total Bid Amount. Sample – Three Hundred Thousand, Two Hundred Sixty-Six</b>		

**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.

**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.

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



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: SIXTY (60)**

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.

**ADDENDUM RECEIPT: (Receipt of the following Addenda is acknowledged)**

Addendum No.:	_____	Date:	_____
Addendum No.:	_____	Date:	_____
Addendum No.:	_____	Date:	_____
Addendum No.:	_____	Date:	_____

NO ADDENDA were received

**START TIME OF CONSTRUCTION:**

Construction for the project must be started in accordance with the written Notice to Proceed Date issued by KCHA.

**COMPLETION TIME OF CONSTRUCTION:**

The undersigned hereby agrees to significantly complete the project within the construction period or duration (**Construction Period/Duration: NTP “construction start” to physical completion**) all the work required under the Contract and in accordance with the Contract Documents. Time allowed to complete the project (including punch list items) shall be the following number of Calendar Days from the Notice to Proceed Date issued by KCHA:

**Calendar Days: One Hundred eighty (180)\***

*\* This is total construction time and does not include any delays that may be caused by supply chain issues.*

**PRELIMINARY SCHEDULE:**

**MANDATORY:** Contractor is to **provide** a preliminary Master Project Schedule in Microsoft Project, Primavera or similar and will include task durations and a project duration/completion date **at time of bid.**

**METHOD OF PAYMENT:**

Contract Amount shall be paid by KCHA to the Contractor monthly from the date of Contract, based on Contractor’s Invoice of percentage of ‘Completion’. Contractor shall use the AIA-G702 and G703 forms for Application and Certificate for Payment for Invoice Submittal.

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



**CONTRACT RETENTION:**

KCHA will withhold Contract Retention at the following Rate, pursuant to the General Conditions and will be released upon receipt of the Proper clearances from all pertinent state agencies. Release of Retention will not be made until All Requirements for Release, including clearances from State Agencies are received.

**Retention Rate: FIVE PERCENT (5%)**

**CLOSEOUT PERCENTAGE:**

Contractor to include in his Schedule of Values **Closeout Costs**; this is a percentage of the contract bid amount for costs associated with closing out the project as described in Section 01 77 00.

**Closeout Percentage: FIVE PERCENT (5%)**

**LIQUIDATED DAMAGES:**

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 Contract or subsequent change order. 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 (or subsequent change order) 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 (or amended by a subsequent change order), 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: FIVE HUNDRED DOLLARS AND NO/100 (\$500.00)**

**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;

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



- 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 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, refer 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:
  - a. Whether the bidder acted in good faith;
  - b. Whether the bidder acted without gross negligence;
  - c. Whether the bidder gave prompt notice of the error;
  - d. Whether the bidder will suffer substantial detriment by forfeiture;
  - e. Whether KCHA’s status has not greatly changed, and no substantial hardship will be caused.
3. Any low bidder who withdraws its bid is prohibited from bidding on the same project if it 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).

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



**KCHA – 600 BUILDING ELECTRICAL UPGRADES  
CAPITAL CONSTRUCTION DEPARTMENT**

All or a portion of this contract is paid for by Federal Funds. As a result, Successful Contractors are subject to the following statutes: 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 [www.kcha.org/business/requirements](http://www.kcha.org/business/requirements) Scroll down to Fair Housing Laws and Read: **Fair Housing / Accessibility Notice**

**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. That no person or company was employed or retained to solicit or obtain this contract and no payment of, or agreement to pay any person or company to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.
  - a. Should any misrepresentation of the bidder be found, KCHA will have the right to 1) terminate the contract; 2) at its discretion, deduct from the contract payment amounts the amount of any commission, percentage, brokerage, or other contingent fee; or 3) any other remedy pursuant to the contract.
5. And hereby agrees to complete the Work required under the terms of the Contract Documents by the Completion Dates enumerated therein, and
6. 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**

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**Physical Street Address:**

**(Contractor MUST have a Physical Street Address)**

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City-State-Zip:

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Mailing Address if different than Physical:

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City-State-Zip:

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Telephone:

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Name of Person Authorized to Sign Contract:

*(if Company is Awarded Contract)*

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Title of Person Authorized to Sign Contract:

*(if Company is Awarded Contract)*

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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:

---

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: \_\_\_\_\_



**KCHA – 600 BUILDING ELECTRICAL UPGRADES  
CAPITAL CONSTRUCTION DEPARTMENT**

- 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.

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**NOTE:** The penalty for making false statements in offer is prescribed in 18 U.S.C. 1001.

SUBMITTED ON: \_\_\_\_\_ Day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Print Name and Title

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: \_\_\_\_\_  
(Must be a valid WA State License)

EMPLOYMENT SECURITY NUMBER: \_\_\_\_\_

BOND REGISTRATION NUMBER: \_\_\_\_\_

L&I's WORKERS' COMP. ACCT. ID: \_\_\_\_\_

L&I PUBLIC WORKS TRAINING: YES NO

BIDDER IS A(N): INDIVIDUAL PARTNERSHIP  
JOINT VENTURE INCORPORATION IN STATE OF \_\_\_\_\_

CONTINUOUSLY BEEN IN BUSINESS FROM YEAR \_\_\_\_\_

NO. OF REGULAR FULL TIME EMPLOYEES \_\_\_\_\_

TOTAL NUMBER OF PROJECT COMPLETED IN THE PAST 5 YEARS \_\_\_\_\_

NUMBER OF PROJECTS COMPLETED \_\_\_\_\_ AHEAD \_\_\_\_\_ ON-TIME \_\_\_\_\_ BEHIND

BIDDER HAS HAD EXPERIENCE IN WORK COMPARABLE TO THAT REQUIRED FOR THIS PROJECT

AS FOLLOWS: AS PRIME CONTRACTOR: \_\_\_\_\_ AS SUB-CONTRACTOR: \_\_\_\_\_  
NO. OF YEARS NO. OF YEARS

BIDDERS LIST THE FOLLOWING INFORMATION: **PRINT ALL INFORMATION**

NAME OF BONDING COMPANY: \_\_\_\_\_

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

PHONE NUMBER: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

BONDING CAPACITY: \_\_\_\_\_





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 OF SIMILAR NATURE & SIZE COMPLETED BY BIDDER WITHIN THE PAST 5 YEARS. INCLUDE A REFERENCE FOR EACH. IF NECESSARY, ATTACH A SEPARATE SHEET(S), USING THE FORMAT BELOW. **PRINT ALL INFORMATION**

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

**PROJECT NAME:** \_\_\_\_\_

**OWNER/CONTACT NAME & NUMBER:** \_\_\_\_\_

**TOTAL CONTRACT AMOUNT:** \_\_\_\_\_

**IF SUB, YOUR CONTRACT AMOUNT:** \_\_\_\_\_

**YEAR PROJECT COMPLETED:** \_\_\_\_\_



IF ANY OF THE PROJECTS LISTED ABOVE WERE NOT COMPLETED WITHIN THEIR ORIGINALLY SCHEDULED PERIOD, EXPLAIN WHY: **PRINT ALL INFORMATION**

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LIST ALL PROJECTS UNDERTAKEN IN THE LAST 5 YEARS WHICH HAVE RESULTED IN PARTIAL OR FINAL SETTLEMENT OF THE CONTRACT BY ARBITRATION OR LITIGATION IN THE COURTS: **PRINT ALL INFORMATION**

<u>NAME OF CLIENT &amp; PROJECT</u>	<u>CONTRACT AMT.</u>	<u>TOTAL CLAIM ARBITRATED / LITIGATED</u>	<u>AMT. OF SETTLEMENTS OF CLAIM</u>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

HAS BIDDER, OR ANY REPRESENTATIVE OR PARTNER THEREOF, EVER FAILED TO COMPLETE A CONTRACT? **PRINT ALL INFORMATION**

NO      YES      IF YES, EXPLAIN \_\_\_\_\_

HAS THE BIDDER EVER HAD ANY PAYMENT / PERFORMANCE BOND CALLED AS A RESULT OF THIS WORK? **PRINT ALL INFORMATION**

NO      YES *IF YES, COMPLETE THE FOLLOWING:*

<u>PROJECT NAME</u>	<u>CONTRACTING PARTY</u>	<u>BOND AMOUNT</u>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

HAS BIDDER EVER BEEN FOUND GUILTY OF VIOLATING ANY STATE OR FEDERAL EMPLOYMENT LAWS? **PRINT ALL INFORMATION**

NO      YES      IF YES, EXPLAIN \_\_\_\_\_

HAS BIDDER EVER FILED FOR PROTECTION UNDER ANY PROVISION OF THE FEDERAL BANKRUPTCY LAWS OR STATE INSOLVENCY LAWS? **PRINT ALL INFORMATION**

NO      YES      IF YES, EXPLAIN \_\_\_\_\_



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 \_\_\_\_\_

HAS BIDDER OR ANY OF ITS EMPLOYEES FILED ANY CLAIMS WITH WASHINGTON STATE WORKER'S COMPENSATION OR OTHER INSURANCE COMPANY FOR ACCIDENTS RESULTING IN FATAL INJURY OR DISMEMBERMENT IN THE PAST 5 YEARS? **PRINT ALL INFORMATION**

NO YES IF YES, COMPLETE THE FOLLOWING:

DATE	TYPE OF INJURY	AGENCY RECEIVING CLAIM
_____	_____	_____
_____	_____	_____
_____	_____	_____

BIDDER'S EXPERIENCE MODIFICATION RATE (EMR): 2020 \_\_\_\_\_ 2021 \_\_\_\_\_ 2022 \_\_\_\_\_  
(IF BIDDER IS SELF-INSURED, ATTACH PROOF OF EMR STATED, SHOWING COMPLETE WORKSHEET CALCULATIONS)

**NOTES TO BIDDERS: SAFETY IS A PRIMARY CONCERN ON THIS PROJECT.** KCHA reserves the right to disqualify Bidders where either the current or three (3) year average of the Experience Modification Rate (EMR) EXCEEDS 1.0. KCHA may require additional information from Bidders that have an EMR of more than 1.0.

DESCRIBE ALL VIOLATION CITATIONS ISSUED AGAINST BIDDER IN THE LAST 5 YEARS UNDER OSHA, WISHA OR OTHER APPLICABLE WORKPLACE SAFETY PROGRAMS. **PRINT ALL INFORMATION**

SUBJECT OF VIOLATION	DATE OF INSPECTION / INCIDENT	OSHA ACTIVITY NO.	CLOSED / PENDING
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ADDITIONAL INFORMATION:**

BEFORE A BID IS CONSIDERED FOR AWARD, THE BIDDER MAY BE REQUESTED BY KCHA TO SUBMIT A STATEMENT OR OTHER DOCUMENTATION REGARDING ANY OF THE BASIC QUALIFICATIONS LISTED ABOVE. FAILURE BY THE BIDDER TO PROVIDE SUCH ADDITIONAL INFORMATION SHALL RENDER THE BIDDER NON-RESPONSIVE AND NON-RESPONSIBLE, AND INELIGIBLE FOR AWARD.

THE UNDERSIGNED WARRANTS UNDER PENALTY OF PERJURY THAT THE FOREGOING INFORMATION IS COMPLETE, TRUE AND ACCURATE TO THE BEST OF HIS / HER KNOWLEDGE. THE UNDERSIGNED AUTHORIZES THE KING COUNTY HOUSING AUTHORITY TO VERIFY ALL INFORMATION CONTAINED HEREIN. (IF THIS INFORMATION IS NOT COMPLETE AND ACCURATE THE BID MAY BE CONSIDERED NON-RESPONSIVE.)

\_\_\_\_\_  
BIDDER'S SIGNATURE BIDDER'S NAME (PLEASE PRINT)

\_\_\_\_\_  
BIDDER'S TITLE (PLEASE PRINT) DATE



**CONTRACTOR CERTIFICATION – RETURN EACH FORM SINGLE SIDED**

**PROJECT NAME: 600 BUILDING ELECTRICAL UPGRADES**

**NAME OF COMPANY:** \_\_\_\_\_

**PHYSICAL STREET ADDRESS:** \_\_\_\_\_

**CITY – STATE – ZIP:** \_\_\_\_\_

**MAILING ADDRESS:** \_\_\_\_\_

**CITY – STATE – ZIP:** \_\_\_\_\_

**PHONE NUMBER:** \_\_\_\_\_

**FEDERAL TAX ID NO.:** \_\_\_\_\_ **WA STATE UBI 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.)

<b>NAME OF OWNER(S)</b>	<b>DATE(S) OF OWNERSHIP (from – to)</b>
_____	_____
_____	_____
_____	_____

**UNDER PENALTIES OF PERJURY,** \_\_\_\_\_ **I /** \_\_\_\_\_ **We** hereby certify that: (Check the appropriate responses)

- There are no contractual obligation or other disabilities that would prevent the achievement of 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 location where segregated facilities are maintained, except for separate or single-user toilets and changing facilities, if necessary, to assure privacy between the sexes.
- Any facility used in the performance of this project \_\_\_\_\_ **Is /** \_\_\_\_\_ **Is Not** listed on the Environmental Protection Agency list of violating facilities; and,
- \_\_\_\_\_ **I /** \_\_\_\_\_ **We** will notify KCHA, PRIOR TO award, of the receipt of any communication from the Environmental Protection Agency indicating that any facility proposed to be used in the performance of this project is under consideration to be listed on the EPA List of Violating Facilities; and,
- \_\_\_\_\_ **I /** \_\_\_\_\_ **We** will include a certification substantially the same as this certification in every non-exempt contract.
- \_\_\_\_\_ **I /** \_\_\_\_\_ **We** that \_\_\_\_\_ **Have /** \_\_\_\_\_ **Have Not** participated in an Equal Employment Opportunity 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.



**KCHA – 600 BUILDING ELECTRICAL UPGRADES  
CAPITAL CONSTRUCTION DEPARTMENT**

7. The number shown on this form is the correct Taxpayer Identification Number OR if no Taxpayer Identification Number is listed, a notarized explanation as to why is attached to these Bid Documents and

8. \_\_\_\_\_ **I** / \_\_\_\_\_ **We** further certify that \_\_\_\_\_ **I** / \_\_\_\_\_ **We** are **not** subject to Backup Withholding because;

\_\_\_\_\_ Exempt from Backup Withholding, or  
\_\_\_\_\_ No notification from the Internal Revenue Service (IRS) for failing to report all interest or  
\_\_\_\_\_ dividends, or

\_\_\_\_\_ No long subject to Backup Withholding per notification from the IRS  
*(If you ARE subject to Backup Withholding, leave \$5 blank and go to #6)*

9. \_\_\_\_\_ **I** / \_\_\_\_\_ **We** have been notified by the IRS that \_\_\_\_\_ **I Am** / \_\_\_\_\_ **We Are** currently subject to Backup Withholding because of under reporting interest or dividends.  
**(If you filled out #5 – you are NOT subject to Backup Withholding, leave #6 blank)**

\_\_\_\_\_, who is by title the \_\_\_\_\_  
of our firm/company and has been designated, as the responsible official to ensure required reports are submitted, and record keeping complies with all the applicable regulations.

**AUTHORIZED OFFICIAL:**

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
NAME (PLEASE PRINT)

\_\_\_\_\_  
TITLE (PLEASE PRINT)

\_\_\_\_\_  
DATE





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



**BID SECURITY – RETURN EACH FORM SINGLE SIDED**

**BID DEPOSIT:**

The undersigned Principal hereby deposits a Bid Deposit with the King County Housing Authority in the form of a cash deposit, certified or cashier's check, or postal money order in the amount of:

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

-- OR --

**BID BOND:**

The undersigned, \_\_\_\_\_ (Principal), and

\_\_\_\_\_ (Surety), are held and firmly bound unto the King County Housing Authority (Owner) in the penal sum of:

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

which for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally. The liability of surety under this Bid Bond shall be limited to the penal sum of this Bid Bond.

**CONDITIONS:**

The Bid Deposit or Bid Bond shall be an amount not less than **five percent (5%)** of the total bid, including any Alternates, Additives, and Owner-Directed Work, if any, including sales tax, if any, and is submitted by Principal to Owner in connection with a Proposal in according to the terms of the Proposal and Bid Documents for:

**600 BUILDING ELECTRICAL UPGRADE**

**NOW THEREFORE:**

- a. If Principal requests, in writing, to withdraw its Bid, prior to Bid Opening, or
- b. If the Proposal is rejected by Owner, or
- c. 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 furnishing materials in connection therewith, with Surety or Sureties approved by Owner,

then this Bid Security shall be released; otherwise it shall remain in full force and effect and Principal shall forfeit the Bid Deposit or Surety shall immediately pay and forfeit to Owner the amount of the Bid Bond, as penalty and liquidated damages.

The obligations of Surety and its Bid Bond shall be in no way impaired or affected by any extension of time within which Owner may accept bids; and Surety does hereby waive notice of any such extension.

Bidding Contractor's Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_





**KCHA – 600 BUILDING ELECTRICAL UPGRADES  
CAPITAL CONSTRUCTION DEPARTMENT**

SIGNED AND DATED THIS \_\_\_\_\_ Day of \_\_\_\_\_, 20 \_\_\_\_\_.

**ATTEST to Principal’s Signature:**

\_\_\_\_\_  
PRINCIPAL (Print Company Name)

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

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

\_\_\_\_\_  
Title (Please Print)

Corporate Seal (if Applicable)

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title (Please Print)

**ATTEST to Surety’s Signature:**

\_\_\_\_\_  
SURETY (Print Company Name)

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

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

\_\_\_\_\_  
Title (Please Print)

Corporate Seal (if Applicable)

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title (Please Print)

The above is Attorney in Fact:

Yes                      No  
**(If Yes, attach Power of Attorney)**

**Local Office of Agent and / or Surety Company (please print):**

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

Street Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Power of Attorney of person signing for Surety Company must be attached to this Bond Form.

Surety Companies executing Bonds must appear on the current Authorized Insurance List in the State of Washington.

Bidding Contractor’s Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



**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)

My Commission Expires: \_\_\_\_\_, 20 \_\_\_\_\_

Bidding Contractor's Company Name: \_\_\_\_\_ Initials: \_\_\_\_\_



**SUBCONTRACTOR – FIRST TIER – LISTING – RETURN EACH FORM SINGLE SIDED**

NAME OF BIDDING COMPANY: \_\_\_\_\_

PHYSICAL STREET ADDRESS: \_\_\_\_\_

CITY / STATE / ZIP: \_\_\_\_\_

1. List Approximate Percent (%) of Work Your Company will actually Perform: \_\_\_\_\_

2. Do You Intend on using Subcontractor(s) for this Project?  Yes  No

3. (If Yes, you must show on this form the name and information of All First Tier Subcontractors performing work that will be associated with this Bid.) Attach additional sheets if necessary. This form needs to be completed to the best of the Bidder’s ability at time of bid. If Bidder is Awarded Contract a final subcontractor list will be submitted prior to Notice to Proceed. **PRINT ALL INFORMATION**

**SUBCONTRACTOR – FIRST TIER - LIST**

Business Name: \_\_\_\_\_ Trade: \_\_\_\_\_  
Address: \_\_\_\_\_ Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_ Years of Experience: \_\_\_\_\_  
UBI No.: \_\_\_\_\_

Business Name: \_\_\_\_\_ Trade: \_\_\_\_\_  
Address: \_\_\_\_\_ Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_ Years of Experience: \_\_\_\_\_  
UBI No.: \_\_\_\_\_

Business Name: \_\_\_\_\_ Trade: \_\_\_\_\_  
Address: \_\_\_\_\_ Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_ Years of Experience: \_\_\_\_\_  
UBI No.: \_\_\_\_\_

Business Name: \_\_\_\_\_ Trade: \_\_\_\_\_  
Address: \_\_\_\_\_ Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_ Years of Experience: \_\_\_\_\_  
UBI No.: \_\_\_\_\_

The Bidder hereby certifies that the information contained in this Proposed Subcontractor List, including any attached sheets, is accurate, complete, and current:

\_\_\_\_\_  
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: \_\_\_\_\_

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

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Contact Title: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

Type of Trade or Business: \_\_\_\_\_

Current Number of Regular, Full Time Employees (Puget Sound Region): \_\_\_\_\_

1. Have over **75 percent** of the labor hours performed for your business over the prior three-month period been performed by Section 3 workers?

**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 **51% or more** of your business owned and controlled by low- or very low-income persons (persons who earn 80% or less of the median income level for the past 12 months - see attached income guidelines)?

**Yes**  **No**    **If “yes” is checked, submit either the section 3 Individual Certification form(s) or the Section 3 Subcontractor Business Work Plan form.**

3. Does your business provide economic opportunities for KCHA residents at the site(s) where the work will take place?

**Yes**  **No**    **If “yes” is checked, please provide supporting documentation.**

4. Does your business provide economic opportunities for residents of other KCHA developments or Section-8 assisted housing managed by KCHA?

**Yes**  **No**    **If “yes” is checked, please provide supporting documentation.**

5. Does your business provide economic opportunities to Section 3 workers residing within the metropolitan area (Puget Sound Region)?

**Yes**  **No**    **If “yes” is checked, please provide supporting documentation.**



**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
_____ Title	_____ Date
_____ Phone Number	_____ Email Address

If you have more specific questions about Section 3 requirements, contact KCHA at [section3@kcha.org](mailto:section3@kcha.org).

## SECTION 3 – 2023 INCOME GUIDELINES

Location	Income Limit 1 person		
	Extremely Low Income	Very Low Income	Low Income
Kitsap County (Bremerton, Silverdale)	\$22,900	\$38,150	\$61,000
King/ Snohomish Counties (Seattle, Bellevue, Everett)	\$28,800	\$47,950	\$70,650
Pierce County (Tacoma)	\$22,600	\$37,650	\$60,200
Skagit County (Sedro-Woolley)	\$19,150	\$31,900	\$51,050
Thurston County (Olympia, Tumwater)	\$21,550	\$35,900	\$57,400



## SECTION 3 – SUBCONTRACTOR WORK PLAN RETURN FORM SINGLE SIDED

RETURN THIS FORM WITH THE BID ***IF:***  
CLAIMING **YES** TO QUESTION **3** or **4** on the SECTION 3 BUSINESS CERTIFICATION FORM

Project Name: \_\_\_\_\_

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

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Contact Title: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

SECTION 3 BUSINESS CONCERN			SUBCONTRACTED TASK(S)	SUBCONTRACT AMOUNT	% OF OVERALL CONTRACT
1.	Subcontractor's Name:				
	Subcontractor's Address:				
	Subcontractor's Phone No.:				
2.	Subcontractor's Name:				
	Subcontractor's Address:				
	Subcontractor's Phone No.:				
3.	Subcontractor's Name:				
	Subcontractor's Address:				
	Subcontractor's Phone No.:				
4.	Subcontractor's Name:				
	Subcontractor's Address:				
	Subcontractor's Phone No.:				

**TOTAL CONTRACT VALUE:** \_\_\_\_\_ **TOTAL SUBCONTRACT VALUE:** \_\_\_\_\_

**PERCENTAGE OF TOTAL BID:** \_\_\_\_\_

For a list of Section 3 Certified Businesses, please go to:  
<https://portalapps.hud.gov/Sec3BusReg/BRegistry/SearchBusiness>



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



**WMBE SURVEY – RETURN EACH FORM SINGLE SIDED**

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

Bidding Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City / State / Zip: \_\_\_\_\_

Type of Business: \_\_\_\_\_ Incorporated – Federal ID#: \_\_\_\_\_  
\_\_\_\_\_ Sole Proprietorship – SS#: \_\_\_\_\_  
\_\_\_\_\_ Other – Describe: \_\_\_\_\_

WMBE: \_\_\_\_\_ Yes \_\_\_\_\_ No  
Describe: \_\_\_\_\_ Disadvantage Owned (Disabled – DBE)  
\_\_\_\_\_ Women Owned (WBE)  
\_\_\_\_\_ Minority Owned (MBE or MWBE) (Check Applicable)  
\_\_\_\_\_ 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 THIS COMPANY HAS BEEN AWARDED THE CONTRACT, FORWARD THIS FORM**

**TO: Tim Baker – KCHA Senior Management Analyst  
Phone: 206-574-1111 Email: timb@kcha.org**

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**



# NO PARTICIPATION RESPONSE FORM

**IF YOU CHOOSE NOT TO BID ON THIS PROJECT**  
**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 4 , 2024  
PROJECT NAME: 600 Building Electrical Upgrade  
RETURN FORM TO: donalddh@kcha.org

**\*\*NOTE: Contractors have the option to mail in the No Participation Response Form, but this form must be received by the deadline of 1:00PM. KCHA does not recommend mailing in this form due to possible complications or difficulties that may arise with the mail delivery.**

If using the mail please return the form to: KING COUNTY HOUSING AUTHORITY  
ATTN: Don Hatfield, Project Manager  
700 Andover Park West, Suite C  
Tukwila, WA 98188

1. My Company is NOT BIDDING on this Contract because: (check all response(s) that apply:

- Does not perform the requested type of work
- Has other work which would interfere with the proposed work schedule
- Job is too big
- Job is too small
- Can't meet the bonding and/or insurance requirements
- The documents were not received in time to prepare a bid
- The specifications were not clear. Please describe:

\_\_\_\_\_  
\_\_\_\_\_

Other:

\_\_\_\_\_  
\_\_\_\_\_

2. I would have Bid on this Contract if:

\_\_\_\_\_  
\_\_\_\_\_

**COMPANY NAME:** \_\_\_\_\_

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

**CITY-STATE-ZIP** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_  
PRINCIPAL OR OFFICER 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 Section 3 Individual Certification Form and FAQ's
- C.12 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 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

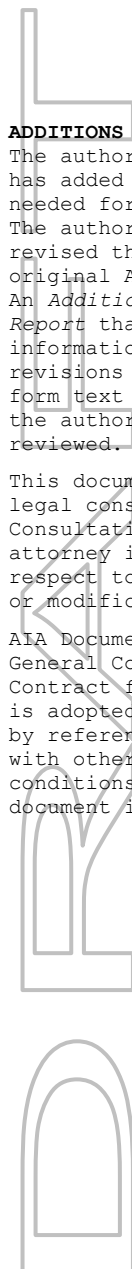
The Owner and Contractor agree as follows.

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.



{426/612.052/02533546-2}  
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TABLE OF ARTICLES

1	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	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.)

- [ « » ] The date of this Agreement.
  - [ X ] A date set forth in a notice to proceed issued by the Owner.
  - [ « » ] Established as follows:  
(Insert a date or a means to determine the date of commencement of the Work.)
- « »

**§ 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**.

Portion of Work	Dates
Contract – Start Date	Month, Day, Year
Construction Period	Month, Day, Year to Month, Day, Year
Substantial Completion Date	Month, Day, Year
Physical Completion Date	Month, Day, Year (Liquidated Damages Start)
Contract – Final Completion Date	Month, Day, Year

§ 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 in the Contract Sum:

Alternate Number and Description	Price
<input type="text"/>	<input type="text"/>

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. *(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)*

Item	Price	Conditions for Acceptance
NA	<input type="text"/>	<input type="text"/>

§ 4.3 Allowances, if any, included in the Contract Sum: *(Identify each allowance.)*

Allowance Description	Price
Owner’s Contingency	<input type="text"/>

§ 4.4 Unit prices, if any:

*(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)*

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)
<input type="text"/>	<input type="text"/>

§ 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**:



**§ 4.6 Other:**

*(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 A201™-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 A201™-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.)*

« NA »

§ 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.)*

« NA »

§ 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

- .1 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.

**ARTICLE 7 TERMINATION OR SUSPENSION**

§ 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 A101™-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)
Builders Risk Insurance:	Coverage	(Exhibit - C)
Performance and Payment Bond:	Completed Value of Project	(Exhibit - C)
	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 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 per Exhibit D.1-D.3 and as designated in AIA A201-2017, Section 18 of the General Conditions.

**§ 8.6.2 Davis-Bacon / HUD Non-Routine Maintenance / State Prevailing Wage Certified Payroll**

§ 8.6.2.1 The Contractor shall comply with requirements and regulations of the Davis-Bacon Act per E.0 & 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.
- .3 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.
- .5 The Contractor is required and shall perform a complete review of all Certified Payroll Reports 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.

**.6 The Wage Decision for this project is:**

(Check one of the following boxes.)

**Davis-Bacon**

**Construction Type**  **Decision No.**  **Modification No.**  **Date**

**HUD Non-Routine Maintenance**

**Date**

**WA State Prevailing**

**Effective Date**  **County**

**§ 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 ENUMERATION OF CONTRACT DOCUMENTS**

**§ 9.1** This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .3 Drawings

Number	Title	Date
Refer to <b>Exhibit F</b>	Drawings Table of Contents	

- .4 Specifications

Section	Title	Date	Pages
Refer to <b>Exhibit G</b>	Specifications Table of Contents		

- .5 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

- .6 Other documents, if any, listed below:  
*(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)*

**Bid Documents**

.1	Contractor's Bid Documents	Exhibit H
.2	Contractor's Company COVID – 19 Protection Protocols	Exhibit I
.3	Contractor's Site Specific COVID- 19 Safety Plan	Exhibit J



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

**KING COUNTY HOUSING AUTHORITY**

**XXX CONSTRUCTION COMPANY**

\_\_\_\_\_  
**OWNER** (Signature)

\_\_\_\_\_  
 Name (Print)

\_\_\_\_\_  
 Title (Print)

\_\_\_\_\_  
**CONTRACTOR** (Signature)

\_\_\_\_\_  
 Name (Print)

\_\_\_\_\_  
 Title (Print)

Contractor's License No.: <<>

**EXHIBIT OVERVIEW:**

DESCRIPTION	CROSS REFERENCE
Exhibit – A Detailed Summary of Scope of Work	Contractor Scope of Work Article 2
Exhibit – B Application for Payment	GC Certification 5.1.6.3
Exhibit – C Insurance Requirements	Limits 8.5.1
	Coverage 8.5.1
	Builders Risk 8.5.1
Exhibit – D.1 Section 3 Documents	Business Certification 8.6.1
Exhibit – D.2 Section 3 Documents	Individual Certification & FAQ's 8.6.1
Exhibit – D.3 Section 3 Documents	Labor Hours Benchmark Status Report 8.6.1
Exhibit – E.0 Certified Payroll	Preliminary CPR Overview 8.6.2
Exhibit – E.1 Certified Payroll	Requirements for Certified Payroll 8.6.2
Exhibit – E.2 Prevailing Wage Exemption	Statement of Intent 8.6.3.1
Exhibit – F Drawings	Table of Contents 9.1.3
Exhibit – G Specifications	Table of Contents 9.1.4
Exhibit – H Contractor's Bid Documents	Contractor's Bid Documents 9.1.6.1
Exhibit – I Contractor's Company COVID-19 Protection Protocols	9.1.6.2
Exhibit – J Contractor's Site Specific COVID-19 Safety Plan	9.1.6.3

# 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 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

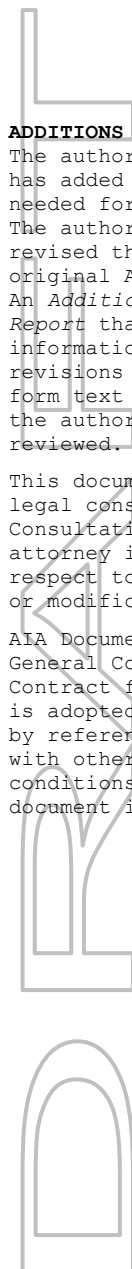
The Owner and Contractor agree as follows.

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.



{426/612.052/02533546-2}  
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TABLE OF ARTICLES

1	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	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.)

- [ « » ] The date of this Agreement.
  - [ X ] A date set forth in a notice to proceed issued by the Owner.
  - [ « » ] Established as follows:  
(Insert a date or a means to determine the date of commencement of the Work.)
- « »

**§ 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**.



Portion of Work	Dates
Contract – Start Date	Month, Day, Year
Construction Period	Month, Day, Year to Month, Day, Year
Substantial Completion Date	Month, Day, Year
Physical Completion Date	Month, Day, Year (Liquidated Damages Start)
Contract – Final Completion Date	Month, Day, Year

§ 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 in the Contract Sum:

Alternate Number and Description	Price
<input type="text"/>	<input type="text"/>

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
NA	<input type="text"/>	<input type="text"/>

§ 4.3 Allowances, if any, included in the Contract Sum: (Identify each allowance.)

Allowance Description	Price
Owner’s Contingency	<input type="text"/>

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

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)
<input type="text"/>	<input type="text"/>

§ 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**:

**§ 4.6 Other:**

*(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 A201™-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 A201™-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.)*

« NA »

§ 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.)*

« NA »

§ 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

- .1 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.

**ARTICLE 7 TERMINATION OR SUSPENSION**

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

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**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 A101™-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)
Builders Risk Insurance:	Coverage	(Exhibit - C)
Performance and Payment Bond:	Completed Value of Project	(Exhibit - C)
	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 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 per Exhibit D.1-D.3 and as designated in AIA A201-2017, Section 18 of the General Conditions.

**§ 8.6.2 Davis-Bacon / HUD Non-Routine Maintenance / State Prevailing Wage Certified Payroll**

§ 8.6.2.1 The Contractor shall comply with requirements and regulations of the Davis-Bacon Act per E.0 & 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.
- .3 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.
- .5 The Contractor is required and shall perform a complete review of all Certified Payroll Reports 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.

**.6 The Wage Decision for this project is:**

(Check one of the following boxes.)

**Davis-Bacon**

**Construction Type**  **Decision No.**  **Modification No.**  **, Date**

**HUD Non-Routine Maintenance**

**Date**

**WA State Prevailing**

**Effective Date**  **County**

**§ 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 ENUMERATION OF CONTRACT DOCUMENTS**

**§ 9.1** This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .3 Drawings

Number	Title	Date
Refer to <b>Exhibit F</b>	Drawings Table of Contents	

- .4 Specifications

Section	Title	Date	Pages
Refer to <b>Exhibit G</b>	Specifications Table of Contents		

- .5 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

- .6 Other documents, if any, listed below:  
*(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)*

**Bid Documents**

.1	Contractor's Bid Documents	<b>Exhibit H</b>
.2	Contractor's Company COVID – 19 Protection Protocols	<b>Exhibit I</b>
.3	Contractor's Site Specific COVID- 19 Safety Plan	<b>Exhibit J</b>



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

**KING COUNTY HOUSING AUTHORITY**

**XXX CONSTRUCTION COMPANY**

\_\_\_\_\_  
**OWNER** (Signature)

\_\_\_\_\_  
 Name (Print)

\_\_\_\_\_  
 Title (Print)

\_\_\_\_\_  
**CONTRACTOR** (Signature)

\_\_\_\_\_  
 Name (Print)

\_\_\_\_\_  
 Title (Print)

Contractor's License No.: <<>

**EXHIBIT OVERVIEW:**

DESCRIPTION	CROSS REFERENCE
Exhibit – A Detailed Summary of Scope of Work	Contractor Scope of Work Article 2
Exhibit – B Application for Payment	GC Certification 5.1.6.3
Exhibit – C Insurance Requirements	Limits 8.5.1
	Coverage 8.5.1
	Builders Risk 8.5.1
Exhibit – D.1 Section 3 Documents	Business Certification 8.6.1
Exhibit – D.2 Section 3 Documents	Individual Certification & FAQ's 8.6.1
Exhibit – D.3 Section 3 Documents	Labor Hours Benchmark Status Report 8.6.1
Exhibit – E.0 Certified Payroll	Preliminary CPR Overview 8.6.2
Exhibit – E.1 Certified Payroll	Requirements for Certified Payroll 8.6.2
Exhibit – E.2 Prevailing Wage Exemption	Statement of Intent 8.6.3.1
Exhibit – F Drawings	Table of Contents 9.1.3
Exhibit – G Specifications	Table of Contents 9.1.4
Exhibit – H Contractor's Bid Documents	Contractor's Bid Documents 9.1.6.1
Exhibit – I Contractor's Company COVID-19 Protection Protocols	9.1.6.2
Exhibit – J Contractor's Site Specific COVID-19 Safety Plan	9.1.6.3

## 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 its 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.







**CERTIFICATE AS TO CORPORATE PRINCIPAL**

**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_ certify that I am the  
President / Vice President / Secretary / \_\_\_\_\_ of the Entity: Corporation  
/LLC / \_\_\_\_\_, named as the Principal in the foregoing 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 for and in behalf of said Entity by authority of its  
Governing body.

Named Bonding Agent: \_\_\_\_\_

\_\_\_\_\_  
Affix Corporate Seal / Authorized Signature:

**KING COUNTY HOUSING AUTHORITY INSURANCE REQUIREMENTS****INSTRUCTIONS / ENDORSEMENT INFORMATION FOR  
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.

**THE KING COUNTY HOUSING AUTHORITY (AUTHORITY) SHALL BE NAMED AS ADDITIONALLY INSURED ON THE APPROPRIATE ENDORSEMENT FORMS.**

**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:

1. The Authority, its successors and assigns, director, officers, officials, employees, agents, 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<sup>1</sup>** 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.

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<sup>1</sup> "Equivalent" means that any endorsements provided must have the equivalent coverage of the listed endorsements. NOTE: This may cost the Contract extra money to get this coverage.

**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 Indemnatee, and failure to do so shall constitute a material breach of this Contract by the Contractor.

## 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.

**NOTE:** In addition to the typical elements of a construction safety plan that addresses the contractor, KCHA requires that if a/the employee(s) of the Contractor or any sub-contractor is asked to put on a mask by either a resident or property manager when they are in a building or resident's unit, the employee(s) will do so; the Contractor should reflect this in their safety plan.

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.
13. Has provisions for "masking-up"





**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):  Individual  Partnership\*  Corporation\*\* – in state of \_\_\_\_\_

\* If Partnership, provide Full Name(s) and Address(es) of all parties

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\* If your company is “also known as (AKA)” or “doing business as (DBA) list all names

\_\_\_\_\_  
\_\_\_\_\_

SUB-CONTRACTOR’S EXPERIENCE MODIFICATION RATE (EMR): 2020\_\_\_\_; 2021\_\_\_\_; 2022\_\_\_\_;  
(If sub-contractor is self-insured, attached proof of EMR stated, showing complete worksheet calculations).

Sub-Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency:

**NOTE:** The penalty for making false statement 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

# Certification of Payments to Influence Federal Transactions

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

CONTRACT DOCUMENTS C.7

Public reporting burden for this information collection is estimated to average 30 minutes. This includes the time for collecting, reviewing, and reporting data. The information requested is required to obtain a benefit. This form is used to ensure federal funds are not used to influence members of Congress. There are no assurances of confidentiality. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

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-LLL, 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 information provided in the accompaniment herewith, is true and accurate.

**Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)

Name of Authorized Official

Title

Signature

Date (mm/dd/yyyy)

## DISCLOSURE OF LOBBYING ACTIVITIES

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

Approved by OMB  
4040-0013

<b>1. * Type of Federal Action:</b> <input checked="" type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. * Status of Federal Action:</b> <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. * Report Type:</b> <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------

**4. Name and Address of Reporting Entity:**

Prime     SubAwardee

\* Name:

\* Street 1:     Street 2:

\* City:     State:     Zip:

Congressional District, if known:

**5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:**

SAMPLE

<b>6. * Federal Department/Agency:</b> <input style="background-color: yellow;" type="text"/>	<b>7. * Federal Program Name/Description:</b> <input type="text"/> CFDA Number, if applicable: <input type="text"/>
--------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------

<b>8. Federal Action Number, if known:</b> <input type="text"/>	<b>9. Award Amount, if known:</b> \$ <input type="text"/>
--------------------------------------------------------------------	--------------------------------------------------------------

**10. a. Name and Address of Lobbying Registrant:**

Prefix  \* First Name  Middle Name

\* Last Name  Suffix

\* Street 1  Street 2

\* City  State  Zip

**b. Individual Performing Services** (including address if different from No. 10a)

Prefix  \* First Name  Middle Name

\* Last Name  Suffix

\* Street 1  Street 2

\* City  State  Zip

**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 upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and 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.

\* Signature:

\* Name: Prefix  \* First Name  Middle Name   
 \* Last Name  Suffix

Title:  Telephone No.:  Date:



**CERTIFICATION OF COMPLIANCE WITH WASHINGTON STATE WAGE PAYMENT STATUTES**

The Bidder hereby certifies that, within the three year period immediately preceding the bid solicitation date of \_\_\_\_\_, that the Bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48 or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the WA State Department of Labor & Industries of through a civil judgement entered by a court of limited or general jurisdiction.

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

\_\_\_\_\_  
Bidder

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

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
State

*Check one:*  
Individual  Partnership  Joint Venture  Corporation

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

\_\_\_\_\_

If a co-partnership, give company name under which 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.



**SECTION 3 – INDIVIDUAL CERTIFICATION FORM**

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: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

1. I am a resident in a KCHA Property. \_\_\_\_\_ Yes \_\_\_\_\_ No

Property Name: \_\_\_\_\_

2. I am currently in KCHA's Section 8 Program. \_\_\_\_\_ Yes \_\_\_\_\_ No

3. I am currently a participant in a HUD YouthBuild Program. \_\_\_\_\_ Yes \_\_\_\_\_ No

4. County and Income Details (*check appropriated boxes*):a. I live in **KITSAP COUNTY** andMy **TOTAL** income for the past 12 months was: (*check appropriate box*)

\_\_\_\_ Below or Equal to \$61,000 \_\_\_\_\_ Greater than \$61,000

b. I live in **KING or SNOHOMISH COUNTY** andMy **TOTAL** income for the past 12 months was: (*check appropriate box*)

\_\_\_\_ Below or Equal to \$70,650 \_\_\_\_\_ Greater than \$70,650

c. I live in **PIERCE COUNTY** andMy **TOTAL** income for the past 12 months was: (*check appropriate box*)

\_\_\_\_ Below or Equal to \$60,200 \_\_\_\_\_ Greater than \$60,200

d. I live in **SKAGIT COUNTY** andMy **TOTAL** income for the past 12 months was: (*check appropriate box*)

\_\_\_\_ Below or Equal to \$51,050 \_\_\_\_\_ Greater than \$51,050

e. I live in **THURSTON COUNTY** andMy **TOTAL** income for the past 12 months was: (*check appropriate box*)

\_\_\_\_ Below or Equal to \$57,400 \_\_\_\_\_ Greater than \$57,400



\_\_\_\_ f. I live in \_\_\_\_\_ COUNTY and  
My **TOTAL** income for the past 12 months was: \$ \_\_\_\_\_

5. 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 \_\_\_\_\_ Yes \_\_\_\_\_ No YouthBuild participant.

I hereby certify under the **penalty of perjury** that the information above is true and correct.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
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. For questions, please contact KCHA by email at [section3@kcha.org](mailto:section3@kcha.org).

## SECTION 3 – INDIVIDUAL CERTIFICATION FORM FAQ'S

**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 at [section3@kcha.org](mailto:section3@kcha.org).





## SECTION 3 – LABOR HOURS BENCHMARK REPORT - INSTRUCTIONS

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

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

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

Attn: \_\_\_\_\_

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

### REPORT LINES:

- 1) Name of the project as it appears on the Contract
- 2) Company Name
- 3) Name of the person filling out the Labor Hours Benchmark Status Report
- 4) Phone number of the person filling out the Labor Hours Benchmark Status Report
- 5) Email address of the person filling out the Labor Hours Benchmark Status Report
- 6) Contract number as it appears on the Contract
- 7) Contract Award date (date of Letter of Award)
- 8) Reporting Period – should be the same as the pay application period
- 9) Total hours worked by all workers on the project – this will be everyone that is listed on the certified payrolls during Reporting Period.
- 10) Total hours worked on the project by Section 3 workers during the Reporting Period.

A Section 3 worker is identified as:

- a. The worker's income for the previous or annualized calendar year is below the income limit established by HUD; or
- b. Is employed by a Section 3 business concern; or
- c. Is a YouthBuild participant.

These will be the workers identified as Section 3 employees upon the submittal of their Section 3 Individual Certification Form at the beginning of the project OR when they were brought onto the project. A copy of these forms should be available from your company's payroll office. Copies can also be obtained by submitting a request to [section3@kcha.org](mailto:section3@kcha.org). Please include your company's name, project name and contact information.

- 11) Total hours worked on the project by Targeted Section 3 workers during the Reporting Period.

A Targeted Section 3 worker is identified as:

- a. Employed by a Section 3 business concern; or
- b. Is a resident of public housing or Section 8 assisted housing; or
- c. Resides within one mile of the project site.

These workers will be identified as Targeted Section 3 employees upon the submittal of their Section 3 Individual Certification Form at the beginning of the project OR when they were brought onto the project. A copy of these forms should be available from your company's payroll office. Copies can also be obtained by submitting a request to [section3@kcha.org](mailto:section3@kcha.org). Please include your company's name, project name and contact information.

*See sample scenarios on pgs. 3 & 4*



## SECTION 3 – LABOR HOURS BENCHMARK REPORT

### GENERAL INFORMATION

- 1) PROJECT NAME: \_\_\_\_\_
- 2) COMPANY NAME: \_\_\_\_\_
- 3) CONTACT PERSON: \_\_\_\_\_
- 4) CONTACT PHONE NO.: \_\_\_\_\_
- 5) CONTACT EMAIL ADDRESS: \_\_\_\_\_
- 6) CONTRACT NO.: \_\_\_\_\_                      7) CONTRACT AWARD DATE: \_\_\_\_\_

### SECTION 3 LABOR HOUR BENCHMARKS

- 8) REPORTING PERIOD:    FROM: \_\_\_\_\_                      TO: \_\_\_\_\_

**The totals below are for YOUR COMPANY ONLY and JUST THOSE WORKERS WORKING ON THE PROJECT SITE.**

- 9) **TOTAL LABOR HOURS FOR ALL WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew)*: \_\_\_\_\_
- 10) **TOTAL LABOR HOURS FOR ALL SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Section 3 Workers)*: \_\_\_\_\_
- 11) **TOTAL LABOR HOURS FOR ALL TARGETED SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Targeted Section 3 Workers)*: \_\_\_\_\_

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



SCENARIO 1:

A crew of 5 none of whom self-certified as a Section 3 worker.

Reporting period is from June 1 to June 30, 2022.

The total hours that the crew worked on the project site during the reporting period totaled 1,000.

**SECTION 3 LABOR HOUR BENCHMARKS**

---

8) REPORTING PERIOD: FROM: 6-1-22 TO: 6-30-22

**The totals below are for YOUR COMPANY ONLY and JUST THOSE WORKERS WORKING ON THE PROJECT SITE.**

9) **TOTAL LABOR HOURS FOR ALL WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew):* 1000

10) **TOTAL LABOR HOURS FOR ALL SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Section 3 Workers):* 0

11) **TOTAL LABOR HOURS FOR ALL TARGETED SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Targeted Section 3 Workers):* 0

---

SCENARIO 2:

A crew of 5, two of whom self-certified as Section 3 workers.

Reporting period is from June 1 to June 30, 2022.

The total hours that the crew worked on the project site during the reporting period totaled 1,000.

The total hours of the two that self-certified as Section 3 workers during the reporting period totaled 80.

**SECTION 3 LABOR HOUR BENCHMARKS**

---

8) REPORTING PERIOD: FROM: 6-1-22 TO: 6-30-22

**The totals below are for YOUR COMPANY ONLY and JUST THOSE WORKERS WORKING ON THE PROJECT SITE.**

9) **TOTAL LABOR HOURS FOR ALL WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew):* 1000

10) **TOTAL LABOR HOURS FOR ALL SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Section 3 Workers):* 80

11) **TOTAL LABOR HOURS FOR ALL TARGETED SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** *(onsite work crew who self-certified as Targeted Section 3 Workers):* 0

---



SCENARIO 3:

A crew of 5, one of whom self-certified as a Section 3 worker and the other as a Targeted Section 3 worker.

Reporting period is from June 1 to June 30.

The total hours that the crew worked on the project site during the reporting period totaled 1,000.

The total hours of the one that self-certified as a Section 3 worker during the reporting period totaled 40.

The total hours of the one that self-certified as a Targeted Section 3 worker during the reporting period totaled 40.

**SECTION 3 LABOR HOUR BENCHMARKS**

---

8) REPORTING PERIOD: FROM: 6-1-22 TO: 6-30-22

**The totals below are for YOUR COMPANY ONLY and JUST THOSE WORKERS WORKING ON THE PROJECT SITE.**

9) **TOTAL LABOR HOURS FOR ALL WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew*): 1000

10) **TOTAL LABOR HOURS FOR ALL SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew who self-certified as Section 3 Workers*): 40

11) **TOTAL LABOR HOURS FOR ALL TARGETED SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew who self-certified as Targeted Section 3 Workers*): 40

---

SCENARIO 4:

A crew of 5, (in this scenario, it does not matter if there are Section 3 workers or not)

Reporting period is from June 1 to June 30, 2022.

The total hours that the crew worked on the project during the reporting period totaled ZERO.

**SECTION 3 LABOR HOUR BENCHMARKS**

---

8) REPORTING PERIOD: FROM: 6-1-22 TO: 6-30-22

**The totals below are for YOUR COMPANY ONLY and JUST THOSE WORKERS WORKING ON THE PROJECT SITE.**

9) **TOTAL LABOR HOURS FOR ALL WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew*): 0

10) **TOTAL LABOR HOURS FOR ALL SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew who self-certified as Section 3 Workers*): 0

11) **TOTAL LABOR HOURS FOR ALL TARGETED SECTION 3 WORKERS ON THE PROJECT DURING THE REPORTING PERIOD** (*onsite work crew who self-certified as Targeted Section 3 Workers*): 0

---

**YES, A LABOR HOUR BENCH MARK FORM HAS TO BE SUBMITTED EVEN IF NO WORK IS PERFORMED BUT THE GC/SUB (ALL TIERS) HAVE NOT FINISHED THE PROJECT.**

## **D - SECTION**

### **THIRD PARTY REPORTS**

- D.1**            **Limited Asbestos Survey Report**  
**January 2016**



Engineering +  
Environmental

# Limited Asbestos Survey Report

**KCHA Central Office (600 Building)  
600 Andover Park West  
Tukwila, Washington**

Prepared for:  
King County Housing Authority  
700 Andover Park West, Suite C  
Seattle, Washington 98118

PBS Project No. 40573.109  
January 8, 2016

This report is for the exclusive use of the client and is not to be photographed, photocopied, or similarly reproduced in total or in part without the expressed written consent of the client.

2517 Eastlake Avenue East, Suite 100, Seattle, WA 98102  
206.233.9639 Main  
866.727.0140 Fax  
[www.pbsenv.com](http://www.pbsenv.com)

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**TAB 1**  
**SUMMARY OF FINDINGS**



## **BACKGROUND**

PBS Engineering and Environmental, Inc. (PBS) performed a limited asbestos survey of the King County Housing Authority Central Office Building located at 600 Andover Park West, Tukwila, WA 98188. Accessible building areas included in the scope of work were inspected for the presence of asbestos-containing materials (ACMs).

King County Housing Authority Central Office Building is a commercial office building. Typical interior finishes within the Office Building include sheet vinyl flooring or vinyl floor tile in the restrooms, kitchen. Carpet is present in the remainder of the office building. Walls and ceilings throughout are textured gypsum wallboard and lay-in ceiling tiles. The exterior is masonry with metal framed windows and doors. According to the Assessor Property Detail report, the heating system provides warmed and cool air.

## **SURVEY PROCESS**

PBS surveyed representative areas throughout the building. Per KCHA's request, the materials included in this investigation were limited to flooring, walls, ceilings, base molding and kitchen sinks. Accessible building areas included in the scope of work were inspected by AHERA Certified Building Inspector H. David Toy Jr. (Cert. #153695, Exp. 11/03/16) on December 17, 2015. Inaccessible spaces are those requiring selective demolition (such as chases), fall protection, or confined-space entry protocols to gain access.

When observed, suspect-ACMs were sampled, assigned a unique identification number, and transmitted for analysis to NVL Labs (NVLAP #102063-0) under chain-of-custody protocols. Samples were analyzed according to EPA Method 600R-93/116 using Polarized Light Microscopy (PLM), which has a reliable limit of quantification of 1% asbestos by volume.

While PBS has endeavored to identify or has presumed the presence and type of ACMs in concealed locations, additional unidentified ACMs may exist. Suspect ACMs that were not included in the scope of this investigation may exist.

## **FINDINGS**

### **Asbestos-Containing Materials (ACM)**

PBS collected and analyzed 20 samples of representative suspect materials for asbestos content. The following materials were determined to contain **greater than 1% asbestos**.

None of the sampled materials were found to contain asbestos.

### **Non-Asbestos Containing Materials**

The following materials were sampled and **did not** contain detectable asbestos.

- Beige Cove Base and White Mastic
- Multi-color Speckle-Pattern Sheet Vinyl
- Gray and White Sink Undercoating
- 2' x 4' and 2' x 2' White Ceiling Tiles
- Yellow Carpet Mastic
- Gypsum Wallboard and Joint Compound

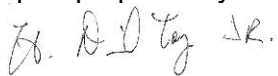
See the PLM Asbestos Bulk Sample Inventory and laboratory report included in Tab 2 for additional information.

## **RECOMMENDATIONS**

### **Asbestos-Containing Materials (ACM)**

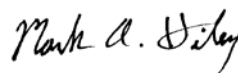
The possibility exist that concealed suspect ACM may be present in wall and ceiling cavities, equipment and select areas of the building. These may include, but are not limited to ACM pipe insulation and hard-mudded fittings, other mechanical insulation, vibration joint cloth or sealants on ductwork, glued ceiling tiles, construction adhesives and wall mastics, flooring sub-layers, and vapor barriers or weatherproofing. Any suspect ACMs that were not included in this survey should be considered asbestos-containing until properly sampled by an AHERA Certified Building Inspector.

Report prepared by:



H. David Toy Jr.  
AHERA Building Inspector  
Cert. #153695, Exp. 11/03/2016

Report reviewed by:



Mark Hiley  
Senior Project Manager

**TAB 2**  
**ASBESTOS BULK SAMPLE DATA**

## PLM ASBESTOS SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.109 -01	Carpet Yellow mastic	Conference Room 109 - Southwest corner	Layer 1: Gray/blue woven fibrous material Layer 2: Gray foamy material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -02	Carpet Yellow mastic	1st floor Copy Room - North side of building	Layer 1: Gray/brown woven fibrous material Layer 2: Gray foamy material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -03	Carpet Yellow mastic	2nd floor Cubical area - South side of building	Layer 1: Gray/brown woven fibrous material Layer 2: Gray foamy material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -04	Carpet Yellow mastic	2nd floor File Cabinet Room - North side of building	Layer 1: Gray/brown woven fibrous material Layer 2: Gray foamy material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -05	Carpet Yellow mastic	Conference Room 109 - Northeast corner	Layer 1: Gray woven fibrous material Layer 2: Gray foamy material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -06	12"x12" vinyl tile w/gray streaks Yellow mastic	1st floor Supply Room - by East stairwell	Layer 1: White/gray tile Layer 2: Yellow mastic	NAD NAD	NVL
40573.109 -07	Multi colored vinyl flooring Grey leveling compound Yellow mastic	1st floor Kitchen - Northeast side of building	Layer 1: Multicolor vinyl Layer 2: Gray brittle material Layer 3: Yellow mastic	NAD NAD NAD	NVL
40573.109 -08	2'x4' Ceiling tile 2'x2' Lay-in random hole pattern	1st floor Copy Room - North side of the building	Layer 1: Yellow fibrous material Layer 2: Gray compressed fibrous material w/paint	NAD NAD	NVL
40573.109 -09	2'x4' Ceiling tile 2'x2' Lay-in random hole pattern	Conference Room 109 - Southeast corner	Layer 1: Gray compressed fibrous material w/paint	NAD	NVL
40573.109 -10	2'x4' Ceiling tile 2'x2' Lay-in random hole pattern	1st floor Storage Closet - by Conference Room 109	Layer 1: Gray compressed fibrous material w/paint	NAD	NVL
40573.109 -11	2'x4' Ceiling tile 2'x2' Lay-in random hole pattern	2nd floor File Cabinet Room - North side of building	Layer 1: Gray compressed fibrous material w/paint	NAD	NVL
40573.109 -12	Grey sink undercoat	1st floor Kitchen - Northeast corner of building	Layer 1: Gray flaky loose material	NAD	NVL

## PLM ASBESTOS SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.109 -13	White sink undercoat	2nd floor First Aid Station	Layer 1: White flaky loose material	NAD	NVL
40573.109 -14	Gypsum wallboard	2nd floor File Cabinet Room - North side of building	Layer 1: White textured powdery material w/paint Layer 2: White chalky material w/paper	NAD NAD	NVL
40573.109 -15	Gypsum wallboard	Conference Room 109 - Southeast corner	Layer 1: White compacted powdery material w/paint Layer 2: White chalky material w/paper	NAD NAD	NVL
40573.109 -16	Gypsum wallboard	2nd floor cubical area - South side of building	Layer 1: White compacted powdery material w/paint Layer 2: White chalky material w/paper	NAD NAD	NVL
40573.109 -17	Gypsum wallboard	1st floor Copy Room - North side of building	Layer 1: White compacted powdery material w/paint Layer 2: White compacted powdery material w/paper Layer 3: White chalky material w/paper	NAD NAD NAD	NVL
40573.109 -18	Gypsum wallboard	1st floor Storage Closet - by Conference Room 109	Layer 1: White compacted powdery material w/paint Layer 2: Green woven fibrous material Layer 3: White chalky material w/paper	NAD NAD NAD	NVL
40573.109 -19	Beige cove base White mastic	1st floor Copy Room - North side of building	Layer 1: Beige rubbery material Layer 2: White mastic	NAD NAD	NVL
40573.109 -20	Beige cove base White mastic	2nd floor Cabinet Room - North side of building	Layer 1: Beige rubbery material Layer 3: White mastic w/paper	NAD NAD	NVL



Laboratory | Management | Training

December 28, 2015

Mark Hiley  
PBS Environmental (Seattle)  
2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1523421.00**

Client Project: 40573.109  
Location: KCHA-Bldg. 600

Dear Mr. Hiley,

Enclosed please find test results for the 20 sample(s) submitted to our laboratory for analysis on 12/23/2015.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

A handwritten signature in black ink, appearing to read 'Munaf Khan'.

Munaf Khan, Laboratory Director

The logo for NVL Labs, featuring the letters 'NVL' in a large, bold, outlined font, with 'LABS' in a smaller, outlined font below it.

Lab Code: 102063-0

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600

**Lab ID: 15140060      Client Sample #: 40573.109-01**

Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Gray/blue woven fibrous material	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Binder/Filler	Synthetic fibers 83%	
<b>Layer 2 of 3</b>	<b>Description:</b> Gray foamy material	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Synthetic foam	None Detected ND	
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Mastic/Binder	Cellulose 2%	


**Lab ID: 15140061      Client Sample #: 40573.109-02**

Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Gray/brown woven fibrous material	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Binder/Filler	Synthetic fibers 81%	
<b>Layer 2 of 3</b>	<b>Description:</b> Gray foamy material	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Synthetic foam	None Detected ND	
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials:	Other Fibrous Materials: %	<b>Asbestos Type: %</b>
		Mastic/Binder	Cellulose 3%	

**Lab ID: 15140062      Client Sample #: 40573.109-03**

Location: KCHA-Bldg. 600

<b>Sampled by:</b> Client		 _____ Munaf Khan, Laboratory Director
<b>Analyzed by:</b> Fiona Chui	<b>Date:</b> 12/23/2015	
<b>Reviewed by:</b> Munaf Khan	<b>Date:</b> 12/28/2015	

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Gray/brown woven fibrous material	Non-Fibrous Materials: Binder/Filler	Other Fibrous Materials:% Synthetic fibers 82%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 2 of 3</b>	<b>Description:</b> Gray foamy material	Non-Fibrous Materials: Synthetic foam	Other Fibrous Materials:% None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 2%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140063**      **Client Sample #: 40573.109-04**


Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Gray/brown woven fibrous material	Non-Fibrous Materials: Binder/Filler	Other Fibrous Materials:% Synthetic fibers 84%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 2 of 3</b>	<b>Description:</b> Gray foamy material	Non-Fibrous Materials: Synthetic foam	Other Fibrous Materials:% None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 1%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140064**      **Client Sample #: 40573.109-05**

Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Gray woven fibrous material	Non-Fibrous Materials: Binder/Filler	Other Fibrous Materials:% Synthetic fibers 83%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
---------------------	-------------------------------------------------	-----------------------------------------	---------------------------------------------------	----------------------------------------------------

<b>Sampled by:</b> Client	 _____ Munaf Khan, Laboratory Director
<b>Analyzed by:</b> Fiona Chui	
<b>Reviewed by:</b> Munaf Khan	

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600

<b>Layer 2 of 3</b>	<b>Description:</b> Gray foamy material	Non-Fibrous Materials: Synthetic foam	Other Fibrous Materials:% None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 2%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140065 Client Sample #: 40573.109-06**


Location: KCHA-Bldg. 600

<b>Layer 1 of 2</b>	<b>Description:</b> White/gray tile	Non-Fibrous Materials: Vinyl/Binder, Mineral grains	Other Fibrous Materials:% Cellulose 2%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 2 of 2</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 1%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140066 Client Sample #: 40573.109-07**

Location: KCHA-Bldg. 600

<b>Layer 1 of 3</b>	<b>Description:</b> Multicolor vinyl	Non-Fibrous Materials: Vinyl/Binder	Other Fibrous Materials:% None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 2 of 3</b>	<b>Description:</b> Gray brittle material	Non-Fibrous Materials: Binder/Filler, Mineral grains	Other Fibrous Materials:% Cellulose 4%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> Yellow mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 2%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

<b>Sampled by:</b> Client	 _____ Munaf Khan, Laboratory Director
<b>Analyzed by:</b> Fiona Chui	
<b>Reviewed by:</b> Munaf Khan	

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)
Address: 2517 Eastlake Ave E, Suite 100
Seattle, WA 98102

Batch #: 1523421.00
Client Project #: 40573.109
Date Received: 12/23/2015
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116
& EPA/600/M4-82-020

Attention: Mr. Mark Hiley
Project Location: KCHA-Bldg. 600

Lab ID: 15140067 Client Sample #: 40573.109-08

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, and Asbestos Type. Contains data for Layer 1 and Layer 2 of Lab ID 15140067.

Lab ID: 15140068 Client Sample #: 40573.109-09

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, and Asbestos Type. Contains data for Layer 1 of Lab ID 15140068.

Lab ID: 15140069 Client Sample #: 40573.109-10

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, and Asbestos Type. Contains data for Layer 1 of Lab ID 15140069.

Lab ID: 15140070 Client Sample #: 40573.109-11

Location: KCHA-Bldg. 600

Sampled by: Client
Analyzed by: Fiona Chui
Reviewed by: Munaf Khan
Date: 12/23/2015
Date: 12/28/2015
Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600

<b>Layer 1 of 1</b>	<b>Description:</b> Gray compressed fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		<b>Asbestos Type: %</b>
	Binder/Filler, Perlite, Glass beads	Cellulose 40%		<b>None Detected ND</b>
	Paint	Glass fibers 22%		

**Lab ID: 15140071**      **Client Sample #: 40573.109-12**  
Location: KCHA-Bldg. 600

<b>Layer 1 of 1</b>	<b>Description:</b> Gray flaky loose material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		<b>Asbestos Type: %</b>
	Binder/Filler, Mineral grains	Cellulose 5%		<b>None Detected ND</b>


**Lab ID: 15140072**      **Client Sample #: 40573.109-13**  
Location: KCHA-Bldg. 600

<b>Layer 1 of 1</b>	<b>Description:</b> White flaky loose material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		<b>Asbestos Type: %</b>
	Binder/Filler, Mineral grains	Cellulose 4%		<b>None Detected ND</b>

**Lab ID: 15140073**      **Client Sample #: 40573.109-14**  
Location: KCHA-Bldg. 600

<b>Layer 1 of 2</b>	<b>Description:</b> White textured powdery material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		<b>Asbestos Type: %</b>
	Calcareous particles, Paint	Cellulose 2%		<b>None Detected ND</b>

<b>Layer 2 of 2</b>	<b>Description:</b> White chalky material with paper			
	Non-Fibrous Materials:	Other Fibrous Materials:%		<b>Asbestos Type: %</b>
	Gypsum/Binder, Binder/Filler	Cellulose 34%		<b>None Detected ND</b>
		Glass fibers 3%		

<b>Sampled by:</b> Client		
<b>Analyzed by:</b> Fiona Chui	<b>Date:</b> 12/23/2015	
<b>Reviewed by:</b> Munaf Khan	<b>Date:</b> 12/28/2015	Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)
Address: 2517 Eastlake Ave E, Suite 100
Seattle, WA 98102

Batch #: 1523421.00
Client Project #: 40573.109
Date Received: 12/23/2015
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116
& EPA/600/M4-82-020

Attention: Mr. Mark Hiley
Project Location: KCHA-Bldg. 600

Lab ID: 15140074 Client Sample #: 40573.109-15

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, Cellulose, Glass fibers, and Asbestos Type. Includes data for Layer 1 and Layer 2.

Lab ID: 15140075 Client Sample #: 40573.109-16

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, Cellulose, Glass fibers, and Asbestos Type. Includes data for Layer 1 and Layer 2.

Lab ID: 15140076 Client Sample #: 40573.109-17

Location: KCHA-Bldg. 600

Table with 4 columns: Layer, Description, Non-Fibrous Materials, Other Fibrous Materials, Cellulose, and Asbestos Type. Includes data for Layer 1.

Sampled by: Client
Analyzed by: Fiona Chui
Reviewed by: Munaf Khan
Date: 12/23/2015
Date: 12/28/2015
Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600

<b>Layer 2 of 3</b>	<b>Description:</b> White compacted powdery material with paper	Non-Fibrous Materials: Other Fibrous Materials:% Calcareous particles, Binder/Filler Cellulose 34%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> White chalky material with paper	Non-Fibrous Materials: Other Fibrous Materials:% Gypsum/Binder, Binder/Filler Cellulose 34% Glass fibers 3%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140077**      **Client Sample #: 40573.109-18**

Location: KCHA-Bldg. 600


<b>Layer 1 of 3</b>	<b>Description:</b> White compacted powdery material with paint	Non-Fibrous Materials: Other Fibrous Materials:% Calcareous particles, Paint Cellulose 2%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 2 of 3</b>	<b>Description:</b> Green woven fibrous material	Non-Fibrous Materials: Other Fibrous Materials:% Binder/Filler Glass fibers 24%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
<b>Layer 3 of 3</b>	<b>Description:</b> White chalky material with paper	Non-Fibrous Materials: Other Fibrous Materials:% Gypsum/Binder, Binder/Filler Cellulose 35% Glass fibers 11%	<b>Asbestos Type: %</b> <b>None Detected ND</b>

**Lab ID: 15140078**      **Client Sample #: 40573.109-19**

Location: KCHA-Bldg. 600

<b>Layer 1 of 2</b>	<b>Description:</b> Beige rubbery material	Non-Fibrous Materials: Other Fibrous Materials:% Rubber/Binder None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
---------------------	--------------------------------------------	------------------------------------------------------------------------------------------	----------------------------------------------------

**Sampled by:** Client  
**Analyzed by:** Fiona Chui      **Date:** 12/23/2015  
**Reviewed by:** Munaf Khan      **Date:** 12/28/2015

  
 \_\_\_\_\_  
 Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Seattle)  
Address: 2517 Eastlake Ave E, Suite 100  
Seattle, WA 98102

**Batch #: 1523421.00**  
Client Project #: 40573.109  
Date Received: 12/23/2015  
Samples Received: 20  
Samples Analyzed: 20  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Attention: Mr. Mark Hiley**  
Project Location: KCHA-Bldg. 600


<b>Layer 2 of 2</b>	<b>Description:</b> White mastic	Non-Fibrous Materials: Mastic/Binder	Other Fibrous Materials:% Cellulose 1%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
---------------------	----------------------------------	-----------------------------------------	-------------------------------------------	----------------------------------------------------

**Lab ID: 15140079**      **Client Sample #: 40573.109-20**

Location: KCHA-Bldg. 600

<b>Layer 1 of 2</b>	<b>Description:</b> Beige rubbery material	Non-Fibrous Materials: Rubber/Binder	Other Fibrous Materials:% None Detected ND	<b>Asbestos Type: %</b> <b>None Detected ND</b>
---------------------	--------------------------------------------	-----------------------------------------	-----------------------------------------------	----------------------------------------------------

<b>Layer 2 of 2</b>	<b>Description:</b> White mastic with paper	Non-Fibrous Materials: Mastic/Binder, Binder/Filler	Other Fibrous Materials:% Cellulose 31%	<b>Asbestos Type: %</b> <b>None Detected ND</b>
---------------------	---------------------------------------------	--------------------------------------------------------	--------------------------------------------	----------------------------------------------------

<b>Sampled by:</b> Client	
<b>Analyzed by:</b> Fiona Chui	
<b>Reviewed by:</b> Munaf Khan	
<b>Date:</b> 12/23/2015	<hr/> <b>Munaf Khan, Laboratory Director</b>
<b>Date:</b> 12/28/2015	

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

**Company** PBS Environmental (Seattle) **NVL Batch Number** **1523421.00**  
**Address** 2517 Eastlake Ave E, Suite 100 **TAT** 1 Day **AH** No  
 Seattle, WA 98102 **Rush TAT**  
**Project Manager** Mr. Mark Hiley **Due Date** 12/24/2015 **Time** 4:20 PM  
**Phone** (206) 233-9639 **Email** mark.hiley@pbsenv.com  
**Office:** (800) 628-9639 **Fax** (866) 727-0140

**Project Name/Number:** 40573.109 **Project Location:** KCHA-Bldg. 600

**Subcategory** PLM Bulk  
**Item Code** ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

**Total Number of Samples** 20 **Rush Samples**

	Lab ID	Sample ID	Description	A/R
1	15140060	40573.109-01		A
2	15140061	40573.109-02		A
3	15140062	40573.109-03		A
4	15140063	40573.109-04		A
5	15140064	40573.109-05		A
6	15140065	40573.109-06		A
7	15140066	40573.109-07		A
8	15140067	40573.109-08		A
9	15140068	40573.109-09		A
10	15140069	40573.109-10		A
11	15140070	40573.109-11		A
12	15140071	40573.109-12		A
13	15140072	40573.109-13		A
14	15140073	40573.109-14		A
15	15140074	40573.109-15		A
16	15140075	40573.109-16		A
17	15140076	40573.109-17		A
18	15140077	40573.109-18		A

	Print Name	Signature	Company	Date	Time
<b>Sampled by</b>	Client				
<b>Relinquished by</b>	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Maxwell Raymond		NVL	12/23/15	1620
<b>Analyzed by</b>	Fiona Chui		NVL	12/23/15	9:39 AM
<b>Results Called by</b>					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

**Special Instructions:**

Date: 12/23/2015  
 Time: 4:35 PM  
 Entered By: Maxwell Raymond

**Company** PBS Environmental (Seattle) **NVL Batch Number** **1523421.00**  
**Address** 2517 Eastlake Ave E, Suite 100 **TAT** 1 Day **AH** No  
 Seattle, WA 98102 **Rush TAT**  
**Project Manager** Mr. Mark Hiley **Due Date** 12/24/2015 **Time** 4:20 PM  
**Phone** (206) 233-9639 **Email** mark.hiley@pbsenv.com  
**Office:** (800) 628-9639 **Fax** (866) 727-0140

**Project Name/Number:** 40573.109 **Project Location:** KCHA-Bldg. 600

**Subcategory** PLM Bulk  
**Item Code** ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

**Total Number of Samples** 20 **Rush Samples**

	Lab ID	Sample ID	Description	A/R
19	15140078	40573.109-19		A
20	15140079	40573.109-20		A

	Print Name	Signature	Company	Date	Time
<b>Sampled by</b>	Client				
<b>Relinquished by</b>	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Maxwell Raymond		NVL	12/23/15	1620
<b>Analyzed by</b>	Fiona Chui		NVL	12/23/15	9:39 AM
<b>Results Called by</b>					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

**Special Instructions:**

Date: 12/23/2015  
 Time: 4:35 PM  
 Entered By: Maxwell Raymond





Project: KCHA-Bldg 600

Project #: 40573.109

Analysis requested: PLM

Date: 12/17/15

Relinq'd by/Signature: [Signature]

Date/Time: 12-23-15 16:24

Received by/Signature: [Signature]

Date/Time: 12/23/15 16:00

Fax results to:

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Ferman Fletcher
- Prudy Stoudt-McRae
- Grant Baker
- Janet Murphy
- Harry Goren
- David Toy
- Mike Smith
- Chuck Greeb
- Christine Rmah

TURN AROUND TIME:

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3-5 Days
- Other \_\_\_\_\_

**SAMPLE DATA FORM**

Sample #	Material	Location	Lab
01	Carpet/yellow mastic	Conference room 109 (S.W. corner)	
02	Carpet/yellow mastic	1 <sup>st</sup> floor Copy room (N. side of building)	
03	Carpet/yellow mastic	2 <sup>nd</sup> floor cubical area (S. side of bldg)	
04	Carpet/yellow mastic	2 <sup>nd</sup> floor file cabinet rm (N. side of bldg)	
05	Carpet/yellow mastic	Conference room 109 (N.E. corner)	
06	Vinyl tile 12"x12" white w/grey streaks/yellow mastic	1 <sup>st</sup> floor supply room (off E. stairwell)	
07	Vinyl flooring speckle multi-color/grey leveling compound/yellow mastic	1 <sup>st</sup> floor kitchen (N.E. corner of bldg)	
08	Ceiling tile 2'x4';2'x2' lay-in random hole pattern	1 <sup>st</sup> floor copy room (N. side of bldg)	
09	Ceiling tile 2'x4';2'x2' lay-in random hole pattern	Conference room 109 (S.E. corner)	
10	Ceiling tile 2'x4';2'x2' lay-in random hole pattern	1 <sup>st</sup> floor storage closet (off conf rm 109)	
11	Ceiling tile 2'x4';2'x2' lay-in random hole pattern	2 <sup>nd</sup> floor file cabinet rm (N. side of bldg)	
12	Sink undercoat grey	1 <sup>st</sup> floor kitchen (N.E. corner of bldg)	
13	Sink undercoat white	2 <sup>nd</sup> floor First Aid Station	
14	GWB	2 <sup>nd</sup> floor file cabinet rm (N. side of bldg)	
15	GWB	Conference room 109 (S.E. corner)	
16	GWB	2 <sup>nd</sup> floor cubical area (S. side of bldg)	
17	GWB	1 <sup>st</sup> floor copy room (N. side of bldg)	
18	GWB	1 <sup>st</sup> floor storage closet (off conf rm 109)	
19	Cove base beige/white mastic	1 <sup>st</sup> floor copy room (N. side of bldg)	



**TAB 3**  
**INSPECTOR CERTIFICATIONS**

1900 W Nickerson St, # 315  
Seattle, WA 98119  
206.285.3373



This certifies that  
**H. David Toy, Jr.**  
has satisfactorily completed  
24 hours of training as an  
**Asbestos Building Inspector**  
complies with TSCA Title II / 40 CFR 763 (AHERA)

A handwritten signature in black ink, appearing to read "A. M. R.", written over a horizontal line.

Instructor  
EPA Provider Certificate # 1085

Certificate # 153695  
Class Date: Nov 2 - 4, 2015  
Expires: Nov 3, 2016

## **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 03 CONCRETE

03 30 00	Concrete
----------	----------

### DIVISION 09 FINISHES SPECIFICATIONS

09 21 16	Gypsum Board Assemblies
09 91 23	Paint

### DIVISION 26 ELECTRICAL SPECIFICATIONS

26 00 00	Electrical General Conditions
26 00 05	Electrical - Existing Systems
26 00 10	Excavation and Backfill for Electrical Underground Utilities
26 05 19	Wires and Cables
26 05 26	Grounding
26 05 32	Outlet and Pull Boxes
26 05 33	Raceway
26 05 73	Electrical System Studies
26 22 13	Dry Type Transformers
26 24 13	Switchboards
26 24 16	Panel boards
26 43 00	Transient Voltage Surge Suppression (TVSS) / Surge Protective Device (SPD)

### DIVISION 31 EARTHWORK

31 22 00	Earthwork
----------	-----------

## LIST OF DRAWINGS

<b>E0.1</b>	ELECTRICAL LEGEND
<b>ED3.1</b>	1 <sup>ST</sup> FLOOR POWER PLAN – DEMOLITION
<b>ED3.2</b>	2 <sup>ND</sup> FLOOR POWER PLAN – DEMOLITION
<b>E3.1</b>	1 <sup>ST</sup> FLOOR POWER PLAN – CONSTRUCTION
<b>E3.2</b>	2 <sup>ND</sup> FLOOR PWER PLAN – CONSTRUCTION
<b>E6.0</b>	ELECTRICAL ONE LINE DIAGRAM – DEMOLITION
<b>E6.1</b>	ELECTRICAL ONE LINE DIAGRAM – CONSTRUCTION
<b>E6.2</b>	PANEL SCHEDULES
<b>E6.3</b>	PANEL SCHEDULES

## 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 and Quality Control**
  - D. Inspection of Work**
  - E. Site Requirements**
    - 1. Work Hours
    - 2. Restrictions
    - 3. Contractor Responsibilities
  - F. Project Phasing**
- 4.0 Safety, Protection and Restoration**
  - A. Safety**
  - B. Protection**
  - C. Restoration**
  - D. Hazardous Material**
- 5.0 Divisions (See Specification Sections for complete details)**
  - Division 1 General Conditions**
    - A. Site Staging and Deliveries
    - B. Temporary Facilities
  - Division 2 Site Construction**
    - A. Existing Utilities
    - B. Debris and Waste Removal
  - Division 3 Concrete**
    - A. Concrete (Section 03 30 00)
    - B. Reinforcing Steel (Section 03 21 00)
  - Division 9 Finishes**
    - A. Gypsum Wall Board Assemblies (Section 09 21 16)
    - B. Paint (Section 09 91 23)



**Division 26 Electrical**

- A. Electrical- General Conditions (Section 26 00 00)
- B. Electrical- Existing Systems (Section 26 00 05)
- C. Excavation & Backfill (Section 26 00 10)
- D. Wires and Cables (Section 26 05 19)
- E. Grounding (Section 26 05 26)
- F. Outlet and Pull Boxes (Section 26 05 32)
- G. Raceway (Section 26 05 33)
- H. Electrical System Studies (Section 26 05 73)
- I. Switchboards (Section 26 22 13)
- J. Panel Boards (Section 26 24 16)
- K. Transient Voltage Surge Suppression/Surge Protective Device (Section 26 43 00)

## SECTION 001010 SCOPE OF WORK

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### 1.0 PROJECT SUMMARY

The 600 building is a two-story concrete tilt-up construction built in 1979. The electrical upgrade will include (but not be limited to) the following items: demolition, removal, and upgrading of the existing electrical panel boards, new feeder conductors, gutter cans, meter bases, transformers, and switchboards. The 600 Electrical project will include a new main transformer, which will be under another contract. However, it will be up to the Contractor to run new feeder conductors to the updated electrical equipment. The building houses several KCHA employees, who will work off-site during construction, leaving the building partially occupied. The building power will be off during the upgrade, and the Contractor will be responsible for supplying 24/7 temporary power while new electrical panels are being installed. It will be up to the Contractor to supply and install all the necessary parts and materials to tap into the contractor supplied backup generator and to incorporate KCHA's existing backup generator. KCHA's backup generator will now back up the Contractor's auxiliary generator to power the building. The Contractor's auxiliary generator will provide power for KCHA's servers, and some lighting circuits, auxiliary power will not power up the entire building. Only selected areas of the building will be online.

KCHA's onsite generator will back up the auxiliary power in case of any failure with the Contractor's generator. KCHA's backup generator will not be counted on as a main power source to the building. In the event of a generator failure, it will be up to the Contractor to switch out the temp generator as quickly as possible and get it back online. KCHA allows 14 calendar days to complete the electrical switchover and restore main power to the building. Since the building houses the computer main frame for the entire KCHA portfolio, the Contractor must complete the electrical project as quickly as possible. This project must take into consideration the installation of a new transformer (under a separate contract) in front of the building by Puget Sound Energy (PSE). Due to the wait time for the new transformer, the Contractor will install the new feeder wires to the existing transformer. The Contractor must coordinate with PSE and KCHA to hook up the new feeder lines to the existing transformer.

Once main power is transferred over to the auxiliary and backup generator, the Contractor will demo the following (including but not limited to) items:

- Demo CT Cabinet
- Demo Main Distribution Board
- Demo Electrical Panel "LA"
- Demo Electrical Panel "PA"
- Demo Electrical Panel "PA2"
- 75 KVA Transformer
- Remove feeder wires per plan From the transformer to the Main Distribution Board
- Remove selected sections of conduit lines running from the exterior transformer to the building outside on the West side
- Remove and cut flush to concrete floor and conduits coming up through the floor and fill with concrete.
- Remove and restore any irrigation sprinkler lines or heads needed to install the new exterior CT can and meter base.
- Dig a power trench from the 800 Amp switchboard outside to intercept existing power conduit lines running into the West side of the building to the electrical room. Install new

conduit lines and attach them to existing conduit lines. The Contractor is to dig a line from the 800 Amp exterior switchboard towards the North side of the building to install conduits for future use.

The Contractor will supply and install the following (including but not limited to) electrical equipment:

- New Electrical Gutter feeding the Main Distribution Board (Electrical Room)
- New Main Distribution Board (Electrical Room)
- New 200A-39 480y/277V Panel Marked “LA”
- New 200 Amp “PA” panel
- New 200 Amp “PA 2” panel
- New 75 KVA Transformer and conduits running from the electrical room to the new location of the transformer in the file room
- New 225Amp fused disconnect
- Supply power to the new 75 KVA Transformer and new 225 Amp disconnect
- New 800 Amp Switchboard located outside
- New CT Cabinet and Meter Box located next to the Switchboard outside
- Install new feeder wires per plan from transformer to building
- New 6” concrete housekeeping pad outside
- New 3” concrete housekeeping pad in the electrical room for MDB Board
- New switch gear and power cord to work with onsite generator disconnect outside
- Dig a new power trench from the exterior electrical transformer to the new 800 Amp switchboard
- Install new conduit from the exterior transformer to 800 Amp switchboard on West side of the building
- Dig a power trench from the 800 Amp switchboard to intercept existing power conduit lines running from the West side of the building to the electrical room. Install new conduit lines and attach them to existing conduit lines.
- Provide and install (1) 4”, (2) 2” and (3) 1” spare conduits from the exterior 800 Amp switchboard. Run new conduits (5) five feet past the edge of the switchboard to the South side of the property. Conduits should be at least 24” below grade and capped for future use.
- Provide all required shop drawings, electrical testing, and studies.

## 2.0 PROJECT ADMINISTRATION REQUIREMENTS

### A. Pre-Construction Administration

BEFORE commencement of work begins on-site, the Contractor will provide the Owner with 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:
  - 1) Contract start date (CS) TBD
  - 2) Notice to Proceed (NTP) TBD
  - 3) Construction Duration (CD) Start Date/Stop Date TBD - TBD
  - 4) Substantial Completion (SC) TBD
  - 5) Physical Completion (PC) and Warranty Start Date of Entire Project TBD
  - 6) 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 and CC).*

**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%) 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:
  - 1) Overhead and Profit.
  - 2) General Conditions.
  - 3) 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.)
  - 4) Mobilization.

**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) calendar 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.

**5. Phasing and Coordination Plan** including the following (*See section 3 item I, regarding Phasing*):

**6. Subcontractor List** with the names all 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.
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. **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.
  - b. **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. **State Prevailing Wage/ Commercial 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 mockups 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
    - 1) Name of installer with all contact information.
    - 2) 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 Tukwila with final sign offs.
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 conduits, millwork, ceiling panels, drywall, existing pipe, and utilities, 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, concrete, electrical equipment, labor, 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 Contractor 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 direction in writing 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. 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.
9. 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.
10. Permits: The Owner will obtain any building permits; 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
11. 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.

12. 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. Mockups: 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.
4. Quality Assurance/ Quality Control: The Contractor 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.
6. 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. 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 cleanup 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 unless permission is granted by the Owner's Representative.
- 7.
8. 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.
9. The Contractor must read and comply with all safety requirements as stated in Section 4 A.
10. The Contractor is responsible for all necessary locates (both private and public), grading, and staking as required.
11. See Division 1 related to staging and deliveries.

#### **F. General 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 Tukwila hauling route, plans, and street use permits.
1. **Project Phasing** This project will directly impact the entire 600 building. Since this building houses the upper management team and all the IT equipment for the entire KCHA portfolio, it is imperative to have the building back up and running as quickly as possible. The Owner's expectation is to have the building protected from the elements at the end of each workday. The intent of the phasing plan is to make all the electrical improvements and switchover with the least amount of disruption.
2. The Contractor's phasing plan must meet Owner expectations of providing the least impact on the residents which includes access to the site, their units and parking.
3. 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 prolonged 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 semi-occupied building and all that it encompasses (employees, security and traffic 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 employees. The Contractor must take these considerations into 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. Comply with all safety and health codes within Local, State and Federal jurisdictions.
3. All work must operate within OSHA and State-equivalent (WISHA) standards and requirements.
4. The Contractor shall conduct weekly safety meetings; the minutes from these meetings 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.
5. All workers on-site will wear high visibility vests or apparel with company logo or name that clearly identifies the workers.
6. 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.).
7. 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 staff.
8. The Contractor will be diligent in ensuring that all safety measures are performed at all times for all aspects of work being performed.
9. Work Areas shall be cordoned off with safety fencing and/or caution tape while work is in progress.
10. 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 staff.
11. The Contractor is responsible to secure all materials and equipment to prevent damage and to also take precautions to prevent theft of their personal items.

## **B. Protection**

1. Contractor will provide protection at landscape areas where material laydown, storage, construction trailers or equipment are stored.
2. 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.
3. 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. Contractor to restore all lawn areas with Sod.
  - a. Grass areas that are identified for replacement or are damaged from construction activities are to be conditioned with new 3-way topsoil mix to a depth of (4") inches and tilled in to existing soils.
  - b. The Contractor shall roll to consolidate topsoil for areas to be sodded leaving surface smooth, uniform, firm against deep foot printing, and with a fine loose texture.
  - c. Contractor must ensure that sod is adequately watered until it becomes established and will survive through the 1 year warranty period.
  - d. Existing sod that has been removed shall be disposed of legally.
4. 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.
  - c. Areas shall be conditioned with new top soil, tilled in to a depth of two (2") inches, and then two (2") inches of mulch placed throughout the affected area. Mulch should be a minimal nutrient, non-growth promoting mulch (non-die/stain/colored, wood chip/mulch, mulch that does not promote growth) spread around the affected area and section of planting bed/box/defined area. Contractor should work with KCHA to determine limits of mulch required for the project.

## **D. Hazardous Materials**

1. If lead based paint is known to be present, the Contractor is responsible for removal using the HUD Lead-Safe-Work protocol. HUD Lead Safe Work protocol is more restrictive than RRP protocols. Contractors should refresh all workers on the HUD portion of Lead Safe work Practices before the project starts. The contractor will be responsible to retain copies of all workers RRP training certificates on the work site at all times, and be able to produce them when asked.
2. Owner will make any hazardous material reports available to the Contractor. Contractor will be responsible to determine at what level of abatement and protection is required when disturbing hazardous materials.
3. The Contractor agrees to indemnify, defend and hold the Owner harmless from any claims arising out of or relating to the improper handling of hazardous materials that may be present on site.

4. Contractors are responsible for reviewing all Hazmat surveys provided by KCHA and must identify all areas or works that have lead base paint, or asbestos containing materials. Contractor is responsible for sharing hazmat surveys with their sub-contractors prior to any work completed on site.
5. If traces of asbestos containing materials (ACM) may be present. These should be removed by properly trained and protected personnel using appropriate work practices and engineering controls. Workers potentially working with (ACM) are advised to confirm training requirements of WISHA and to ensure that proper worker protection and work practices are implemented.
6. The Contractor agrees to indemnify, defend and hold the Owner harmless from any claims arising out of or relating to the presence of asbestos/hazardous material in the Owner's building that the Contractor has sub-contracted the removal and legal disposal of the asbestos/hazardous material.

## **5.0 DIVISIONS**

### **DIVISION 1 GENERAL CONDITIONS**

#### **A. Site Staging and 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. Contractor to use existing parking on site to stage materials in areas approved by the property manager. Property manager to designate parking spaces that will be fenced off around the perimeter and locked, to store materials for current phases of work. KCHA will work with property manager 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 cleanup 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 will be allowed to use KCHA 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**

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 follows (but non-inclusive): CT Cabinet, main distribution board, various electrical panels, 75 VA transformer, Meter box, and all related electrical components from structure per scope of work, drawings, and specifications.
2. Contractor shall salvage and/or protect all materials as necessary until they are to be reinstalled, (i.e. select hardware, fire extinguishers and cabinets, communication boxes, pipe penetrations,

- etc.). This list is not all inclusive and the Contractor must verify which items are to be salvaged per the contract documents and in coordination with the Owner prior to demolition activities.
3. Install temporary barriers as necessary to protect the staff during demolition. Take precautionary measures to close off access where demo is being performed.
  4. 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.

#### **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. 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.
3. Contractor to include in bid all necessary modifications, labor and parts necessary to run/re-route 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, 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 is responsible to air seal and /or fire seal all penetrations, vents and appurtenances.
7. 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.
8. 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, sod 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. Planter areas will be covered with new organic mulch; 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.

### **DIVISION 3 CONCRETE**

#### **A. Cast in Place Concrete**

*Refer to Specification Section 303000*

1. Concrete housekeeping pad for Electrical unit to be poured in the electrical room.
2. Contractor responsible for any drainage and dewatering prior to concrete placement.

3. Exterior slab: 6 X 6 X 3/16" welded wire mesh from the center of the slab. Wire mesh or rebar may not be pulled up during the pour. KCHA recommends that rebar/wire mesh be elevated by dobie blocks or some type of benching materi
4. Provide and install a 4" base layer of CSTC, compact to firm and unyielding condition. Remove all grass before adding bedding material.
5. Exterior Concrete Finish: Light broom

#### **DIVISION 9 FINISHES Drywall & Texture**

1. Contractor will patch any interior or exterior wall damage incurred during demolition or installation. All GWB patches to have 100% blocking at all 4 sides. 2x material and 3/4" plywood is acceptable for backing. All work for existing finishes to be performed in accordance with safe work practices.
2. Contractor shall install/reinstall any or all fire rated assemblies that were disturbed during the project.
3. Contractor to paint any wall or ceiling patches wall to wall and top to bottom.

#### **DIVISION 26 ELECTRICAL**

*Refer to Specification Sections 260000, 260005, 260010, 260519, 260526, 260532, 266573, 262213, 26416, and 264300*

1. Coordinate all work and phasing requirements with KCHA, General Contractor.
2. New Electrical panels, C.T., and distribution board will be installed by Electrical Contractor. Electrical Contractor shall disconnect existing panel and install new wiring, breakers, panels, pull boxes, and anything else associated with wiring to a new panel.
3. Supply and install any necessary conduit/ raceway or wiring to complete connections to new panels.
4. Contractor to provide demolition, removal and legal disposal of all existing electrical panels and all materials and components associated with this work.
5. 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.
6. The Contractor will follow all manufacturer's requirements and recommendations for the installation of all products and maintain the integrity of all warranties.
7. The Contractor will provide and install any junction boxes which are missing, damaged or need an extension at any location. The Contractor should include a budget for the material and labor associated with cutting and installation of any necessary j-boxes.
8. The Contractor will provide all materials, labor, equipment, permits, and experience necessary to complete all elements of the work with quality, on time, and within budget.
9. The Contractor will provide necessary labor, materials, and permits for the temporary power setup for this project per jurisdictional code. Including, but limited to, all elements required for mounting of temporary panel(s), disconnects, C.T., etc.
10. Contractor will be responsible for supplying fuel to the temp generator. It's up to the Contractor to keep temporary power to the building 24/7 while installing the new electrical gear.

11. Contractor to install tracer wire to all conduits lines outside.
12. The work shall include all materials, appliances and apparatus not specifically mentioned herein or noted on the plans, but which are necessary to make a complete working installation of all electrical systems shown on the plans or described herein. Equipment and devices furnished and installed under other divisions of this specification (or by the Owner) shall be connected under this division. The drawings and specifications are complementary and what is called for in either is binding as if called for in both.
13. It will be up to the Contractor to supply and install all the necessary electrical switch gear to coincide with the temporary transfer switch, which supplies temp power to parts of the building. The Contractor will supply a temporary generator which will be the main temp power to the building. If for some reason the temp generator fails KCHA's onsite back-up generator will kick in and supply power to the building. The Contractor will exchange the temp generator as quickly as possible and get it back on line, using the KCHA back-up generator as little as possible. Contractor to follow BCE's install recommendation.
14. Contractor will conduct all testing and studies as required in the spec sections (260573, 260000, and 264300). All reports will be supplied to KCHA.
15. Contractor to export all spoils and import suitable fill material that will meet required compaction per plans and specifications. For bidding purposes Contractor to figure on 100% export and 100% import for the project requirements
16. Contractor to locate all public and private utilities that may be impacted by ground disturbance.
17. Contractor to be responsible for repairing and or replacing all utilities and building components damaged by excavations.
18. The contractor is responsible for removing and legally disposing of any unforeseen, abandoned, or active piping or contents that may conflict with new installations.
19. Contractor to follow the site preparation called out in the specs and approved city plans.
20. Contractor is responsible to install silk socks, silt fencing, dust control, and site tree protection prior to digging with the City of Tukwila approval.
21. All excavated areas will be planted back with sod. Organic mulch will be placed at all planning areas.
22. All Sprinkler lines that may have been damaged by the installation of the new conduits shall be replaced with new heads and/or supply lines.
23. Contractor shall paint exposed concrete walls where new outside electrical equipment will be placed.
24. New sod and landscape material will be applied to all areas disturbed by the new trenching.

**END OF SECTION**

## 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. This Section includes the following:
1. Work covered by the Contract Documents.
  2. Phased construction.
  3. Work under other contracts.
  4. Owner-furnished products.
  5. Owner's occupancy requirements.
  6. Applicable Codes.
  7. Reference standards.
  8. Use of premises and work restrictions.
  9. Specification formats and conventions.
  10. Execution, correlation and intent – Contract Documents.

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification:
1. Project Name: 600 BUILDING ELECTRICAL UPGRADES
  2. Project Location: 600 Andover Park West Tukwila, WA 98188
- B. Owner/Developer: King County Housing Authority
1. Owner's Representative: Don Hatfield
  2. Contact Phone: 206-574-1213
- C. Architects / Engineer:
1. Representative: BCE Engineers
  2. Contact Phone: 253-922-0446
- D. Reference Section A of the Bid Documents for scope of work.

#### 1.4 PHASED CONSTRUCTION

- 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

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.
    - 1) Percentage of the Contract Sum to nearest one-hundredth 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.
    - a. Differentiate between items stored on-site and items stored off-site. 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).
    - l. 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	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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 starting work)</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Does the site safety plan describe how and when to report on-the-job injuries?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Does the site safety plan identify what to do in an emergency, including how to exit the workplace?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Does the site safety plan explain how employees and other subcontractors report unsafe conditions and practices?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Does the site safety plan describe the required personal protective equipment (PPE) and the proper use and care of the PPE?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Does the site safety plan identify the designated representative responsible for job-site Safety?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Does the site safety plan describe programs related to housekeeping and jobsite safety?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Does the site safety plan include a job-site specific written fall protection plan covering potential falls hazards and protections?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Does the site safety plan describe electrical and or power generation controls?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Does the site safety plan have provisions for trenching /excavations and/or confined space?

**Notes:**

**END OF SECTION 01 3100**



**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 3.10.1 in 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.
    - l. 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.
    - l. 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.
    - l. 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 factory-authorized 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 re-inspecting, 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 on-site 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:
    - a. 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.
    - l. 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 on-site 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](http://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](http://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](http://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  
**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:** 600 BUILDING ELECTRICAL UPGRADES

**Project Address:** 600 Andover Park West Tukwila, WA 98188

**Work Order No.:** 1358 **Job No.:** 360.4

DESCRIPTION	WEIGHT	QUANTITY (Circle One)		
		Lbs.	CY	Tons
<b>Total Waste Generated**</b>				
<b>Waste Disposed</b>				
<b>Waste Recycled</b>				
**Waste Disposed plus Waste Recycled should equal Total Waste Generated				
<b>What % of the total waste do you estimate you will recycle?</b>				

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	DISPOSAL / RECYCLE? (CIRCLE ONE)		DISPOSAL OR RECYCLING FACILITY
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	

Example: Roofing, 3 tons, Recycle, DTG Recycle

CONSTRUCTION PHASE				
MATERIAL	QUANTITY Lbs./CY/Tons	DISPOSAL / RECYCLE? (CIRCLE ONE)		DISPOSAL OR RECYCLING FACILITY
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		Disposal	Recycle	
		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 Quality 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 anti-pollution 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.
  - l. 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

APPLICATION NO:

06 FINAL

APPLICATION DATE:

04.19.21

PERIOD FROM:

04.01.21

PERIOD TO:

04.19.21

SITE NAME - PROJECT NAME; Contract No. CCxxxxx65

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED & STORED TO DATE (D + E + F)		H BALANCE TO FINISH (C - G)	I RETAINAGE (AGGREGATE TO DATE)
			FROM PREVIOUS APPLICATION(S) (G)	THIS PERIOD		% (G ÷ C)			
	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	2,350.00	0.00	23,500.00	100.00%	0.00	1,175.00
	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	16,000.00	16,000.00	0.00	0.00	16,000.00	100.00%	0.00	800.00
	Window Labor	15,000.00	15,000.00	0.00	0.00	15,000.00	100.00%	0.00	750.00
	Patio Door Materials	9,600.00	9,600.00	0.00	0.00	9,600.00	100.00%	0.00	480.00
	Patio Door Labor	9,800.00	9,800.00	0.00	0.00	9,800.00	100.00%	0.00	490.00
	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
	Flameblock Materials	14,000.00	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	12,800.00	0.00	0.00	12,800.00	100.00%	0.00	640.00
	Exterior Painting	18,000.00	17,000.00	1,000.00	0.00	18,000.00	100.00%	0.00	900.00
	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)	0.00	(8,218.97)	0.00	(8,218.97)	100.00%	0.00	(410.95)
	<b>TOTALS</b>	<b>575,548.99</b>	<b>514,297.74</b>	<b>61,251.25</b>	<b>0.00</b>	<b>575,548.99</b>	<b>100.00%</b>	<b>0.00</b>	<b>28,777.45</b>
	<b>5% RETAINAGE</b>	<b>28,777.45</b>	<b>25,714.89</b>	<b>3,062.56</b>	<b>0.00</b>	<b>28,777.45</b>			
	<b>TOTALS LESS RETAINAGE</b>	<b>546,771.54</b>	<b>488,582.85</b>	<b>58,188.69</b>	<b>0.00</b>	<b>546,771.54</b>		<b>0.00</b>	<b>28,777.45</b>
	<b>TOTAL BALANCE TO FINISH (H + I)</b>								<b>28,777.45</b>
	<b>NET CHANGE ORDERS THIS PERIOD:</b>	<b>(8,218.97)</b>	<b>CHANGE ORDERS APPROVED THIS PERIOD (LIST C/O #s)</b>			<b>1</b>			
	<b>NET C/O ADDITIONS (THIS PERIOD):</b>	<b>0.00</b>	<b>NET C/O DEDUCTIONS (THIS PERIOD):</b>			<b>(8,218.97)</b>			
	<b>TOTAL CHANGE ORDERS TO DATE:</b>	<b>(8,218.97)</b>							

# Form G702

V - 105694

## Application and Certificate for Payment

<b>TO OWNER:</b>	<b>King County Housing Authority</b> Attn: Capital Construction Dept. 700 Andover Park W. Suite C Tukwila, WA 98188	<b>PROJECT NAME / SCOPE OF WORK:</b>	<b>SITE NAME</b>  PROJECT NAME	<b>APPLICATION NO:</b>	06 FINAL	<b>Distribution to:</b> OWNER: <input checked="" type="checkbox"/> ARCHITECT: <input type="checkbox"/> CONTRACTOR: <input type="checkbox"/> FIELD: <input type="checkbox"/>
<b>FROM CONTRACTOR:</b>	<b>CONTRACTOR NAME</b> CONTRACTOR ADDRESS CITY, STATE, ZIP	<b>VIA ARCHITECT:</b>	<b>ARC</b> 119 S. MAIN ST. SUITE 200 SEATTLE, WA 98104-2579	<b>PERIOD TO:</b>	04.19.21	
				<b>CONTRACT NO:</b>	CCxxxxx65	
				<b>CONTRACT DATE:</b>	11/16/2020	
				<b>NTP DATE:</b>	11/16/2020	
				<b>PROJECT NO:</b>	215.1B	
				<b>WORK ORDER NO:</b>	1243	

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, Form G703, is attached.

1. ORIGINAL CONTRACT SUM.....	\$583,767.96
2. NET CHANGE BY CHANGE ORDERS.....	(\$8,218.97)
3. CONTRACT SUM TO DATE (Line 1 +/- 2).....	\$575,548.99
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703).....	\$575,548.99
5. RETAINAGE:	
a. <u>5</u> % of Completed Work (Column D + E on G703: \$575,548.99 )= \$28,777.45	
b. <u>5</u> % of Stored Material (Column F on G703: \$0.00 )= \$0.00	
Total Retainage (Lines 5a + 5b or Total in Column I of G703).....	\$28,777.45
6. TOTAL EARNED LESS RETAINAGE.....	\$546,771.54
(Line 4 Less Line 5 Total)	
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT.....	\$488,582.85
(Line 6 from prior Certificate)	
8. CURRENT PAYMENT DUE.....	\$58,188.69
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 Less Line 6)	\$28,777.45

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

**CONTRACTOR:**  
By: \_\_\_\_\_ Date: \_\_\_\_\_

State of: \_\_\_\_\_  
County of: \_\_\_\_\_  
Subscribed and sworn to before  
me this \_\_\_\_\_ day of \_\_\_\_\_  
Notary Public: \_\_\_\_\_  
My Commission expires: \_\_\_\_\_

### OWNER'S REPRESENTATIVE CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Owner's Representative certifies to the Owner that to the best of the Representative's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contract is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED..... \$58,188.69

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this month. (CO numbers listed below)	\$0.00	(\$8,218.97)
#s: 1 TOTALS	\$0.00	(\$8,218.97)
NET CHANGES by Change Order		(\$8,218.97)

**OWNER'S REPRESENTATIVE:**  
By: \_\_\_\_\_ Date: \_\_\_\_\_

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.



**GENERAL CONTRACTOR CERTIFICATION UPON APPLICATION FOR PAYMENT**

OWNER:	<u>King County Housing Authority</u>	PAY REQUEST NUMBER:	<u>06</u>
GENERAL CONTRACTOR:	<u>CONTRACTOR NAME</u>	DATE: PERIOD FROM:	<u>04.01.21</u>
PROJECT NAME:	<u>SITE NAME</u>	THROUGH:	<u>04.19.21</u>
SCOPE OF WORK:	<u>PROJECT NAME</u>	CONTRACT NUMBER:	<u>CCxxxxx65</u>
1.	ORIGINAL CONTRACT AMOUNT:	\$	<u>583,767.96</u>
2.	APPROVED CHANGE ORDER(S):	\$	<u>(8,218.97)</u>
3.	CURRENT CONTRACT AMOUNT:	\$	<u>575,548.99</u>
4.	AMOUNT OF PREVIOUS CERTIFICATES FOR PAYMENT:	\$	<u>488,582.85</u>
5.	<b>AMOUNT OF CURRENT CERTIFICATE FOR PAYMENT REQUEST:</b>	<b>\$</b>	<b><u>58,188.69</u></b>

By submitting the accompanying Application for Payment, the Contractor certifies, agrees and warrants to the Owner as follows:

- 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.
- 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 Owner, except as noted below or on an attachment hereto.
- In consideration of payments made by 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.

EXCEPTION(S) - DESCRIPTION:

AMOUNT:

GENERAL CONTRACTOR NAME: \_\_\_\_\_ **CONTRACTOR NAME** \_\_\_\_\_

BY AUTHORIZED SIGNER: \_\_\_\_\_ PRINT NAME \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

State of Washington  
 County of King

I certify that I know or have satisfactory evidence that \_\_\_\_\_ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument and acknowledged it to be (his/her) free and voluntary act for the uses and purposes mentioned in the instrument.

Signed before me on this \_\_\_\_\_ Day of \_\_\_\_\_

SEAL

\_\_\_\_\_  
 Notary Public in and for the State of Washington

Residing at: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_





# SUBSTITUTION REQUEST

Project: \_\_\_\_\_ Sub. Request #: \_\_\_\_\_  
 \_\_\_\_\_ From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_ A/E Project #: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article / Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
 Installer: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 History:  New Product  2 - 5 years old  5 - 10 years old  More than 10 years old

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: \_\_\_\_\_  
 \_\_\_\_\_ Data 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, 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.

Submitted by: \_\_\_\_\_

Signed by: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

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

Attachments: \_\_\_\_\_

A/E's Review and Action:

- Substitution approved - Make submittals in accordance with Specification Section
- Substitution approved as noted - Make submittals in accordance with Specification Section
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

## **PART 1 GENERAL**

### **1.1 SUMMARY**

- A. Section includes cast-in-place concrete pad at metal ladder.

### **1.2 REFERENCES**

- A. ASTM International (ASTM):
  1. ASTM C31 – Practice for Making and Curing Concrete Test Specimens in the Field.
  2. ASTM C33 -Specification for Concrete Aggregates.
  3. ASTM C39 -Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  4. ASTM C94 -Specification for Ready-Mixed Concrete.
  5. ASTM C143 -Test Method for Slump of Portland Cement Concrete
  6. ASTM C150 -Specification for Portland cement.
  7. ASTM C171 -Standard Specifications for Sheet Materials for Curing Concrete.
  8. ASTM C172 -Standard Practice for Sampling Fresh Concrete

### **1.3 SUBMITTALS**

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Mix Design: Submit for approval mix design proposed for use.
- C. Standards:
  1. ACI 301, Specifications for structural Concrete for Buildings.
  2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice.

## **PART 2 PRODUCTS**

### **2.1 MATERIALS:**

- A. Cast-In-Place Concrete:
  1. Manufacturers, Concrete Forming and Accessories: Ceme-Tube LLC; Newark Paperboard Products; Scott System, Inc.; Symons; Universal Building Products, Inc.; or approved equal.
  2. Manufacturers, Concrete Anchoring: Powers Fasteners.; or approved equal.
  3. Manufacturers, Concrete Curing, Sealing and Hardening: Armorlon, Division of Reef Industries, Inc.; Ashford Formula, By Curecrete.; or approved equal.
  4. Manufacturers, Cement Grouts, Adhesives and Sealants: Five Star Products, Inc.; or approved equal.
  5. Finish for Surfaces to be exposed to View: Broom finish.
  6. Cast-In-Place Concrete Reinforcing and Accessories:
    - a. Concrete Design Mixes: ASTM C 94, 28-day compressive strength suitable for project requirements and site conditions.
    - b. Formwork: Plywood or metal panel formwork sufficient for structural and visual requirements.
    - c. Reinforcing Bars: ASTM A 767, Class II, galvanized.
    - d. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.
    - e. Concrete Admixtures: Containing less than 0.1 percent chloride ions.
    - f. Bonding Compound: Polyvinyl acetate or acrylic base.
    - g. Epoxy Adhesive: ASTM C 881, two-component material.
- B. Non-Shrink Grout for General Use: Specified for type and quality:
  1. Sika Corp., SikaGrout 328, or approved equal



**PART 3 EXECUTION**

3.1 INSTALLATION

- A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Tolerance: Plus 1/8 inch in 10 inches for grade, alignment, and straightness.
- C. Construction Joints: Use keyways, continue reinforcement through joint.
- D. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.
- E. Cure and Protect Work. Report defective work in writing to owner.

**END OF SECTION**

## **PART 1 GENERAL**

### 1.01 SECTION INCLUDES

- A. Gypsum wallboard repairs necessary to repair damage on the interior of the unit that occurs during the removal and installation of windows and doors.
- B. Joint treatment and accessories.

### 1.02 REFERENCE STANDARDS

- A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017 (Reapproved 2022).
- B. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Board 2004 (Reapproved 2020).
- C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.
- D. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.
- E. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing 2017.
- F. ASTM C1280 - Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing 2018.
- G. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.
- H. GA-216 - Application and Finishing of Gypsum Panel Products 2021.

### 1.03 SUBMITTALS

- A. Product Data:
  - 1. Provide data on gypsum board, accessories, and joint finishing system.

### 1.04 QUALITY ASSURANCE

- A. Gypsum panel products shall be manufactured in the USA and shall carry a certification stamp on the product.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store gypsum products and accessories indoors and keep above freezing. Elevate boards above floor, on nonwicking supports, in accordance with manufacturer's recommendations.

## **PART 2 PRODUCTS**

### 2.01 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C840 and GA-216.

### 2.02 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
  - 1. CertainTeed Corporation: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
  - 2. Georgia-Pacific Gypsum: [www.gpgypsum.com/#sle](http://www.gpgypsum.com/#sle).
  - 3. USG Corporation: [www.usg.com/#sle](http://www.usg.com/#sle).
  - 4. Or approved equal.

- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Use for patch and repair of interior surfaces, unless otherwise indicated.
  - 2. Replace/repair interior window wrap.
  - 3. Thickness: Match existing.

### 2.03 GYPSUM BOARD ACCESSORIES

- A. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
- B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
- C. Nails for Attachment to Wood Members: ASTM C514.

## **PART 3 EXECUTION**

### 3.01 EXAMINATION

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

### 3.02 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Nonrated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.

### 3.03 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
  - 1. Not more than 30 feet apart on walls over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.

### 3.04 JOINT TREATMENT

- A. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
- B. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
  - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
- C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.

### 3.05 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

### 3.06 CLEANING

- A. Clean soiled surfaces with cleaning solution.

### 3.07 PROTECTION

- A. Protect installed gypsum board assemblies from subsequent construction operations.

- B. Touch-up, repair, or replace damaged products, materials, and connections prior to Substantial Completion.

**END OF SECTION**

## **PART 1 GENERAL**

### 1.01 SECTION INCLUDES

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

### 1.02 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency current edition.
- B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials 2020.
- C. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association Current Edition.
- D. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.
- E. SCAQMD 1113 - Architectural Coatings 1977, with Amendment (2016).
- F. SSPC V1 (PM1) - Good Painting Practice: Painting Manual Volume 1 2016.
- G. SSPC-SP 1 - Solvent Cleaning 2015, with Editorial Revision (2016).
- H. SSPC-SP 6 - Commercial Blast Cleaning 2007.

### 1.03 SUBMITTALS

- A. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
  - 2. MPI product number (e.g., MPI #47).
  - 3. Cross-reference to specified paint system products to be used in project; include description of each system.
  - 4. Manufacturer's installation instructions.
- B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
- C. Manufacturer's Instructions: Indicate special surface preparation procedures.

- D. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. Extra Paint and Finish Materials: 1 gal of each color; from the same product run, store where directed.
  - 2. Label each container with color in addition to the manufacturer's label.

#### 1.04 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience and approved by manufacturer.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

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

#### 1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply materials when relative humidity exceeds 85 percent, at temperatures less than 5 degrees F above the dew point, or to damp or wet surfaces.
- D. Minimum Application Temperatures for Paints: 50 degrees F for interiors unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 fc measured mid-height at substrate surface.

### **PART 2 PRODUCTS**

#### 2.01 MANUFACTURERS

- A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
  - 1. Behr Process Corporation: [www.behr.com/#sle](http://www.behr.com/#sle).
  - 2. Rodda Paint Co: [www.rodmapaint.com/#sle](http://www.rodmapaint.com/#sle).
  - 3. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).
  - 4. Benjamin Moore & Co.: [www.benjaminmoore.com/#sle](http://www.benjaminmoore.com/#sle).
- C. Primer Sealers: Same manufacturer as top coats.

#### 2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.

1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at [www.paintinfo.com](http://www.paintinfo.com), for specified MPI categories, except as otherwise indicated.
  2. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  3. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
  4. Supply each paint material in quantity required to complete entire project's work from a single production run.
  5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
    - b. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; [www.otcair.org](http://www.otcair.org); specifically:
      - 1) Opaque, Flat: 50 g/L, maximum.
      - 2) Opaque, Nonflat: 150 g/L, maximum.
      - 3) Opaque, High Gloss: 250 g/L, maximum.
  2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

#### 2.03 PAINT SYSTEMS - INTERIOR

- A. Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board and wood.
1. Two top coats and one coat primer.
  2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, 141, or 142.
  3. Top Coat Sheen:
    - a. Eggshell: MPI gloss level 3; use this sheen at all locations unless noted otherwise.
    - b. Satin: MPI gloss level 4; use this sheen for items subject to frequent touching by occupants, including door frames and railings.
- B. Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals and wood:
1. Two top coats and one coat primer.
  2. Top Coat(s): Interior Epoxy-Modified Latex; MPI #115 or 215.

#### 2.04 PRIMERS

- A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
1. Interior Latex Primer Sealer; MPI #50.
  2. Interior Drywall Primer Sealer.
  3. Latex Primer for Interior Wood; MPI #39.

## 2.05 ACCESSORY MATERIALS

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

## PART 3 EXECUTION

### 3.01 EXAMINATION

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

### 3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or repair existing paints or finishes that exhibit surface defects.
- D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- E. Seal surfaces that might cause bleed through or staining of topcoat.
- F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Ferrous Metal:
  - 1. Solvent clean according to SSPC-SP 1.
  - 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
  - 3. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 Commercial Blast Cleaning. Protect from corrosion until coated.
- H. Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
- I. Metal Doors to be painted: Prime metal door top and bottom edge surfaces.

### 3.03 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- B. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.



- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance in thicknesses specified by manufacturer..
- E. Sand surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

#### 3.04 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

**END OF SECTION**

**SECTION 26 00 00**  
**ELECTRICAL GENERAL CONDITIONS**

PART 1 - GENERAL

**1.01 GENERAL**

- A. Conform to the General Conditions, Supplementary Conditions, and related work in other Divisions for all work in Divisions 26. See Division 01 for sequence of work.

**1.02 WORK INCLUDED**

- A. It is the intention of this division of the specifications and the accompanying drawings to describe and provide for the furnishing, installing, testing and placing in satisfactory and successful operation all equipment, materials, devices, and necessary appurtenances to provide a complete electrical system, together with such other miscellaneous installations and equipment hereinafter specified and/or shown in the plans. The work shall include all materials, appliances and apparatus not specifically mentioned herein or noted on the plans, but which are necessary to make a complete working installation of all electrical systems shown on the plans or described herein. Equipment and devices furnished and installed under other divisions of this specification (or by the Owner) shall be connected under this division. The drawings and specifications are complementary and what is called for in either is binding as if called for in both.
- B. By submitting a bid, the Contractor is acknowledging that he has made a thorough examination of the Contract Documents, existing site and building conditions, and has determined that these documents do sufficiently describe the scope of construction work required under this Contract.

**1.03 SCOPE OF BASIC BID**

- A. Included in Divisions 26 is all work and related items necessary to provide all electrical installations except as specifically excluded. In general, this includes all labor, equipment, tools, etc., to complete the electrical work.

**1.04 RELATED WORK**

- A. Temporary Power and Lighting - See Section 01 51 00
- B. Cutting and Patching - See Division 01

**1.05 STANDARDS AND REGULATIONS**

- A. The work shall comply with the latest edition of the applicable Standards and Codes of the following:

ASTM	American Society for Testing and Materials
NBFU	National Board of Fire Underwriters

NEC	National Electrical Code
---	State Electrical Code
NESC	National Electrical Safety Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
U.L.	Underwriters Laboratories Inc.
IPCEA	Insulated Power Cable Engineers Associated
CBM	Certified Ballasts Manufacturers
---	Federal, State and Local Building Codes
ETL	Electrical Testing Laboratories

- B. If any conflict occurs between Government adopted Code Rules and this specification, the codes are to govern. Nothing in these drawings and specifications shall be construed to permit work not conforming with governing codes. Also, this shall not be construed as relieving the Contractor from complying with any requirements of the plans and specifications which may be in excess of, but not in conflict with, requirements of the Governing Codes.

#### **1.06 PERMITS & FEES**

- A. The Contractor shall obtain and pay for all licenses, permits, and inspections required by laws, ordinances, and rules governing work specified herein. The Contractor shall arrange for inspection of work by the inspectors and shall give the inspectors all necessary assistance in their work of inspection.
- B. The Contractor shall consult with and follow the requirements of the local fire, power, telephone, and television utilities serving the area and shall coordinate the work with them.
- C. Utility connection and hook-up charges for power, telephone, and television shall be paid by the Owner directly to the utility. The Electrical Contractor is required to provide any and all coordination necessary to support the utility connection, file for application of service (or assist the Owner in filing for application of service) and coordinate dates for service with the utilities.
- D. This project has utilized the electronic plan review submittal process for the applicable jurisdiction. The engineer will make available to the contractor an electronic version of the Approved Plans in PDF format on a USB thumb drive. The contractor shall include in their bid all costs associated with printing the plans, full size and in color, as required by the local Electrical Inspector.

#### **1.07 DEFINITIONS**

- A. When "provide" is used, it shall be interpreted as "furnishing and installing complete in operating condition".
- B. When "drawings" is used, it shall be interpreted as "all Contract Drawings for all disciplines".
- C. When "Contractor" is used, it shall be interpreted as the Electrical Contractor.

### **1.08 INTENT OF DRAWINGS**

- A. The electrical drawings are intended to serve as working drawings for general layout. The equipment layout is diagrammatic and, unless specifically dimensioned or detailed, does not indicate all fittings, hardware, or appurtenances required for a complete operating installation.
- B. Anything shown on the drawings but not covered in the specifications, or anything covered in the specifications but not shown on the drawings, shall be as if covered in both. In case of conflict between the drawings and specifications, the Engineer will select the method to be used. The Contractor shall be responsible for verifying all measurements before proceeding with the work.
- C. Wiring diagrams are not intended to indicate the exact course of raceways or exact location of outlets. Raceway and outlet locations are approximately correct and are subject to revision as may be necessary or desirable at the time of installation. Precise location in every case shall be subject to the Engineer's approval.

### **1.09 PROTECTION**

- A. The Contractor shall store and guard all equipment before installation and shall protect same, and replace any equipment that has been damaged prior to final acceptance. See Division 01 for detailed requirements.

### **1.10 HOUSEKEEPING**

- A. All electrical materials shall be kept stored in an orderly fashion protected from heat, cold, and the weather.
- B. All marred surfaces shall be refinished and painted after installation.
- C. All debris shall be removed from premises during work, as directed, and at completion of job.

### **1.11 TEMPORARY USE**

- A. Temporary or interim use of any and all portions of the electrical system shall be under the supervision of the Electrical Contractor.
- B. Temporary power and lighting for use during construction shall be provided per the requirements of the Division 01 specifications.

### **1.12 AS-BUILT DRAWINGS**

- A. The Contractor shall maintain, in addition to any reference drawings, an as-built set of prints, on which all deviations from the original design shall be drafted in a neat, legible manner with red colored pencil. This red-lined set shall identify all drawing revisions including addenda items, change orders, and Contractor revisions. The Contractor is responsible to revise panel schedules and load calculations as required.

- B. Drawings shall show locations of all concealed raceway runs larger than 1", giving the number of conductors and size of raceway. Underground ducts shall be shown with cross section elevations. All pipe, raceway, manholes or lines of other trades shall be included.
- C. The Contractor shall update all references to specific products to indicate products actually installed on project. This shall include, but not be limited to, lighting fixtures, baseboard heaters, etc.
- D. Upon completion of the Division 26 work, the Contractor shall deliver the red-lined drawings and one set of neatly drafted as-built drawings on electronic media in AutoCAD R-2013 format and full-size PDF to the Engineer for transmittal through the Engineer to the Owner.

### **1.13 WARRANTY**

- A. Provide a written warranty that the Division 26, 27, and 28 work is free from mechanical and electrical defects. Contractor shall replace and repair, to the satisfaction of the Engineer, any parts of the installation which may fail within a period of 12 months after the certificate of final acceptance, provided that such failure is due to defects in material or workmanship, or failure to follow the specifications and drawings.

### **1.14 INSTRUCTIONS AND MANUALS**

- A. Operation and maintenance data shall be submitted in accordance with Section 01 78 23.
- B. Manuals shall contain shop drawings, wiring diagrams, operating and maintenance instructions, replacement parts lists, and equipment nameplate data for all equipment and systems installed under the project. Signal equipment submittals shall contain step-by-step circuit description information designed to acquaint maintenance personnel with equipment operation in each mode of operation. Manuals shall contain original brochures supplied by manufacturers. Copies of originals will not be accepted.
- C. Each type of device provided shall be identified in the O & M Manual using the same identification as shown on the drawings and specifications. The information included must be the exact equipment installed, not the complete "line" of the manufacturer. Installed equipment shall be neatly and clearly identified on sheets where both installed equipment and other equipment are shown. Parts lists shall give full ordering information assigned by the original parts manufacturer. Relabeled and/or renumbered parts information as reassigned by equipment supplier are not acceptable. The following information shall be provided for each device:
  - 1. Manufacturer's name, address, and phone number.
  - 2. Local supplier's name, address, and phone number.
  - 3. Complete parts lists including quantities and manufacturer's part numbers.

4. Installation instructions.
  5. Recommended maintenance items including maintenance procedure and recommended interval of maintenance listed in hours of operation, calendar unit or other similar time unit.
- D. The O & M Manual shall be assembled as detailed in Section 01 70 00. As a minimum, the following sections shall be broken out:
1. Panelboards, Switchgear, and Transformers
  2. Surge Protection Device (SPD)
  3. Electrical System Protective Device Study
  4. Ground Fault Testing Results
- E. Wiring Diagrams for each system shall be complete for the specific system installed under the Contract. "Typical" line diagrams will not be acceptable unless properly marked to indicate the exact field installation.

#### **1.15 WORK NOT INCLUDED**

- A. Indicated motors, controls, and equipment as described in other divisions shall be furnished by other trades, but shall be moved, set, and wired to electrical controls and power supply by the Electrical Contractor.
- B. Work to be included under this Contract shall be defined on drawings and in these specifications. Any details beyond these limits are meant only to give installation clarity to that portion which is a part of this Contract.

#### **1.16 INSTRUCTION PERIODS**

- A. Upon completion of the work and after all tests and final inspection of the work by the authority(ies) having jurisdiction, the Contractor shall demonstrate and instruct the Owner's designated operation and maintenance personnel in the operation and maintenance of the various electrical systems. The Contractor shall arrange scheduled instruction periods with the Owner. The Contractor's representatives shall be superintendents or foremen knowledgeable in each system and suppliers' representatives when so specified.
- B. Scheduled Instruction periods shall be:
1. Digital Metering 1/2 day
- C. Costs for time involved by Contractor shall be included in the bid.

#### **1.17 COMPLETION OF WORK**

- A. Upon completion of the Division 26, 27, and 28 work, the Contractor shall comply with requirements of Section 01 70 00 for project closeout.
- B. Arrange for and obtain all required inspections and certificates pertaining to the Division 26, 27, and 28 work and deliver the certificates to the Engineer in triplicate.

- C. Prior to or at the time of final inspection, the Contractor shall, as outlined in detail in the specifications, complete the delivery of all the following items:

1.	Completion Letter	
2.	Certificate of Final Inspection. Electrical Inspector Fire Department	COMPLETION OF WORK - 26 00 00 – 1.17
3.	Warranty to Owner (with copy for Engineer)	SUPPLEMENTARY GENERAL CONDITIONS – 26 00 00 – 1.13
4.	Marked Set, Electronic Media Set on Solid-State Drive-in AutoCAD R-2013 Format, and full-size PDF of As-Built Electrical Drawings	GENERAL AS-BUILT DRAWINGS 26 00 00 – 1.12
5.	Certificate of Completion and Document Requirements for Protective Device Study	ELECTRICAL SYSTEM PROTECTIVE DEVICE STUDY – 26 05 73
6.	Motor Current Readings	GENERAL, TESTS – 26 05 19 – 3.03(D)
7.	Phase Current Readings	GENERAL, TESTS – 26 05 19 – 3.03(E)
8.	OHMIC Test Readings	GENERAL, TESTS – 26 05 19 – 3.03(B)
9.	Ground Fault Settings	
10.	Panelboard and Special Equipment Shop Drawings and Final Approved List of Materials Installed	MATERIALS, GENERAL – 26 00 00 – 2.03
11.	Certificate of Feeders Torque Results	WIRES AND CABLES – 26 05 19
12.	Wiring diagrams, Maintenance Manuals, Operation Instructions, and Brochures	GENERAL, INSTRUCTIONS & MANUALS – 26 00 00 – 1.14

\* Secure delivery instructions from Architect for delivery to Owner.

### 1.18 SHOP DRAWING SUBMITTALS

- A. This Contractor shall submit to the Architect as described in Section 01 60 00. When shop drawings are submitted electronically, they shall be submitted as described in Paragraph B below.

- B. The Contractor shall submit to the Architect electronic shop drawings in PDF format. Electronic Shop Drawings that are submitted without following the format as outlined below will be returned for corrections without any further review.
1. A separate PDF file shall be submitted for each Division including All submittal items for that Division as outlined below:
    - a. Division 26 – Electrical
  2. The contractor shall provide either a digital or hardware method of transporting the electronic submittal to the Architect. Files larger than 10Megabytes shall not be sent via email and shall be transferred via a file transfer protocol, PC compatible CD or PC compatible thumb drive. Divisions shall not be broken up into separate files for transfer via email.
  3. Each Specification PDF shall be submitted with the following format and salient attributes:
    - a. Cover page including:
      - i. Project Title as indicated on the plans
      - ii. Project Location including address, city, state, country
      - iii. Prime Contractor name, phone number, and email address
      - iv. Sub-Contractor name, phone number, and email address
      - v. Specification Division number and title
    - b. Index Page outlining each specification section included in the submittal. This list shall be linked to a corresponding Specification Section Divider for each section. This link shall enable the reviewer to jump to a specification section by clicking the item in the list.
    - c. Specification Section Divider: Shop Drawings shall be divided by specification section and each section shall begin with a divider page outlining the Specification number, title, and a list of submittal items for the section. In the upper right-hand corner of the divider page, a link shall be provided returning the reviewer to the Index Page.
    - d. Each Submittal Item listed on the Specification Section Divider shall be linked to the specific item being submitted. Each Submittal Item shall be highlighted yellow with a note reference to the specific paragraph giving the submittal requirements.
    - e. Each page of the submittal shall be numbered in the bottom right corner of the page. Page numbering shall be Roman numerals for all pages before the First Specification Section. Each Specification Section page shall be numbered with the Specification Section number, a dash, and the page number in the Specification Section.



- f. Specification items shall be specifically highlighted as they apply to the project rather than highlighting an entire product family. Items that do not apply to this project shall be crossed out with a red "X".
    - g. The PDF file shall not be protected to prevent printing, selecting of text within the document, or extracting of pages from the document.
- C. Shop drawings shall be submitted complete, at one time, and with each item indexed with dividers and separated per specification section and shall include, at a minimum, the items of equipment listed below:
  - 1. All panelboards, showing breaker arrangement with circuit numbers, relays, and panel skirts.
  - 2. Transformers (Dry Type)
  - 3. Electrical System Protective Device Study
  - 4. Wiring Devices
  - 5. Back Boxes
  - 6. Coverplates
  - 7. Raceways and Connectors
  - 8. Fire Wall Penetration Seals
  - 9. Copper Wire
  - 10. **\*\*All Specialty Systems not listed above\*\***
  - 11. Any other items requested by Engineer.
- D. Within ten (10) working days after the date of the letter rejecting any items of equipment, lighting fixtures, or materials as not in accordance with the specifications, the Contractor shall submit a new list of items to furnish and install in place of those items rejected. If the Contractor fails to submit this new list within the above specified time, or if any items on this second list are rejected as not being in accordance with these specifications, the Engineer may select the items which the Contractor shall furnish and install without change in Contract price or time of completion.
- E. The acceptance of a manufacturer's name or product by the Engineer does not relieve the Contractor of the responsibility for providing materials and equipment which comply in all details with the requirements of the Contract Documents. The Contractor shall be solely responsible for submitting materials at such a time to allow a minimum of two weeks for Engineer's review.
- F. Electrical Drawings for the project have been developed by the Engineer using AutoCAD Revision 2013 software or newer. These drawing files will be made available to the Contractor for development of shop drawings and/or As-Builts with a signed waiver of responsibility.

#### **1.19 SCHEDULE OF VALUES**

- A. Provide Schedule of Values per Division 01 and related project requirements.

- B. Divisions 26, 27, and 28 Breakdown: Provide schedule of values for the following categories (as a minimum):
1. Electrical Mobilization
  2. Electrical Submittals
  3. Electrical General Project Management, General Design, General Coordination
  4. Branch Circuit Materials Rough-in
  5. Branch Circuit Materials Rough in – Labor
  6. Service Materials
  7. Service Materials – Labor
  8. Feeder Materials
  9. Feeder Materials - Labor
  10. Panelgear, Disconnects, Starters
  11. Panelgear, Disconnects, Starters – Labor
  12. Electrical System Protective Device Study
  13. Electrical Punchlist, Closeout, and Owner Training
- C. The dollar value for "Electrical Punchlist, Closeout, and Owner Training" shall in no case be less than 2% of the total dollar value of the Division 26, 27, and 28 work (or as indicated in Division 01, whichever is higher).
- D. The Contractor is advised that in addition to payments held out for retainage and project final completion (i.e. "Electrical Punchlist, Closeout, and Owner Training"), as specified above and in Division 01, the Owner reserves the right to withhold 10% of the funds for any of the above categories until the systems (of that category) have been proven to operate as specified and have been completely tested and adjusted.

## PART 2 - PRODUCTS

### 2.01 COMPETITIVE PRODUCTS

- A. Any reference in the specifications to any article, device, product, material, fixture, form, or type of construction by name, make, or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor, in such cases, may use any article, device, product, material, fixture, form, or type of construction which in the judgment of the Engineer, expressed in writing, is equal to that specified. However, any manufacturer not listed as an accepted bidder for a specific item must be submitted for acceptance in writing in accordance with Section 01 60 00.

## **2.02 MANUFACTURER/EQUIPMENT PRIOR APPROVALS**

- A. Any manufacturer/equipment not listed as an approved substitute for a specified item must be submitted for acceptance in accordance with Section 01 60 00, in writing, with detailed information to include:
  - 1. Manufacturer's Catalog Data
  - 2. Complete Physical and Technical Data
  - 3. Wiring Diagrams
  - 4. Detailed reference (written or highlighted) noting compliance with the appropriate Specification Section and all applicable Specification item numbers within that Section
  - 5. Complete type written index cross referencing all proposed substitutes and specified items
  - 6. Detailed reference to specified items (written or highlighted) noting equal quality and performance of proposed substitute equipment
  - 7. Other descriptive data, as required by the Engineer
- B. If substitute material is determined to be acceptable by the Engineer, it will be included in a subsequent Addenda prior to bidding. The acceptance of a manufacturer's name or product by the Engineer does not relieve the Contractor of the responsibility for providing materials and equipment which comply in all details with the requirements of the Contract Documents.
- C. Only materials which are specified or published in addenda as acceptable shall be used.

## **2.03 MATERIALS**

- A. All materials must be of the quality herein specified. All materials shall be new, of the best quality, and free from defects. They shall be designed to ensure satisfactory operation and operational life in the environmental conditions which will prevail where they are being installed.
- B. Each type of material shall be of the same make and quality. The materials furnished shall be standard products of the manufacturers regularly engaged in the production of such equipment and shall be the manufacturer's latest standard design.
- C. All materials shall be U.L. or E.T.L. listed for the purpose for which they are used.
- D. Equipment in compliance with U.L. standards but not bearing their label is not acceptable. If the manufacturer cannot arrange for labeling of an assembled unit at the factory the unit shall be field evaluated per the Washington State Administrative Code (WAC) and the electrical inspector's requirements.

## **2.04 COMPLETE SYSTEM**

- A. All the systems mentioned shall be complete and operational in every detail except where specifically noted otherwise. Mention of certain materials in these specifications shall not be construed as releasing the Contractor from furnishing such additional materials and performing all labor required to provide a complete and operable system.

## **2.05 NAMEPLATES**

- A. Provide nameplates constructed of plastic (black on white) laminated material engraved through black surface material to white sublayer (attach with screws on NEMA 1 enclosures). EXCEPTION (1): Emergency distribution system component labeling - white letters on red background. Exception (2): Series rated systems shall be yellow background with white letters.
  - 1. Service Entrance Label: Refer to Section 26 24 13.
  - 2. Panelboard Labels: Refer to Section 26 24 16.
  - 3. Special Equipment/Outlet Labels: Refer to Appropriate Sections.
  - 4. Under 600 Volt Feeder Tags: Refer to Section 26 05 19.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. Careful consideration shall be given to clearances under and over beams, pipes and ducts, to provide proper headroom in all cases. Check drawings to determine heights of all suspended ceilings and size of pipe shafts where raceway and wire-ways shall run. Coordinate installation of Division 26 wiring and equipment with Division 23 and other trades. Where insufficient room for proper installation appears, obtain clarification from Engineer before any installation begins.
- B. Cutting and Patching:
  - 1. Obtain permission from the Architect and/or Owner's Representative prior to cutting. Locate cuttings so they will not weaken structural components. Cut carefully and only the minimum amount necessary. Cut concrete with diamond core drills except where space limitations prevent the use of such drills.
  - 2. All construction materials damaged or cut into during the installation of this work must be repaired or replaced with materials of like kind and quality as original materials by skilled labor experienced in that particular building trade.

### **3.02 COORDINATION**

- A. The Contractor is responsible for accomplishing work contained within Division 26. The work shall coordinate with that of the other Contractors and/or other trades doing work in the building. The contractor shall examine all drawings, including the several divisions of mechanical, structural, civil and architectural, for construction details and necessary coordination. Specific locations of construction features and equipment shall be obtained from the Contract Documents, field measurements, and/or from the trade providing the material or equipment. No extra costs will be allowed for failure to obtain this information.
- B. All conflicts shall be reported to the Engineer in writing before installation for decision and correction. Special attention is called to the following items:
  - 1. Door swings to the end that switches will be located on "Strike" side of the door.
  - 2. Location of grilles, pipes, sprinkler heads, ducts, and other mechanical equipment so that all electrical outlets, lighting fixtures, and other electrical outlets and equipment are clear from and in proper relation to these items.
  - 3. Location of cabinets, counters, and doors so that electrical outlets, lighting fixtures, and equipment are clear from and in proper relation to these items.
  - 4. Type and height of ceiling.
  - 5. All device measurements referenced on drawings or specifications are to be centered of device unless noted otherwise.
- C. The Contractor will not be paid for work requiring reinstallation due to lack of coordination or interference with other Contractors or trades. This includes, but is not limited to, removing, replacing, relocating, cutting, patching, and finishing.
- D. The Contractor shall review the installation manual for each device to be installed. If a conflict appears to occur between the manufacturer's recommended installation practices and the plans or specifications, notify the Engineer immediately. Final determination shall be by the Engineer. The Contractor will not be paid for reinstallation due to failure to comply with manufacturer instructions or design documents.

### **3.03 REQUESTS FOR INFORMATION (RFI)**

- A. It is our intent to provide a timely response for RFIs regarding Division 26, 27, and 28 Work. To further expedite this process, where a suggestion can be determined or derived at by the initiator of the RFI, it is required this suggestion be supplied with the submitted RFI. If no suggestion is given where one is possible, the RFI will be returned as incomplete. All Electrical RFIs shall be written on the form provided at the back of this section.

### **3.04 CLEANING AND PAINTING**

- A. All equipment, whether exposed to the weather or stored indoors shall be covered to protect it from water, dust and dirt.
- B. After installing, all metal finishes shall be cleaned and polished, cleaned of all dirt, rust, cement, plaster, grease, and paint.
- C. All equipment with a primer coat of paint shall be given two (2) or more coats of a finish enamel and scratched surfaces be refinished to look like new. Markings, identification, and nameplates shall be replaced.

### **3.05 EQUIPMENT IDENTIFICATION**

- A. Provide identifying engraved Bakelite nameplate on all equipment, including pull boxes, to clearly indicate its use, area served, circuit identification, voltage, and any other useful data.
- B. Each auxiliary system, including communications, shall be clearly labeled to indicate its function.

### **3.06 DEVIATION**

- A. Deviation from the shop drawings in construction or installation of equipment shall not be made unless Shop Drawings showing proposed deviations are submitted to and approved by the Engineer. If any equipment is furnished under this or other divisions with current, voltage, or phase ratings that differ from those shown on the drawings, the Contractor shall notify the Engineer in writing immediately and shall not connect said equipment until instructed as to required changes by the Architect. No extension of time will be granted as a result of such changes.

### **3.07 EXCAVATIONS**

- A. All excavations are to be conducted so that no walls or footings shall be disturbed in any way.
- B. Remove all surplus earth not needed for backfilling and dispose of same as directed.

### **3.08 WIRING METHODS**

- A. All low voltage wiring shall be in raceway with junction boxes and fittings where concealed in walls, in inaccessible ceiling space, or where exposed in finished or unfinished areas.
- B. Provide conduit sleeves through all walls to accommodate all low voltage cabling. Conduit sleeves shall be sized to allow for 40% future spare capacity.
- C. All branch circuit wiring shall be installed in raceway with junction boxes and fittings.
- D. Provide access panels as needed for pull boxes and equipment located above ceiling or behind walls.

- E. All emergency systems outlet and junction boxes shall have a red plastic tag inside.
- F. Multiple feeder runs shall be rod hung, using a strut type channel with individual one-hole clamps, back plates, and machine screws.
- G. Any low voltage cables that are not terminated at both ends shall be tagged and labeled per code.

### **3.09 PENETRATIONS OF FIRE RATED ELEMENTS**

- A. Penetrations of fire rated elements must be made such as to retain that rating. See architectural sheets for specific fire rated locations.

### **3.10 HANGERS AND SUPPORTS**

- A. Provide hangers, brackets, and suspension rods and supplementary steel to support equipment.
- B. Hangers provided under other divisions shall not be used for support of Division 26 equipment unless permitted by Architect/Engineer.

### **3.11 CHASES AND OPENINGS**

- A. Provide to the masonry and concrete trades all templates and details of chases, openings in floors, and walls as required for Division 26 and equipment installation.

### **3.12 PAINTING**

- A. Painting in general will be covered under another division of this specification, except items furnished under Division 26 that are scratched or marred in shipment or installation and shall be refinished by the Division 26 Contractor.

### **3.13 WORKMANSHIP AND OBSERVATION**

- A. Workmanship shall be of the best quality and none but competent workers shall be employed under the supervision of a competent foreman. All completed work shall represent a neat, professional appearance.
- B. All work and materials shall be subject to observation at any and all times by representatives of the Engineer.

### **3.14 MISCELLANEOUS**

- A. Provide complete seismic anchorage and bracing for the lateral and vertical support of conduit and electrical equipment, as required by the International Building Code.
- B. Conduits that cross seismic separations shall be installed with flexible connection suitable to accommodate conditions. Secure raceways on each side of a separation and provide a minimum of 36" length of flexible conduit to span separation.

**3.15 CABLE AND WIRING ROUTED UNDERGROUND OR UNDERSLAB**

- A. All cables and conductors, both line voltage and low voltage, routed underground or underslab shall be U.L. listed for installation in wet locations per NEC and WAC codes.

END OF SECTION



**REQUEST FOR INFORMATION**



**Project:** \_\_\_\_\_ **RFI No.** \_\_\_\_\_

**Reference Drawing  
or Specification:** \_\_\_\_\_

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**Suggested Solution:** \_\_\_\_\_

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**Response Needed By:** \_\_\_\_\_

**Contractor:** \_\_\_\_\_ **By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Response:** \_\_\_\_\_

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**Contractor:** \_\_\_\_\_ **By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

This is not an authorization to proceed with work involving additional cost and/or time. Contractor shall obtain authorization prior to proceeding with this work if the response in this RFI will result in additional cost and/or time.

**SECTION 26 00 05**  
**ELECTRICAL – EXISTING SYSTEMS**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. Portions of the existing electrical lighting, power and signal systems are to be removed as detailed on the drawings.

**1.02 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

PART 2 - PRODUCTS

**2.01 EXISTING MATERIALS**

- A. Existing materials which are a part of the building shall remain the property of the Owner, unless directed by the Owner to be removed.
- B. It is the Contractor's responsibility to include in the bid all costs associated with necessary demolition to allow new construction shown in the Contract Documents, unless specifically noted otherwise. The Contractor shall remove all existing receptacles, lighting fixtures, low voltage devices, backboxes, abandoned raceways, conductors, and any auxiliary items to allow for new construction and finish work to occur as complimented by the Contract Documents.
- C. Contractor is responsible for removal of electrical connections, disconnect switches, and starters for all mechanical equipment scheduled to be demolished. The Contractor shall check all demolition plans and actual field conditions for unit locations.
- D. Areas not included in the scope of work or not included as part of the phasing schedule shall remain fully operational.

**2.02 EXISTING MATERIALS NOT TO BE RE-INSTALLED**

- A. In coordination with the Architect/Engineer, these materials shall be made available for his inspection and decision as to whether the Owner will retain possession. Items selected for retention shall be delivered to a location on the premises selected by the Owner and turned over to him. Take reasonable care to avoid damage to this material. If the Contractor fails to conform to this requirement, he shall purchase and turn over to the Owner replacement materials of like kind and quality.

- B. All material not selected for retention by the Owner and debris shall be disposed of by the Contractor. This shall include, but not be limited to, removal of PCB type ballasts and fluorescent lamps which shall be disposed of in accordance with EPA requirements.
- C. Electrical Contractor shall coordinate with the Hazardous Abatement Contractor on panelboards that may be identified by them as needing abatement and assist them in disconnecting power and notifying them when the abatement can occur.

### PART 3 - EXECUTION

#### **3.01 EXISTING CONDITIONS**

- A. Examine the structure, building, and conditions under which Division 26 work is to be installed for conditions detrimental to proper and timely completion of the work. Do not proceed with work until deficiencies encountered in installation have been corrected. Report any delay or difficulties encountered in installation of Divisions 26, 27 and 28 work which might be unsuitable to connect with work by other divisions of this specification. Failure to report conditions shall constitute acceptance of other work as being fit and proper for the installation of Divisions 26, 27 and 28 work.
- B. Electrical Contractor to provide circuit tracing of all existing circuits in all areas that are to remain, be reused and/or relocated to new panels.
- C. Maintain continuity of existing circuits of equipment to remain. Existing circuits of equipment shall remain energized. Circuits which are to remain but were disturbed during demolition shall have circuits, wiring, and power restored back to original condition.
- D. This is a multiple phased occupied facility. The Electrical Contractor is responsible to maintain full operation of all systems in the occupied portions of the facility. Failure to do so will result in liquidated damages.

#### **3.02 DEMOLITION**

- A. Switchboards, panelboards, signaling systems, other electrical equipment free standing (or surface mounted), raceway (exposed) and conductors no longer in service as a result of this Contract shall be removed. Unused raceways or sleeves shall be cut flush at ceiling, floor or wall and filled with grout.
- B. At the completion of the project, the end product shall have a finished appearance. All abandoned or temporarily utilized material shall be removed.

**3.03 NEW DEVICES IN REMODEL AREAS**

- A. Provide surface mounting for devices on existing walls. Where existing boxes are indicated to be reused, extend box as necessary and provide new devices and plates.

**3.04 EXISTING PANELBOARD**

- A. Any modifications made to existing panels must be incorporated into the existing circuit index on the panel. If more than three circuits are modified a new typewritten index incorporating the changes to the existing index shall be installed in the existing panel.
- B. Listing shall match circuit breaker arrangements, typically with odd numbers on the left and even numbers on the right. Room numbers used shall be final room numbers used in the building as verified with the Owner.

END OF SECTION

**SECTION 26 00 10**  
**EXCAVATION AND BACKFILL FOR**  
**ELECTRICAL UNDERGROUND UTILITIES**

PART 1 - GENERAL

**1.01 GENERAL INCLUDES**

- A. Excavation and Associated Grading
- B. Trenching and Trench Protection
- C. Backfilling and Compaction
- D. Verification of Existing Utilities
- E. Protection of Utilities

**1.02 RELATED SECTIONS**

- A. Section 26 00 00 – Electrical General Conditions
- B. Section 26 05 33 - Raceways

**1.03 QUALITY ASSURANCE**

- A. Inspection of Job Conditions: Prior to starting work and during work, the installer shall examine the work by others, site and job conditions under which excavation, trenching, and backfilling for underground utilities work will be performed, and notify the General Contractor in writing of unsatisfactory conditions or work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.
- B. Codes and Standards: Comply with requirements of the following codes and standards (Latest Edition) except as modified herein:
  - 1. International Conference of Building Officials, "International Building Code".
  - 2. Local requirements for all utility work.
  - 3. OSHA and WISHA regulations.
  - 4. APWA Standard Specifications.
  - 5. National Electrical Code – NFPA 70.

#### 1.04 RESPONSIBILITY

- A. The Contractor is solely responsible for compliance with the requirements of the drawings, specifications, local codes and standards, proper construction coordination with work of other trades, and protection and worker's safety. Contractor shall advise Engineer of any discrepancy in, or disagreement with the specifications and/or drawings prior to starting work and not proceed until issue is resolved. Commencement of work shall indicate Contractor's acknowledgement of his expertise in this type of work. Any delay resulting from failure to comply with this procedure will not be basis for an extension of the completion date.

#### 1.05 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced.
- B. American Society of Testing and Materials (ASTM) Publications:
1. D 422-63 Particle Size Analysis of Soils.
  2. D 423-66 Liquid Limit of Soils.
  3. D 424-59 Plastic Limit and Plasticity Index of Soils.
  4. D 1557-78 Moisture Density Relations of Soils using a 10 lb. (4.54kg) Rammer and 18 inches (457 mm) Drop.
  5. D 2167-66 Density of Soil In-Place by the Rubber Balloon Method.
  6. D 2217-66 Wet preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Contents.
  7. D 2487-69 Classification of Soils for Engineering Purposes.
  8. D 2922-81 Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
  9. E 548-79 Generic Criteria for Use in the Evaluation of Testing and Inspection Agencies.

### PART 2 - MATERIALS

#### 2.01 SATISFACTORY MATERIALS

- A. Materials classified as ASTM D2487, Unified Soil Classification System as SW, SP, GW, and GP are satisfactory for backfill use. Materials classified as SP-SM, GP-GM, GM, GC and ML are also satisfactory for backfill use provided that they contain moisture contents suitable for the intended use and are reasonably free of organic matter. Native material, not considered unsatisfactory as specified below, may comply. Except that no material shall have any object with a dimension exceeding 2 inches and no object shall be sharply angular.

**2.02 UNSATISFACTORY MATERIALS**

- A. Materials classified in ASTM D2487, Unified Soil Classification System as PT, OH, and OL are unsatisfactory. Unsatisfactory materials also include man-made fills, refuse and all materials containing excessive organic matter or having moisture contents which are not suitable for the intended use, or having objects with dimensions exceeding 2 inches (boulders, etc.).

**2.03 UNSTABLE MATERIAL**

- A. Unstable material shall consist of material too wet to properly support the utility conduit or appurtenance structure, and material identified as unsuitable in the National Electrical Code 300-5(F).

**2.04 GRAVELLY SAND BORROW MATERIAL**

- A. Gravelly sand borrow material to provide backfill, or replace unsuitable soil, shall meet the requirements of SW, SP, GW, and GP materials, except that the maximum percentage passing the No. 200 sieve shall not exceed 5% based on the soil fraction passing the U.S. No. 4 sieve, and not contain discrete particles greater than 2 inches in diameter.

**2.05 DEGREE OF COMPACTION**

- A. Degree of compaction shall be expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D1557, Method D. Minimum compaction requirements shall be as specified in PART 3.

**2.06 DRAINAGE GRAVEL**

- A. Shall be 3/4-inch washed gravel with no more than 2% passing 1/2-inch sieve opening.

**2.07 SPECIAL BEDDING AND INITIAL BACKFILL MATERIAL**

- A. Minus 3/8-inch washed pea gravel.

PART 3 - EXECUTION

**3.01 EXCAVATION**

- A. If workers enter any trench or other excavation four or more feet in depth that does not meet the open pit requirements of WSDOT Section 2.09.3(3)B, it shall be shored and cribbed. The Contractor alone shall be responsible for worker safety. All trench safety systems shall meet the requirements of the Washington Industrial Safety and Health Act, Chapter 49.17 RCW.



- B. Excavation of every description and of whatever substances encountered shall be performed to allow the installation of all utilities at the lines and grades as required. During excavation, material satisfactory for backfilling shall be stockpiled in an orderly manner at a distance from the banks of the trench sufficient to avoid overloading and to prevent slides or cave-ins. Adequate drainage shall be provided for the stockpiles and surrounding areas by means of ditches, dikes, or other approved methods. The stockpiles shall also be protected from contamination with unsatisfactory excavated material or other material that may destroy the quality and fitness of the suitable stockpiled material.
- C. If the Contractor fails to protect the stockpiles and any material becomes unsatisfactory as a result, such material shall be removed and replaced with satisfactory on-site or imported material from approved sources at no additional cost to the Owner.
- D. Excavated material not required or not satisfactory for backfill shall be removed from the site and shall be disposed of off site, at the Contractor's expense, at the Contractor's waste area. Any excess satisfactory excavated materials shall not be mixed with unsatisfactory materials. Unsatisfactory materials shall not cover available suitable materials, or be disposed of in such a manner as to interfere with subsequent borrow operations.
- E. Grading shall be done as may be necessary to prevent surface water from flowing into the excavation, and any water accumulating therein shall be removed so that the stability of the bottom and sides of the excavation is maintained. Unauthorized over-excavation shall be backfilled in accordance with paragraph 3.05 BACKFILLING at no additional cost to the Owner.
- F. The Contractor shall provide dewatering as required for installation of underground work.

### **3.02 TRENCH EXCAVATION**

- A. The trench excavation shall meet the requirements of the National Electrical Code and local utility standards.
- B. Bottom Preparation: The bottoms of trenches shall be accurately graded to provide uniform bearing and support for the bottom quadrant of each section of the conduit and for bedding. Stones of 2 inches or greater in any dimension, or as recommended by the conduit manufacturer, whichever is smaller, shall be removed to avoid point bearing.

- C. Removal of Unsuitable Material: Where unsuitable material is encountered in the bottom of the trench, such material shall be removed to the depth directed and replaced to the proper grade with select granular material as provided in paragraph 3.05 BACKFILLING. When removal of unsuitable material is required due to the fault or neglect of the Contractor in his performance of the work, the resulting material shall be excavated and replaced by the Contractor without additional cost to the Owner.
- D. Bedding: The bedding surface for the conduit shall provide a firm foundation of uniform density throughout the entire length of the conduit. The conduit shall be bedded carefully in a soil foundation accurately shaped and rounded to conform to the lowest one-fourth of the outside portion of circular conduit or to the lower curved portion of conduit arch for the entire length of pipe or arch. When necessary, the bedding shall be tamped. Provide bedding using pea gravel where noted on the drawings.

### **3.03 EXCAVATION FOR APPURTENANCES**

- A. Excavation for manholes, handholes or similar structures below grade shall be sufficient to leave at least 12 inches clear between the outer structure surfaces and the face of the excavation or support members. When concrete or masonry is to be placed in an excavated area, special care shall be taken not to disturb the bottom of the excavation. Excavation to the final grade level shall not be made until just before the concrete or masonry is to be placed.

### **3.04 JACKING, BORING, AND TUNNELING**

- A. Unless otherwise indicated, excavation shall be by open cut, except that sections of a trench may be jacked, bored, or tunneled if the raceway, cable or duct can be safely and properly installed and backfill can be properly tamped in such sections.

### **3.05 BACKFILLING**

- A. Backfill material shall be compacted to 6" layers and as specified in Paragraph 3.06-Compaction.
  - 1. Trench Backfill: Trenches shall be backfilled to finish grade.
  - 2. Replacement of Unstable Material: Unstable material removed from the bottom of the trench of excavation shall be replaced with select granular material or gravel borrow placed in layers not exceeding 6 inches loose thickness.
  - 3. Bedding and Initial Backfill: Bedding shall consist of satisfactory materials. Initial backfill shall be in 6-inch lift.

**3.06 COMPACTION**

- A. Each layer of fill, or the excavated subgrade, shall be compacted to at least 95%, per ASTM D1557, of laboratory maximum density. Compaction shall be accomplished by approved tamping rollers, pneumatic-tired rollers, three-wheel power rollers, or other approved compaction equipment.

**3.07 PROTECTION**

- A. Newly graded excavated or bedded areas shall be protected from traffic and from erosion, and any settlement or washing away that may occur from any cause, prior to acceptance, shall be repaired and grades reestablished to the required elevations and slopes.

END OF SECTION

**SECTION 26 05 19**  
**WIRES AND CABLES**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. Provide all wire, cable, and terminations complete.

**1.02 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

PART 2 - PRODUCTS

**2.01 WIRE AND CABLE (COPPER, 600-VOLT)**

- A. Interior and Above Grade: All wires to be Type THW or RHW. Type THWN/THHN or XHHW wire may be utilized at Contractors option, subject to code requirements. Wire and cables shall be brought to project in original containers bearing the underwriters label. Provide Type AVA wire where conductors are subject to temperature above 167 Degrees F.
- B. Underground: All conductors to be type USE. Increase Raceway size when necessary to accommodate conductors per code. Exception: Underground conductors completely contained in code recognized Raceway and boxes may be Type THW, THWN or XHHW.

**2.02 SPLICES**

- A. Above Grade: Solderless type only. Preinsulated "twist-on" type (limited to size #10 and smaller). Bolt on compression type with application of preformed insulated cover, heat shrinkable tubing or plastic insulated tape acceptable for all sizes.
- B. Below Grade: Splices below grade shall be in handholes and shall be made watertight with epoxy resin type splicing kits similar to Scotchcast.

**2.03 TERMINATIONS**

- A. Compression set, bolted or screw terminal.
- B. Conductors #12 and smaller shall utilize eye or forked tongue type compression set terminator when termination is to a bolted or screw set type terminal block or terminal cabinet.

**2.04 PLASTIC CABLE TIES**

- A. Nylon or Equivalent, locking type.

## 2.05 CABLE TAGS

- A. Cable tags shall be installed on all three phase feeder cables. Tags shall be embossed with feeder power source and circuit number, i.e., panel A-26. Use tag part No. FT201 for cables up to 1-1/2 inch, use FT-205 for over 1-1/2 inch.

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. Install all wiring in Raceway unless shown or specifically authorized otherwise.

### 3.02 WIRE SIZE

- A. No. 12 AWG minimum for power and lighting circuits.
- B. Provide solid wire for No. 10 AWG and smaller, and stranded conductors for No. 8 AWG and larger (600) volts.

### 3.03 TESTS

- A. In addition to the factory testing of all equipment and cable, the Contractor shall test all wiring connections for continuity and ground before any fixtures or other loads are connected. Tests shall be made with a 500V minimum DC "Megger" type tester. If tests indicate faulty insulation (less than 2 megohms), such defects shall be corrected and tested again. Contractor shall provide all apparatus to make tests and shall bear all expenses of required testing. Routine operation tests shall be made on all pieces of equipment to demonstrate that working parts are in operating condition. Results of all tests shall be recorded and submitted to the Architect. The Contractor shall immediately replace all parts, which fail to pass the test.
- B. Measure the OHMIC value of the Electric Service Entrance metallic "System Ground" with reference to "Earth Ground" using the "Multiple Ground Rod Fall-In-Potential" method and suitable instruments. Maximum resistance to ground shall be less than 10 ohms. If this resistance cannot be obtained with the ground system shown, notify the Architect immediately for further instructions. Provide OHMIC test results to Engineer.
- C. All circuits both in and out of the building shall test out free of grounds, short circuits and other defects.
- D. Check and record catalog number and ampere size of controller overload heaters installed, nameplate full-load amperes, and actual operating amperes of each motor. **IMPORTANT:** Submit recorded data in triplicate to the Engineer. Check proper load balance on the electrical system, direction of rotation, lubrication, and overload protection of all motors before placing in operation.

- E. Provide a log of ampere reading for all panels from phase to neutral for 4 wire panels and from phase to phase for 3 wire panels. These readings shall be taken with all loads activated.
- F. The final test of all equipment shall be made on dates designated by the Architect/Engineer and all readings shall be made in his presence.
- G. Feeders shall be checked to ensure all phases are energized before connecting to their respective motors. Each motor shall rotate in the proper direction for its respective load. Prior to rotation test, all bearings shall be inspected for proper lubrication.
- H. Minimum megger test for equipment shall be as follows:

<u>Equipment Maximum Voltage Rating</u>	<u>Minimum Test Resistance</u>
1,000-Volts or less	2 Megohms
- I. Provide certification of torque values for feeder and service entrance conductors per equipment manufacturer's recommendation.

**3.04 CONDUCTOR SIZES, REFERENCED ON PLANS**

- A. Copper, type THW or RHW unless noted.

**3.05 PULLING**

- A. Use no mechanical means for pulling No. 8 AWG conductors and smaller. Powdered soap stone or approved spray cream shall be the only lubricant used.

**3.06 STRIPPING INSULATION**

- A. Do not ring the cable, always pare or pencil.

**3.07 TAPING**

- A. If used shall be half lapped synthetic tape.

**3.08 CONDUCTORS IN PANELS AND SWITCHBOARDS**

- A. Conductors in panels, switchboards, and terminal cabinets shall be neatly grouped and formed in a manner to "Fan" into terminals with regular spacing.

**3.09 CABLE SUPPORTS**

- A. Provide conductor support devices as required by code in vertical cable runs.

**3.10 RACEWAY SIZES REFERENCED ON DRAWINGS**

- A. Raceways are sized for copper, type THW, unless otherwise noted. Size all Raceways per code unless specifically noted to be larger on the drawings.

END OF SECTION

**SECTION 26 05 26**  
**GROUNDING**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. A grounding system shall be provided for neutral ground and equipment ground as required by code.
- B. An isolated grounding system shall be provided for all isolated ground receptacles as allowed by Code (2005 NEC 250-146, paragraph d).
- C. Provide all grounding of other systems as indicated in Divisions 26, 27, and 28.

PART 2 - PRODUCTS

**2.01 GROUNDING CONDUCTORS**

- A. Copper, code size, with physical protection where subject to damage. Bare or green insulated.

**2.02 GROUND RODS**

- A. 3/4" x 8'-0" copper clad steel.

**2.03 ISOLATED GROUND BARS**

- A. Provide in all panels containing isolated ground circuits.

PART 3 - EXECUTION

**3.01 GENERAL**

- A. Provide all grounding for electrical systems and equipment as required by codes and as specified herein.

**3.02 SIZE OF GROUND WIRE**

- A. As required by code. Where ground wire is exposed to physical damage or is used outside of the building, protect with conduit.

**3.03 GROUND RODS**

- A. Provide as shown and/or required. Connect the ground conductor to each rod.

**3.04 CONCRETE-ENCASED ELECTRODE**

- A. Provide in accordance with NEC 2017, Article 250.52 (A)(3) and Article 250.68 (C)(3).

**3.05 GROUND CONNECTION OF WATER PIPING**

- A. Metal internal piping shall be grounded, as part of this Contract. This includes jumpers for dielectric fittings.

**3.06 CONNECTION TO THE GROUND BUS**

- A. Provide connections in accordance with the codes; including but not limited to conduit system, switchboard frame, service neutral and electrically operated equipment and devices. No device or equipment shall be connected for electrical service which has a neutral conductor connected to a grounding conductor or to the frame within the device or equipment.

**3.07 METHOD OF CONNECTION**

- A. Make all underground ground connections and ground cable splices by thermal welding. Aboveground ground connections and ground cable splices may be by permanent compression connector. Grounding lugs, where provided as standard Manufacturer's items on equipment furnished, may be used.

**3.08 FLEXIBLE RACEWAY**

- A. Shall not be used for grounding. Install separate ground conductor in all flexible raceway.

**3.09 PVC RACEWAY**

- A. Install separate ground conductor in all PVC raceway as required per code.

**3.10 DROP CORDS**

- A. Shall have a grounding wire and be connected with a grounding type plug and receptacle.

**3.11 TESTING REQUIREMENTS**

- A. Measure the OHMIC value of the Electric Service Entrance metallic "System Ground" with reference to "Earth Ground" using the "Multiple Ground Rod Fall-In-Potential" method and suitable instruments. Maximum resistance to ground shall be less than 25 ohms. If this resistance cannot be obtained with the ground system shown, notify the Architect immediately for further instructions. Provide OHMIC test results to Engineer.

END OF SECTION



**SECTION 26 05 32**  
**OUTLET AND PULL BOXES**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. Provide outlet and pull boxes to enclose devices, permit the pulling of conductors and for wire splices and branches.

**1.02 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

PART 2 - PRODUCTS

**2.01 INTERIOR WIRING**

- A. General: Outlet and pull boxes shall be pressed drawn steel, zinc coated with plaster ring where applicable. Welded boxes not allowed. Four-inch size minimum. Large pull boxes shall be fabricated sheet steel, zinc coated or baked enamel finish, with return flange and screw retained cover.
- B. Surface Metal Raceway: Boxes of same Manufacture and to match Raceway. Boxes to accommodate standard devices and device plate.
- C. Concrete and Masonry: Boxes for casting in concrete or mounting in masonry walls shall be the type specifically designed for that purpose.
- D. Install pull boxes so as to be accessible after completion of building construction.
- E. Ceiling outlet boxes shall be galvanized octagonal 4 inch, 1-1/2-inch-deep (without fixture stud), 2-1/8 inches deep (with fixture stud).

**2.02 EXTERIOR WIRING**

- A. Above Grade: Outlet and junction boxes shall be cast or malleable iron or shall be cast of corrosion resistant alloy compatible with Raceway to which it is connected. Pull boxes shall be fabricated of heavy gauge steel and hot dipped galvanized. All boxes shall have gasketed covers.
- B. Below Grade: Where exposed to earth, boxes (handholes) shall be constructed of precast concrete with size, configuration, cover, grates and reinforcing as required by the particular installation.
  - 1. Manufacturer: Similar to Utility Vault 3030LA with base or Fogtite J11 Type 2 with base. Lid shall be H-20 rated where installed in traffic areas. Where not exposed to earth shall comply with Paragraph 2.02A above.

- C. Exterior outlet boxes shall be weather resistant and rain tight, with appropriate covers, gaskets and screws.

### PART 3 - EXECUTION

#### 3.01 ANCHORING

- A. All boxes shall be firmly anchored directly or with concealed bracing to building studs or joints. Boxes must be so attached so that they will not "Rock" or "Shift" when devices are operated.

#### 3.02 FLUSH MOUNTING

- A. Except for surface mounted boxes or boxes above accessible ceilings, all boxes shall have front edge (box or plaster ring) even with the finished surface of the wall or ceiling.

#### 3.03 ELECTRICAL OUTLETS

- A. General: Coordinate the work of this section with the work of other sections and trades. Study all Drawings that form a part of this Contract and confer with various trades involved to eliminate conflicts between the work of this section and the work of other trades. Check and verify outlet locations indicated on Architectural Drawings, door swings, installation details, layouts of suspended ceilings and locations of all plumbing, heating and ventilating equipment.
- B. Centered on Built-In Work: In the case of doors, cabinets, recessed or similar features, or where outlets are centered between such features, such as between a door jamb and a cabinet, make these outlet locations exact. Relocate any outlets which are located off center.
- C. Above Counter: Locate device outlet just above backsplash or 6" above counter if there is no backsplash. Review casework shop drawings prior to final rough-in.
- D. Vertical and Horizontal Relationships: Where more than one outlet is shown or specified to be at the same elevation or one above the other, align them exactly on centerlines horizontally or vertically. Relocate as directed all such outlets (including lighting, receptacle, power signal and thermostat outlets) which are not so installed, at no additional cost to Owner.
- E. Device Outlet Height: Measure from the finished floor.
  - \*Switches 4 Feet, Set Vertically, to Top of Box
  - \*Receptacles, Telecommunications 18 Inches, Set Vertically to Centerline
  - Other As Noted or as Directed by Architect
  - \* Heights may vary. See Drawings for additional information
- F. Ceiling Location: For acoustical material locate outlet either at the corner joint or in the center of a panel, whichever is closer to the normal spacing. Locate all outlets in the same room in the same panel location.

- G. Installed In Sound Walls: Boxes installed in sound walls shall not be installed back-to-back. All boxes shall be separated by one stud space and shall be interconnected with flex conduit with a 90° loop.

### **3.04 ELECTRICAL WORK IN COUNTERBACKS, MILLWORK AND CASEWORK**

- A. Provide as shown and/or specified. Provide templates, where required, to other trades for drilling and cutting to ensure accurate location of electrical fixtures (outlets and devices) as verified with the Architect. Provide all wiring, devices, plates and connections required by said fixture.

### **3.05 CONNECTION TO EQUIPMENT**

- A. For equipment furnished under this or other Divisions of the Specifications, or by others. Provide outlet boxes of sizes and at locations necessary to serve such equipment. An outlet box is required if the equipment has pigtail wires for external connection, does not have space to accommodate circuit wiring used. Study equipment details to assure proper coordination.

### **3.06 BLANK COVERS**

- A. Provide blank covers or plates over all boxes not covered by equipment.

### **3.07 JUNCTION OR PULL BOXES**

- A. Pull and junction boxes shall be installed as shown, and to facilitate pulling of wire and to limit the number of bends within code requirements. Boxes shall be permanently accessible and shall be placed only at locations approved by the Architect.
- B. In suspended ceiling spaces, boxes shall be supported from the structure independently from ceiling suspension system.
- C. The Drawings do not necessarily show every pull or Junction Box required. The Contractor is permitted to provide boxes deemed necessary by him for his work when installed in accordance with these Specifications.

### **3.08 BOXES CONTAINING MULTIPLE DEVICES**

- A. Boxes containing emergency and normal devices are permitted only with steel barriers Manufactured especially for the purpose of dividing the box into two completely separate compartments.
- B. Device Boxes Containing Multiple Devices and Wiring Rated Over 150 Volts to Ground and Over 300 Volts Between Conductors are permitted only with steel barrier manufactured especially for the purpose of dividing the box into separate compartments for each device having exposed live parts.

### **3.09 BOXES IN EARTH**

- A. Provide for all wire splices and as required to pull conductors. Boxes (handholes) shall be set in place on a 3" sand bed. Coverplates shall be flush to, and match the slope of, the final surface grade.

**3.10 COLOR CODING**

- A. All Junction Boxes installed in accessible spaces and exposed in unfinished areas shall be color coded using spray paint or tape on the box and cover as applicable in the following manner:
  - 277/480-Volt ..... Sand
  - 120/208-Volt ..... Gray
- B. The colors shall match the colors used on the Raceway - See Section 26 05 33.

**3.11 NAMEPLATES**

- A. For all line voltage junction boxes, provide engraved nameplate indicating circuit numbering of all wiring in junction box.

END OF SECTION

**SECTION 26 05 33**  
**RACEWAY**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. Provide Raceway System complete.

**1.02 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

PART 2 - PRODUCTS

**2.01 GALVANIZED RIGID STEEL CONDUIT (GRS)**

- A. General: Hot dipped galvanized.
- B. Fittings: Galvanized malleable iron or noncorrosive alloy compatible with galvanized conduit. Erickson couplings, watertight split couplings (O.Z. type or equivalent) permitted. Running thread or set screw type fittings not approved.

**2.02 INTERMEDIATE METAL CONDUIT (IMC)**

- A. General: Hot Dipped galvanized.
- B. Fittings: Galvanized malleable iron or noncorrosive alloy compatible with galvanized conduit. Erickson couplings, watertight split couplings (O.Z. type or equivalent) permitted. Running thread or set screw type fittings not approved.

**2.03 ELECTRICAL METALLIC TUBING (EMT)**

- A. General: Hot dipped galvanized.
- B. Fittings: Raintight; steel or malleable iron type using a split corrugated compression ring and tightening nut or stainless-steel locking disc. Steel set screw fittings are acceptable for dry locations. Indenter, drive-on and pressure cast or die cast type set screw are not acceptable.

**2.04 FLEXIBLE METAL CONDUIT (FMC, LFMC)**

- A. Dry Locations:
  - 1. General: Galvanized flexible steel for dry locations only.
  - 2. Fittings: Malleable iron or steel, Thomas and Betts "squeeze" type or equal.
- B. Damp and Wet Locations:

1. Liquid Tight: Polyvinyl chloride (PVC) weatherproof cover over flexible steel conduit.
2. Fittings: Thomas and Betts "liquid tight" or equal.

### **2.05 SURFACE METAL RACEWAY**

- A. Formed steel or aluminum type. Standard factory finish. Where color choice is available, consult Architect/Engineer for selection prior to ordering.

### **2.06 RIGID NON-METALLIC CONDUIT (PVC)**

- A. Schedule 40 rigid polyvinyl chloride type unless otherwise noted.

### **2.07 RIGID ALUMINUM CONDUIT**

- A. Permitted only in specified locations.
- B. Fittings copper free cast aluminum.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. Install Raceway concealed in construction unless noted otherwise on the Drawings or specifically approved in writing by the Architect/Engineer.
- B. Cut Raceway ends square, ream and extend maximum distance into all couplings and connectors.
- C. Provide and install manufactured end caps on all Raceway ends during construction to prevent the entrance of water or dirt. Tape, as a cover, not permitted.
- D. Swab out all Raceways before pulling wires.
- E. All elbows for GRS and PVC Raceway shall be factory radius bends. For all other Raceway, use factory radius bends of 1-1/4" and larger diameter.
- F. Raceway shall not penetrate sheet metal ducts unless permission is granted by Architect/Engineer. All sleeves shall be provided for Raceway installation.
- G. Provide 2 - 3/4" C.O. stub into accessible ceiling space from all recessed panelboards or systems terminal boxes.

### **3.02 GALVANIZED RIGID STEEL CONDUIT**

- A. All Connections shall be watertight. Install for all Raceways in concrete or where subject to damage.

### **3.03 INTERMEDIATE METAL CONDUIT**

- A. Intermediate metal conduit is permitted as a substitute for galvanized rigid steel conduit except where GRS is required by code.

### **3.04 ELECTRICAL METALLIC TUBING**

- A. Install for wiring in masonry, frame construction, furred ceilings and above suspended ceilings. May be used for exposed work in unfinished areas where not subject to damage. Where construction involves masonry work, surface cut masonry units wherever such masonry units are to remain unplastered or uncovered in complete construction.

### **3.05 RIGID ALUMINUM CONDUIT**

- A. May be used in lieu of galvanized rigid steel conduit where Raceway is run above grade or inside of buildings; rigid aluminum conduit not permitted where Raceways are encased in or attached to concrete or are below grade.

### **3.06 RACEWAYS UNDERGROUND**

- A. Galvanized rigid steel conduit - painted with two coats of bitumastic paint - or galvanized rigid steel conduit with 15 mil. polyvinyl chloride (PVC) jacket (repair abrasions with PVC base paint or PVC).
- B. PVC Raceways may be used for underground runs when permitted by code. Field bends, when necessary, shall be formed only with factory recommended heater. Penetrations through floor and walls shall be galvanized rigid steel (GRS) conduit. PVC, if used, shall be increased in size from that shown to include code required ground wire.
- C. All underground bends in excess of 10 degrees and all elbows shall be GRS.
- D. Arrange and slope Raceways entering building to drain away from building.
- E. Ground wires shall be provided in all PVC Raceway.

### **3.07 INSERTS, SHIELDS AND SLEEVES**

- A. Furnish and set in place, in advance of pouring slabs and walls, all inserts and sleeves needed to execute Division 26 equipment installation.
- B. Where supports in slabs are required after wall has been poured, use a drilled-in threaded insert, installed as recommended by Manufacturer.
- C. Sleeves shall be provided for all wall penetrations.

### **3.08 RACEWAYS THAT STUB UP THROUGH FLOOR**

- A. Install at such depth that the exposed Raceway is vertical and no curved section of the elbow is visible.
- B. PVC Raceway shall not be stubbed through floors.

### 3.09 SEALING OF RACEWAY PENETRATIONS

- A. Exterior Wall Surfaces Above Grade: Seal around all penetrations with caulking approved by Engineer. For concrete construction above ground level, cast Raceway in wall or core drill wall and hard pack with a mixture of equal parts of sand and cement.
- B. Exterior Surfaces Below Grade: Cast Raceway into wall (or floor) or use manufactured seal assembly (such as O.Z. type "FSK") cast in place.
- C. Roofs: Provide mopped, lead, roof jack where Raceway penetrates roof membrane.
- D. Fire Rated Floors, Walls, Ceiling/Roofs: Concrete or masonry, seal around Raceway penetration with Dow Corning 3-6548 silicone RTV foam or approved equal. Plaster or gypsum wallboard, seal around Raceway penetration with plaster, fire tape per local Fire Marshal's requirements.

### 3.10 SEALING OF RACEWAYS

- A. Seal interior of all Raceways which pass through buildings roofs, floors or through outside walls of the building, above or below grade. Seal on the end inside the building using duct sealing mastic, non-hardening compound type, specially designed for such service to maintain the integrity of the seal of the wall, floor or roof. Pack around the wires in the Raceways.

### 3.11 HANGERS FOR RACEWAYS

- A. In suspended ceiling spaces Contractor may, at his option, attach 1/2" or 3/4" EMT Raceways to the ceiling suspension system where such system is structurally suitable on independent wire secured at both ends; in which case, provide clips manufactured for the purpose.
- B. When more than two Raceways will use the same routing, group together on a patented channel support system (such as Unistrut).

### 3.12 SURFACE METAL RACEWAY

- A. Install parallel to building surface (i.e., wall, ceiling, floor). Fasten to surface as recommended by Manufacturer. Mount so Raceway is in the least obvious location. Shall be used in lieu of conduit in finished areas.

### 3.13 FLEXIBLE CONDUIT

- A. Flexible conduit shall be used **only** for connection to motors and equipment subject to vibration with 90 degrees loop minimum to allow for isolation and for lay-in fluorescent fixtures above T-Bar ceilings. For fixture installations, one end of flex must terminate in rough-in junction box. Flex conduit shall not be installed over 6' long or used to connect from fixture to fixture. Use liquid tight for pumps, equipment which is regularly washed down, and equipment in damp locations. Provide ground wire.



**3.14 COLOR CODING**

- A. General: Provide color bands of tape or paint one inch (25 mm) wide for Raceways up to two inches (51 mm) in diameter and one-half the Raceway diameter for larger Raceways, applied at panel and pullbox locations within each room, and 50 ft. (15.25 m) on centers within an area.
- B. Color Banding:
  - 120/208 Volt ..... Gray
  - 277/480 Volt ..... Sand
- C. The colors shall match the colors used on the boxes - See Section 26 05 32.

**3.15 PULL CORDS**

- A. Nylon type shall be included in all installed empty Raceway.

END OF SECTION

**SECTION 26 05 73**  
**ELECTRICAL SYSTEM STUDIES**

PART 1 - GENERAL

**1.01 GENERAL**

- A. Conform to the General Conditions, Supplementary Conditions, and related work in other Divisions for all work in Division 26. See Division 01 for sequence of work.

**1.02 RELATED SECTIONS**

- A. Section 26 00 00 – Electrical General Conditions
- B. Section 26 24 13 – Switchboards
- C. Section 26 24 16 – Panelboards

**1.03 SECTION INCLUDES**

- A. This section includes the requirements for the contractor to perform electrical system studies based on the selected electrical equipment.
- B. The required studies include but are not limited to a Coordination Study and an Arc Flash Assessment Study.
- C. Each of the studies performed shall be based on the actual equipment to be installed. Any revisions of the selected equipment shall result in an updated study with the revised equipment submitted for review and approval prior to ordering equipment.
- D. If the contractor installs different equipment than was included in the approved electrical system studies, the owner reserves the right to require the contractor to replace the non-approved electrical equipment at no additional cost to the owner.
- E. The contractor shall provide all studies in agreement with all applicable codes and standards. If a specific code is applicable to the electrical system being modeled, the code shall be referenced and the portion of the electrical system impacted shall be noted.

**1.04 SUBMITTAL REQUIREMENTS OF THIS SECTION**

- A. During the Shop Drawing process and prior to ordering electrical equipment, the contractor shall submit an **Electrical System Overcurrent Protective Device Coordination Study**. The Coordination study shall be submitted with the product data for all devices included in the coordination study and shall be formatted as indicated in Paragraph 2.01.

- B. After the electrical system has been installed and is ready for energization, the Contractor shall provide an **Arc Flash Assessment Study**. The Arc Flash Assessment shall be submitted for approval prior to substantial completion. Once the Arc Flash Assessment Study is approved, the Contractor shall print and install the approved Arc Flash notification labels on all equipment containing overcurrent protective devices. Labels installed outdoors shall be suitable for outdoor installation. The Arc Flash Assessment Study shall be assembled as outlined in Paragraph 2.02.

#### **1.05 QUALIFICATIONS**

- A. All Studies shall be prepared by a qualified professional electrical engineer.

#### **1.06 DEFINITIONS**

- A. For the purposes of this section, overcurrent device coordination shall be defined in two levels as follows:
1. Coordinated = Full coordination outside of the instantaneous region of the overcurrent devices.
  2. Selectively Coordinated = Full coordination including the instantaneous region of the overcurrent devices.

#### **1.07 OPERATION AND MAINTENANCE REQUIREMENTS OF THIS SECTION**

- A. The contractor shall provide to the owner the following information to be included in the Operation and Maintenance Manual:
1. Final Arc Flash Assessment Study submitted in accordance with the requirements outlined in Specification 26 00 00 Electrical General Conditions.
  2. The electronic copy shall also include a sub-folder with the software model used to perform the calculations. The model shall include all files necessary to access and review the model electronically. The Contractor shall include a Text File in the directory labeled "MODEL\_INFORMATION.TXT" which includes the following:
    - a. Project Name
    - b. Electrical Contractor Name
    - c. Software used to model the system including version
    - d. Date the model was last updated
    - e. Contact information for the individual/organization who prepared the model.

PART 2 - PRODUCTS

**2.01 PROTECTIVE DEVICE COORDINATION STUDY**

- A. The contractor shall submit an **Electrical System Overcurrent Protective Device Coordination Study** during the Shop Drawing submittal phase of the project prior to ordering equipment with overcurrent protective devices. The Coordination study shall be submitted with the product data for all devices included in the coordination study.
- B. All overcurrent protection devices shall be provided as a coordinated system by the manufacturer. Any cases where the selected manufacturer is unable to coordinate two overcurrent devices in series due to the sizes indicated in the design, the engineer shall be notified and a recommended coordination solution provided by the manufacturer prior to or during the submittal phase. For overcurrent protection devices 400A and larger where the manufacturer is unable to provide a coordinated system, the overcurrent protection devices shall include Long-Time/Short-Time/Instantaneous (LSI) time delay and ampacity settings minimum.
- C. Unless noted otherwise, when a main service overcurrent device with adjustable Ground Fault trip has been specified, the next level feeder overcurrent devices shall also include adjustable Ground Fault trip. The Coordination Study shall also provide recommended settings for all adjustable Ground Fault trip devices.
- D. All emergency system overcurrent protection devices shall be selectively coordinated as defined by applicable codes and standards (2017 NEC 700.32). The scope of the selectively coordinated system shall be as defined by applicable local, state, and federal codes.
- E. For modifications/additions to existing electrical systems, at a minimum the Coordination Study shall include:
  1. All new electrical equipment containing overcurrent devices
  2. The existing overcurrent protective devices immediately downstream of the new electrical equipment
  3. All existing overcurrent protective devices upstream of the new electrical equipment to the main electrical utility service entrance.
- F. The Protective Device Coordination Study shall present the following information in an organized report:
  1. Coordination Study Title Page shall include:
    - a. Project Name
    - b. Electrical Contractor name
    - c. Date Study was performed
    - d. Study Type (ie Overcurrent Device Coordination Study)
    - e. Name/Company/Contact information for organization performing the study
    - f. Analysis software used to perform the study including version

2. Coordination Study Executive Summary shall include a brief project description, an overall description of the electrical system, and a listing of any items that may need resolution. If specific Code requirements exist for any portion of the electrical system, they shall be noted in addition to how the requirement was implemented.
3. Coordination Study Analysis shall include a detailed outline of the overcurrent device coordination analysis. Time Current Curves shall be provided for each unique coordination path in the electrical system from the Main service protective device to the largest branch circuit breaker. Each Time Current Curve shall be uniquely labeled. The report shall include a list of the overcurrent devices included in each Time Current Curve and a description of any potential un-coordinated devices with the potential impact on the electrical system due to the lack of coordination.
4. Conclusion shall include a summary of overall protective device coordination for the electrical system being modeled. The Conclusion shall also include a table listing all devices with adjustable settings and the recommended settings based on the coordination study. Any uncoordinated electrical devices that include recommended revisions shall be listed with the proposed system revision.
5. As an Appendix, the Coordination Study shall include a one-line diagram of the modeled system with each bus and overcurrent device identified. The naming of the devices in the one-line diagram shall exactly match the device names in the report and time-current curves.

## **2.02 ARC FLASH ASSESSMENT STUDY**

- A. After the electrical system has been installed and is ready for energization, the Contractor shall provide an Arc Flash Assessment Study. The Arc Flash Assessment Study shall be submitted for approval prior to substantial completion. Once the Arc Flash Assessment Study is approved, the Contractor shall print and install the approved Arc Flash notification labels on all equipment containing overcurrent protective devices.
- B. The Arc Flash Assessment Study shall include the following at a minimum:
  1. Study Title Page shall include the following information
    - a. Project Name
    - b. Date Study was performed
    - c. Name/Company/Contact information for organization performing the study
    - d. Analysis software used to perform the study including version
  2. An Index shall be provided listing each Section included in the Arc Flash Assessment Report.

3. Study Executive Summary shall a brief overview of each section of the Study including any recommended revisions to the electrical system based on the results of the Study. The overview shall include at a minimum, any pieces of equipment with a calculated fault current that exceeds the equipment rating, a listing of any overcurrent devices with revised settings, a brief listing of un-coordinated equipment that necessitate revisions, and a listing of each piece of equipment with a Dangerous level of Arc Flash energy.
- C. Each of the following sections and appendices shall include a dedicated Cover Page outlining the contents of the Section.
- D. Section #1 Fault Analysis shall include an updated Fault Current Analysis of the entire electrical system. The Fault Analysis shall include as a minimum the following information:
  1. The available fault current at the Utility for the fault analysis shall be based on the actual Utility fault current and not an assumption. For electrical distribution systems that are primary metered, the study shall include the primary electrical system back to the point of service including but not limited to actual cable lengths/sizes/types and any overcurrent protective devices. The study shall include correspondence from the utility showing the available fault current at the utility service point in the appendices.
  2. Updated cable size/type/length shall be included in the report based on the installed conditions.
  3. Updated transformer information based on the installed transformer nameplates
  4. Current limiting fuses shall be indicated where applicable based on the actual equipment installed.
  5. Large motors (>50hp) shall be included in the analysis. Smaller motors shall be grouped together at each panel/switchboard.
  6. A Table shall be provided with a comparison of calculated fault current to equipment fault rating for each piece of equipment containing overcurrent protective devices. The calculated fault current shall be adjusted as necessary based on the calculated X/R ratio.
  7. Any equipment that is found to have a rating less than the calculated/adjusted fault current shall be specifically indicated along with recommended corrective action.
  8. The Fault Analysis shall include the system model one-line diagram with the following information indicated:
    - a. Utility connection point with available fault current and X/R ratio.
    - b. Cables with conductor size, length, parallel count, raceway type.

- c. Transformers with impedance, kva, X/R ratio.
  - d. Large motors (>50hp). Smaller motors shall be grouped together at each panel/switchboard.
  - e. Electrical equipment with overcurrent protective devices showing calculated fault current.
- E. Section #2 Protective Device Coordination Study shall include an updated Coordination Study for the entire distribution system as outlined in Paragraph 2.01. The updated coordination study shall optimize settings to provide coordination while reducing the Arc Flash energy present.
- F. Section #3 Arc Flash Assessment shall include a description of the method used to calculate the Arc Flash energy present and the assumptions of the study. The following additional items shall be included in the study as a minimum:
  - 1. Table summarizing the Arc flash energy present at each pieces of equipment and the conditions under which the incident energy occurred. The table shall also include the arcing time, fault current, upstream overcurrent device, and any notes for different conditions present.
  - 2. A template Arc Flash label with each piece of information included on the label explained.
  - 3. Sample Arc Flash Labels for each piece of equipment in the model showing the code required information.
- G. Appendix A shall include that correspondence from the electric utility providing the available fault current used in the analysis.
- H. Appendix B shall include cut sheets for all electrical equipment included in the Arc Flash Assessment study.

## PART 3 - EXECUTION

### 3.01 TESTING/VERIFICATION

- A. The contractor shall provide testing of each piece of electrical equipment with adjustable overcurrent protective devices to verify proper operation in accordance with the manufacturers recommendations. The test reports shall indicate the following at a minimum:
  - 1. Equipment name.
  - 2. Date of the test.
  - 3. Name and organization of the individual performing the testing
  - 4. Test results. Any equipment failing the testing shall be replaced at no additional cost to the owner.

5. As-Left settings. These settings shall be as indicated in the Arc Flash Assessment Study. Any settings that vary from the Study shall be either updated in the Study including a revised submittal package or shall be corrected in the field and an updated test report provided.

### **3.02 FIELD APPLIED ARC FLASH LABELS**

- A. After the Arc Flash Assessment Study is approved and the electrical equipment has been successfully tested, the Contractor shall provide Arc Flash and Shock Hazard warning labels on all electrical devices containing overcurrent protection stating the following information at a minimum:
  1. PPE level of protection
  2. Incident energy (cal/cm<sup>2</sup>) at 24" from the equipment unless specified otherwise by the Owner/Engineer
  3. Flash hazard boundary
  4. Glove class
  5. Limited approach distance
  6. Restricted approach distance
  7. Prohibited approach distance
- B. Labels shall be permanently affixed to the equipment or wiring method and shall not be hand written.
- C. The label shall be of sufficient durability to withstand the installed environment. Labels installed outdoors shall be suitable for outdoor installation with no degradation due to sun light or precipitation.
- D. The label shall meet ANSI Z535 guidelines and requirements.

END OF SECTION



**SECTION 26 22 13**  
**DRY TYPE TRANSFORMERS**

PART 1 - GENERAL

**1.01 WORK INCLUDED**

- A. When shown on drawings, provide dry type transformers complete. Transformers shall be UL listed and comply with NEMA Standard ST-20.

PART 2 - PRODUCTS

**2.01 ACCEPTABLE MANUFACTURERS**

- A. Hammond.
- B. Sorgel Quiet Quality.
- C. General Electric QL.
- D. Federal Pacific.
- E. Similar units by Cutler-Hammer, Acme or Hevi-Duty may be utilized if the core and coil assembly is mounted on rubber isolation pads.

**2.02 STANDARDS**

- A. ANSI C57.12.01/NEMA ST-20: General Requirements for Distribution, Power, and Regulating Transformers.
- B. Underwriters Laboratories Standard 1561.
- C. NEMA ST-20: Dry-Type Transformers for General Applications.
- D. Transformers shall be NEMA TP-22016 Energy Efficient compliant and meet the requirements of the Department of Energy, 10 CFR Energy Conservation Standards for Distribution Transformers.

**2.03 SHOP DRAWINGS**

- A. Prepare and submit for review prior to manufacture; include dimensioned front plan and section views, wiring and connection diagrams and bolting template. Contractor shall indicate on the drawings, mounting methods and connection lugs required.

**2.04 CABINET**

- A. Steel panel enclosure over core, coil, and terminal chamber with louvered openings for convection cooling. Cooling and terminal access shall be possible with both sides and rear of enclosure obstructed.
- B. Provide weatherproof or special enclosure when required for environment in which it is located.

## 2.05 WINDINGS

- A. Separate primary and secondary. Windings shall have Class H insulation and shall be rated for continuous operation at rated KVA with temperature rise of not over 150 degrees C above a 40 degree C ambient, with a maximum hot spot temperature of 220 degrees C. Windings and core and coil assembly shall be treated and built to resist the effects of dirt and moisture.
- B. Core coil shall be mounted on rubber isolation mounting pads. Cores shall have a common core construction having low hysteresis and eddy current losses grounded to the transformer core. The neutral bus shall be sized and configured for at least 200% of the secondary full load current. Transformer impedance shall be a minimum of 3 and a maximum of 5%. The transformer shall be UL listed and suitable for non-sinusoidal loads with a K factor of 4.

## 2.06 PRIMARY TAPS

- A. Four full capacity taps, minimum of two 2-1/2 percent above and two 2-1/2 percent below normal (rated) primary voltage.

## 2.07 CONNECTIONS

- A. Unless noted otherwise, three phase transformers shall have a 480-volt delta connected primary and 208Y/120-volt, three phase, four wire connected secondary, single phase transformers shall be 480-volt primary, 120/240 volt secondary. Provisions for external connections shall be made by means of a terminal board employing lugs conforming which are compatible with the external conductors installed. (Note: aluminum conductors require special lugs.) All connections shall be accessible for front and top of cabinet.

## 2.08 NOISE LEVEL

- A. Noise level shall not exceed ANSI Standard C89.2 sound levels of 45 db for sizes less than 51 KVA, 50 db for 51-150 KVA, 55 db for 151-300 and 60 db for greater than 300 as measured by NEMA ST20.

## 2.09 EFFICIENCY

- A. Dry transformers shall have a minimum efficiency that complies with NEMA TP-2-2016.

## 2.10 VIBRATION ISOLATORS

- A. The following are options that the Contractor may utilize for the vibration isolators:
  - 1. **Spring vibration isolators** shall be B-Line model HMT or equal with neoprene top and base.
  - 2. **Vibration pads** shall be cork, neoprene, and steel construction, B-Line model CNNK or equal.
  - 3. **Neoprene pad spacers** shall be B-Line model NNP or equal.

## PART 3 - EXECUTION

### 3.01 MOUNTING

- A. Transformers shall be attached to the building structure to prevent overturning in the event of earthquake. All attachment nuts to have washer and rubber pad spacer under them. Provide neoprene pad spacers under mounting rails. Transformers shall be mounted on floor, wall or suspended from ceiling as noted in the contract documents or as required. Remove all shipping blocks prior to installation.
- B. Transformers with enclosures designed for floor mounting where suspended from ceiling shall be suspended on a trapeze constructed of a minimum of two horizontal structural channels hung from threaded rods attached to structural members or inserts in structural slab. Channel, rod, and inserts shall be sized for not less than 400% load safety factor.
- C. Transformers shall be installed with four spring vibration isolators, one at each corner, when any of the following conditions are present. Size each isolator for the full transformer weight.
  - 1. Transformer is 45 KVA or larger.
  - 2. Transformer is located higher than one floor above grade.
  - 3. Transformer is noted "SIM" in the contract documents.
- D. All transformers mounted directly on a wall shall be mounted with vibration pads sized to give 400% safety factor.

### 3.02 CONNECTIONS

- A. 208/120-volt three phase secondary transformers shall be considered "grounded neutral separately derived systems" and be grounded per code accordingly.
- B. Transformer raceway connections shall be flexible metal raceway. See Specification Section 26 05 33.
- C. Voltage Tap Connection: Connect all transformers at "normal" tap. After facility is completely energized, measure secondary voltages at all transformers and service switchboard. Forward a list to the Architect/Engineer for evaluation. Include copy in O&M Manuals. Reconnect taps as subsequently directed. All costs associated with this work shall be included in base bid.

END OF SECTION

**SECTION 26 24 13**  
**SWITCHBOARDS**

PART 1 - GENERAL

**1.01 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

**1.02 WORK INCLUDED**

- A. Provide all service entrance and main distribution switchgear with equipment as shown and described, with continuous full load ampacities as indicated.

PART 2 - PRODUCTS

**2.01 ACCEPTABLE MANUFACTURERS**

- A. Square-D
- B. General Electric
- C. Cutler-Hammer
- D. Siemens

**2.02 ENCLOSURES**

- A. Shall be freestanding, steel with steel angle or channel framework of adequate strength and rigidity necessary to resist all conditions of use to which it may be subjected and to support all equipment, devices and appurtenances contained therein. Front plates shall be installed in sections so that all parts of the board are front accessible without disturbing other parts. A removable lifting angle shall be provided at the top and bottom of each shipping section(s).
- B. Minimum 12-gauge steel, except front panels and doors may be minimum 14 gauge.
- C. Shall be front access only unless noted otherwise.
- D. Provide on 3-inch housekeeping concrete pad with minimum 3-inch lip on front and sides.
- E. Finish shall be factory applied; standard gray color for all exterior and interior painted surfaces. Other colors may be considered.
- F. Outdoor installation shall be NEMA 3R.

### 2.03 SWITCHBOARD DIMENSIONS

- A. Overall height of switchboards shall not exceed 90 inches (not including base channels). Length and depth shall not exceed dimensions as scaled or noted in contract documents. Manufacturers whose equipment dimensions exceed those indicated shall notify the Engineer in writing 10 days prior to bid date. These Manufacturers may not bid as "Not Conforming to Contract Documents". Contractor shall base bid only on equipment which fully complies with contract documents. Cost of building modifications or switchboard relocations, if permitted, or other additional work required to fit larger size switchboard(s) than shown on drawings shall be borne totally by the Contractor.

### 2.04 SWITCHBOARD BUSBARS

- A. Aluminum or copper at manufacturer's option, factory fabricated; carried to terminals for connection to service cables or busway. Brace switchboard components for symmetrical fault current shown plus a symmetrical offset (50,000-amp bracing minimum). Aluminum bus shall be tin plated over its full length.
- B. Busbar Joints:
  - 1. Busbar to busbar shall be bolted, lapped and silver or tin plated, having low contact resistance and low temperature rise. For aluminum bus bolt using Grade 5 bolts with Belleville washers.
  - 2. Overcurrent devices shall be bolted to busbars using Grade 5 bolts and Belleville washers. Exception: Square-D I-line and 30-200A fused switches
- C. Conductor connectors shall be bolted to busbars using Grade 5 bolts and Belleville washers. Where aluminum conductors are utilized for feeders the connectors shall conform with Section 26 05 19.
- D. System of Bussing: Three phase, 4 wire, full size neutral unless otherwise noted.
- E. Ground Bus: Full length ground bus bonded to frame conforming to U.L. 891 for minimum size except larger as required by the code for grounding neutral conductor.

### 2.05 SWITCHBOARD COMPONENTS

- A. Switchboards shall include (but not limited to) the following components:
  - 1. Shall be full-fault current rated, series rating of devices is not allowed.
  - 2. Switches and fuses or breakers as shown. If fuses are used, provide all necessary fuses and spares per Section 26 28 13.
  - 3. Space for future switches or breakers as shown including complete bussing and required hardware for mounting devices. Space for metering and instrumentation components, and current limiters (when required).

4. Miscellaneous appurtenances as required for a complete installation.
  5. Cleats for securing all conductors.
- B. When Serving as Service Entrance Equipment:
1. Shall conform to UL 869 and have a Service Entrance Type UL label
  2. Shall be full-fault current rated, series rating of devices is not allowed. See drawings.
  3. Where utility company metering equipment is shown, provide current transformer space, meter base(s), metering conductors and miscellaneous appurtenances as required by serving utility.
  4. Shall contain surge arrestors on all phases for voltage surge protection on secondary (under 600V) electrical wiring systems. Similar to Square-D, J9200.

## **2.06 NAMEPLATES**

- A. Nameplates shall be installed on all switchboards. Each individual switch shall be identified with a nameplate adjacent to the switch, describing the load connected.
- B. Provide a service entrance label nameplate on the main switchboard which includes the following:
1. Architect
  2. Electrical Consultant
  3. Electrical Contractor
  4. Date of Installation
  5. Service Voltage & Bus Amperage Rating
  6. Symmetrical Short Circuit Current Rating
  7. Year of Manufacture
- C. Lettering size shall be suitable for the size of plate and information contained. Nameplates shall be engraved plastic (3/8-inch high minimum letters). Attach with stainless steel screws.
- D. Nameplate color shall be: Emergency System - white on red, normal System - white on black.
- E. Provide a riser diagram drawing using non-fading ink and mylar installed under glass and attached to the exterior of the main switchboard showing feeder runs, panels, transformers and raceway sizes.

## **2.07 SINGLE PHASING SENSORS**

- A. Provide single phasing sensors to trip the main switches in the event of a single-phase failure.

## **2.08 CLEATS**

- A. Provide for securing all feeder cables within the switchboard.

PART 3 - EXECUTION

**3.01 MOUNTING**

- A. Shall be bolted to floor using 1/2" x 8" (minimum) black mild steel foundation anchor J-bolts and anchored similarly to building structure to prevent overturning in the event of earthquake. Provide 3" thick structural concrete "housekeeping pad". J-Bolts in the floor shall be set in the structural floor and extend through the housekeeping pad with sufficient threads to attach the switchboard.

**3.02 WIRING**

- A. Shall conform to applicable Sections of these specifications.
- B. Shall be secured to switchboard enclosure with cleats. Maximum spacing shall not exceed 24 inches.

**3.03 SPACE**

- A. Verify space available with equipment sizes and code required working clearances prior to submittals of shop drawings

**3.04 GROUNDING**

- A. Provide pursuant to Section 26 05 26.

**3.05 UTILITY REQUIREMENTS**

- A. When service switchboard includes utility company metering equipment, provide all devices and wiring to meet serving utility requirements.

**3.06 TESTS**

- A. Torquing requirements and installation of all terminations 1,000 amps and above shall be certified by an independent testing agency.

END OF SECTION

**SECTION 26 24 16**  
**PANELBOARDS**

PART 1 - GENERAL

**1.01 RELATED DOCUMENTS**

- A. Section 26 00 00 – Electrical General Conditions

**1.02 WORK INCLUDED**

- A. Provide all panelboard equipment, complete; dead front type.

PART 2 - PRODUCTS

**2.01 PANELBOARD TYPE**

- A. Panelboards shall be rated at proper voltage and current for intended use with busbars of copper or aluminum. Panels shall be 3-phase, 4-wire, 100% neutral, unless noted otherwise. Where aluminum is utilized, all lugs shall be of an approved compression type. Provide multiple lugs where conductors in parallel or "feed through" are shown on the Drawings.
- B. Conductor Connectors shall be bolted to busbars using Grade 5 bolts and Belleville washers. Feeder conductor connectors shall be rated for 75 Degree C. wire when 75 Degree C. wire is indicated. Where aluminum conductors are utilized for feeders or branch circuits the connectors shall conform with Section 26 05 19.
- C. Panelboards shall have a separate ground bus bonded to the panelboard frame.
- D. Where 120-Volt, 15- or 20-Amp breakers are intended for switching loads they shall be of type rated for switching duty labeled "SWD."

**2.02 ACCEPTABLE MANUFACTURERS**

- A. General Electric
- B. Square-D
- C. Siemens
- D. Cutler-Hammer

**2.03 CIRCUIT BREAKERS**

- A. The following interrupting capacity, 10,000 AIC Symmetrical shall be considered minimum. Other ratings shall be as specified on panel schedules shown on the Drawings. Series rating of breakers is not allowed.



- B. Mount breakers in all panelboards so that breaker handles operate in a horizontal plane. Bolt in type only. Provide common trip on all multiple pole breakers.
- C. Where noted, provide spare breakers, complete for future connection of wiring circuits. Where "Space" is indicated for breakers, provide all bussing and breaker mounting hardware in the panelboard, provide steel knockouts in dead front metal closure of unused part of panel. If any steel knockouts are removed, provide breakers in such spaces or approved cover plates. Open spaces are not permitted.
- D. For multi-wire branch circuits, provide approved breaker handle ties where required by NEC 210.4.

#### **2.04 CABINET FOR EACH PANELBOARD**

- A. Flush or surface, as indicated; tight closing doors without play, when latched. Where two cabinets are located adjacent to each other in finished areas, provide matching trim of the same height. Where a remote-controlled switch or contactor is mounted in any panelboard, mount on same frame as panelboard interior with screw retained access door in dead front shield; common door over circuit breakers and remote-controlled device. Where flush mounted, provide (2) 3/4" conduits to accessible ceiling space for future expansion.
- B. All conduits for future expansion shall stub into a junction box, where located above grade, and shall be sealed in the panel.
- C. Provide cabinets of sufficient dimensions to allow for future expansion and addition of circuit breakers within the panelboards as indicated on panel schedules.
- D. Provide cabinet front with full-height hinged door. One door over the interior and an additional hinged dead front cover over interior and wireway (door-in-door). Full-height front cover hinged to box with concealed trim clamps. Provide flush door locks.
- E. Provide lock for each cabinet door. All Electrical Distribution Equipment Locks shall be keyed identically. Key system shall match existing. Supply Owner with minimum six keys.
- F. Fasten panelboard front with machine screws with oval counter-sunk heads, finish hardware quality, with escutcheons or approved trim clamps. Clamps accessible only when dead front door is open are acceptable. Surface mounted panelboards with fronts greater than 48 inches vertical dimension shall be hinged at right side in addition to hinged door over dead front.

- G. Finish: Provide factory prime coat for cabinets to be located in finished areas. Where cabinets are located in unfinished areas, standard lacquer or enamel finish, gray or blue-gray color, shall be substituted for factory prime coat.

## **2.05 SYSTEM OF NUMBERING AND BUS ARRANGEMENT**

- A. Shall be as shown on the Panel Schedules on the Drawings.

## **2.06 PANELBOARD NAMEPLATE**

- A. Provide engraved and filled (or color layer - engraved through outer layer) plastic nameplate with ½-inch high characters (for panel name); attached with screws to each NEMA 1 panelboard front. White on black, include voltage, phases, wires and minimum A.I.C. Rating in 3/8-inch characters.
- B. Nameplate color shall be:
  - 1. Emergency System: White letters on red
  - 2. Normal System: White letters on black

## **PART 3 - EXECUTION**

### **3.01 MOUNTING**

- A. Secure in place with top of cabinet at 6'-0", unless otherwise noted. Top of cabinet and trim shall be level. Firmly anchor cabinets directly or with concealed bracing to Building Structure. When panels are not located in or directly on a wall, provide a support frame of formed steel channel which is anchored to the floor and Ceiling Structure. Interiors shall not be installed until Structure is totally enclosed. Where panels are mounted adjacent to each other, the top edges shall be at the same height.

### **3.02 CIRCUIT INDEX**

- A. For each branch circuit panelboard provide a typewritten index listing each circuit in the panelboard by number with its proper load designation. Mount with a transparent protective cover inside cabinet door. Listing shall match circuit breaker arrangements, typically with odd numbers on the left and even numbers on the right. Room numbers used shall be final room numbers used in the building as verified with the Owner, and not room number assigned on Plans.

### **3.03 CABINET PAINTING**

- A. Cabinets furnished as prime painting shall be field painted to match color of adjacent wall. (See Division 09 - Painting).

### **3.04 SPACE**

- A. Verify space available with equipment sizes and Code Required Working Clearances prior to Submittal of Shop Drawings.

**3.05 GROUNDING**

- A. Provide separate ground busbar for all panels supplying isolated ground circuits.

**3.06 FEED THROUGH AND DOUBLE LUGS**

- A. Provide feed through or double lugs with amperage equal to the incoming feeder amperage unless shown as larger.

END OF SECTION

## **SECTION 26 43 00**

### **TRANSIENT VOLTAGE SURGE SUPPRESSION / SURGE PROTECTIVE DEVICE**

#### **PART 1 - GENERAL**

##### **1.01 DESCRIPTION**

- A. This Section describes the materials and installation requirements for transient voltage surge suppressors (TVSS), alternatively called Surge Protective Devices (SPD). TVSS/SPD devices are used for the protection of all AC electrical circuits from the effects of lightning induced currents, substation switching transients and internally generated transients resulting from inductive and/or capacitive load switching.
- B. This specification also describes the mechanical and the electrical requirements for the TVSS devices. The TVSS shall be suitable for application in both category A, B and C environments as described in ANSI/IEEE C62.41-2002.
- C. The TVSS shall be of parallel design and provide individual protection components connected Line to Ground and Line to Line for Delta and High Resistance Grounded systems and Line to Ground, Line to Neutral and Neutral to Ground for Wye and Single-Phase distribution systems.
- D. Systems not providing discreet protection components in the above configuration will be rejected. A schematic diagram showing the configuration and technology of all internal connected components must be provided with submittals.
- E. The TVSS devices will be used both near electrical service entrance locations and at locations distant from service entrance locations (Panels, MCC's, Equipment Disconnects, etc.). For the purposes of this section it should not be assumed that on Wye systems a neutral to ground bond will not be located electrically close to the suppressor location, thus discreet Neutral to Ground Suppression and Filter components are required.
- F. The Manufacturer/Vendor shall furnish all of the necessary TVSS/SPD products and related hardware (i.e., flush mounting kits, mounting brackets, etc.) as required for the installation of the Transient Voltage Surge Suppression (TVSS) / Surge Protective Devices (SPD) System suitable for the application.

## **1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Section 26 00 00 – Electrical General Conditions
- B. Section 26 05 19 - Wire and Cable
- C. Section 26 05 26 - Grounding
- D. Section 26 05 32 – Outlet and Pull Boxes
- E. Section 26 05 33 – Raceways
- F. Section 26 24 13 - Switchboards
- G. Section 26 24 16 – Panelboards

## **1.03 SUBMITTALS**

- A. The vendor/manufacturer shall submit all related TVSS Specifications, product data, electrical and mechanical shop drawings, installation requirements/instructions, maintenance manuals (if applicable) and performance/warranty information requested in this document for the actual proposed TVSS/SPD device(s) to Project Engineer. All information shall be submitted in a three-ring binder indexed by response and test. Project Engineer reserves the right to select or reject any vendor response or product.
- B. In order for TVSS device to be considered for this project, all responses to information requested in this specification must be provided in writing and must reference each specification section and sub-section. Written submittal responses shall be signed by manufacturer's VP of Engineering. Attach information as necessary to provide compliance with specification response requirements. If a manufacturer cannot fully comply with a section of the specification, this must be stated in the response and the reason for non-compliance shall be provided.

## **1.04 QUALITY ASSURANCE AND PERFORMANCE**

- A. Each complete suppression unit shall be UL1449 3rd Edition Listed as a Transient Voltage Surge Suppressor. UL 1449 test data for TVSS devices proposed, including UL let through voltage classification shall be provided with submittal. Units shall bear suppressed voltage rating issued by UL.
- B. Engineer reserves the right to have an employee or a representative designated by firm witness any testing required by this document. Vendor/manufacturer shall provide written notice of intent to test and shall coordinate testing with Engineer, should Engineer desire to witness tests.

- C. Performance & Durability Testing: Units shall be tested by an independent test agency in accordance with test procedures outlined in ANSI/IEEE C62.45, NEMA LS1 & UL1449. The following test data shall be provided:
1. Provide Maximum Surge Current (Single Pulse Rated, 8/20 $\mu$ S, by mode, Amperes) as per NEMA LS1-1992 – 2.2.9 with submittals document. Maximum surge current rating shall not be less than 120kA (60kA per mode including N-G) for branch panel models in low exposure areas, high exposure areas and for IEEE C62.41.1-2002 - Category B Switchboard and Motor Control Center Locations. Maximum surge current rating (per phase in applicable modes other than Neutral to Ground) shall not be less than 240kA (120kA per mode including N-G) for IEEE C62.41.1-2002 - Category C Locations, including all Electrical Equipment located at Service Entrance location. Provide proof of completion of such tests and test data with submittal data. Provide surge current ratings for each applicable protection mode (L-L, L-N, L-G & N-G) with submittals.
  2. Provide durability test data utilizing the ANSI/IEEE C62.41-1991, Category C3, 20kV/10kA, 1.2 x 50 S - 8x20S combination waveform. Provide test data with submittals. Let through voltages shall be provided for all applicable protection modes (L-N, L-G & N-G) from zero reference. All TVSS/SPD devices (including branch panel) shall withstand a minimum of 5,000 hits delivered at a rate of one pulse per minute. Unit shall not fail or suffer let through voltage degradation of more than 7%. Lead length for testing and let through measurements shall be 6". Provide lead length used for testing with submittals.
  3. Provide performance test data utilizing the ANSI/IEEE C62.41.2-2002, Exposure - High, 10kV/10kA, 1.2 x 50 $\mu$ S - 8x20 $\mu$ S combination waveform. Provide test data with submittals. Let through voltages shall be provided for all applicable protection modes (L-N, L-L & L-G) from zero reference. Lead length for testing and let through measurements shall be 6". Provide lead length used for testing with submittals.
  4. Provide let through voltage test data and test waveforms used for (N-G) with the submittals for units intended for grounded Wye systems.
  5. Provide let through voltage test data for the ANSI/IEEE C62.41.2-2002, Category B, 0.5 $\mu$ S-100 kHz 6kV/.5kA ring wave (L-L, L-N & L-G) with the submittals. Let through voltages shall be provided for all applicable protection modes and shall be measured from the zero reference.
  6. Provide let through voltage test data for the ANSI/IEEE C62.41.2-2002, Neutral grounded at service entrance – Far Category, 0.5 $\mu$ S-100 kHz 3kV ring wave (N-G) with the submittals for units intended for grounded systems.

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7. If available, test data shall be provided for the ANSI/IEEE C62.41.2-2002 level three category of the 5/50 nS EFT Burst waveform as a part of this submittal package. Let through voltages shall be provided for all applicable protection modes (L-L, L-N, L-G & N-G).
8. All TVSS/SPD tests must provide let through voltages using a positive polarity pulse at the 90-degree phase angle location on the sine wave for Category B and C waveforms and 180-degree for Category A waveforms. Let through voltages must be measured from the zero-voltage reference line for the tests.
9. All let through voltage test results must be provided with a minimum of six inches of lead length as measured from the point where the wire would normally exit the TVSS enclosure (standard installation) to the point of termination. Wire used for test must be of the type of building wiring material recognized by the latest adopted version of the NEC and must be readily available for wiring commercial buildings, unless permanently attached to and supplied with suppressor. Conductors sizing used for test shall be based on manufacturer's installation instructions for the proposed product.
10. The above test results, including oscillographs, test conditions, identity of the testing lab and the test technicians and engineers shall be provided as part of the submittal package. The manufacturer shall provide the contact phone number for a readily available factory engineer responsible for answering questions about this product and the tests performed. Information shall be provided in a format that is easily to analyze and review.
11. Maximum Let Through Voltages based on above requirements:

<b>Peak Voltage Let Through Table</b>						
Peak Let Through Voltages (measured from zero reference per NEMA LS-1) shall not exceed:						
<b>Voltage &amp; Configuration</b>	<b>Test / Wave</b>	<b>L-L</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>Phase Angle</b>
480/277 Wye - Grounded	C3 – 20 kV/10ka	2500	1600	1900	1700	90
480/277 Wye - Grounded	B3 – 6 kV/3kA	1700	1000	1100	1000	90
480/277 Wye - Grounded	A1 – 2kV – 67A	150	150	150	150	180
480/277 Wye - Grounded	UL1449 Rev2 Update	1500	800	800	800	----
480 Delta	C3 – 20 kV/10ka	2400	N/A	2400	N/A	90
480 Delta	B3 – 6 kV/3kA	2000	N/A	1900	N/A	90
480 Delta	A1 – 2kV – 67A	75	N/A	1200	N/A	180
120/208 Wye	C3 – 20 kV/10ka	1400	1100	1300	1150	90
120/208 Wye	B3 – 6 kV/3kA	950	550	600	550	90
120/208 Wye	A1 – 2kV – 67A	100	75	120	100	180

120/208 Wye	UL1449 Rev2 Update	800	400	400	400	----
120/240 Split Phase	C3 – 20 kV/10ka	1400	1100	1250	1200	90
120/240 Split Phase	B3 – 6 kV/3kA	1000	600	600	600	90
120/240 Split Phase	A1 – 2kV – 67A	100	75	120	95	180

- D. Manufacturers Qualifications: Only firms regularly engaged in the manufacture of TVSS products for category C locations (ANSI/IEEE C62.41.1-2002), and whose products have been providing satisfactory service for not less than five years, shall be considered. A customer reference list, with a minimum of five contact names and current phone numbers shall be provided with the submittals. All manufacturer qualifications shall be provided as part of the submittal.
- E. The successful manufacturer/vendor shall assign a technical contact person for TVSS application, installation and warranty questions. This contact shall be available to provide a response to a technical question within a maximum of two business days.
- F. The Engineer reserves the right to accept or reject any or all submittals, to request additional information as deemed necessary or to request submittals for a different unit that may be deemed more appropriate for this installation.
- G. Engineer reserves the right to have an employee or a representative designated by firm witness any testing required by this document. Vendor/manufacturer shall provide written notice of intent to test and shall coordinate testing with Engineer, should Engineer desire to witness tests.

**1.05 CODES AND STANDARDS**

- A. UL compliance and labeling: Listed per UL 1449, Third Edition.
- B. TVSS and Enclosures proposed and submitted shall be safety agency listed for all intended installations, meeting or exceeding all of the following: NEMA 1, 3R, 4, 12 & 13.
- C. TVSS device shall be designed to allow installation in accordance with latest adopted version of the National Electrical Code (NEC), National Electrical Safety Codes (NESC) and applicable OSHA 1910 requirements.
- D. NEMA LS1 (latest revision)
- E. IEEE Standard C62.41.1, IEEE Standard C62.41.2 & IEEE Standard C62.45 (latest revisions)



## PART 2 - PRODUCTS

### 2.01 GENERAL REQUIREMENTS

- A. The TVSS shall be compatible with the electrical system voltage, current, system configuration and intended applications.
- B. The TVSS maximum continuous operation voltage (MCOV) shall be capable of sustaining 115% of the nominal RMS voltage (with the associated peak voltage of  $1.414 \times \text{RMS}$ ) continuously without degradation and heating.
- C. The TVSS shall only use clamping components connected in parallel with the supply to limit the surge voltages.
- D. Arc Discharge components, such as Gas Tube Arresters shall not be used as the sole protection component in any protection mode. Gas Tube Arresters may be used in conjunction with other components, such as MOV's and SAD's to provide protection. Where Gas Tube Arresters are installed, the circuit shall be specifically designed to prevent power follow current.
- E. Internal Fusing – If provided, shall be component level style:
  - 1. Component Level Fusing:
    - a. Each Metal Oxide Varistor, or other primary suppression component, shall be individually fused for safety and performance to allow the SPD to withstand the full rated single pulse peak surge capacity per mode without the operation or failure of the fuses. Overcurrent fusing that limits the listed peak surge current of the SPD is not acceptable. Replaceable cartridge type per phase or per mode overcurrent fusing is not acceptable.
    - b. For arc quenching capability, minimization of smoke and contaminates in the event of a failure, and to ensure the safest possible design, all surge components, current carrying paths and fusing shall be packed in fuse grade silica sand.
    - c. Fusing shall be present in every mode, including Neutral-to-Ground.
    - d. The fusing shall be capable of interrupting up to a 200kA symmetrical fault current with 600VAC applied, providing a listed 200kAIC Short Circuit Current Rating (SCCR) without additional over-current protection.

- F. Status Indication & Monitoring: The suppressor shall include individual Phase Status LEDs, a red Service Required LED, an integrated Audible Alarm with silence button and Form C dry contacts (N.O. or N.C.) for remote monitoring capability. The form C contacts must be rated a minimum of 65VDC/150VAC with a load of 30WDC/60VA AC, and must be isolated and insulated from the ground plane and the power system to prevent Surges from reaching the monitoring system. The system shall provide insulation and isolation against any impressed voltages. Contacts shall be designed to change state upon device failure or loss of power.
- G. The protection should be housed in the appropriate NEMA rated, heavy duty powder coated steel enclosure. This enclosure must provide complete protection against personnel hazards and damage to equipment should a failure of the TVSS protection device occur. This enclosure shall also be designed to allow connection of the TVSS device without sharp bends in the conductors and lead lengths of less than 18" from the TVSS Lugs (or enclosure opening for devices with leads attached) to the final point of attachment to the power system for the application (assuming connection point is 12" from the exterior of the enclosure).
- H. Manufacturer shall provide a comprehensive warranty that provides for unlimited full replacement of a suppressor that is damaged or that fails to meet manufacturers published specifications and specifications provided within, without pro-rating value. Warranty shall provide coverage for a minimum period of 20 years for individual units (standard warranty) and. Series SPDs shall be covered for 10 years. These Unlimited Replacement Warranties cannot exclude system overvoltages or direct lightning strike events. Warranty shall not require any factory or third-party testing. Warranty shall apply to installed unit(s) for the duration of the warranty period no matter who owns the facility or equipment. All warranty information and copies of warranty documents must be provided with this response.
1. All replacements shall be of same make, model and configuration as original unit unless otherwise requested or approved by customer.
  2. The manufacturer/vendor shall provide a warranty replacement unit at the facility within 5 days of receipt of written notification that the TVSS unit has failed, at no cost to the customer.
  3. If the manufacturer/vendor requires inspection of the installed unit to validate warranty claim, the manufacturer/vendor must visit the site where the failed TVSS device(s) are located within 3 days of notification. This visit will be performed at no cost to customer. This section does not modify the requirement for the TVSS replacement to be within 5 days of written notification as described in section G, above.
  4. The replacement unit shall be sent to the facility without shipping, handling, examination or other fees.

- I. Complete, comprehensive installation instructions shall be provided for the TVSS systems proposed. Installation instructions must provide for compliance with latest adopted NEC requirements and UL listing requirements, while not degrading performance of TVSS device as tested. Provide copies of installation instructions for the models proposed with the specification response. Successful vendors/manufacture shall provide a complete, comprehensive installation checklist.
- J. If manufacturer claims TVSS device to have filtering capabilities, provide complete information on filtering performance of TVSS device with specification response. This information must include attenuation across a stated frequency range. If the TVSS is a UL 1283 listed device, the manufacturer shall provide all performance specifications for filter attenuation.
- K. Provide complete enclosure dimensions (H\*W\*D) and cutsheets indicating dimensions including locations of terminations and wire entry locations with specification response.
- L. Provide UL Short Circuit Current Ratings (SCCR). Minimum ratings shall be 200kAIC without additional/external over-current protection.
- M. Manufacturer shall make available metal flush plates for distribution and branch panel SPDs. The flush plate shall provide for a clean architectural finish and be utilized where the attached panel is mounted flush.
- N. Manufacturer must have knowledgeable local representation and distribution within 100 miles of the project location and must be willing to provide technical support, warranty claim support, and installation support for the project.
- O. Successful manufacturer/vendor must be capable of supplying TVSS for project within 20 days of receipt of order for orders of 25 units and less for models submitted in response to this specification.

## **2.02 SERVICE ENTRANCE**

- A. Transient Voltage Surge Suppressors shall be installed at all service entrances of each building and as shown on the riser / one-line diagram. Suppressors shall be listed in accordance with UL 1449 3<sup>rd</sup> Edition, Standard for Safety, Transient Voltage Surge Suppressors.
- B. For 3-phase, 4-wire plus ground configurations, suppressors shall provide suppression and filter elements between each phase conductor and the system neutral, each phase conductor and the system ground and between the neutral conductor and ground.

- C. Suppressors shall include a passive circuit that allows the suppressor to actively follow the voltage waveform and provide a clamping envelope that follows the sine wave to limit low level IEEE C62.41 A1 ring waves (of either polarity) at all locations on the sine wave. This circuit shall also perform in the Neutral to Ground Mode where a sine wave does not exist. Details of circuit used to provide this function and information detailing and quantifying the performance of this circuit (in all modes with Category A1 ring wave) shall be provided with specification response. All Let Through Voltage (LTV) values shall not exceed those stated in section 1.04.C.11.
- D. Indication of proper suppressor connection and operation shall be provided, consisting of status LEDs for each phase, a Red Service Required LED and an internal Audible Alarm with silence/mute button. Dry contacts (NO/NC) are required for external monitoring.
- E. SPD shall exhibit fully redundant protection for each phase.
- F. The surge suppressor shall be of parallel design and shall be capable of being removed and replaced without disrupting electrical service to the facility.
- G. Suppressors shall consist of solid-state components and shall operate bi-directionally.
- H. All surge protective devices shall be of the same manufacturer.
- I. The minimum single impulse current rating (as per NEMA LS-1) shall not be less than 240,000 amperes per phase (120KA per mode). Provide proof of compliance by supplying certified test results from independent test lab with submittals.
- J. Maximum size of TVSS/SPD units for Primary, Service Entrance applications is 15.5"x12.3"x8.25".

### **2.03 SECONDARY SUPPRESSORS FOR MCC, DISTRIBUTION & BRANCH PANELS**

- A. Transient Voltage Surge Suppressors shall be installed at all service entrances of each building and as shown on the riser / one-line diagram. Suppressors shall be listed in accordance with UL 1449 3<sup>rd</sup> Edition, Standard for Safety, Transient Voltage Surge Suppressors.
- B. For 3-phase, 4-wire plus ground configurations, suppressors shall provide suppression and filter elements between each phase conductor and the system neutral, each phase conductor and the system ground and between the neutral conductor and ground.

- C. Suppressors shall include a passive circuit that allows the suppressor to actively follow the voltage waveform and provide a clamping envelope that follows the sine wave to limit low level IEEE C62.41 A1 ring waves (of either polarity) at all locations on the sine wave. This circuit shall also perform in the Neutral to Ground Mode where a sine wave does not exist. Details of circuit used to provide this function and information detailing and quantifying the performance of this circuit (in all modes with Category A1 ring wave) shall be provided with specification response. All Let Through Voltage (LTV) values shall not exceed those stated in section 1.04.C.11.
- D. Indication of proper suppressor connection and operation shall be provided, consisting of status LEDs for each phase, a Red Service Required LED and an internal Audible Alarm with silence/mute button. Dry contacts (NO/NC) are required for external monitoring.
- E. SPD shall exhibit fully redundant protection for each phase.
- F. The surge suppressor shall be of parallel design and shall be capable of being removed and replaced without disrupting electrical service to the facility.
- G. Suppressors shall consist of solid-state components and shall operate bi-directionally.
- H. All surge protective devices shall be of the same manufacturer.
- I. The minimum single impulse current rating (as per NEMA LS-1) shall not be less than 120,000 amperes per phase (60KA per mode). Provide proof of compliance by supplying certified test results from independent test lab with submittals.
- J. Maximum size of TVSS/SPD units for Secondary Suppressors for MCC, Distribution & Branch Panel applications is 15.5"x12.3"x8.25".

## 2.04 PRIOR APPROVALS

- A. The following manufacturer(s) have submitted the required information and have been reviewed and approved for this project:

<b>Total Protection Solutions SPD/TVSS by Thomas &amp; Betts Power Solutions</b>						
<b>Voltage</b> <b>Location</b>	<b>480Y277v</b> <b>3 Phase</b> <b>Bonded</b> <b>Wye</b>	<b>480v</b> <b>3 Phase</b> <b>Delta</b>	<b>208Y120v</b> <b>3 Phase</b> <b>Bonded</b> <b>Wye</b>	<b>208v</b> <b>3 Phase</b> <b>Delta</b>	<b>120/240v</b> <b>Single /</b> <b>Split Phase</b>	<b>120v</b> <b>Fire Alarm,</b> <b>Security,</b> <b>PLC, etc.</b>
<b>Main Services</b>	<b>ST240-3Y480-FL</b>	ST240-480NN-FL	<b>ST240-3Y208-FL</b>	ST240-240NN-FL	ST240-1S240-FL	N/A
<b>Distribution MCC &amp; Branch Panels</b>	<b>LP120-3Y480-FL</b>	ST120-480NN-FL	<b>LP120-3Y208-FL</b>	ST120-240NN-FL	LP120-1S240-FL	N/A
<b>Dedicated Equipment</b>	N/A	N/A	N/A	N/A	N/A	<b>LTE120-30A</b>
<b>TVSS/SPD Applications Notes:</b>						
1. Use <u>60 Amp</u> Circuit Breakers for Service Entrances and <u>30 Amp</u> Circuit Breakers for Distribution, MCC & Branch Panel applications.						
2. Use Delta units for unbonded/ungrounded and high resistance ground Wye applications.						

<b>Innovative Technology Protector by Eaton/Cutler Hammer</b>						
<b>Voltage</b> <b>Location</b>	<b>480Y277v</b> <b>3 Phase</b> <b>Bonded</b> <b>Wye</b>	<b>480v</b> <b>3 Phase</b> <b>Delta</b>	<b>208Y120v</b> <b>3 Phase</b> <b>Bonded</b> <b>Wye</b>	<b>208v</b> <b>3 Phase</b> <b>Delta</b>	<b>120/240v</b> <b>Single / Split</b> <b>Phase</b>	<b>120v</b> <b>Fire alarm</b> <b>Security,</b> <b>PLC, etc.</b>
<b>Main Services</b>	<b>PTE240-3Y201-L-SD</b>	PTE240-NN400-L-SD	<b>PTE240-3Y101-L-SD</b>	PTE240-NN201-L-SD	PTE240-1S101-L-SD	N/A
<b>Distribution MCC &amp; Branch Panels</b>	<b>PTE120-3Y201-L-SD</b>	PTE120-NN400-L-SD	<b>PTE120-3Y101-L-SD</b>	PTE120-NN201-L-SD	PTE120-1S101-L-SD	N/A
<b>Dedicated Equipment</b>	N/A	N/A	N/A	N/A	N/A	<b>LTE120-30A</b>

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. Suppressors shall be installed per the manufacturer's installation instructions and the requirements of: the NEC, the local authority having jurisdiction and the project engineer.

- B. Size overcurrent protective device and conductors per manufacturer's recommendations and NEC requirements.
- C. Project Engineer or their appointed representative may perform inspection of the installed suppressors and reserves the right to require corrections to the installation to comply with manufacturer's installation requirements and project specifications.
- D. The SPD/TVSS supplier must provide on-site installation training for the electrical contractor.

### **3.02 SERVICE ENTRANCE**

- A. Install one primary suppressor at each utility service entrance to the facility as indicated on the drawings.
- B. Suppressor shall be installed on the load side of the service entrance disconnecting means in accordance with NEC requirements.
- C. Provide a 60 Amp circuit breaker (with a safety clip to ensure the circuit breaker cannot be inadvertently turned off) in the switchboard as over-current protection for the wire and as a disconnecting means for the SPD (or as specified by the manufacture).
- D. Use minimum #6 AWG wire for connecting the SPD.
- E. Conductors between suppressor and point of attachment shall be kept as short and straight as possible. Lead length of connecting conductor shall not exceed two (2) feet without written permission of the specifying Engineer. If length is exceeded, Contractor may be required to relocate SPD at no cost to the Owner.
- F. Over-length SPD leads (greater than 24") must be twisted together (1 twist/foot) and securely tie-wrapped once per foot to reduce impedance of the leads.
- G. SPD leads may not be spliced.
- H. Suppressor's ground shall be bonded to enclosure frame and the service entrance ground bus, and conduit between the TVSS/SPD and the switchboard must provide secure electrical/mechanical connections.

### **3.03 SECONDARY SUPPRESSORS FOR MCC, DISTRIBUTION & BRANCH PANELS**

- A. Install one secondary suppressor at each MCC, Distribution Panel, Branch Panel & Sub-Panel location as indicated on the drawings.
- B. Provide a 30 Amp circuit breaker (with a safety clip to ensure the circuit breaker cannot be inadvertently turned off) in the panel being protected as over-current protection for the wire and as a disconnecting means for the SPD (or as specified by the manufacture).

- C. Conductors between suppressor and point of attachment to the panelboard shall be kept as short and straight as possible. Mount the TVSS directly adjacent to the circuit breaker closest to the neutral bus, such that the maximum length of connecting wiring is kept as short as possible, not exceed 18 inches for all phase and neutral leads (24" for ground lead on IG panels). If length is exceeded, Contractor may be required to relocate SPD at no cost to the Owner.
- D. Over-length SPD leads (greater than 18") must be twisted together (2 twists/foot) and securely tie-wrapped once per foot to reduce impedance of the leads. Quality compression butt-splice connections are required when extending SPD leads (wire nuts are not acceptable).
- E. Grounding for all non-IG installations: Suppressor's ground lead shall be bonded to the panel enclosure with a small ground lug as close as possible to the TVSS mounting point. Conduit between the TVSS/SPD and the switchboard must provide secure electrical/mechanical connections.
- F. Multiple "Feed-Through" Panels with shared SPD/TVSS units must be immediately adjacent to each other (side by side) with short tie cables not to exceed 36". Sub-panels must be feed from a primary panel with a "lug-out", lug-in" tie connection, and the tie connection lugs must be at the same end of the primary and sub-fed panel. i.e., bottom to bottom or top to top to ensure short tie "sub-feed" cables.
  - 1. Dual Panel Configurations: One SPD/TVSS per two panels
  - 2. Three and Four Panel Configurations: One SPD/TVSS installed on both outside panels of the multi-panel configuration, i.e., Install SPD on first (primary) and another one on the third or fourth sub-fed panel for a total of two SPDs.

END OF SECTION



**SECTION 312200  
EARTHWORK**

**PART 1 GENERAL**

1.1 SUMMARY

A. Section Includes:

1. Trenching including excavation, filling, grading, and excess material control.

1.2 RELATED SECTIONS

- A. Section 311000 – Site Preparation
- B. Section 321243 – Concrete Paving

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Material Test Reports: Certified test lab report of the sieve analysis of each aggregate product with classification according to ASTM D2487.

1.4 QUALITY ASSURANCE

A. Compaction:

1. Under structures, building slabs, steps, pavements, and walkways, 95 percent maximum density, ASTM D 1557.
2. Under lawns or unpaved areas, 90 percent maximum density, ASTM D 1557.

B. Grading Tolerances:

1. Lawns, unpaved areas, and walks, plus or minus 1 inch.
2. Pavements, plus or minus 1/2 inch.

**PART 2 PRODUCTS**

2.1 MATERIALS

A. Earthwork:

1. Application: Provide trenching and backfill for mechanical and electrical work and utilities.
  - a. Structural Fill: Imported gravel borrow described in WSDOT section 9-03.14(1) with fines (U.S. No. 200 Sieve Size) less than 5% and capable of achieving required compaction.
  - b. Structural Fill (Native Soils): On-site soils used during dry conditions, free of trash and debris, provided that the earthwork contractor can achieve the required compaction for its intended use. These on-site soils may only be used 5 feet outside the perimeter building foundation provided that compaction requirements are met.
  - c. Non-Structural Fill (Native Soils): On-site soils used during dry conditions, free of trash and debris, provided that the earthwork contractor can achieve the required compaction for its intended use.
  - d. Crushed Surfacing Base Course Shall conform to WSDOT Standard Specification 9-03.9(3) sieve size shall be per Base Course requirements.
  - e. Crushed Surfacing Top Course: Shall conform to WSDOT Standard Specification 9-03.9(3) sieve size shall be per Top Course requirements.
  - f. Gravel Backfill for Pipe Zone Bedding: Bedding material for pipe shall conform to WSDOT 9-03.12(3) or as specified in the section applicable to the type of pipe being installed.

## 2.2 PREPARATION

- A. Dewatering: Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding areas.
- B. Trench Excavation: Excavate to sufficient depth to allow for installation of bedding material.

## 2.3 PROTECTION OF EXISTING FACILITIES

- A. Provide markers indicating limits of work and clear identification of items and areas requiring protection.
- B. Provide barricades, warning signs, and warning lights around open excavations as necessary to prevent injury to persons. Cover excavations with  $\frac{3}{4}$ " plywood or equivalent at the end of each workday. Plywood used to cover open trenches or excavations shall be textured with a non-slip surface in areas with pedestrian traffic. In areas that will receive vehicular traffic, cover excavations with steel plates capable of supporting the expected vehicle loads.
- C. Tag and coordinate any proposed shrub and tree removal with Owner prior to construction.
- D. Utilities:
  - 1. Existing utilities and underground structures shown on the plan are based upon the best available public records and/or private records as supplied by the project owner and/or data obtained verbally from owners or officials associated with the particular utility. Neither the Owner nor the engineer guarantee accuracy or completeness of this information and assume no responsibility for improper locations on the construction Drawings. Other underground facilities not shown on the drawings may be encountered during the course of the work.
  - 2. If changed conditions are encountered, notify the Owner's representative promptly of (1) pre-existing subsurface conditions differing from those indicated in the Drawings, or (2) pre-existing unknown subsurface conditions, of an unusual nature, differing materially from those originally encountered and generally recognized as inherent in work of the character provided for in the contract. Make no claims to the owner for compensation for extra work resulting from changed conditions unless the Owner has approved the work in writing.
  - 3. Call the utilities underground location center for field location of utilities and do not begin excavation until known underground facilities in the vicinity of the proposed work have been located and marked. If the utility is not a subscriber of the underground location center, give individual notice to that utility. Pay costs associated with locating existing utilities.
  - 4. Make excavations and borings ahead of the work, as necessary, to determine the exact location of utilities and underground structures, at no additional cost to the Owner.
  - 5. It is understood that there may be interfering utilities, service laterals and other underground pipes, drains or structures encountered that are not shown on the Drawings, or areas shown incorrectly on the Drawings or conditions not previously discovered in the field. This is a normal and usual occurrence in the construction of underground improvements. Provide for these conflicts and interferences and provide for a reasonable amount of time for design changes and/or utility relocation due to said interferences.
  - 6. If existing public and/or private utilities are damaged, immediately notify the Owner. Coordinate with affected utility purveyor and restore the utility to its previous condition using methods acceptable to the utility purveyor. The Contractor is responsible for the means and the methods of construction for designs shown on the Drawings.

## 2.4 EXCAVATION AND BACKFILLING

- A. A. General:
  - 1. Provide excavation of whatever nature required for construction of the work. Verify character, quality, and disposition of material to be excavated prior to commencing. Blasting is not permitted. Keep excavations free of water while construction is in progress.
  - 2. Complete excavations in such a manner as to avoid any disturbance of the exposed subgrade. This may result in the need to use excavation techniques that limit or eliminate equipment traffic in the excavated areas. Should prepared, compacted subgrades be damaged by freezing, water

saturation, or construction traffic, remove soil materials to the depth required by the Owner, and replace and recompacting conformance with specified requirements at no additional cost to the Owner.

3. Stockpile satisfactory materials for reuse, allow for proper drainage and do not stockpile materials within drip line of trees to remain.
4. Maintain safe excavation slopes at all times and provide shoring as necessary in accordance with local, state and federal safety regulations.
5. Maintain earthwork surfaces true and smooth, and protect from erosion. Where erosion occurs, the Contractor shall restore the area per the original specifications at their own expense.
6. Conduct earthwork for utilities in conformance to the WAC 296-155 requirements for Excavation, Trenching and Shoring.
7. Control dust to prevent hazards to adjacent properties and vehicles. Keep dust to a minimum at all times during the contract by watering the project area. If necessary, the Contractor shall water the construction area during the weekend to control dust. The Contractor is responsible for securing and providing water for construction and dust control. Immediately repair or remedy damage caused by dust including air filters in equipment and vehicles. Clean soiled surfaces.

**B. Excavated Native Material**

1. Existing fill soils are generally over their optimum moisture content and drying of the soils may be needed in order to reuse the soils as fill materials specified.
2. Excavated material, stockpiles of construction materials, and equipment shall be placed away from the top edge of the excavation, no closer than a distance equal to the depth of the excavation. Use construction methods, which preserve the stability of the soil adjacent to the excavation.
3. Materials stockpiled for reuse shall be protected from wind and rain erosion by covering with plastic sheets. Excavated native soils have a high silt content and are susceptible to erosion and moisture changes; drying during hot weather and saturation during wet weather.

**C. Over Excavation and Backfill with Imported Structural Fill**

1. Over excavation of soil below the design elevations may be required when encountering soft or unsuitable soils incapable of achieving the required compaction and as tested by the Owner's Consultant. When authorized by Owner, these unsuitable soils shall be excavated and removed offsite in a legal and proper manner. This authorized over excavation and removal of unsuitable soils will be paid to the contractor through the Owner- Directed items.
2. Over excavated unsuitable material shall be backfilled with imported structural fill compacted as described in these specifications and in accordance with its intended use to achieve the design elevations shown on the Drawings. This authorized backfill and compaction will be paid to the contractor through the Owner-Directed items.

**D. Classification of Fill**

1. Fill material shall be placed in horizontal layers and compacted with power-operated tampers, rollers, idlers, or vibratory equipment. Material type, maximum layer depth, relative compaction, and general application are specified in Table A below. Unless otherwise specified, fill classes shall be used where specified in Table A under general application. All compacted surfaces shall be sloped to prevent ponding.

TABLE A

FILL CLASSIFICATIONS

<b>Material Type</b>	<b>Maximum Uncompressed Layer depth (inches)</b>	<b>Minimum Relative Compaction (Percent)</b>	<b>General Application</b>
Structural fill	10	95 (Upper 24 inches) 90	Utility trench backfill in pavement areas
Structural fill	10 (4 inches maximum for hand-operated mechanical compactors)	95	Foundation backfill, slab subgrade, pavement subgrade, fill under

			pavement, sidewalk and utility trenches
Structural fill	10 (4 inches maximum for hand-operated mechanical compactors)	90	Utility trench backfill in unimproved / unpaved areas
Gravel backfill for pipe zone	---	95	Bedding for rigid pipes
Non-Structural fill	12	85	Fill in landscaped areas
Crushed surfacing base course	4	95	Pavement base
Gravel backfill for walls	4	90	Wall and rockery backfill

#### E. Utility Trenches

1. Excavate trenches to indicated gradients, lines, depths, and elevations.
  - a. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
2. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
  - a. Clearance: 12 inches unless otherwise indicated.
3. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
  - a. For pipes and conduit less than 6 inches in nominal diameter, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
  - b. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe or conduit circumference. Fill depressions with tamped sand backfill.
  - c. Excavate trenches 6 inches deeper than elevation required to allow for bedding course.
4. Place fill materials in specified lifts to required sub-grade elevations, for each area classification as described in this Section.
5. Place gravel backfill for trench backfill on subgrades free of mud, frost, snow, or ice.
6. Backfill voids with gravel backfill soil while removing shoring and bracing.
7. Place and compact initial backfill of specified material (gravel backfill), free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
  - a. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
  - b. Trench backfill greater than 2 feet below finish grade shall be compacted to at least 90 percent of maximum dry density based on ASTM D1557.

#### F. Subgrade for Pavement

1. Over excavation: Where the undisturbed condition of natural soils is inadequate for support of the planned construction as determined by the Owner's Consultant, the Construction Manager will direct the Contractor to over excavate to provide adequate supporting soils. The excavated space shall be filled to the specified elevation with compacted imported structural fill.
2. Place structural fill in accordance with Table A. Compact to 95 percent of the maximum density. Prior to fill placement, the subgrade surface shall be evaluated by the Owner's Consultant to confirm the presence of competent bearing soils.

3. Proof Rolling: Proof roll in the presence of the Owner's Consultant areas beneath pavements to a dense unyielding surface.
- G. Compact materials at the optimum moisture content as determined by ASTM D 1557 by aeration or wetting to the following percentages of maximum dry density:
  1. Structure, Pavement, Walkways: Subgrade and each fill layer to 95 percent of maximum dry density to suitable depth.
  2. Unpaved Areas: Top 6 inches of subgrade and each fill layer to 90 percent maximum dry density.

## 2.5 FINISH GRADING

- A. General: Remove concrete, rocks, rubble and debris larger than 2 inches from surface. Finish grades flush with adjacent surfaces unless indicated otherwise. Finish grade in landscape areas adjacent to paved surfaces 1 inch below elevation of paved surface unless noted otherwise. Execute any fine grading as may be necessary or incidental to subsequent work.
- B. Grading Tolerance: Match contours and elevations shown within 1/10 foot. Slope areas to drain away from structures; no puddling will be accepted.
- C. Acceptance of Finish Grading: Finish grades will be inspected and subject to acceptance by the Owner. Correct work not approved at no additional cost and/or with no added time to the contract.
- D. Protection of Finished Surfaces: Allow no heavy objects to be moved over finish grade surfaces. Repair ruts or holes in finished surfaces, and any obstruction to positive drainage at no additional cost to the Owner. Repair areas showing settlement at no additional cost and/or with no added time to the contract.

## 2.6 FIELD QUALITY CONTROL

- A. Perform testing to verify conformance with Specifications.
- B. Compaction:
  1. Compact all fill and backfill to prevent subsequent settlement.
  2. Do not use water settling or jetting as a means of compaction.
  3. Furnish heavy vibratory rollers or compactors except as follows:
    - a. Use pneumatic hand tampers for trenches and areas not accessible to heavy equipment.
    - b. Compact areas within 5 feet of footings, foundations and walls with hand vibrators.
  4. Required compaction:
    - a. Compact fills and backfills to the minimum relative compaction noted in 3.2.D.1 Table A Fill Classifications (percentage of maximum dry density determined in accordance with ASTM D1557).
- C. Moisture Control:
  1. Where subgrade or lift of soil material must be moisture conditioned before compaction, uniformly apply water to surface of sub-grade and till into the subgrade to uniformly moisture condition underlying material to prevent free water appearing on surface during or subsequent to compaction operations.
  2. Before compaction, moisten or aerate each layer as necessary to provide optimum content. Compact each layer to required percentages of maximum dry density or relative dry density for each area classification.
  3. Do not perform compaction operations on excessively wetted soils.
  4. Import structural fill shall be placed and compacted with an acceptable moisture content of -2% below and +2% above optimum moisture content as determined by the ASTM D-1557 and compacted to a firm and unyielding condition at the compaction levels specified for the application where it is to be used.
  5. Common fill shall be placed and compacted with an acceptable moisture content of 1% below and 2% above moisture content as determined by ASTM – 1557 and compacted to the levels specified for the application where it is used.

D. Placement

1. All fill material shall be placed in controlled layers, the thickness of which is compatible with the type of compaction equipment used. The loose thickness of each fill layer shall not exceed eight inches. Compact each layer to a minimum relative compaction as listed in 3.2.D.1 Table A Fill Classifications.

2.7 DISPOSAL OF EARTH MATERIALS:

- A. Remove from the Owner's property all excavated material that is not acceptable for use as fill on site. Legally dispose of excess material off site, at Contractor's expense. Provide dump receipts from an approved dump site if directed.

**END OF SECTION**