

REQUEST FOR BIDS

VANTAGE POINT ELEVATOR

17901 105TH PL SE
RENTON, WA 98055

RELEASED BY:



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

BID DATES

ISSUANCE DATE: APRIL 3, 2024

DUE DATE: APRIL 24, 2024

TIME: 1:00 PM



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INVITATION FOR BID **DUE DATE: APRIL 24, 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: VANTAGE POINT SOUTH ELEVATOR ADDITION

Vantage Point Apartments located off the arterials SE Carr Road/SE Petrovitsky Road and 108th Ave SE, in the Benson Hill Neighborhood of Renton. Vantage Point Community is comprised of a senior population with ADA accommodations built in 2015 is a four story building with 77 units. The building is constructed of wood framing over continuous concrete footing stem walls, and with the first floor being a slab on grade, second floor contains post tension decking, and the third and fourth floor are constructed of wood framing. Contractor shall provide all services and materials to furnish and install one (1) ground hydraulic elevator into an existing shaft. Work will include boring new hole for in-ground jack, and complete new jack assembly, casing and pit channels. Scan concrete before boring to confirm existing rebar configuration. Add additional members as necessary to maintain structural integrity of pit slab. Coat any rebar that is cut or exposed in the boring process.

Provide electrical components of the elevator equipment and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire, and relays as specified and as necessary for complete operable systems. Openings required in the hoistway shall be completed by drilling or cutting.

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: **April 10, 2024**
Time: **11:00 AM**
Jobsite Address: **17901 105th Pl SE Renton, WA 98055**
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: Amy Kurtz
Email Address: Amyk@kcha.org
Phone Number: 206-574-1283
No Later Than: April 17, 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 24, 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:



VANTAGE POINT SOUTH ELEVATOR ADDITION

- 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.

DAVIS BACON LABOR RATES:

Bidders should note that the current prevailing Davis-Bacon labor 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
425-258-1303

CONTRACTOR PLAN CENTER
5468 SE International Way
Milwaukie, OR 97222
www.contractorplancenter.com
503-650-0148

DAILY JOURNAL OF COMMERCE
www.djc.com
206-622-8272

DODGE CONSTRUCTION NETWORK
www.construction.com
877-784-9556

ISQFT
www.isqft.com
800-364-2059 x7051

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PUBLICATION: Daily Journal of Commerce Daily
The Seattle Medium Wednesday



Northwest Asian Weekly
KCHA Web Site

Thursday
www.kcha.org/business/construction/open

CONTACT PERSON:

Amy Kurtz	Project Manager
206-574-1283	Phone Number
Amyk@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 style="text-align: center;">TO:</p> <p style="text-align: center;">KING COUNTY HOUSING AUTHORITY CAPITAL CONSTRUCTION DEPARTMENT 700 Andover Park West, Suite C Tukwila, WA 98188</p> <p>BID DUE:</p> <p>Date: April 24, 2024 Time: 1:00 PM</p> <p style="text-align: center;">PROJECT NAME: VANTAGE POINT ELEVATOR</p>

**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, accept other than the lowest bid (e.g., the apparent low bid is unreasonably low), and waive informalities or minor irregularities in bids received, in accordance with the PHA's/IHA's written policy and procedures.

(e) Unless precluded elsewhere in the solicitation, the PHA/IHA may accept any item or combination of items bid.

(f) The PHA/IHA may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(g) A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either party.

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

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



PRE-BID CONFERENCE

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

PROJECT SITE ADDRESS: **Vantage Point
17901 105th PI SE
Renton, WA 98055**

CONFERENCE DATE: **April 10, 2024**

TIME: **11:00 AM**

CONTACT NAME: **Amy Kurtz**

EMAIL: **Amyk@kcha.org**

PROJECT WAGE RATES

A. DAVIS BACON WAGE RATES

TYPE OF WAGE RATES: DAVIS BACON – RESIDENTIAL RATES

WAGE DECISION NUMBER: WA20230091

MODIFICATION NUMBER: 0

DATE OF MODIFICATION NUMBER: 01-05-2024

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)

"General Decision Number: WA20240091 01/05/2024

Superseded General Decision Number: WA20230091

State: Washington

Construction Type: Residential

County: King County in Washington.

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

BRWA0001-018 06/01/2021

	Rates	Fringes
BRICK POINTER/CAULKER/CLEANER....	\$ 46.14	16.97
BRICKLAYER.....	\$ 46.14	16.97

ELEV0019-001 01/01/2023

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 62.25	37.335+a+b

FOOTNOTE:

- a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
- b. PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

LAB00238-001 06/01/2023

	Rates	Fringes
LABORER (Mason Tender - Cement/Concrete).....	\$ 34.97	15.60

LAB00242-001 06/10/2021

	Rates	Fringes
LABORER (Mason Tender - Brick)...	\$ 42.98	13.19

PAIN0005-011 07/01/2013

	Rates	Fringes
PAINTER (Drywall Finishing/Taping Only).....	\$ 33.88	15.77

PAIN0188-006 10/01/2020

	Rates	Fringes
GLAZIER.....	\$ 34.80	13.56

PLAS0528-003 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 52.10	20.27

SFWA0699-001 04/01/2023

	Rates	Fringes
SPRINKLER FITTER.....	\$ 46.18	26.40

SHEE0066-049 06/01/2019

	Rates	Fringes
SHEET METAL WORKER (Excluding		

HVAC Duct Installation).....\$ 56.09 28.02

TEAM0690-010 01/01/2019

	Rates	Fringes
TRUCK DRIVER		
GROUP 3.....	\$ 28.16	17.40
GROUP 4.....	\$ 28.49	17.40
GROUP 5.....	\$ 28.60	17.40
GROUP 6.....	\$ 28.76	17.40
GROUP 7.....	\$ 29.30	17.40
GROUP 8.....	\$ 29.62	17.40

TRUCK DRIVERS CLASSIFICATIONS

- GROUP 3: Trucks, side, end, bottom and articulated end dump (3 yards to and including 6 yds.)
- GROUP 4: Trucks, side, end, bottom and articulated end dump (over 6 yds. to & including 12 yds.)
- GROUP 5: Trucks, side, end, bottom and articulated end dump (over 12 yds. to & including 20 yds.)
- GROUP 6: Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.)
- GROUP 7: Truck, side, end, bottom and articulated end dump (over 40 yds. to & including 100 yds.)
- GROUP 8: Trucks, side, end, bottom and articulated end dump (over 100 yds.)

FOOTNOTE A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR - This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR - Uses supplied air in conjunction with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

SUWA2011-011 06/27/2014

	Rates	Fringes
CARPENTER.....	\$ 24.57	4.86
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 24.59	0.00
ELECTRICIAN.....	\$ 35.14	11.18
LABORER: Common or General.....	\$ 18.41	3.20
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 32.74	15.15
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 17.53	0.00
OPERATOR: Bulldozer.....	\$ 29.63	0.00

OPERATOR: Concrete Pump.....	\$ 33.57	15.15
Painter (Brush, Roller, and Spray).....	\$ 20.82	7.44
PLUMBER.....	\$ 32.25	7.97
ROOFER.....	\$ 23.12	2.90
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 29.67	13.78

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number

where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for

the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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.

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 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, 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. **Davis-Bacon**
 - 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 (NA)**

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

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

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

VANTAGE POINT ELEVATOR

17901 105TH PI SE Renton, WA 98055

DUE DATE: April 24, 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:

Vantage Point Elevator
17901 105th Pl SE Renton, WA 98055

SCOPE OF WORK:

Vantage Point Apartments located off the arterials SE Carr Road/SE Petrovitsky Road and 108th Ave SE, in the Benson Hill Neighborhood of Renton. Vantage Point Community is comprised of a senior population with ADA accommodations built in 2015 is a four story building with 77 units. The building is constructed of wood framing over continuous concrete footing stem walls, and with the first floor being a slab on grade, second floor contains post tension decking, and the third and fourth floor are constructed of wood framing. Contractor shall provide all services and materials to furnish and install one (1) ground hydraulic elevator into an existing shaft. Work will include boring new hole for in-ground jack, and complete new jack assembly, casing and pit channels. Scan concrete before boring to confirm existing rebar configuration. Add additional members as necessary to maintain structural integrity of pit slab. Coat any rebar that is cut or exposed in the boring process.

Provide electrical components of the elevator equipment and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire, and relays as specified and as necessary for complete operable systems. Openings required in the hoistway shall be completed by drilling or cutting.

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

BASE BID:

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

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

Contractor must pay the attached Davis Bacon 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.

BASE BID PRICE		
A.	Materials , including all applicable Taxes	\$
B.	Labor	\$
C.	O & P , including all applicable Fees	\$
D.	Owner Allowance for added work contingency, as authorized by KCHA	\$26,000.00
TOTAL BID AMOUNT: (all costs inclusive – A, B, C& D) Round to Nearest Dollar		\$
And No/100 Dollars		
PRINT (in words) Total Bid Amount. Sample – Three Hundred Thousand, Two Hundred Sixty-Six		

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.

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

Bidding Contractor’s Company Name: _____ Initials: _____



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.

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.

Bidding Contractor’s Company Name: _____ Initials: _____



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: **TWO AND ONE-HALF PERCENT (2.5%)**

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;
 - 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 Indemnatee 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 Indemnatee, and if such damages are

Bidding Contractor’s Company Name: _____ Initials: _____



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).

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 Go to

Bidding Contractor’s Company Name: _____ Initials: _____



**KCHA – VANTAGE POINT ELEVATOR
CAPITAL CONSTRUCTION DEPARTMENT**

www.kcha.org/business/requirements Scroll down to Fair Housing Laws and Read: **Fair Housing / Accessibility Notice**

Bidding Contractor's Company Name: _____ Initials: _____



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

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

City-State-Zip:

Mailing Address if different than Physical:

City-State-Zip:

Telephone:

Name of Person Authorized to Sign Contract:
(if Company is Awarded Contract)

Title of Person Authorized to Sign Contract:
(if Company is Awarded Contract)

Email Address of Person Authorized to Sign Contract:
(if Company is Awarded Contract)

Website:

Contractor’s License (WA State) Number:

UBI (Unified Business License) Number:

Employment Security Account Number:

State Excise Tax Registration Number:

Federal Tax I.D. Number:

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 – VANTAGE POINT ELEVATOR
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.

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: _____ **EMPLOYMENT SECURITY NUMBER:** _____
(Must be a valid WA State License)

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**

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 & 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: VANTAGE POINT ELEVATOR

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.)

NAME OF OWNER(S)	DATE(S) OF OWNERSHIP (from – to)
_____	_____
_____	_____
_____	_____

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.

Bidding Contractor's Company Name: _____ Initials: _____



KCHA – VANTAGE POINT ELEVATOR
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



NON-COLLUSIVE AFFIDAVIT – RETURN EACH FORM SINGLE SIDED

FOR CONTRACTS AND EQUIPMENT \$50,000 AND ABOVE

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

_____, being first duly sworn, deposes and says:

That he / she is a Partner or Officer of the Firm of, etc. _____

The party making the forgoing proposal or bid, that such proposal or bid is genuine and not collusive or a sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or of any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against KING COUNTY HOUSING AUTHORITY or any person interested in the proposed contract; and that all statements in said proposal or bid are true.

SIGNATURE OF AUTHORIZED OFFICIAL

_____ **Bidder, if the Bidder is an Individual**

_____ **Partner, if the Bidder is a Partnership**

_____ **Officer, if the Bidder is a Corporation**

SUBSCRIBED AND SWORN to before me:

this _____ day of _____, 20 _____

(Signature)

(Print Name)

My Commission Expires: _____, 20_____

Bidding Contractor’s Company Name: _____ Initials: _____



EQUAL OPPORTUNITY CLAUSE – RETURN EACH FORM SINGLE SIDED

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

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

AUTHORIZED OFFICIAL:

SIGNATURE

NAME (PLEASE PRINT)

TITLE (PLEASE PRINT)

DATE

Bidding Contractor's Company Name: _____ Initials: _____



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:

VANTAGE POINT ELEVATOR

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 – VANTAGE POINT ELEVATOR
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.

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 24, 2024
PROJECT NAME: Vantage Point Elevator
RETURN FORM TO: Amyk@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: Amy Kurtz, 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 Exhibit F	Drawings Table of Contents	

- .4 Specifications

Section	Title	Date	Pages
Refer to Exhibit G	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 A201™ – 2017

General Conditions of the Contract for Construction

CONTRACT NUMBER:

for the following PROJECT:

(Name and location or address)

NAME OF SITE

Street Address

City, State Zip

PROJECT NAME:

THE OWNER:

(Name, legal status and address)

KING COUNTY HOUSING AUTHORITY

600 Andover Park West

Tukwila, Washington 98188

THE CONTRACTOR:

(Name, legal status and address)

CONTRACTOR'S NAME

Address

City, State Zip

THE ARCHITECT and/or THE ENGINEER:

(Name, legal status and address)

ARCHITECT/ENGINEER NAME

Address

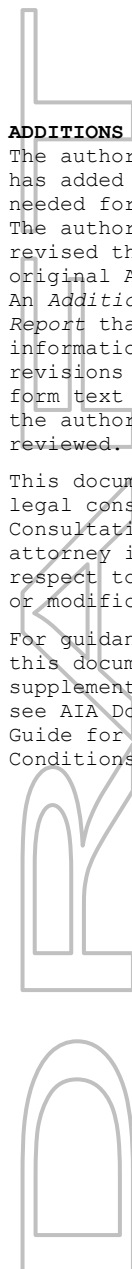
City, State Zip

ADDITIONS AND DELETIONS:

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

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

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



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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

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

§ 1.1.2 The Contract

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

§ 1.1.3 The Work

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

§ 1.1.4 The Project

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

§ 1.1.5 The Drawings

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

§ 1.1.6 The Specifications

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

§ 1.1.7 Instruments of Service

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

§ 1.2 Correlation and Intent of the Contract Documents

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

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

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

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

§ 1.3 Capitalization

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

§ 1.4 Interpretation

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

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

§ 1.5.1 The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect’s or Architect’s consultants’ reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner.

§ 1.6 Notice

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

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

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

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner’s approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term “Owner” means the Owner or the Owner’s authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic’s lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner’s interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

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

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner may retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.5 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.6 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

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

§ 2.5 Owner's Right to Carry Out the Work

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

ARTICLE 3 CONTRACTOR

§ 3.1 General

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

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

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

§ 3.1.4 Progress Meetings. The Contractor shall schedule and conduct meetings with the Owner and as determined by the Owner with the Architect also present, to discuss such matters as procedures, progress, coordination, and the Final Project Schedules. The Contractor shall prepare, record, and promptly distribute minutes of each progress meeting to each attendee and identified stakeholders. The Contractor shall also provide a short-term look-ahead schedule for presentation and review at each progress meeting. The short-term schedule shall be in sufficient detail to allow the Contractor and Owner to make any necessary schedule modifications to maintain the progress of the Work and for adherence to the time frames stipulated in the Agreement. The following shall also be included in the progress meeting agenda:

- .1 Coordination of architectural, structural, mechanical, electrical, civil work or any other item associated with the Work.
- .2 Measures to mitigate adverse effects of construction on the residents of the development during construction.
- .3 Resolving issues with governing agencies.
- .4 Status of submittals, RFI's, COR's and COR's.
- .5 Site safety and associated issues.
- .6 Segregated and comingled material recycling reports.
- .7 Section 3 compliance and status.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

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

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Owner any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Owner may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

- .1 If there is a discrepancy between Scope of Work, Specifications and/or Drawings, the Scope of Work shall take precedence followed by the Specifications and lastly the drawings.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Owner any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Owner may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Owner issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, and shall propose alternative means, methods, techniques, sequences, or procedures. The Owner shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Owner objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures and shall not proceed with that portion of the Work without further written instructions from the Owner. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

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

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Owner in accordance with Section 3.12.8, the Contractor may make substitutions only with the consent of the Owner, and in accordance with a Change Order or Construction Change Directive.

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

§ 3.5 Warranty

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

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

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

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay permits other than those acquired and paid by the Owners.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction. The Contract shall provide the required tenant notices as directed by the Owner.

§ 3.7.4 Concealed or Unknown Conditions

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

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

§ 3.8 Allowances

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

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

§ 3.9 Superintendent

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

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

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.9.4 The Contractor's Superintendent(s) shall be physically present at the jobsite from daily commencement of work to daily completion of work. The site shall be managed daily without interruption. Daily commencement and daily completion are defined as the actual hours of operation for the project.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Owner's approval. The Owner's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Owner reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner.

§ 3.11 Documents and Samples at the Site

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

§ 3.12 Shop Drawings, Product Data and Samples

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

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

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

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Owner, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal

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

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Owner.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Owner's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Owner of such deviation at the time of submittal and (1) the Owner has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Owner's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Owner on previous submittals. In the absence of such notice, the Owner's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Owner. The Owner shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner has specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Owner will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

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

§ 3.14 Cutting and Patching

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

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

§ 3.15 Cleaning Up

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

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

§ 3.16 Access to Work

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

§ 3.17 Royalties, Patents and Copyrights

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

§ 3.18 Indemnification

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

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

ARTICLE 4 ARCHITECT

§ 4.1 General

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

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

§ 4.2 Administration of the Contract

§ 4.2.1 The Owner will provide administration of the Contract as described in the Contract Documents during construction until the date the Owner issues the final Certificate for Payment.

§ 4.2.2 The Owner will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Owner will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Owner will identify (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Owner will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Owner will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 The Owner will conduct a mandatory pre-construction meeting with the Contractor. The meeting will include but is not limited to a review of the scope of work, project schedules, general requirements for construction work, jobsite security, staging and storage areas, material recycling and salvage, jobsite cleanup, and tests, samples and construction observation. The meeting will also include a review of the submittal process for applications for payment, the change order process, the process for progress payments, the final application for payment, and release of retention. A review of the Certified Payroll process will also be conducted. A separate Certified Payroll training session will be conducted by the Owner with the Contractor and with each subcontractor.

§ 4.2.5 A separate meeting will be also be conducted to review the Section 3 plan submitted by the Contractor and to review of the Section 3 reporting procedures.

§ 4.2.6 The Contractor shall contact the local jurisdiction to conduct a pre-construction conference with building officials and other local agencies as applicable for the project.

§ 4.2.4 Communications

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

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

§ 4.2.6 The Owner has authority to reject Work that does not conform to the Contract Documents. Whenever the Owner considers it necessary or advisable, the Owner will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Owner nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Owner to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Owner and/or Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Owner and/or Architect's action will be taken in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Owner's professional judgment to permit adequate review. Review of such submittals is not conducted for the

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

§ 4.2.8 The Owner will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Owner will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Owner will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.11 The Owner will interpret and decide matters concerning performance under, and requirements of, the Contract Documents. The Owner's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Owner will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings..

§ 4.2.13 The Owner's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Owner will review and respond to requests for information about the Contract Documents. The Owner's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will assist the Owner and respond to Requests For Information (RFI's) as directed by the Owner and will prepare and issue supplemental Drawings and Specifications in response to the Requests For Information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

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

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall confirm for the Owner of the persons or entities for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design as identified in the Bid Documents. Within 14 days of receipt of the information, the Owner may notify the Contractor whether the Owner (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection. The Contractor shall ensure that all and any Subcontractor(s) are not on any Debarment Lists and are Not Excluded from performing work on Federally Funded Projects. The Contractor shall provide written evidence of such to the Owner prior to the commencement of work.

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

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

§ 5.3 Subcontractual Relations

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

§ 5.4 Contingent Assignment of Subcontracts

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

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

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

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

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

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

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

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner’s own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner’s own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

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

§ 6.2.2 If part of the Contractor’s Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Owner of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor’s Work. Failure of the Contractor to notify the Owner of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner’s or Separate Contractor’s completed or partially completed construction is fit and proper to receive the Contractor’s Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor’s delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor’s delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.2.6 The Contractor is obligated to comply with all Davis-Bacon and/or State Prevailing regulations if applicable, and shall inform all Subcontractors of this mandatory requirement. Strict compliance of the provisions of certified payrolls and monitoring of that compliance is a direct responsibility of the Contractor for each Subcontractor. Failure of the Contractor to monitor Davis-Bacon requirements including certified payroll compliance by Subcontractors, as evidenced by the Owner’s review and written correction notices provided to the Contractor of non-compliance, will result in delay of progress payments to the Contractor by the Owner.

§ 6.3 Owner’s Right to Clean Up

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

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1

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

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

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

All changes in the Work shall be completed for a Fixed Fee.

- .1 Overhead, Profit, and General Conditions
 - (a.) The allowed markup shall cover all indirect project costs, including but not limited to: project Overhead, Profit, and General Conditions
 - (b.) The Contractor shall be allowed a maximum of 14% Overhead, Profit, and General Conditions, on the cost of craft labor, equipment, small tools and materials for self-performed Change Order work.
 - (c.) The Contractor shall be allowed a maximum of 8% Overhead, Profit, and General Conditions on the cost of craft labor, equipment, small tools and materials for Subcontractor Change Order work. The Contractor is not allowed to take a profit on the profit of the Subcontractor, as stated in form HUD-5370, section 29.
 - (d.) A Subcontractor shall be allowed a maximum of 14% of the cost of craft labor, equipment, materials, and small tools for Overhead, Profit, and General Conditions, for performing self-performed Change Order work.
 - (e.) A Lower Tier Subcontractor shall be allowed a maximum of 14% of the cost of craft labor, equipment, materials, and small tools for Overhead, Profit, and General Conditions, for performing Change Order work.

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

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

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Owner and signed by the Owner and Contractor stating their agreement upon all of the following:

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

§ 7.3 Construction Change Directives

§ 7.3.1

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

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

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

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

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

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

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

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

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

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

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Owner will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Owner determines to be reasonably justified. The Owner's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Owner will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

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

ARTICLE 8 TIME

§ 8.1 Definitions

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

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

§ 8.1.3 The date of Substantial Completion is the date certified by the Owner in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

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

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

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

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Owner determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Owner may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

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

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

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

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

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

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Owner an itemized Application for Payment using AIA Form G701 and AIA Form G702 and in accordance with Article 5 of A101-2017 prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

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

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

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

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

§ 9.5 Decisions to Withhold Certification

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

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

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, approval will be made for amounts previously withheld.

§ 9.5.4 If the Owner withholds payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Owner has issued an Application for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Owner will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. The Owner shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

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

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

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

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

§ 9.8 Substantial Completion

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

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

§ 9.8.3 Upon receipt of the Contractor's list, the Owner will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner. In such case, the Contractor shall then submit a request for another inspection by the Owner to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Owner will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Contractor for written acceptance of responsibilities assigned in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

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

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection. When the Owner finds the Work acceptable under the Contract Documents and the Contract fully performed, the Owner will promptly notify the Contractor that to the best of the Owner's knowledge, information and belief, and on the basis of the Owner's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Application for Payment is due and payable. The Owner's acceptance will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, the Owner shall, upon application by

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

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

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

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

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

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

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

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

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

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

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor will promptly reply to the Owner in writing stating whether or not there is reasonable objection to the persons or entities proposed by the Owner. If the Contractor has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor has no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

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

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 **Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the

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

§ 11.3 Waivers of Subrogation

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

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

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

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

§ 11.5 Adjustment and Settlement of Insured Loss

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

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

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

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

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

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

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

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

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

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

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

§ 13.2 Successors and Assigns

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

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

§ 13.3 Rights and Remedies

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

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

§ 13.4 Tests and Inspections

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

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

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

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

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

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

§ 13.5 Interest

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

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

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

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Owner has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

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

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

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

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

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

§ 14.4 Termination by the Owner for Convenience

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

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

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

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

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

§ 15.1.2 Time Limits on Claims

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

§ 15.1.3 Notice of Claims

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

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party.

§ 15.1.4 Continuing Contract Performance

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

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

§ 15.1.5 Claims for Additional Cost

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

§ 15.1.6 Claims for Additional Time

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

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

§ 15.1.7 Waiver of Claims for Consequential Damages

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

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

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

§ 15.2 Initial Decision

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

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

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

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

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

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

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

§ 15.4 Arbitration

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

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

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

ARTICLE 16 Federal Provisions

§ 16.1 Prohibition Against the Use of Lead Based Paint

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

§ 16.2 Federal Health, Safety, and Accident Prevention

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

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

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

§ 16.4 Energy Efficiency

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

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

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

§ 16.6 Interest of Member of Congress

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

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

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

§ 16.8 Organization Conflicts of Interest

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

§ 16.9 Lobbying

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

§ 17 Audits and Inspections

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

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

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

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

§ 18.1 The work to be performed under this contract is subject to the requirements of the Section 3 Regulations. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very 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.

§ 18.2 The parties to this contract agree to comply with HUD's Section 3 Regulations. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Section 3 Regulations.

§ 18.3 The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

§ 18.4 The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with Section 3 Regulations, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the Section 3 Regulations. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the Section 3 Regulations.

§ 18.5 The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom Section 3 Regulations require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under Section 3 Regulations.

§ 18.6 Noncompliance with Section 3 Regulations may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

§ 18.7 The Contractor shall submit to the Owner a Section 3 Work Plan, including hiring and subcontracting activities, and an Individual Certification Form for each person that is assigned to the project, prior to the contract execution. The Contractor will submit to the Owner with each Application for Payment the Section 3 Labor Hours Benchmark Status Report and any Individual Certification Form(s) for persons not initially assigned to the project prior to the contract execution. Noncompliance, incorrect, or missing documents will result in progress payments being withheld until all issues are resolved to the satisfaction of the Owner.

§ 18.8 Section 3 Employment and Training. Without limiting Contractor's obligation to comply with Section 3 Regulations, Contractor specifically agrees to use best efforts to provide employment and training opportunities to Section 3 workers in the following order of priority:

- .1 To residents of the KCHA development where the work is being performed;
- .2 To residents of other KCHA developments or for residents of Section 8–assisted housing managed by KCHA;
- .3 To participants in YouthBuild programs; and
- .4 To low- and very low-income persons residing within the Puget Sound Area.

§ 18.8 Section 3 Contracting. Without limiting Contractor's obligation to comply with Section 3 Regulations,

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 Area.

§ 19 OTHER INFORMATIVE INFORMATION

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



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.



PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT, That we the Undersigned, _____

as **PRINCIPAL**, and _____ as **SURETY** are held and bound unto the **KING COUNTY HOUSING AUTHORITY** of Seattle, Washington, hereinafter called the Public Housing Authority in the penal sum of:

\$ _____ and No/100 (\$ _____) **DOLLARS**, lawful money of the United States, for the payment of which Lawful money of the United States, for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a certain Contract with the Public Housing Authority dated _____, 20____, a copy of which is hereto attached and made a part hereof.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall in all respects fully perform the Contract and all duly authorized modifications thereof, during its original term and any extensions thereof that may be granted and during any guaranty period for which the Contract provides, and if the Principal shall fully satisfy all claims arising out of the prosecution of the Work under the contract and shall fully indemnify the Public Housing Authority for all expenses which it may incur by reason of such claims, including its attorney’s fees and court costs, and if the Principal shall make full payment to all persons supplying labor, services, materials, or equipment in the prosecution of the Work under the contract, in default of which such persons shall have a direct right of action hereupon, and if the Principal shall pay or cause to be paid all sales and use taxes payable as a result of the performance of the Contract as well as payment of gasoline and special motor fuels taxes in the performance of the Contract and all motor vehicle fees required for commercial motor vehicles used in connection with the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect. No modification of the Contract or extension of the term thereof, nor any forbearance on the part of the Public Housing Authority, shall in any way release the Principal or the Surety from liability hereunder. Notice to the Surety of any such modification, extension, or forbearance is hereby waived.

IN WITNESS WHEREOF, the aforesaid Principal and Surety have executed this instrument and affixed their seals hereto, this _____ day of _____ 20____.

WITNESS:	_____	(Individual Principal)	
	_____	(Business Address)	(Seal)
	_____	(Individual Principal)	
	_____	(Business Address)	(Seal)

ATTEST:	_____	(Corporate Principal)	
	_____	(Business Address)	
		(By)	(Corporate Seal)
		(Title)	

ATTEST:	_____	(Surety)	
	_____	(Business Address)	
		(By)	(Corporate Seal)
		(Title)	

The Rate of Premium on this Bond is \$ _____ per thousand.
The Total Amount of Premium Charges is \$ _____
(The above is to be filled in by Surety Company. * Power of Attorney of person signing for Surety Company must be attached.)



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 equivalent¹** 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.

¹ "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 Indemnitee, 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

1. * Type of Federal Action: <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	2. * Status of Federal Action: <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
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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:

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

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



Vendor Set-up Form (Alternative W-9)

FOR KCHA USE ONLY	Submitted by: _____	Vendor Number: _____	Date: _____
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Name (as shown on your income tax return):

Business name/disregard entity name, **if different from above**:

Check appropriate box for Federal tax classification (required):

- Individual
 S Corporation
 Trust/Estate
 Other (see instructions)
 C Corporation
 Partnership
 Exempt Payee
 Limited Liability Company (LLC). Enter the tax classification (C=C corporation, S=S Corporation, P=Partnerships)
 >> _____

1099 Address (number, street, and apt. or suite no.):	City, State, and Zip Code:	Telephone:
---	----------------------------	------------

Remit to address (if different from above):	City, State, and Zip Code:	Email:
---	----------------------------	--------

Taxpayer Identification Number (TIN)	PROVIDE ONE ONLY
--------------------------------------	------------------

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). For other entities, it is your employer identification number (EIN).	SSN:	_____
	EIN:	_____

Terms of Payment
 Net 30
 Net 10th of Month
 Other _____
 Net 10
 Due upon receipt

*Section-3: Yes No *Questions can be directed to KCHA Section 3 Coordinator 206-826-5335

WMBE:
 MINORITY OWNED (MBE OR MWBE)
 WOMEN OWNED (WBE)
 Not Applicable
 1. White American
 4. Hispanic American
 NONE OF THE ABOVE (NEC)
 2. Black American
 5. Asian Pacific American
 Other _____
 3. Native American
 6. Hasidic Jew

Certification

Under the penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: a) I am exempt from backup withholding, or b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person. See instructions

Certification Instructions: You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition of abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments to other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN.

The IRS does not require your consent to any provision of this document other than the certification required to avoid backup withholding.

SIGN HERE	Signature of U.S. Person: _____	Date: _____
------------------	---------------------------------	-------------

Return completed form to King County Housing Authority, 600 Andover Park West, Tukwila, WA 98188

See instructions below or refer to the IRS instructions at www.irs.gov for details on completing this form.

General Instructions:

Purpose of the Form: Establish or update a vendor account with the King County Housing Authority. This form meets the Federal requirements to request a taxpayer identification number (TIN), request certain certifications and claims for exemption, as well as the King County Housing Authority (KCHA) requirements for vendor establishment.

- Complete form if:
- You are a U.S. person (including a resident alien);
 - You are a vendor that provides goods or services to KCHA; AND
 - You will receive payment from KCHA

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.

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.



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. 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. 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 Selective Coordination Study February 2024



February 8, 2024

Levi Jette
SHKS Architects
1050 North 38th Street
Seattle, WA 98103

Project: Vantage Point Elevator
Subject: NEC 620.62 Selective Coordination Study

Methodology

The Arc Flash Study was modeled with the latest release of SKM Power*Tools, Electrical Engineering Software, Version 11.0.0.1.

The study was calculated using NFPA-70E (2018), IEEE Standard 1584 (2018) and applicable NEC standards and codes.

Section 4.3 of the IEEE 1584 (2018) states that 'Sustainable arcs are possible but less likely in three-phase systems operating at 240 V nominal or less with an available short-circuit current less than 2000 A' and will be applied as applicable.

We have assumed, per IEEE 1584, that the maximum arcing time current would be two-seconds. The standard argues that after this period of time, the individual would either move voluntarily or be blown clear of the arcing fault.

Existing Conditions

The SKM model for this project was based on information gathered during the site observation of the existing equipment on August 16th. The Fault Current available at the service PSE transformer, in amps, provided from the Puget Sound Energy construction drawings.

The building has 3 fully operational elevators (Elev.'s #2, #3, #4) and the infrastructure in place for another. This existing infrastructure is to be used for the new elevator (Elev. #1).

By code (NEC 620.62) elevators are required to have upstream overcurrent protection be Selectively Coordinated. There is no documentation confirming a study was performed so as "EOR" Engineer of Record we are requiring a Selective Coordination study be performed on the existing elevator infrastructure for installation of the new Elev. #1 confirming its code compliance. Selective coordination study is the scope included in this work.

Results:

- 1.) Existing Elevator infrastructure to be used for the installation of the new elevator did not achieve selective coordination and corrective actions need to be taken.

- EDP (Elevator Distribution Panel) Main service disconnect does not coordinate with existing internal 175A breaker to be used for the new elevator. See TCC for additional information.
- EL-1 – Existing Elevator support panel breakers are Selectively Coordinated with all upstream equipment/devices. See TCC – EL1.TCC.pdf for additional information.

Corrective measures:

- 1.) Install new 800A Service breaker into Panel “EDP” – Eaton 800A NGS breaker with a 310+ LSI Trip unit and a KPRL4 connector kit.
- See attachment – ELEVATOR 1.pdf indicating the elevator system has been Selective coordinated with new 800A Service Breaker in “EDP” & 175A breaker for “Elevator #1”.

Regards,



Michael Case, P.E.
President



Attachments:

- Riser Diagram
- SKM One-Line
- Time Current Curve – EXISTING - MDL MAIN & 175A EL1.pdf
- Time Current Curve – Support Panel “EL1” – EL1.TCC.pdf
- Time Current Curve – “EDP” – ELEVATOR #1.TCC.pdf
- Time Current Curve – “EDP” – ELEVATOR #2.TCC.pdf
- Time Current Curve – “EDP” – ELEVATOR #3.TCC.pdf
- Time Current Curve – “EDP” – ELEVATOR #4.TCC.pdf
- Arc Flash Evaluation Report
- Arc Flash Labels
- Adjustable Low Voltage Circuit Breaker Settings
- EATON - Selective-Coordination Table 2

(EXISTING) PANEL 'EDP' PROJECT NAME: KCHA VANTAGE POINT PROJECT #: 23226 LOCATION: RENTON, WA FED FROM: UTILITY TRANSFORMER

NOTE	CIRCUIT NAME	CB SIZE	LOAD (KVA)							TOTAL	PANEL DESCRIPTION
			R	H	M	L	K	O			
1	(EXISTING) EL 4 SHUNT (ELEVATOR #4)	A 175 3			13.7				13.7	PANEL AMPS : 800	
3	---	B ---			13.7				13.7	FEEDER AMPS : 800	
5	---	C ---			13.7				13.7	L - LVOLTS : 208	
7	(EXISTING) EL 3 SHUNT (ELEVATOR #3)	A 250 3			21.1				21.1	L - NVOLTS : 120	
9	---	B ---			21.1				21.1	PHASE : 3	
11	---	C ---			21.1				21.1	WIRES : 4	
13	(EXISTING) PANEL EL 4	A 60 3	0.4	2.9	0.1				0.6 4.0		
15	---	B ---	0.2	3.1	0.1				3.4		
17	---	C ---		0.6					1.0 1.6		
19	(EXISTING) PANEL EL 3	A 60 3	0.4	2.9	0.1				0.6 4.0		
21	---	B ---	0.2	3.1	0.1				3.4		
23	---	C ---		0.6					1.0 1.6		
25	SPACE ONLY	A									
27	SPACE ONLY	B									
29	SPACE ONLY	C									
31	SPACE ONLY	A									
33	SPACE ONLY	B									
35	SPACE ONLY	C									
37	SPACE ONLY	A									
39	SPACE ONLY	B									
41	SPACE ONLY	C									
LOAD SUMMARY											
2	EL 1 SHUNT (ELEVATOR #1)	A 175 3			13.7				13.7	REC KVA : 2.2	
4	---	B ---			13.7				13.7	HEAT KVA : 4.0	
6	---	C ---			13.7				13.7	MOTOR KVA : 235.2	
8	(EXISTING) EL 2 SHUNT (ELEVATOR #2)	A 250 3			21.1				21.1	LIGHTING KVA : 0.9	
10	---	B ---			21.1				21.1	KITCHEN KVA : 2.1	
12	---	C ---			21.1				21.1	OTHER KVA : 6.4	
14	(EXISTING) PANEL EL 2	A 60 3	0.4	2.9	0.1				0.6 4.0		
16	---	B ---	0.2	3.1	0.1				3.4	PHASE A KVA : 85.5	
18	---	C ---		0.6					1.0 1.6	AMPS : 712.4	
20	(EXISTING) PANEL EL 1	A 60 3	0.4	2.9	0.1				0.6 4.0	PHASE B KVA : 83.2	
22	---	B ---	0.2	3.1	0.1				3.4	AMPS : 693.0	
24	---	C ---		0.6					1.0 1.6	PHASE C KVA : 76.0	
26	SPACE ONLY	A								AMPS : 633.3	
28	SPACE ONLY	B									
30	SPACE ONLY	C									
32	SPACE ONLY	A									
34	SPACE ONLY	B									
36	SPACE ONLY	C									
38	SPACE ONLY	A									
40	SPACE ONLY	B									
42	SPACE ONLY	C									
CONNECTED LOAD											
KVA : 244.7											
AMPS : 679.1											
DEMAND LOAD											
KVA : 260.7											
AMPS : 723.7											
NOTES/REMARKS :											
1. EXISTING BREAKER WITH NO LOAD MODIFICATIONS											
2. EXISTING BREAKER WITH NEW LOAD											
3. PROVIDE NEW BREAKER AS INDICATED											
BOLD - INDICATES NEW OR EXISTING WITH MODIFIED.											
DEMAND / DIVERSITY FACTORS											
LOAD	DESCRIPTION	DEMAND									
R	RECEPTACLES - TO 10KVA	100% = 2.2									
	REMAINING OVER 10KVA	50% =									
H	HEATING	100% =									
M	MOTORS	100% = 171.8									
LM	LARGEST MOTOR	125% = 79.2									
L	LIGHTING	125% = 1.1									
K	KITCHEN	100% =									
O	OTHER	100% = 6.4									

(EXISTING) PANEL 'EL1' PROJECT NAME: KCHA VANTAGE POINT PROJECT #: 23226 LOCATION: RENTON, WA FED FROM: EDP

NOTE	CIRCUIT NAME	CB SIZE	LOAD (KVA)							TOTAL	PANEL DESCRIPTION
			R	H	M	L	K	O			
1	REC - MACHINE ROOM GFCI	A 20 1	0.2						0.2	PANEL AMPS : 60	
3	LTG - MACHINE ROOM LTS	B 20 1			0.1				0.1	FEEDER AMPS : 60	
5	---	C 20 1			0.1				0.1	L - LVOLTS : 208	
7	REC LTG - ELEVATOR PIT	A 20 1	0.2		0.1				0.3	L - NVOLTS : 120	
9	REC LTG - ELEVATOR CAB LTG, FAN, REC	B 20 1	0.2		0.1				0.4	PHASE : 3	
11	SUMP PUMP CONTROL PANEL	C 20 1			0.5				0.5	WIRES : 4	
13	---	A 20 1			0.5				0.5		
15	SPARE	B 20 1									
17	SPARE	C 15 1									
19	SPARE	A 15 1									
21	SPACE ONLY	B									
23	SPACE ONLY	C									
25	SPACE ONLY	A									
27	SPACE ONLY	B									
29	SPACE ONLY	C									
31	SPACE ONLY	A									
33	SPACE ONLY	B									
35	SPACE ONLY	C									
37	SPACE ONLY	A									
39	SPACE ONLY	B									
41	SPACE ONLY	C									
LOAD SUMMARY											
2	AHU-S-1 (OUTDOOR & INDOOR UNIT)	A 20 2			2.3				2.3	REC KVA : 0.5	
4	---	B ---			2.3				2.3	HEAT KVA : 4.0	
6	HEAT DETECTOR	C 20 1			0.5	0.5			1.0	MOTOR KVA : 6.6	
8	SP-1 (ELEV PIT SUMP PUMP)	A 15 3			0.6				0.6	LIGHTING KVA : 0.2	
10	---	B ---			0.6				0.6	KITCHEN KVA : 2.1	
12	---	C ---			0.6				0.6	OTHER KVA : 1.6	
14	SHUNT TRIP CONTROLS	A 20 1						0.1	0.1		
16	SPARE	B 20 1								PHASE A KVA : 4.0	
18	SPARE	C 20 1								AMPS : 33.1	
20	SPARE	A 15 1								PHASE B KVA : 3.4	
22	SPACE ONLY	B								AMPS : 28.3	
24	SPACE ONLY	C								PHASE C KVA : 1.8	
26	SPACE ONLY	A								AMPS : 13.3	
28	SPACE ONLY	B									
30	SPACE ONLY	C									
32	SPACE ONLY	A									
34	SPACE ONLY	B									
36	SPACE ONLY	C									
38	SPACE ONLY	A									
40	SPACE ONLY	B									
42	SPACE ONLY	C									
CONNECTED LOAD											
KVA : 9.0											
AMPS : 24.9											
DEMAND LOAD											
KVA : 10.2											
AMPS : 28.2											
NOTES/REMARKS :											
1. EXISTING BREAKER WITH NO LOAD MODIFICATIONS											
2. EXISTING BREAKER WITH NEW LOAD											
3. PROVIDE NEW BREAKER AS INDICATED											
BOLD - INDICATES NEW OR EXISTING WITH MODIFIED.											
DEMAND / DIVERSITY FACTORS											
LOAD	DESCRIPTION	DEMAND									
R	RECEPTACLES - TO 10KVA	100% = 0.5									
	REMAINING OVER 10KVA	50% =									
H	HEATING	100% =									
M	MOTORS	100% = 2.0									
LM	LARGEST MOTOR	125% = 5.8									
L	LIGHTING	125% = 0.3									
K	KITCHEN	100% =									
O	OTHER	100% = 1.6									

(EXISTING) PANELS - EL2, EL3, EL4 PROJECT NAME: KCHA VANTAGE POINT PROJECT #: 23226 LOCATION: RENTON, WA FED FROM: EDP

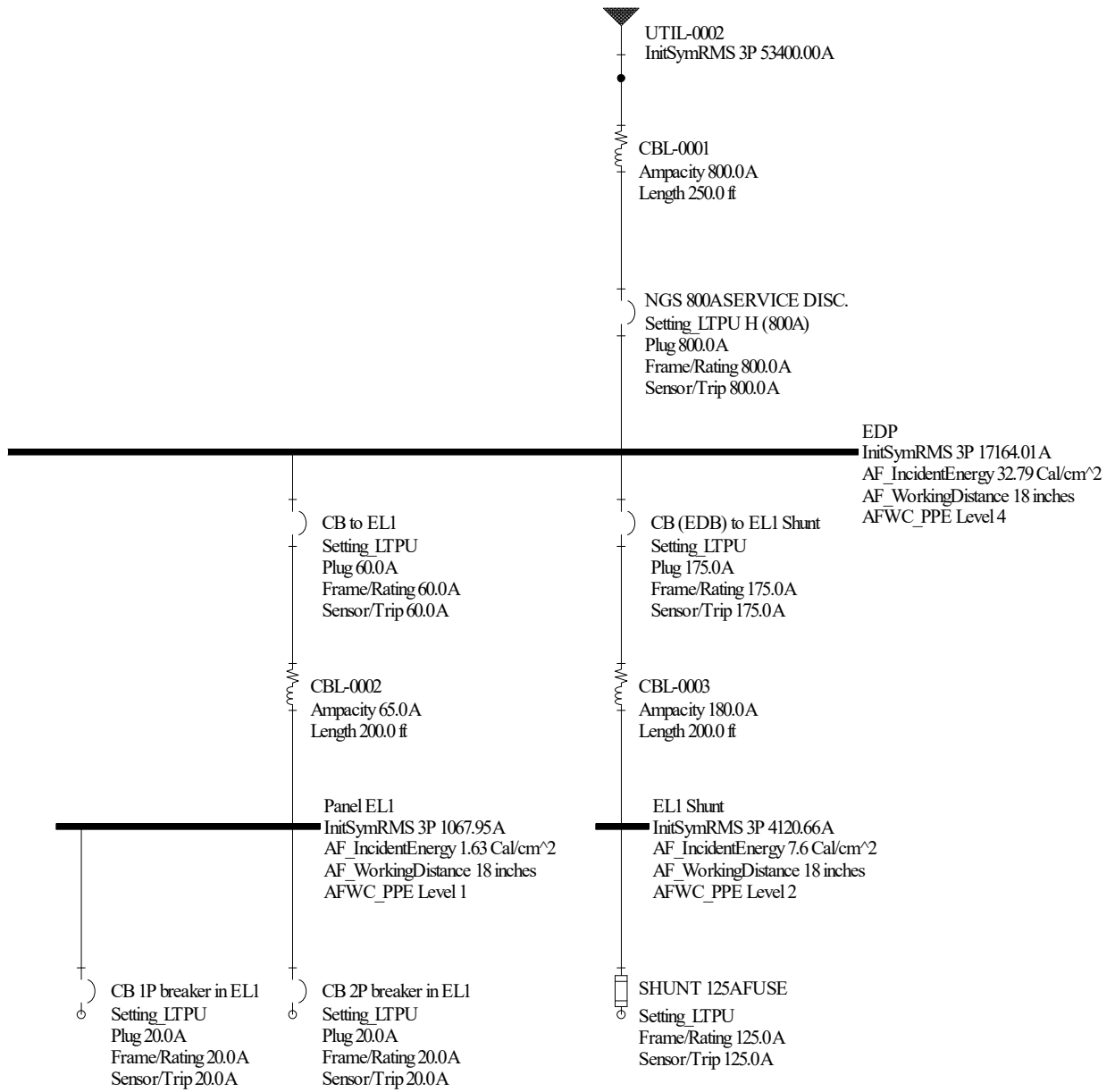
NOTE	CIRCUIT NAME	CB SIZE	LOAD (KVA)							TOTAL	PANEL DESCRIPTION
			R	H	M	L	K	O			
1	REC LTG - ELEVATOR CAB LTG, FAN, REC	A 20 1	0.2						0.2	PANEL AMPS : 60	
3	MACHINE ROOM GFI	B 20 1			0.1				0.1	FEEDER AMPS : 60	
5	AHU (OUTDOOR & INDOOR UNIT)	A 20 2			2.3				2.3	L - LVOLTS : 208	
7	---	B ---			2.3				2.3	L - NVOLTS : 120	
9	---	C ---			2.3				2.3	PHASE : 3	
11	SPARE	A 20 1								WIRES : 4	
13	SPARE	A 20 1									
15	SPARE	B 20 1									
17	SPARE	C 15 1									
19	SPARE	A 15 1									
21	SPACE ONLY	B									
23	SPACE ONLY	C									
25	SPACE ONLY	A									
27	REC - MACHINE ROOM GFCI	B									
29	LTG - MACHINE ROOM LTS	C									
31	ELEVATOR DAMPER	A									
33	REC LTG - ELEVATOR PIT	B									
35	REC LTG - ELEVATOR CAB LTG, FAN, REC	C									
37	SPACE ONLY	A									
39	SPACE ONLY	B									
41	SPACE ONLY	C									
LOAD SUMMARY											
2	PWR LTG ELEVATOR PIT	A 20 1	0.2			0.1			0.3	REC KVA : 0.4	
4	MACHINE ROOM LIGHTS	B 20 1						0.1	0.1	HEAT KVA : 4.0	
6	TOP OF SHAFT DAMPER	C 20 1			0.6			0.1	0.1	MOTOR KVA : 6.4	
8	(ELEV PIT SUMP PUMP)	A 15 3			0.6				0.6	LIGHTING KVA : 0.2	
10	---	B ---			0.6				0.6	KITCHEN KVA : 2.1	
12	---	C ---			0.6				0.6	OTHER KVA : 0.8	
14	SHUNT TRIP CONTROLS	A 20 1						0.1	0.1		
16	SUMP PUMP CONTROL/ALARM	B 20 1						0.5	0.5	PHASE A KVA : 3.5	
18	SPARE	C 20 1								AMPS : 28.8	
20	SPARE	A 15 1								PHASE B KVA : 1.3	
22	SPACE ONLY	B								AMPS : 10.5	
24	SPACE ONLY	C								PHASE C KVA : 3.0	
26	SPACE ONLY	A								AMPS : 25.0	
28	SPACE ONLY	B									
30	SPACE ONLY	C									
32	SPACE ONLY	A									
34	SPACE ONLY	B									
36	SPACE ONLY	C									
38	SPACE ONLY	A									
40	SPACE ONLY	B									
42	SPACE ONLY	C									
CONNECTED LOAD											
KVA : 7.7											
AMPS : 21.4											
DEMAND LOAD											
KVA : 8.9											
AMPS : 24.7											
NOTES/REMARKS :											
INFORMATION BASED OFF ASBUILT DRAWINGS											
PANEL SHOWN "FOR REFERENCE ONLY"											
NO LOAD MODIFICATIONS											
DEMAND / DIVERSITY FACTORS											
LOAD	DESCRIPTION	DEMAND									
R	RECEPTACLES - TO 10KVA	100% = 0.4									
	REMAINING OVER 10KVA	50% =									
H	HEATING	100% =									
M	MOTORS	100% = 1.8									
LM	LARGEST MOTOR	125% = 5.8									
L	LIGHTING	125% = 0.2									
K	KITCHEN	100% =									
O	OTHER	100% = 0.8									

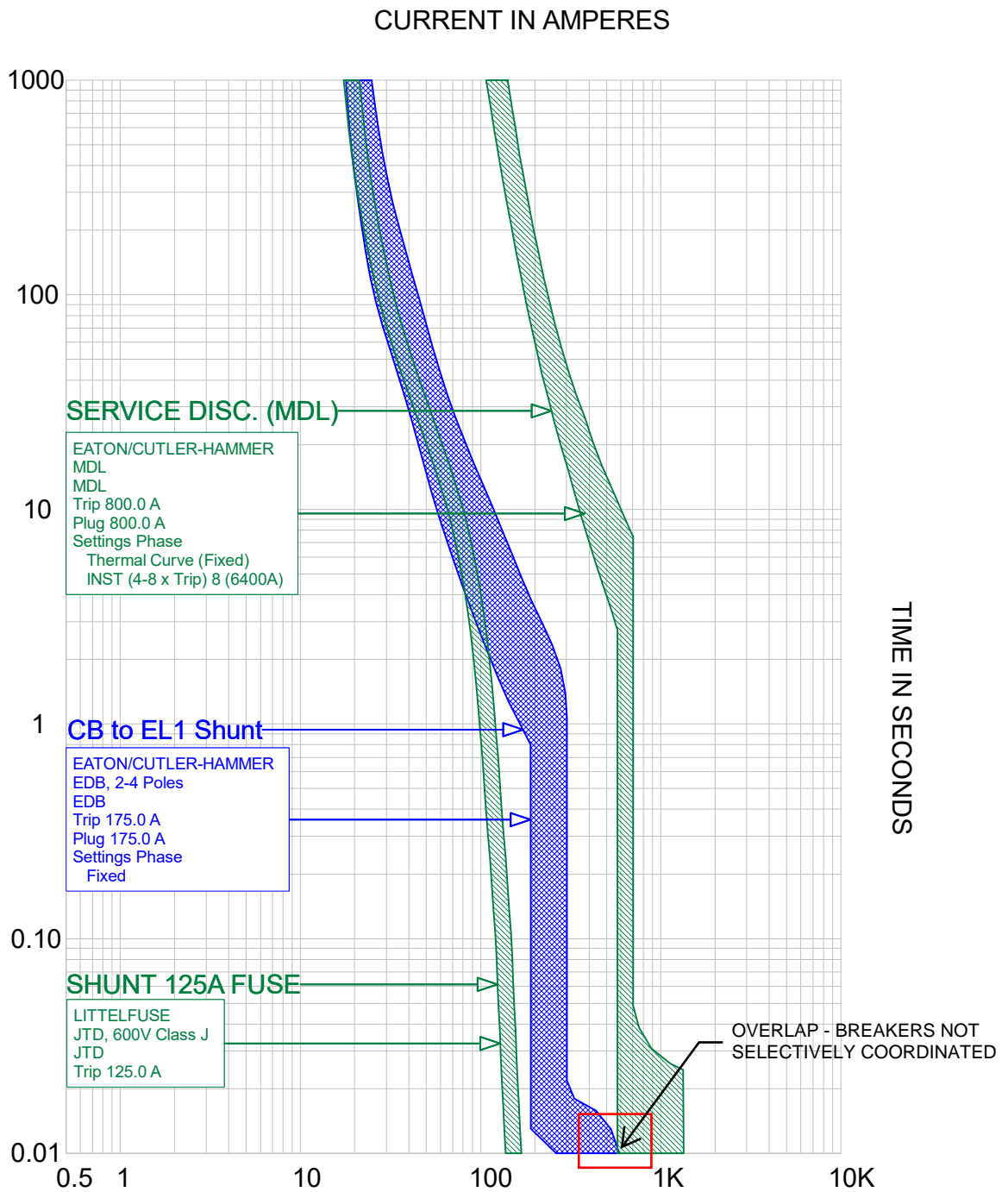
Industry Application IA01200002E
Effective April 2022

Circuit breaker selective
coordination tables

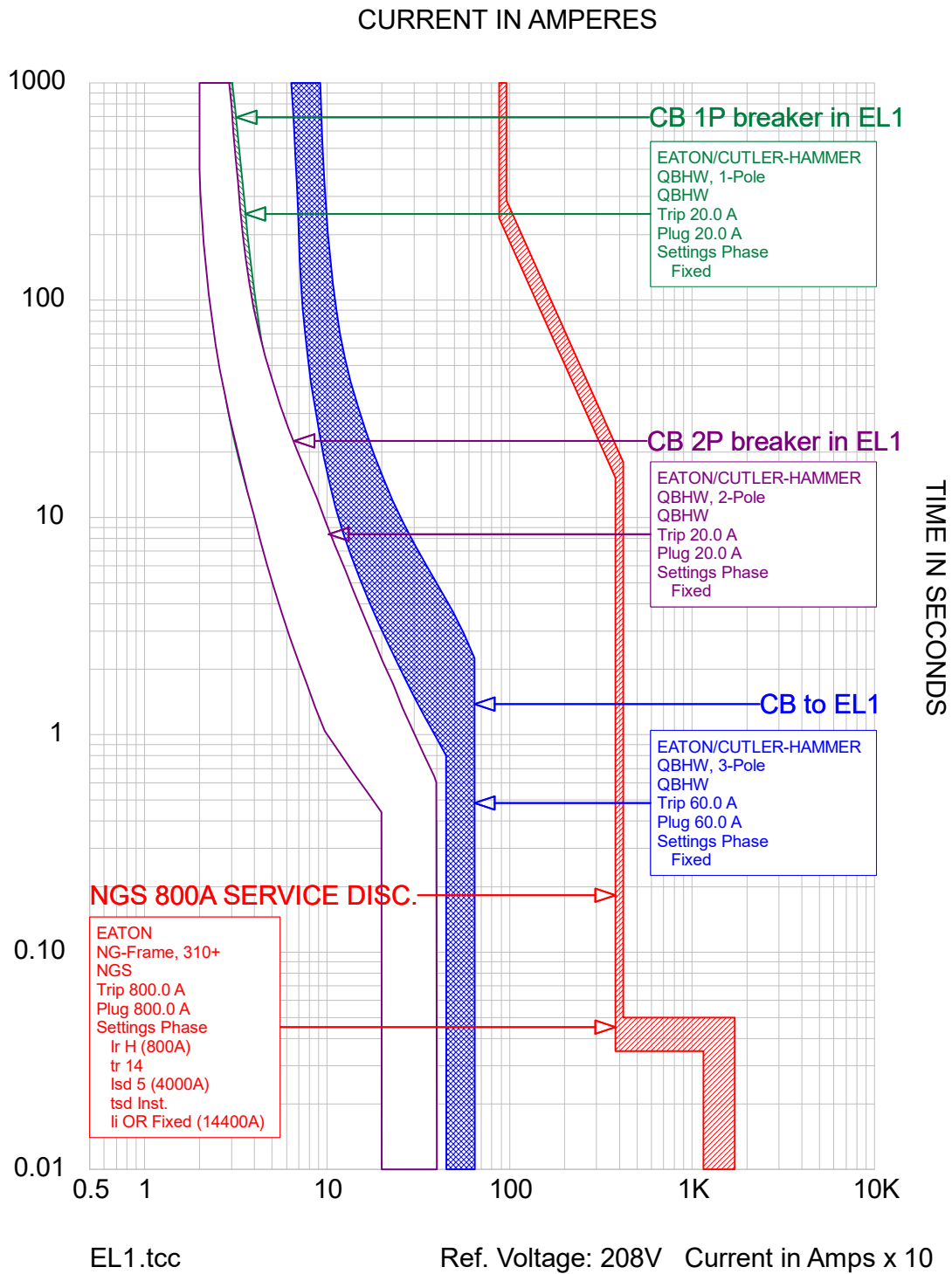
Table 2. Series C/G selective coordination combinations at 480 V or less (continued)

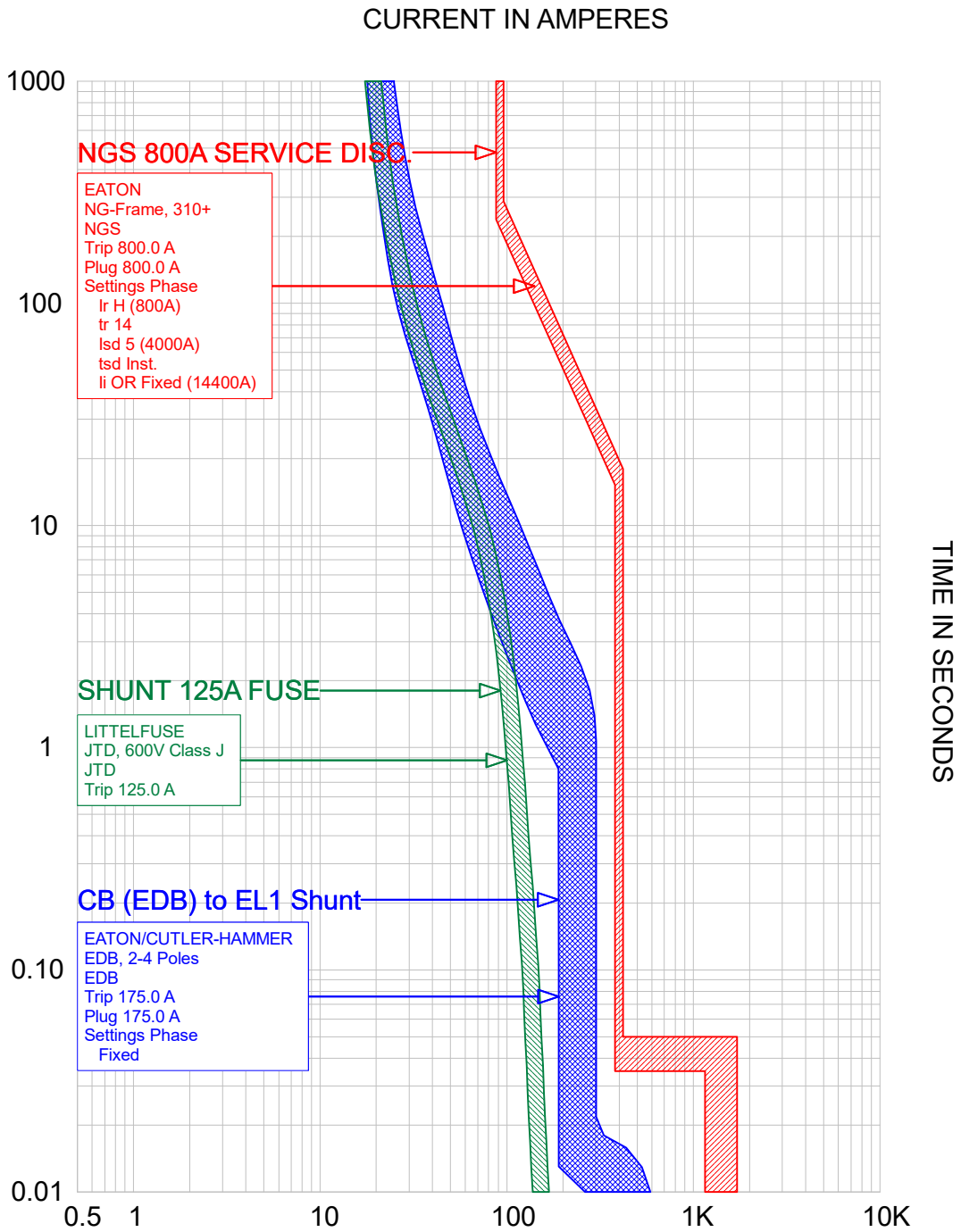
Load side breaker	Breaker family type and trip time	Line side breaker (standard and current limiting frames)																
		15A		20A		25A		30A		35A		40A		50A		60A		
		ULJ	UL	ULJ	UL	ULJ	UL	ULJ	UL	ULJ	UL	ULJ	UL	ULJ	UL	ULJ	UL	
125	LD Family	2.8	8.0	12	10	---	---	35	35	35	35	35	35	35	65	65	65	65
250	LD Family	2.8	7.0	12	---	---	---	30	30	30	30	30	30	30	65	65	65	65
400	LD Family	---	7.0	10	---	---	---	30	30	30	30	30	30	30	50	50	50	50
600	LD Family	---	---	---	---	---	---	18	18	18	18	18	18	18	20	20	20	20
125	LCL 250 current limiting family	---	---	---	---	---	---	65	65	65	65	65	65	65	65	65	65	65
200	LCL 250 current limiting family	---	---	---	---	---	---	65	65	65	65	65	65	65	65	65	65	65
400	LCL 250 current limiting family	---	---	---	---	---	---	65	65	65	65	65	65	65	65	65	65	65
600	LCL 250 current limiting family	---	---	---	---	---	---	65	65	6								



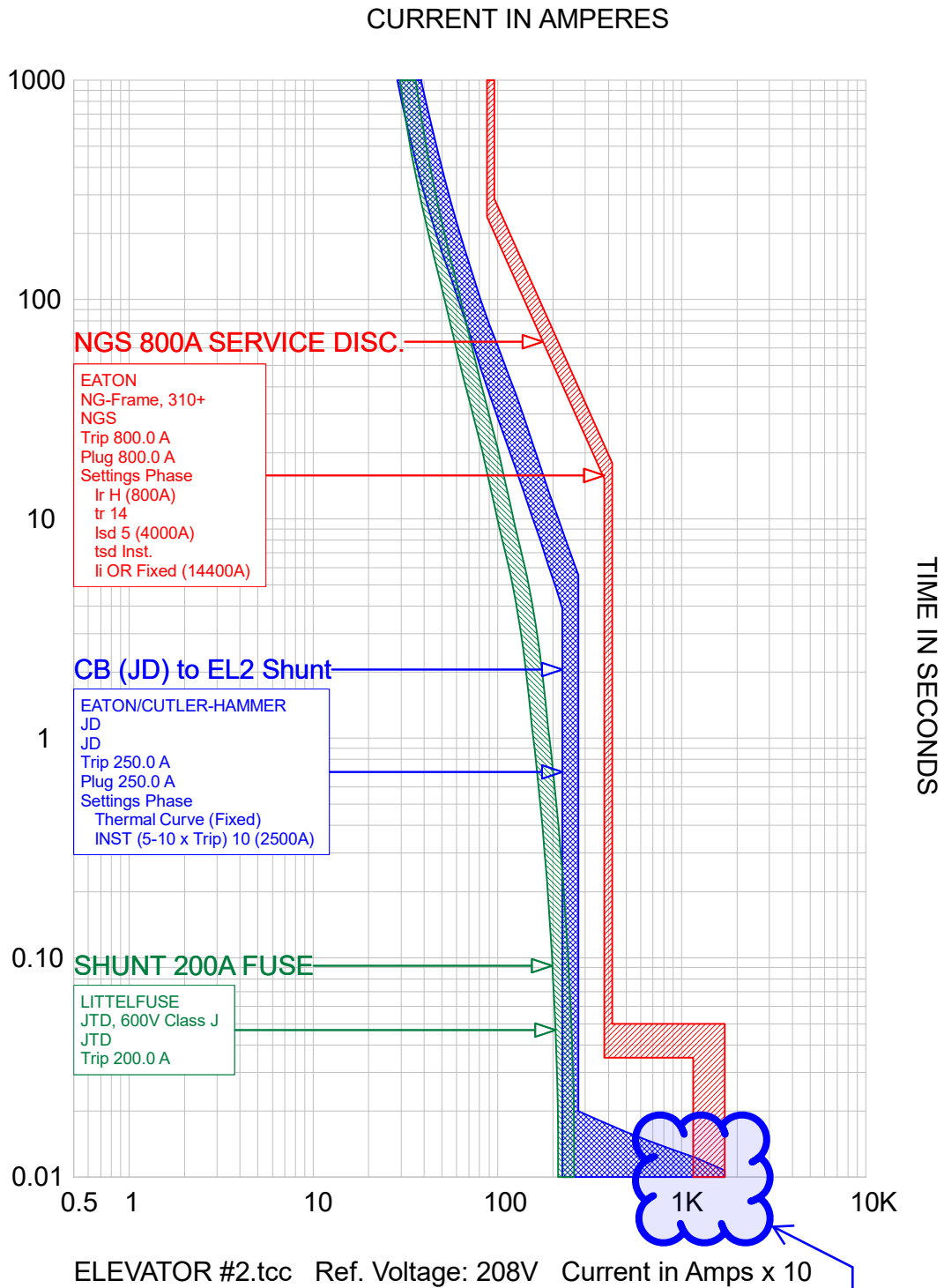


Existing - MDL MAIN & 175A EL1 & FUSE.tcc Ref. Voltage: 208V Current



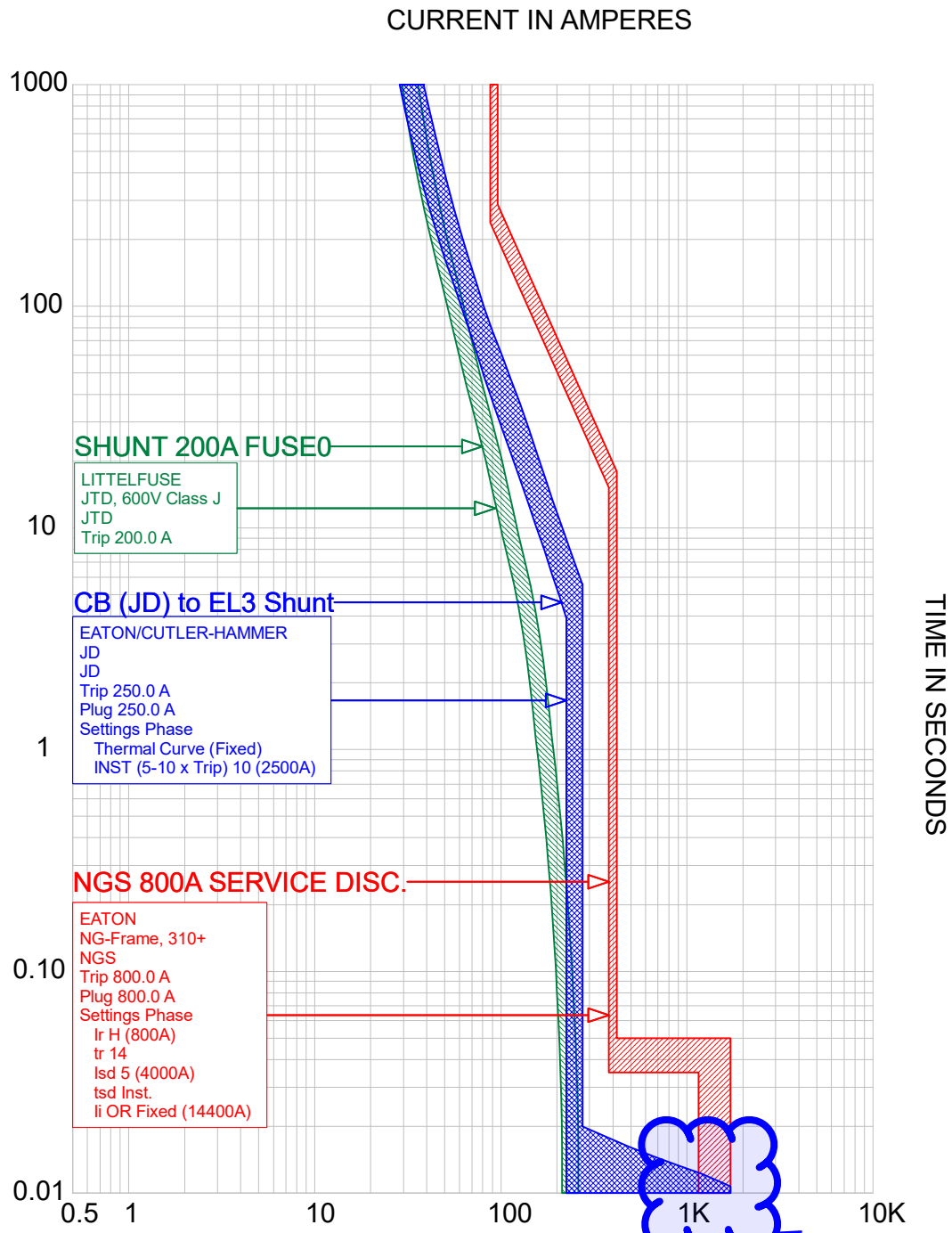


ELEVATOR #1.tcc Ref. Voltage: 208V Current in Amps x 10



Overlap of instantaneous trip.

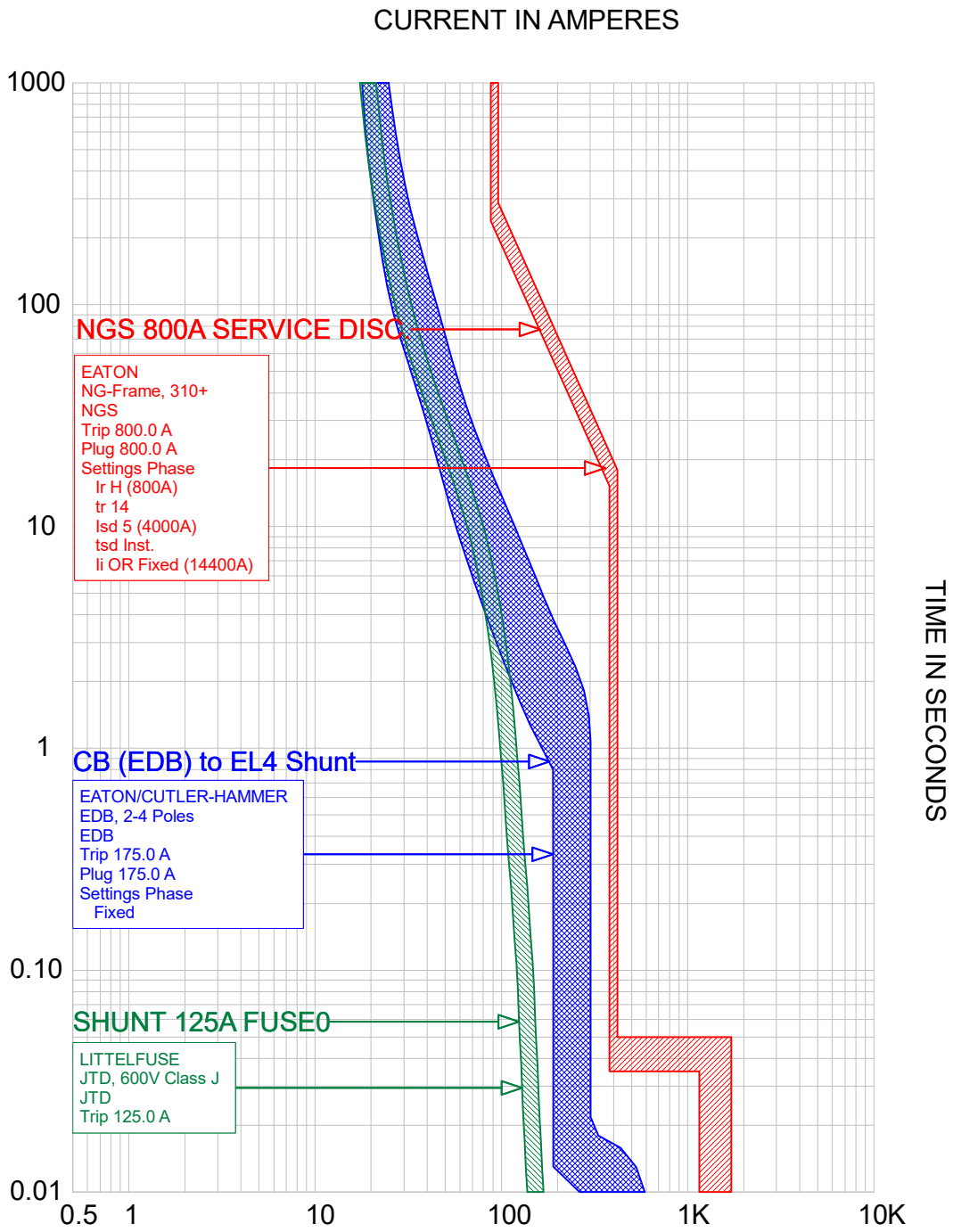
Based on Manufacturer testing and documentation the existing JD breaker is Selectively Coordinated with the new NGS Breaker. See EATON - Selective Coordination Table 2 included in this document.



ELEVATOR #3.tcc Ref. Voltage: 208V Current in Amps x 10

Overlap of instantaneous trip.

Based on Manufacturer testing and documentation the existing JD breaker is Selectively Coordinated with the new NGS Breaker. See EATON - Selective Coordination Table 2 included in this document.



ELEVATOR #4.tcc Ref. Voltage: 208V Current in Amps x 10

**Project: KCHA Vantage Point Elevator - Coordinated
Base Project**

Arc Flash Evaluation Report

Bus Name	Bus kV	Protective Device Name	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Bolted Fault (kA)	Prot Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time (sec.)	Arc Duration	Arc Type	ArcFlash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE
EDP	0.208	NGS 800A SERVICE DISC.	17.16	7.95	17.16	7.95	0.050	0.000	0.050	In Box	15.50	18.00	0.95	Arc-rated shirt & pants or arc-rated coverall or arc-rated arc flash suit
EL1 Shunt	0.208	CB (EDB) to EL1 Shunt	4.12	1.74	4.12	1.74	2.000	0.000	2.000	In Box	57.15	18.00	7.60	Arc-rated shirt & pants or arc-rated coverall or arc-rated arc flash suit WITH faceshield & arc-rated jacket
Panel EL1	0.208	CB to EL1	1.07	0.40	1.07	0.40	2.000	0.000	2.000	In Box	21.84	18.00	1.63	Arc-rated shirt & pants or arc-rated coverall or arc-rated arc flash suit



WARNING

**Arc Flash and Shock Risks Appropriate PPE Required
Failure to Comply Can Result in Death or Injury!**

0.95 cal/cm² @18 in

16 in	Arc Flash Boundary
208 VAC	Shock Risk
42 in	Limited Approach
12 in	Restricted Approach
4 cal/cm²	Minimum Arc Rating
PPE:	Level 1

**Glove Class
00**

Available Fault Current
17.16 kA

**Arc-rated shirt & pants or arc-rated coverall or
arc-rated arc flash suit**

Case Engineering
February 01, 2024

Bus: EDP Prot: NGS 800A SERVICE DISC.



WARNING

**Arc Flash and Shock Risks Appropriate PPE Required
Failure to Comply Can Result in Death or Injury!**

7.60 cal/cm² @18 in

57 in Arc Flash Boundary

208 VAC Shock Risk

42 in Limited Approach

12 in Restricted Approach

8 cal/cm² Minimum Arc Rating

PPE: Level 2

**Glove Class
00**

***Available Fault Current*
4.12 kA**

**Arc-rated shirt & pants or arc-rated coverall or
arc-rated arc flash suit WITH faceshield & arc-rated
jacket**

Bus: EL1 Shunt Prot: CB (EDB) to EL1 Shunt

**Case Engineering
February 01, 2024**



WARNING

**Arc Flash and Shock Risks Appropriate PPE Required
Failure to Comply Can Result in Death or Injury!**

1.63 cal/cm² @18 in

22 in Arc Flash Boundary

208 VAC Shock Risk

42 in Limited Approach

12 in Restricted Approach

4 cal/cm² Minimum Arc Rating

PPE: Level 1

**Glove Class
00**

***Available Fault Current*
1.07 kA**

**Arc-rated shirt & pants or arc-rated coverall or
arc-rated arc flash suit**

**Case Engineering
February 01, 2024**

Bus: Panel EL1 Prot: CB to EL1

Project: KCHA Vantage Point Elevator - Coordinated

LOW VOLTAGE THERMAL MAGNETIC MOLDED CASE BREAKERS SETTINGS

DESIGNATION		FRAME		TRIP UNIT				
Location/Name	Amps Frame	MFR	TYPE MODEL	Amps Sensor/Plug	Description	TYPE/MODEL	LT SETTING	INST SETTING
EDP CB (EDB) to EL1 Shunt	175	EATON/CUT LER-HAMM	EDB	175 175	100-225A, UL	EDB, 2-4 Poles	Fixed	
EDP CB (EDB) to EL4 Shunt	175	EATON/CUT LER-HAMM	EDB	175 175	100-225A, UL	EDB, 2-4 Poles	Fixed	
EDP CB (JD) to EL2 Shunt	250	EATON/CUT LER-HAMM	JD	250 250	70-250A	JD	Thermal Curve (Fixed)	INST (5-10 x Trip) 10
EDP CB (JD) to EL3 Shunt	250	EATON/CUT LER-HAMM	JD	250 250	70-250A	JD	Thermal Curve (Fixed)	INST (5-10 x Trip) 10
Panel EL1 CB 1P breaker in EL1	20	EATON/CUT LER-HAMM	QBHW	20 20	15-70A	QBHW, 1-Pole	Fixed	
Panel EL2 CB 1P breaker in EL2	20	EATON/CUT LER-HAMM	QBHW	20 20	15-70A	QBHW, 1-Pole	Fixed	
Panel EL3 CB 1P breaker in EL3	20	EATON/CUT LER-HAMM	QBHW	20 20	15-70A	QBHW, 1-Pole	Fixed	
Panel EL4 CB 1P breaker in EL4	20	EATON/CUT LER-HAMM	QBHW	20 20	15-70A	QBHW, 1-Pole	Fixed	

DESIGNATION		FRAME		TRIP UNIT				
Location/Name	Amps Frame	MFR	TYPE MODEL	Amps Sensor/Plug	Description	TYPE/MODEL	LT SETTING	INST SETTING
Panel EL1 CB 2P breaker in EL1	20	EATON/CUTLER-HAMM	QBHW	20 20	15-125A	QBHW, 2-Pole	Fixed	
Panel EL2 CB 2P breaker in EL2	20	EATON/CUTLER-HAMM	QBHW	20 20	15-125A	QBHW, 2-Pole	Fixed	
Panel EL3 CB 2P breaker in EL3	20	EATON/CUTLER-HAMM	QBHW	20 20	15-125A	QBHW, 2-Pole	Fixed	
Panel EL4 CB 2P breaker in EL4	20	EATON/CUTLER-HAMM	QBHW	20 20	15-125A	QBHW, 2-Pole	Fixed	
EDP CB to EL1	60	EATON/CUTLER-HAMM	QBHW	60 60	15-100A	QBHW, 3-Pole	Fixed	
EDP CB to EL2	60	EATON/CUTLER-HAMM	QBHW	60 60	15-100A	QBHW, 3-Pole	Fixed	
EDP CB to EL3	60	EATON/CUTLER-HAMM	QBHW	60 60	15-100A	QBHW, 3-Pole	Fixed	
EDP CB to EL4	60	EATON/CUTLER-HAMM	QBHW	60 60	15-100A	QBHW, 3-Pole	Fixed	

250 EATON/CUTLER-HAMM HJD 250 250 70-250A HJD Thermal Curve (Fixed) INST (5-10 x Trip) 5

Project: KCHA Vantage Point Elevator - Coordinated

ADJUSTABLE LOW VOLTAGE CIRCUIT BREAKER SETTINGS

DESIGNATION					TRIP UNIT										
Location/Name	Function	Frame Amps	AIC kA	MFR	TYPE MODEL	Amps Sensor/Plug	Description	TYPE/MODEL	SETTINGS						
									L.T. P.U.	L.D. TIME	S.D. P.U.	S.D. TIME (I ² s T)	INST P.U.	GFPU	GFD
EDP, NGS 800A SERVICE DISC.	Phase	800	85	EATON	NGS	800 800	LSI, 800AS, UL	NG-Frame, 310+	H (800A)	14	5 (4000A)	Inst.	Fixed (14400A)		

Table 2. Series C/G selective coordination combinations at 480 Vac or less (continued)

Breaker family type and trip unit	Line side breaker (standard and current limiting frames)															
	LG ETU		LG T/M		NHH ETU		N ETU		R ETU							
	100 A	160 A	250 A	600 A	150 A	400 A	600 A	320 A	500 A	800 A	1000 A	1200 A	800 A	1000 A	1600 A	
Load side breaker	Minimum trip	250 A	400 A	600 A	600 A	350 A	400 A	600 A	800 A	1200 A	800 A	1000 A	1600 A	1600 A	2000 A	2500 A
Maximum trip	250 A	400 A	600 A	600 A	350 A	400 A	600 A	800 A	1200 A	800 A	1000 A	1600 A	1600 A	2000 A	2500 A	
JD family																
70	2.8	8.0	12	10	—	35	35	35	35	35	35	65	65	65	65	
125	2.8	7.0	12	—	—	30	30	30	30	30	30	65	65	65	65	
250	—	7.0	10	—	—	30	30	30	30	30	30	50	65	65	65	
LCL 250 current limiting family																
125	2.8	4.2	17	—	—	65	65	65	65	65	65	65	65	65	65	
200	—	3.2	17	—	—	65	65	65	65	65	65	65	65	65	65	
250	—	—	17	—	—	65	65	65	65	65	65	65	65	65	65	
LCL 400 current limiting family																
200	—	3.2	15	—	—	30	30	30	30	65	65	65	65	65	65	
300	—	—	15	—	—	30	30	30	30	65	65	65	65	65	65	
400	—	—	15	—	—	—	30	30	30	65	65	65	65	65	65	
K family																
100	3.5	4.2	10	—	—	22	22	22	22	42	42	42	42	65	65	
200	—	3.7	10	—	—	18	18	18	18	40	40	40	40	65	65	
400	—	—	10	—	—	—	—	18	18	35	35	35	35	50	50	
LD family																
300	—	—	6.0	—	—	—	18	18	18	25	25	25	25	42	42	
400	—	—	6.0	—	—	—	—	18	18	22	22	22	22	35	35	
600	—	—	—	—	—	—	—	—	18	20	20	20	20	30	30	
LG family																
250	—	—	6.0	—	—	10	18	18	18	25	25	25	25	50	50	
400	—	—	6.0	—	—	—	—	18	18	22	22	22	22	35	35	
600	—	—	—	—	—	—	—	—	18	20	20	20	20	30	30	
LG current limiting family																
250	—	—	6	—	—	15	22	25	25	42	42	42	50	50	50	
400	—	—	6	—	—	—	—	25	25	35	35	35	50	50	50	
600	—	—	—	—	—	—	—	—	25	30	30	30	42	42	42	
N family																
400	—	—	—	—	—	—	—	—	12	16	16	16	16	22	25	
600	—	—	—	—	—	—	—	—	12	—	—	16	16	22	25	
800	—	—	—	—	—	—	—	—	—	—	—	—	16	22	25	
1200	—	—	—	—	—	—	—	—	—	—	—	—	—	18	18	

Note: — = Not applicable.

The table indicates the maximum fault current value expressed in kA for which coordination is ensured. Downstream (branch) breakers' AIC ratings must be sized for the appropriate fault level at the installation point (for standalone or series combination ratings). Short time delay settings or magnetic trip settings must be set to properly coordinate for low level faults.

Ⓞ Not presently available for panelboard or switchboard mounting in Eaton assemblies. For all combinations available, refer to IA01400001E.

Proven technology and performance with a full line of standard features



Introducing the Series G® 1200A N-Frame 310+ breaker, featuring zone selective interlocking (ZSI), ground fault alarm (no trip) and Arcflash Reduction Maintenance System™. The breaker is NEMA®, UL®, CSA® and IEC listed with electronic trip unit.

Benefits of the N-Frame 310+ breaker

- No DIP switches or rating plugs needed. The 310+ has adjustable trip settings integral to the electronic trip unit
- Remote Arcflash Reduction Maintenance System is an available feature. This feature increases worker safety by providing an accelerated instantaneous trip to reduce arc flash potential
- Ground fault alarm, no trip, is an option. In addition to offering ground fault and high load alarms, the 310+ allows for ground fault alarm, no trip. This is essential for critical applications that must stay online when a ground fault is present
- ZSI is an available feature. This feature enables the breaker to communicate with the immediate upstream or downstream ZSI-enabled breakers to clear faults in the shortest amount of time using the breaker closest to the fault
- Available for aftermarket replacement of any N-Frame with 310 trip units when zone selective interlocking, ground fault alarm only or Arcflash Reduction Maintenance System is needed

A full range of world-class accessories

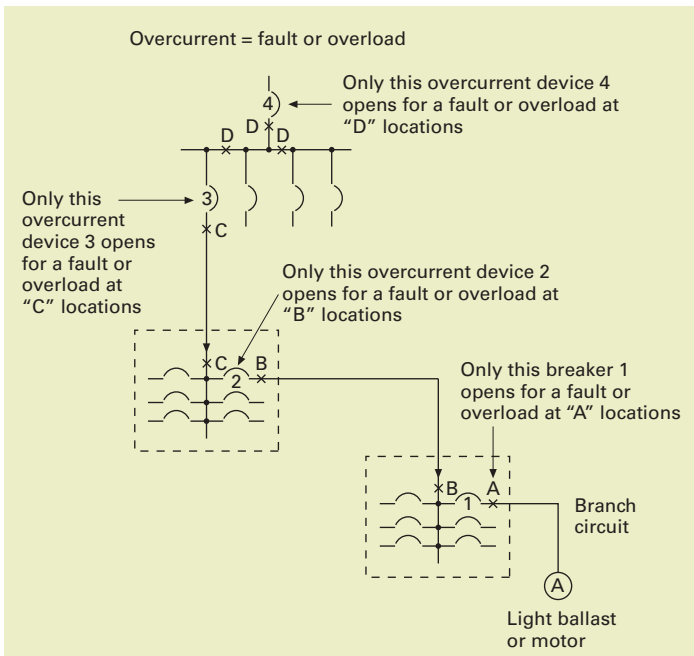
- Uses the same internal accessories as the standard N-Frame, from auxiliary switches to undervoltage relays
- Choose from a range of external accessories, including handle lock-offs, flex shafts, plug-in adapters and drawout cassettes
- Built-in test port on the 310+ allows compatibility with Eaton's ammeter / cause of trip display, panelmount ammeter / cause of trip display, and cause of trip LED module

Zone selective interlocking

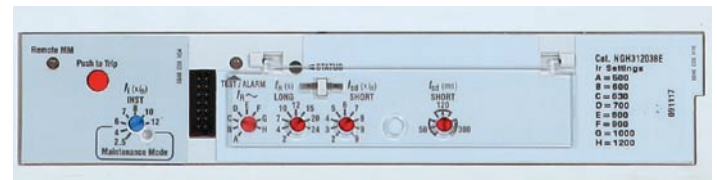
Zone selective interlocking uses a communication scheme to connect line and load breaker trip units together. When a fault occurs, the trip units communicate to determine which load-side breaker is closest to the fault. The trip unit in the breaker closest to the fault overrides any customer-defined delay and opens instantaneously, clearing the fault and allowing line-side breakers to remain closed.

Arcflash Reduction Maintenance System

This system uses a separate analog trip circuit that provides faster interruption times than the standard digital instantaneous protection. Work locations downstream of a circuit breaker with an Arcflash Reduction Maintenance System unit will have a significantly lower incident energy level.



Example of Zone Selective Interlocking



310+ Trip Unit with Arcflash Reduction Maintenance System

NGS, NGH, NGC and NGU Rating and Ampere Range

Specification	Description			
Breaker type	NGS	NGH	NGC	NGU
Short-circuit current ratings (kA rms) AC 50–60 Hz	240 Vac	85	100	200
	480 Vac	50	65	100
	600 Vac	25	35	50
Number of poles	2, 3, 4	2, 3, 4	2, 3, 4	3
Adjustable long-time pickup CSA 22.2 No. 5	800A	A = 320, B = 400, C = 450, D = 500, E = 600, F = 630, G = 700, H = 800		
	1200A	A = 500, B = 600, C = 630, D = 700, E = 800, F = 900, G = 1000, H = 1200		
Electronic rms	LS, LSI, LSG, LSIG, ALSI, ALSIG			
Dimensions in inches (mm)	H	W	D	
	Three-pole	16.00 (406.4)	8.25 (209.6)	5.50 (139.7)
Four-pole	16.00 (406.4)	11.13 (282.7)	5.50 (139.7)	
Weight (approximate) lbs (kg)	Three-pole	46.8 (21.2)		
	Four-pole	62.0 (28.1)		

Current Sensor for Ground Fault

Catalog Number	Breaker Ampere Range
NGFCT120	320–1200

Cause of Trip Indication

Catalog Number	Description
DIGIVIEW	Digiview ammeter with cause of trip indication
DIGIVIEWR06	Panelmount Digiview with 6-foot wire harness
TRIP-LED	LED cause of trip indication

Breaker features

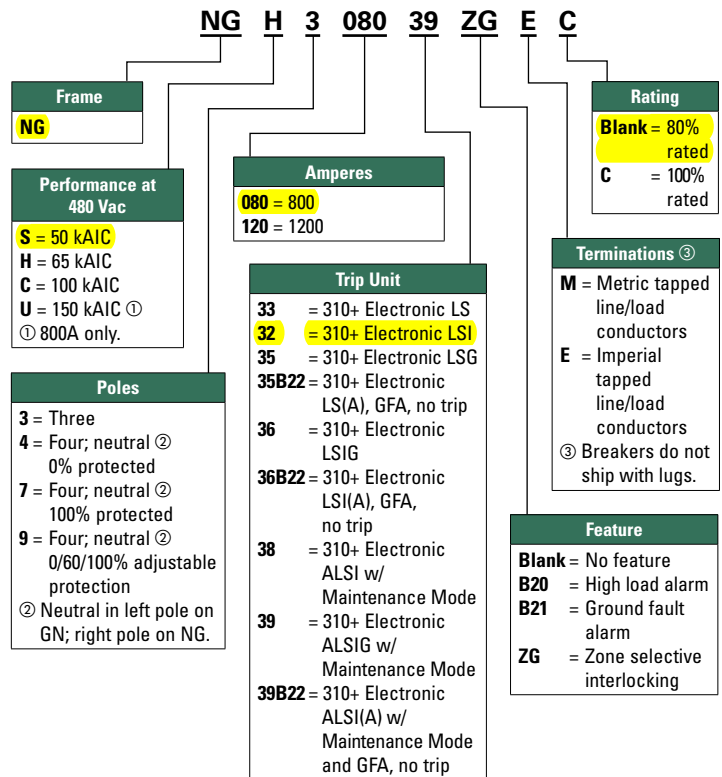
- UL 489, CSA C22.2 No. 5, IEC 60947-2
- Shunt trip
- Auxiliary switch
- Bell alarm
- Combination alarm / auxiliary switch
- Undervoltage release
- Handle mechanism
- Plug-in blocks, trip-on drawout
- Rear-connecting studs
- Drawout cassettes
- Lock-offs
- Interlocks
- Finger-safe shields and interphase barriers
- Panelmount ammeter / cause of trip display
- Electrical operator

Trip unit features

D.1

- No rating plug required
- Available with LS, LSI, LSG, LSIG and Arcflash Reduction Maintenance System via ALSI, ALSIG
- Trip units are factory installed only and are available in these ranges:
 - 320–800A (UL)
 - 500–1250A (IEC)
 - 500–1200A (UL)
 - 630–1600A (IEC)
- Time current curves referenced in document TC01209009E
- Adjustable long-time delay 0.5–1.0s
- Adjustable short-time delay 200–800% x (I_n)
- Adjustable instantaneous 2.5 x (I_n)–14.4 kA
- Status indicator and no trip test indicator LEDs
- Push-to-trip button
- Optional devices that interface with the test port
 - Test kit
 - Ammeter / cause of trip display
 - Panelmount ammeter / cause of trip display
 - Cause of trip LED module

Catalog Numbering System



Note: Metric mounting hardware will be included with three- and four-pole breakers. If imperial mounting hardware is needed, order catalog number **BMH5**.

For more information, please call

877-ETN-CARE (877-386-2273)

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Powering Business Worldwide

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

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01 29 00	Payment Procedures
01 31 00	Project Management & Coordination
01 32 00	Construction Progress Documentation
01 33 00	Submittal Procedures
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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)

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024100 DEMOLITION

DIVISION 03 – CONCRETE

033000 CAST-IN-PLACE CONCRETE

DIVISION 05 – METALS

055000 METAL FABRICATIONS

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

061000 ROUGH CARPENTRY

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

071616 CRYSTALLINE WATERPROOFING
078400 FIRESTOPPING
079200 JOINT SEALANTS

DIVISION 09 – FINISHES

092116 GYPSUM BOARD ASSEMBLIES
096500 RESILIENT FLOORING
099123 INTERIOR PAINTING
099600 HIGH-PERFORMANCE COATINGS

DIVISION 10 – SPECIALTIES

104400 FIRE PROTECTION SPECIALTIES



DIVISION 14 – CONVEYING EQUIPMENT

142400 HYDRAULIC ELEVATORS

DIVISION 21 – FIRE SUPPRESSION

211000 WATER-BASED FIRE SUPPRESSION SYSTEM

DIVISION 22 – PLUMBING

221123 PLUMBING PUMPS

221300 WASTE AND VENT PIPING

DIVISION 26 – ELECTRICAL

260500 GENERAL ELECTRICAL PROVISIONS

260511 ELECTRICAL CONNECTIONS FOR EQUIPMENT

260512 ELECTRICAL DEMOLITION

260519 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS

260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

260532 OUTLET BOXES FOR ELECTRICAL SYSTEMS

260533 RACEWAY SYSTEMS

260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS

260810 ELECTRICAL TESTING

262726 WIRING DEVICES

262813 OVERCURRENT PROTECTIVE DEVICES

262816 DISCONNECT SWITCHES AND ENCLOSED CIRCUIT BREAKERS

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A2.2	SECOND FLOOR PLAN & RCP
A8.0	SECTION, INTERIOR ELEVATIONS, AND DETAILS
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VT2.1	ELEVATOR 2 PLANS AND SECTIONS
VT3.1	ELEVATOR DETAILS
E0.1	ELECTRICAL DWGS
E2.1	POWER/COMMUNICATIONS AND LIGHTING PLANS
E9.1	EXISTING RISER DIAGRAM AND PANEL SCHEDULES
S1.0	GENERAL NOTES
S1.1	GENERAL NOTES

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 - C. Closeout**
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 - B. Staffing and Experience**
 - C. Quality Assurance and Quality Control**
 - D. Inspection of Work**
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 - 2. Restrictions
 - 3. Contractor Responsibilities
 - F. Project Phasing**
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 - A. Safety**
 - B. Protection**
 - C. Restoration**
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SECTION 001010 SCOPE OF WORK

1.0 PROJECT SUMMARY

Vantage Point Apartments located off the arterials SE Carr Road/SE Petrovitsky Road and 108th Ave SE, in the Benson Hill Neighborhood of Renton. Vantage Point Community is comprised of a senior population with ADA accommodations built in 2015 is a four story building with 77 units. The building is constructed of wood framing over continuous concrete footing stem walls, and with the first floor being a slab on grade, second floor contains post tension decking, and the third and fourth floor are constructed of wood framing.

Contractor shall provide all services and materials to furnish and install one (1) ground hydraulic elevator into an existing shaft. Work will include boring new hole for in-ground jack, and complete new jack assembly, casing and pit channels. Scan concrete before boring to confirm existing rebar configuration. Add additional members as necessary to maintain structural integrity of pit slab. Coat any rebar that is cut or exposed in the boring process.

Provide electrical components of the elevator equipment and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire, and relays as specified and as necessary for complete operable systems. Openings required in the hoistway shall be completed by drilling or cutting.

PSE has been contacted by Case Engineering. At this time since there is no service wiring or meter change is required there will be no paper work to file and no change to the current transformer. In the event the Electrical Contractor will need to contract PSE Construction Services please use the (2) reference numbers noted below:

#502090337 – The previous project/Original installation.

#514884608 – Case engineering conversation noted on 02.26.24

Contractor to field-verify existing hoistway dimensions and provide platform and car enclosure capable of fitting into existing hoistway and meeting accessibility and specified capacity. Refer to VT3.1 for elevator details

The contractor will coordinate all special inspections per S1.0 and S1.1. KCHA will provide contact information and pay for special inspection services.

If the contractor fails any of the special inspections, the contractor will be responsible for all costs associated with corrections noted and follow up inspection.

During the course of work the Contractor will be responsible for the following:

- L&I, Electrical and Specialty permits, equipment, labor, and materials to complete the work in a safe, clean and workman like manner.
- Ensuring that the Work is compliant with L&I and local building codes.
- Ensuring that all Work shall be performed using new materials, free of defects, installed in a professional, workman-like manner to provide a “Turn Key” complete, safe and operable installation as specified in the project documents
- The Contractor will also monitor and provide daily sign in sheets for all sub-contractors and turned into KCHA weekly.

Before the Work commences onsite Contractor to provide the following:

- All administrative assurances necessary as required by contract as well as those mutually agreed to.
- Detailed Critical Path Method project schedule for this site.
- Schedule of Values.

- A submittal list prioritizing long lead and critical path items to be expedited for review and approval before work is to commence.

The Contractor will be responsible to coordinate and sequence the Work as stated with the Owner and their representatives so as to not interfere with ongoing property operations and first responder services (i.e. laydown and storage, parking, deliveries, utility coordination, etc.).

The Contractor will provide one (1) lead person on each site responsible for implementing the Work and managing all inspections, commissioning, and quality control as necessary.

2.0 PROJECT ADMINISTRATION REQUIREMENTS

A. Pre-Construction Administration

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

1. Project Master Schedule

- Completed in Microsoft Project, Primavera or similar.
- Must be cost loaded to reflect Schedule of Values items.
- Project phasing shall be integrated into master schedule.
- Shall include the following project milestones:
 - Contract start date (CS) TBD
 - Notice to Proceed (NTP) TBD
 - Construction Duration (CD) Start Date/Stop Date TBD - TBD
 - Substantial Completion (SC) TBD
 - Physical Completion (PC) and Warranty Start Date of Entire Project TBD
 - Contract Completion (CC) of Entire Project TBD

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

2. Schedule of Values (SOV)

- Each item must correlate to the project schedule.
- Schedule of Values to contain a two and one-half (2.5%) percent line item for the closeout documents.
- Schedule of Values to reflect detailed tasks by labor and material.
- Contractor to include a separate line item for each item listed below:
 - Overhead and Profit.
 - General Conditions.
 - 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.)
 - Mobilization.

3. Submittal Schedule

- All submittals to King County Housing Authority (KCHA) prior to start of related work.
- 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.
- 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.
- 5. Phasing and Coordination Plan** including the following (*See section 3 item I, regarding Phasing*):
- a. Resident access plan for entry and exiting of apartment units.
 - b. Resident parking plan for proposed parking lot closings and openings.
- 6. Subcontractor List** with the names 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. Unit Entry: The Contractor must coordinate unit entry with the Owner such that all required Notices-to-Tenants can be posted forty-eight (48) business hours PRIOR to Entry.
 - b. Shut Downs: Contractor will provide proper notification (minimum of seventy-two (72) business hours to the Owner and (minimum of forty-eight (48) business hours to the tenants.
 - c. General Notices: The Contractor shall provide notice to Owner related to project start, potential impacts on tenants' accessibility and moving if items which could interfere with construction progress.
- 6. As-Builts:** The Contractor will be responsible to assess and record the existing conditions of any damaged or non-working items, such as existing electrical and mechanical equipment, pipe, utilities, concrete, asphalt etc., and prior to removal of work. Contractor is responsible to restore or replace all finishes that become damaged as a result of work being performed.

Contractor is not responsible for repairs of existing damage. As-Built drawings shall be current-to-date and will be reviewed on-site prior to each pay application.

7. **Certified Payrolls:** All Contractor employees and all sub-contractor employees will need to know their trade classification and pay rate.
 - a. Owner will be conducting on-site wage interviews verifying job classification and wage rate.
 - b. Davis Bacon Residential Wage 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 Renton 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 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, shoring, staging, labor, equipment, and expertise necessary to provide a quality “Turnkey” project, complete with all elements of the work, safely, on time, and within budget.
4. The Owner does not foresee any change orders for work resulting in site conditions that were clearly visible and present during the Mandatory Pre-bid Site Visit. By submitting a bid the Contractor acknowledges any labor, material and equipment required for a “Turnkey” project not specifically covered in the plans and specifications has been included in their base bid.
5. The Contractor’s Superintendent or Foreman will be assigned a construction master key and will be held responsible for all costs related to the re-keying should the key be lost or stolen. If the master key is lost or stolen the Contractor will be responsible for re-keying all related locksets to a new keying system by the **end of the day** the issue is reported.
6. The 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 the building permit; all other permits (including city of jurisdiction permits or agency of jurisdiction permits) are the Contractor’s responsibility. Contractor shall keep permits posted and onsite at all times
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. 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.
4. Contractor responsible for subcontractor's quality of workmanship and materials, completion of scope, and scheduling on site.
5. It is incumbent on the Contractor to inform the Owner of any conflicts between manufacturers' requirements and the provided plans and specifications through the RFI process and prior to submitting a bid.

D. Inspection of Work

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

E. Site Requirements

1. All communication and coordination will be with Owner representatives only.
2. On-site tenant support services (i.e. laundry, common space, maintenance facilities and storage) must be fully accessible and operational at all times.
3. Work shall be coordinated not to interrupt services (i.e. garbage, mail, EMS, etc.).
4. Emergency and tenant access must be maintained at all times.
5. The Contractor is required to maintain the cleanliness of the work-site; there will be daily inspections by the Owner to verify cleanliness, safety and tenant access. The Contractor will be responsible for 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. If Unit access is required, Contractor will not enter units before 8:00AM, once proper notification has been posted by KCHA.

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)
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 City of Renton hauling route, plans, and street use permits.

I. Project Phasing

1. The Contract duration of this project will be devised in phases. A limited notice to proceed will be executed to allow long lead material items to be ordered. The total contract duration will be 180 calendar days and is subject to change based on material and equipment lead time.
2. Contractor must realize and accept that this project is being conducted in a fully occupied housing development and all that it encompasses (families, elderly, daily traffic from families coming and going at all times during the day). The Owner is not only concerned about scope, schedule and budget, but the impact on its residents. The Contractor must take these considerations in to their phasing and sequencing accordingly. The Contractor must review their risk factors to accommodate these considerations in their bid.

4.0 SAFETY, PROTECTION & RESTORATION

A. Safety

1. Contractor shall provide and have on site at all times a site specific safety plan.
2. 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 meeting are to be available to the Owner upon request. A schedule for safety meetings will be provided with the Contractor's submittal of the Safety Plan. Confirmation that the weekly safety meeting did take place and the topic of the safety meeting will be stated in the weekly site meeting minutes.
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 residents.
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 residents and 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. Protect hallway flooring and walls, concrete walkways, paving, landscaping and all other finished surfaces which are to remain.
2. Contractor will provide protection at landscape areas where material laydown, storage, construction trailers or equipment are stored.
3. Contractor is responsible to protect and maintain all areas within the project work limits including, but not limited to, landscaping, hardscapes, exterior amenities, existing improvements, and adjacent/abutting finishes to remain.
4. See individual scope item related to protection Dust and debris control Best Management Practices (BMPs) will be applied daily in all work areas (i.e. use of tarps, water truck, street sweeper etc.).

C. Restoration

1. Contractor responsible for restoration of any damage due to construction related activities. Contractor is advised to do a pre-construction walk and do an assessment with KCHA site personal prior to construction to note and document existing conditions.
2. Contractor will restore all landscape damaged due to construction activities must be replaced by the Contractor with like vegetation at Contractor's expense.
3. Restore all landscape impacted by construction to existing pre-construction conditions. Grass areas to be restored with sod. See requirements above in Section 4, Subsection C.

D. Hazardous Materials

1. Vantage Point was constructed in 2018. There are no lead based paint or asbestos in this building.

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 areas 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 to provide all dumpsters, job shacks, con-x boxes, fencing etc. Locations to be negotiated and approved by Owner.

DIVISION 2 SITE CONSTRUCTION

A. Demolition

Refer to Specification Section 024100 Selective Demolition.

1. The Contractor shall remove and legally dispose of all materials as required by the contract documents to allow for the installation of all new specified materials. Materials included to be removed and disposed of are as follow (but non-inclusive) selective existing portions of elevator concrete pit slab, select existing portions of walls in hoistway, existing sprinkler head in machine room , existing damper actuator in hoistway.
2. 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. 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.
2. 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.
3. The Contractor will coordinate the decommissioning of electrical, plumbing, fire and HVAC elements with the Owner and respective service providers.
4. Contractor responsible for repairing all wires, cables, communication boxes etc. damaged by construction activities on same day incident occurs.
5. Contractor is responsible to air seal and /or fire seal all penetrations, vents and appurtenances.

6. 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.
7. Terminations and caps will be clearly marked on site and recorded in the project record drawings (i.e. red line drawings or as-built) with clear and accurate dimensions.

C. 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

Refer to Specification Section 033000 Cast-In-Place Concrete

1. Contractor responsible grout infill at existing slab following elevator jack installation.
2. Concrete to be poured back with hard trowel finish with smooth transitions to existing concrete floors.
3. Refer to detail 7/A8.0 for rebar dowel size and placement at infill of new elevator jack.

DIVISION 5 METALS

Refer to Specification Section 055000 Metal Fabrications

1. Contractor to install FOIC metal pit ladder 48" above sill, 16" wide and have ladder rungs top to bottom with 12" spacing. Refer to keynote 5.3 on A2.1 and flag note #4 noted on VT2.
2. Contractor to provide and install shop fabricated steel items including hydraulic elevator support framing. Provide spring buffers, pit channels and guardrails per specifications. Refer to VT2.1.
3. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish fabrication, expect where specifically noted otherwise.
4. Fabricated items will include elevator support framing as detailed; prime paint finish.

DIVISION 6 WOOD & PLASTICS Rough Carpentry

Refer to Specification Section 061000 Rough Carpentry.

1. Contractor is responsible to remove wall assembly to install 6x10 header at elevator openings. Remove and replace (2) layers of GWB @ wall to access structure for web stiffening. Remove and replace (2) layers of GWB @ ceiling to access structure for work. Refer to detail 10/A8.0 for location of items noted.
2. Contractor is responsible to shim, modify and repair minor irregularities in the assemblies in order to produce a finished product that is consistent in plane prior to cover. The Contractor will be responsible to ensure that all new components provide the necessary structural support for new elements to be installed as well as plane out with existing surfaces. The Contractor will be responsible to ensure that all new components can be installed per manufacture recommendations.
3. Field coordinate and layout work prior to beginning installation. Cut, fit and install rough carpentry construction at locations indicated in drawings.
4. All framing elements must be secured with the specified fasteners and sufficient number of fasteners, anchorages, and accessories to insure framing elements are secured in place, per plan, fastening schedules, specifications and applicable codes and regulations.

DIVISION 7 THERMAL AND MOISTURE PROTECTION

A. Cementitious and Reactive Waterproofing

Refer to Specification Section 071600 Cementitious and Reactive Waterproofing.

1. Contractor to install adequate sealing and waterproofing of pit to prevent intrusion of ground water.
2. Contractor to install per manufacturer's recommendations at elevator pit floor. Contractor will be responsible for preparation of surfaces and protection from damage during construction period.
3. Prepare surfaces using methods recommended by manufacturer for achieving best results for substrate under project conditions. Plug water leaks, patch holes, construction joints, and cracks: remove defective concrete.

B. Below-Grade Vapor Retarders

Refer to detail 10/A8.0.

1. Contractor to repair below grade vapor barrier if damaged during the installation of elevator jack noted per plan.

C. Fire Stopping

Refer to Specification Section 078400 Fire Stopping

1. Contractor is responsible for firestopping at all joints and penetrations in fire resistance rated and smoke resistant assemblies. Contractor to comply with manufacturer requirements and all applicable codes and regulations.
2. Pack hoistway door frame w/firesafe insulation and seal with firestop sealant on hoistway side.
3. Use only skilled installers who are trained and experienced with specified sealants.

D. Joint Sealants

Refer to Specification Section 079200 Joint Sealants.

1. Provide joint sealants, joint fillers and accessory joint material from a single manufacturer for each different product required to ensure compatibility.
2. All joint surfaces to be properly prepared, dry, clean and remove loose materials and foreign matter which might impair adhesion for new sealant application. Sealants applied shall be tooled and with joint seams no wider than $\frac{3}{4}$ " per project specifications.
3. Use only skilled installers who are trained and experienced with specified sealants.
4. The Contractor shall provide labor and materials required for weather-tight installation and fire rated assembly of all work associated.

DIVISION 9 FINISHES

A. Drywall & Texture

Refer to Specification Section 092100 Gypsum Wall Board.

1. Contractor will remove all necessary drywall to accommodate hoistway framing, elevator doors, and hall button boxes.
2. Contractor will apply an interior GWB, tape, joint compound and texture to match and blend in to the existing surface plane and texture quality/density. Transition between new and old drywall should be smooth and seamless.
3. Contractor will patch any interior wall damage incurred during demolition or installation. All GWB patches to have 100% blocking at all 4 sides. 2x material and $\frac{3}{4}$ " plywood is acceptable for backing. All work for existing finishes to be performed in accordance with safe work practices.
4. Contractor shall install/reinstall any or all fire rated assemblies that were disturbed during the project.

B. Interior Painting

Refer to Specification Section 099123 interior painting.

1. Contractor will patch, texture and paint to match any existing interior or exterior wall or siding damage incurred during demolition and/or installation.
2. Minimum of two (2) coats (primer is not considered a coat) or as necessary shall be applied upon completion of all wall preparation and priming for a finished cover.
3. Touchup shall be allowed for interior walls unless there is an otherwise noticeable variation of the new versus the existing paint color/texture. Interior walls shall be painted from corner to corner, top to bottom, contractor may not feather in finishes.

C. Resilient Flooring

Refer to Specification Section 096500 Resilient Flooring

1. Prepare and clean floor substrates to assure proper installation and adhesion.
2. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
3. Install plank tile with random offset of at least 6 inches from adjacent rows- install flooring in the same direction as adjacent flooring in hallway.
4. Install 4” resilient base at hallway locations of elevator door openings in hallways, including in the elevator machine room.
5. Maintain minimum dimension of 18 inches between joints.
6. Resilient Base Basis of design: Johnsonite 4” cove base, ‘fawn’. Match existing
7. Accessories: Premolded external corners and internal corners.

D. High Performance Coatings

Refer to Specification Section 099600 High Performance Coating

1. Contractor to supply and apply resinous flooring system and integral cove base in the elevator machine room.
2. Follow manufacturer’s recommended procedures for producing best results.
3. Remove substances that would bleed through finished coatings.
4. Restrict traffic from area where coating is being applied or is curing.

DIVISION 10 SPECIALTIES

A. Fire Protection Specialties

Refer to Specification Section 104400 Fire Protection Specialties

1. Contractor to supply and install fire extinguisher and associated accessories in elevator machine room to comply with AHJ code requirements.
2. Multipurpose dry chemical type fire extinguisher. Class A: B: C type.
3. Install in accordance with manufactures instructions.
4. Secure rigidly in place.

DIVISION 14 CONVEYING SYSTEMS

Refer to Specification Section 142400 Hydraulic Elevators

1. Contractor shall provide all services and materials to furnish and install (1) in-ground hydraulic elevator as described by the contract documents.
2. Remove existing hoist beam and provide new hoist beam capable of supporting at least 5,000 LBS.
3. Bore new hole for in-ground jack, provide complete new jack assembly, casing and pit channels. Scan concrete before boring to confirm existing rebar configuration. Add

additional members as necessary to maintain structural integrity of pit slab. Coat any rebar that is cut or exposed in the boring process.

4. Provide spring buffers, pit channels and guardrails per specifications.
5. Openings required in the hoistway shall be completed by drilling or cutting. Contractor shall provide all pipe sleeves, anchor plates, hanger supports, inserts, and bolts required for all work.
6. Seal all hoistway sides of the hall push button station boxes with caulking to comply with fire-rated hoistway at no additional cost to Owner.
7. Provide electrical components of the elevator equipment, finishes, signage and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire, and relays under this Division as specified and as necessary for complete operable systems.
8. Contractor to isolate all Hydraulic lines to eliminate vibrations.

DIVISION 21 FIRE SUPPRESSION

Refer to Specification Section 211000 Water-Based Fire Suppression System

1. Contractor shall provide all system design, material, labor, equipment, and services necessary to provide full coverage for the space.
2. Sprinkler system is an existing wet system. Confirm shut off location and coordinate shut downs with others.
3. Remove and replace existing sprinkler head a machine room per mechanical.
4. Extend existing piping and add sprinkler head in pit per mechanical.
5. Contractor is responsible for performing pre-bid inspection to determine all equipment and assemblies required to provide a code compliant system.
6. All work shall be coordinated with other trades so that unnecessary offsets and revision to the approved drawings are avoided.
7. Any shut downs of existing water distribution systems, fire sprinkler systems, domestic water system or fire alarm systems require advance written notice to the owner.

DIVISION 22 PLUMBING

Refer to Specification Section 221123 Plumbing Pumps, (including plan pages M1.0, M2.1

1. The Contractors scope of work includes plumbing pumps and associated appurtenances.
2. Contractor shall coordinate all mechanical work with other trades and subcontractors to assure all equipment is installed to operate correctly. (Refer to E2.1 for electrical)
3. Install Sump Pump SP-1 in existing sump pump pit. Cute existing grated cover as required to connect new 2" PW pipe and power connection for pump.
4. Provide threaded connection in PW pipe at sump for easy removal of sump pump.
5. Discharge pumped waste 6" above bottom of existing mop sink.

DIVISION 26 ELECTRICAL

Refer to Specification Sections in Division 26 (including plan pages E0.1, E2.1, E9.1)

1. Contractor to provide all labor, materials, tools, equipment, supervision, and services required for the construction, installation, connection, testing and operation of electrical work described and noted on the contract drawings.
2. Install a new 800A Service Breaker into panel "EDP"- Eaton 800A NGS breaker with a 310+LSI trip unit and a KPRL4 connector kit. (Refer to Section D of bid documents and E9.1)

3. Since the drawings of floor, wall, and ceiling installation are made at small scale, outlets, devices, equipment and similar items are indicated only in their approximate locations. Locate outlets and apparatus symmetrically on floors, walls, and ceilings where not dimensioned and coordinate such locations with work of other trades to prevent interferences.
4. Be aware of restricted space for installation of electrical systems. Include offsets and perform rerouting and coordination to fit elements in available space. Include provisions for such requirements in base bid.
5. Contractor responsible for repairing all wires, cables, etc. damaged by construction activities on same day incident occurs. Terminations and caps will be clearly marked on site and recorded in the project record drawings (i.e. red line drawings or as built) with clear and accurate dimensions.
6. Contractor to supply and install Electrical Fixtures per lighting fixture plans and specifications and all associated materials required for the complete installation of all fixtures requiring electrical connection for the Elevator and Electrical Equipment per plans and specifications. New fixtures to include but not limited to outlets, switches, fan, and car lighting.
7. Contractor to verify any existing equipment, devices, fixtures, cabling, wires, and conduit is in operational order prior to relocating, replacing or rerouting.
8. Contractor is responsible to air seal all penetrations, vents and appurtenances.
9. Contractor to have rough in inspections performed and approval to cover from AHJ prior to covering.
10. Contractor shall have a lock out / tag out procedure in place while performing any electrical service work.
11. Contractor responsible to verify all cable routing and all work required to facilitate a complete and fully functioning system that meets all jurisdictions codes and requirements.
12. 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.

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: Vantage Point Elevator
 2. Project Location: 17901 105th Pl SE Renton, WA 98055
- B. Owner/Developer: King County Housing Authority
1. Owner's Representative: Amy Kurtz
 2. Contact Phone: 206-574-1283
- C. Architects / Engineer:
1. Representative: SHKS
 2. Contact Phone: 206-675-9151
- 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)

1.7 WASTE MANAGEMENT PLAN

- A. General: Develop a plan consisting of waste identification, waste reduction work plan and cost/revenue analysis. Include separate sections in plan for demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery and handling and transportation procedures.
 - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses and telephone numbers.
 - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses and telephone numbers.

4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses and telephone numbers.
 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address and telephone number of each landfill and incinerator facility.
 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling and designated location on Project site where materials separation will be located.
- D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:
1. Total quantity of waste.
 2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
 3. Total cost of disposal (with no waste management).
 4. Savings in hauling and tipping fees that are avoided.
 5. Handling and transportation costs. Include cost of collection containers for each type of waste.
 6. Net additional cost or net savings from waste management plan.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Owner. Provide handling, containers, storage, signage, transportation and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Waste Management Coordinator: Contractor shall be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 1. Distribute waste management plan to everyone concerned within one (1) day of submittal return. A hard copy should remain on site. Send the plan electronically to the Owner.
 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling and disposal.
 3. The General Contractor will ensure that the waste plan is communicated to the crews and subcontractors on site. They will be informed of:
 - a. How materials should be separated, and why.
 - b. Where materials should go.
 - c. How often the materials will be collected and delivered to the appropriate facilities.
 - d. The importance of recycling, and KCHA's recycling goals for the project.

- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated and sold.
 - 2. Comply with Division 01 50 00 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection and noise control.
 - 3. Clearly label the recycling bins and waste containers on site.
 - 4. Post lists of recyclable and non-recyclable materials in many locations, in different languages.
 - 5. The General Contractor will provide feedback to the crew and subcontractors on the results of their efforts

- E. To the greatest extent possible, include in material purchasing agreements a waste reduction provision requesting that materials and equipment be delivered in packaging made of recyclable material, that they reduce the amount of packaging, that packaging be taken back for reuse or recycling, and to take back all unused product. Ensure that subcontractors require the same provisions in their purchase agreements.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until installation.
 - 4. Protect items from damage during transport and storage.
 - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports and miscellaneous materials necessary to make items functional for use indicated.

- B. Salvaged Items for Sale and Donation: Not permitted on Project site.

- C. Salvaged Items for Owner's Use:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's designated off-site storage area.
 - 5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.

- B. Recycling Receivers and Processors: The list below is provided for information only; available recycling receivers and processors include, but are not limited to, the following:
 - 1. Washington State Department of Ecology, Recycling, Northwest Region 425-649-7000.
 - 2. Industrial Materials Exchange (IMEX), Hazardous Waste Management Program, King County, Washington.

3. The “Recycling Plus Program Manual” published by the Washington State Clean Washington Center can be used to develop a job site reduction program. The manual includes a job-site recycling worksheet and form, tips on waste reduction, and other technical assistance. The manual also includes sample language for waste reduction requirements for subcontractors’ agreements, as well as sample provision for a full-service recycling agreement.
 4. LEED Reference Guide, Construction Waste Management section.
 5. Recovery 1 is a resource recovery, recycling and research facility dedicated to developing sustainable waste management systems. www.recovery1.com or by phone at 800-949-5852.
 6. Total Reclaim offers a wide variety of innovative environmental services for management of electronics and other hard to handle materials, including fluorescent lamps, refrigerant gases and appliances. www.totalreclaim.com or by phone 206-343-7443.
 7. “Contractors’ Guide for Preventing Waste and Recycling”
<https://kingcounty.gov/~media/depts/dnrp/solid-waste/construction-recycling/documents/ConGuide.ashx?la=en>
 8. “Seattle/King County Construction Recycling Directory.”
<https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/county-green-building.aspx>
- C. Recycling Incentives: Revenues, savings, rebates, tax credits and other incentives received for recycling waste materials shall accrue to Owner.
- D. Procedures: Separate recyclable waste from other waste materials, trash and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 4. Store components off the ground and protect from the weather.
 5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.
- 3.4 RECYCLING DEMOLITION WASTE
- A. Wood Materials: Sort and stack members according to size, type and length. Separate lumber, engineered wood products, panel products and treated wood materials.
 - B. Metals: Separate metals by type.
 1. Structural Steel: Stack members according to size, type of member and length.
 2. Remove and dispose of bolts, nuts, washers and other rough hardware.
 - C. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

- D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- E. Plumbing Fixtures: Separate by type and size.
- F. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers and other components by type and size.
- G. Lighting Fixtures: Separate lamps by type and protect from breakage.
- H. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers and other devices by type.
- I. Conduit: Reduce conduit to straight lengths and store by type and size.

3.5 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
 - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - 2. Polystyrene Packaging: Separate and bag materials.
 - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- B. Wood Materials:
 - 1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
 - 2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- C. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.
 - 1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.6 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 01 7419

KING COUNTY HOUSING AUTHORITY
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: Vantage Point Elevator

Project Address: 17901 105th Pl SE Renton, WA 98055

Work Order No.: 1373 **Job No.:** 487.1

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

The following tables identify materials expected on this project, the quantities generated, whether they will be disposed or recycled, and what facility they will be disposed or recycled at.

DEMOLITION PHASE				
MATERIAL	QUANTITY Lbs./CY/Tons	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)
	TOTALS	575,548.99	514,297.74	61,251.25	0.00	575,548.99	100.00%	0.00	28,777.45
	5% RETAINAGE	28,777.45	25,714.89	3,062.56	0.00	28,777.45			
	TOTALS LESS RETAINAGE	546,771.54	488,582.85	58,188.69	0.00	546,771.54		0.00	28,777.45
	TOTAL BALANCE TO FINISH (H + I)								28,777.45
	NET CHANGE ORDERS THIS PERIOD:	(8,218.97)	CHANGE ORDERS APPROVED THIS PERIOD (LIST C/O #s)			1			
	NET C/O ADDITIONS (THIS PERIOD):	0.00	NET C/O DEDUCTIONS (THIS PERIOD):			(8,218.97)			
	TOTAL CHANGE ORDERS TO DATE:	(8,218.97)							

Form G702

V - 105694

Application and Certificate for Payment

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

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.

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)



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.	AMOUNT OF CURRENT CERTIFICATE FOR PAYMENT REQUEST:	\$	<u>58,188.69</u>

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: _____

**KCHA VANTAGE POINT ELEVATOR
RENTON, WASHINGTON**

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DIVISION 03 - CONCRETE

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**KCHA VANTAGE POINT ELEVATOR
RENTON, WASHINGTON**

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PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes as indicated on drawings including:
 - 1. Select existing portions of elevator concrete pit slab,
 - 2. Select existing portions of walls in hoistway,
 - 3. Existing sprinkler head in machine room,
 - 4. Existing damper actuator in hoistway,
- B. Protect existing building and site elements to remain during demolition activities and while new work is being installed

1.02 DEFINITIONS

- A. Demolition: Dismantle, raze, destroy or wreck any building or structure or any part thereof.
- B. Remove: Detach or dismantle items from existing construction and dispose of them off site, unless items are indicated to be salvaged or reinstalled.
- C. Remove and Salvage: Detach or dismantle items from existing construction in a manner to prevent damage. Clean, package, label and deliver salvaged items to Owner in ready-for-reuse condition.
- D. Remove and Reinstall: Detach or dismantle items from existing construction in a manner to prevent damage. Clean and prepare for reuse and reinstall where indicated.
- E. Existing to Remain: Designation for existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction Current Edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

1.04 SUBMITTALS

- A. Site Plan: Indicate:
 - 1. Vegetation to be protected.
 - 2. Areas for temporary construction and field offices.
 - 3. Areas for temporary and permanent placement of removed materials.
- B. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
 - 1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
 - 2. Summary of safety procedures.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 DEMOLITION

- A. Remove other items indicated, for salvage, relocation, and recycling.
- B. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Owner assumes no responsibility for condition of structures or portion of structures to be demolished.

- B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Comply with applicable requirements of NFPA 241.
 - 3. Use of explosives is not permitted.
 - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 5. Provide, erect, and maintain temporary barriers and security devices.
 - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 8. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
 - 9. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
 - 10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- C. Do not begin removal until receipt of notification to proceed from Owner.
- D. Protect existing structures and other elements to remain in place and not removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.
- E. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- F. Hazardous Materials:
 - 1. If hazardous materials are discovered during removal operations, stop work and notify the Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
- G. Perform demolition in a manner that maximizes salvage and recycling of materials.
 - 1. Dismantle existing construction and separate materials.
 - 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 7 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

3.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
 - 1. Verify construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Owner before disturbing existing installation.

3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
 - B. Separate areas in which demolition is being conducted from areas that remain occupied.
 1. Provide, erect, and maintain temporary dustproof partitions of construction indicated on drawings in locations indicated on drawings.
 2. Provide sound retardant partitions of construction and in locations indicated on drawings.
 - C. Maintain weatherproof exterior building enclosure, except for interruptions required for replacement or modifications; prevent water and humidity damage.
 - D. Remove existing work as indicated and required to accomplish new work.
 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction indicated.
 2. Remove items indicated on drawings.
 - E. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
 1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
 2. Verify that abandoned services serve only abandoned facilities before removal.
 3. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.
 - F. Protect existing work to remain.
 1. Prevent movement of structure. Provide shoring and bracing as required.
 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch to match new work.
- 3.05 DEBRIS AND WASTE REMOVAL
- A. Remove debris, junk, and trash from site.
 - B. Leave site in clean condition, ready for subsequent work.
 - C. Clean up spillage and wind-blown debris from public and private lands.
 - D. Unless otherwise indicated in Contract Documents or specified by Owner, items of salvageable value to Contractor shall be removed from site. Storage or sale of removed items on site will not be permitted and shall not interfere with other work specified.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Grout infill at existing slab following elevator jack installation.

1.02 REFERENCE STANDARDS

- A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).
- B. ACI 301 - Specifications for Concrete Construction 2020.
- C. ACI 302.1R - Guide to Concrete Floor and Slab Construction 2015.
- D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete 2000 (Reapproved 2009).
- E. ACI 308R - Guide to External Curing of Concrete 2016.
- F. ACI 318 - Building Code Requirements for Structural Concrete 2019 (Reapproved 2022).
- G. ACI 347R - Guide to Formwork for Concrete 2014 (Reapproved 2021).
- H. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2022.
- I. ASTM A775/A775M - Standard Specification for Epoxy-Coated Steel Reinforcing Bars 2022.
- J. ASTM C33/C33M - Standard Specification for Concrete Aggregates 2023.
- K. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens 2023.
- L. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete 2023.
- M. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete 2020.
- N. ASTM C150/C150M - Standard Specification for Portland Cement 2022.
- O. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete 2018.
- P. ASTM D3963/D3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars 2021.
- Q. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs 2018a.
- R. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs 2017 (Reapproved 2023).
- S. ICRI 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair 2013.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- B. Samples: Submit samples of underslab vapor retarder to be used.
- C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.

1.04 QUALITY ASSURANCE

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

PART 2 PRODUCTS

2.01 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
 - 1. Finish: Epoxy coated in accordance with ASTM A775/A775M, unless otherwise indicated.
- B. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

2.02 CONCRETE MATERIALS

- A. Non-Shrink Grout:
 - 1. Sika Corp., SikaGrout 328 or approved equal.
- B. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.03 ACCESSORY MATERIALS

- A. Underslab Vapor Retarder:
 - 1. Sheet Material: ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. Single-ply polyethylene is prohibited.
 - 2. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations.
 - 3. Products:
 - a. ISI Building Products; Viper VaporCheck II 15-mil (Class A): www.isibp.com/#sle.
 - b. Stego Industries, LLC; STEGO Wrap 15-mil Class A: www.stegoindustries.com/#sle.
 - c. W. R. Meadows, Inc; PERMINATOR Class A - 15 mils (0.38 mm): www.wrmeadows.com/#sle.

PART 3 EXECUTION

3.01 PREPARATION

- A. Verify that forms are clean before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Prepare existing concrete surfaces to be repaired according to ICRI 310.2R.
- D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in accordance to bonding agent manufacturer's instructions.
 - 1. Use latex bonding agent only for non-load-bearing applications.
- E. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.
- F. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.02 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Fabricate and handle epoxy-coated reinforcing in accordance with ASTM D3963/D3963M.
- B. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

3.03 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Notify Owner not less than 24 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- F. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.04 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. Maximum Variation of Surface Flatness:
 - 1. Exposed Concrete Floors: 1/4 inch in 10 feet.
- B. Correct the slab surface if tolerances are less than specified.
- C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.05 CONCRETE FINISHING

- A. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- B. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
 - 1. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

3.06 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
- D. Surfaces Not in Contact with Forms:
 - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - 2. Final Curing: Begin after initial curing but before surface is dry.

3.07 DEFECTIVE CONCRETE

- A. Repair or replacement of defective concrete will be determined by the Owner. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- B. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Owner for each individual area.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Shop fabricated steel items including hydraulic elevator support framing.

1.02 REFERENCE STANDARDS

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.
- B. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates 2018.
- C. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.
- D. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing 2021.
- E. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength 2023.
- F. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.
- G. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification 2021.
- H. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2023).
- I. AWS D1.2/D1.2M - Structural Welding Code - Aluminum 2014, with Errata (2020).
- J. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172 2019.
- K. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer 2004.
- L. SSPC-SP 2 - Hand Tool Cleaning 2018.

1.03 SUBMITTALS

- A. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
- B. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.
- C. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

1.04 QUALITY ASSURANCE

- A. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and AWS D1.2/D1.2M and dated no more than 12 months before start of scheduled welding work.
- B. Fabricator Qualifications: A qualified steel fabricator that is accredited by IAS AC172.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

- A. Steel Sections: ASTM A36/A36M.
- B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- C. Plates: ASTM A283/A283M.
- D. Mechanical Fasteners: Same material as or compatible with materials being fastened; type consistent with design and specified quality level.
- E. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.

- F. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- G. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

- A. Elevator Support Framing: As detailed; prime paint finish.
- B. Rail Bracket: Per elevator manufacturer.

2.04 FINISHES - STEEL

- A. Prime paint steel items.
 - 1. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- D. Prime Painting: One coat.

2.05 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

PART 3 EXECUTION

3.01 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.

3.02 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components as indicated on drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Obtain approval prior to site cutting or making adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

3.03 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

- C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural dimension lumber framing.
- B. Nonstructural dimension lumber framing.
- C. Rough opening framing for doors.
- D. Miscellaneous framing and sheathing.
- E. Concealed wood blocking, nailers, and supports.

1.02 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2023.
- B. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing 2003 (Reapproved 2017).
- C. AWWA U1 - Use Category System: User Specification for Treated Wood 2023.
- D. ICC (IBC) - International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- E. PS 20 - American Softwood Lumber Standard 2021.
- F. WCLIB (GR) - Standard Grading Rules for West Coast Lumber No. 17 2018.
- G. WWPA G-5 - Western Lumber Grading Rules 2021.

1.03 SUBMITTALS

- A. Product Data: Provide technical data on wood preservative materials and application instructions.
- B. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.

1.04 QUALITY ASSURANCE

- A. Evidence of Grade: Conform to IB 2303 and DOC PS 20.
 - 1. Rough Lumber: Stamp each piece of lumber and plywood with grademark and trademark of Association having jurisdiction.
 - 2. In lieu of grade stamping, certify by manufacturer that products meet or exceed specified requirements.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
 - 3. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: West Coast Lumber Inspection Bureau; WCLIB (GR).

- B. Grading Agency: Western Wood Products Association; WWPA G-5.
- C. Sizes: Nominal sizes as indicated on drawings, S4S.
- D. Moisture Content: S-dry or MC19.
- E. Stud Framing (2 by 2 through 2 by 6):
 - 1. Species: Doug fir-larch No. 2 grade or Hem-fir No. 1 grade. Utility and standard grades not permitted..
- F. Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16):
 - 1. Species: Doug fir-larch No. 2 grade or Hem-fir No. 1 grade. Utility and standard grades not permitted..
- G. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 - 1. Lumber: S4S, Doug fir-larch No. 2 grade or Hem-fir No. 1 grade. Utility and standard grades not permitted..

2.03 CONSTRUCTION PANELS

2.04 ACCESSORIES

- A. Fasteners and Anchors:
 - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
 - 2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
- B. General Purpose Construction Adhesives: Comply with ASTM C557.
- C. Water-Resistive Barrier: See Section 072500.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.02 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AWC (WFCM) Wood Frame Construction Manual.
- E. Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.
- F. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- G. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.
- H. Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load bearing non-head partitions. Fasten plates to supporting construction unless otherwise indicated.

- I. Construct corners and intersections with three or more studs, except that two studs may be used for interior non-load bearing partitions.

3.03 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to authorities having jurisdiction may be used in lieu of solid wood blocking.
- C. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- D. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
- E. Provide the following specific nonstructural framing and blocking:
 - 1. Cabinets and shelf supports.
 - 2. Wall brackets.

3.04 TOLERANCES

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

3.05 CLEANING

- A. Waste Disposal: See Section 017419 - Construction Waste Management and Disposal.
 - 1. Comply with applicable regulations.
 - 2. Do not burn scrap on project site.
 - 3. Do not burn scraps that have been pressure treated.
 - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.
- B. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Crystalline waterproofing of concrete substrates at elevator pit.
- B. Preparation of surfaces.

1.02 REFERENCE STANDARDS

- A. ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating 2023.
- B. COE CRD-C 48 - Handbook for Concrete and Cement Standard Test Method for Water Permeability of Concrete 1992.
- C. NSF 61 - Drinking Water System Components - Health Effects 2022, with Errata.
- D. UL (DIR) - Online Certifications Directory Current Edition.
- E. NRCA (WM) - The NRCA Waterproofing Manual 2021.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Test data showing hydraulic permeability.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods.
 - 5. Details for waterproofing at joints, intersections, and other special conditions.
- B. Installer's qualification statement.
- C. Specimen warranty.

1.04 QUALITY ASSURANCE

- A. 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 products in manufacturer's unopened packaging until ready for installation.
- B. Take necessary precautions to keep cementitious materials dry.

1.06 WARRANTY

- A. Manufacturer's Warranty: Provide 5-year manufacturer's standard warranty document executed by authorized company official.
- B. Installer Warranty: Provide 2-year warranty commencing on the Date of Substantial Completion for correcting leaking waterproofing, unless leakage is caused by structural failure, structural movement, or other causes beyond the installer's control. Complete forms in Owner's name and register with installer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Crystalline Waterproofing:
 - 1. Xypex Chemical Corporation: www.xypex.com/#sle.
 - 2. Or approved equal.

2.02 MATERIALS

- A. Basis of Design:
 - 1. Xypex Concentrate.
 - 2. Xypex Modified.
 - 3. Xypex Patch'n Plug.

- B. Crystalline Waterproofing: Portland cement, quartz or silica sand, and other active chemicals that when applied to surface of concrete forms insoluble crystals in capillary pores preventing passage of liquids, while having no adverse effect on normal properties of concrete.
 - 1. Water Permeability of Applied Concrete: No measurable leakage or water flow at pressure ranging from 175 psi to 200 psi when tested in accordance with COE CRD-C 48, using at least 2-inch thick sample, and with applied surface preparation and installation in accordance with NRCA (WM).
 - 2. Chemical Resistance: ASTM C267.
 - 3. Freeze/Thaw and Deicing Chemical Resistance: ASTM C672.
 - 4. Toxicity: Non-toxic.
 - a. Potable Water and Drinking Water Safe: Provide UL (DIR) listed and labeled waterproofing; tested to be safe for use in potable and drinking water applications in accordance with NSF 61.
 - 5. Mixing: Mix materials in accordance with manufacturer's instructions, including product data and product technical bulletins.
 - 6. Source Quality: Obtain proprietary crystalline waterproofing products from a single manufacturer.

PART 3 EXECUTION

3.01 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
 - 1. Remove dust, dirt, mortar, efflorescence, grease, oils, paint, form-release agents, and curing compounds in accordance with ASTM D4258.
- B. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions, and consider use of sandblasting, water blasting, or acid etching as recommended.
- C. Plug water leaks.
- D. Patch holes, construction joints, and cracks; remove defective concrete.
- E. Obtain approval of manufacturer's field representative before beginning installation.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's written instructions, maintain environmental conditions required and recommended by manufacturer, and keep a copy of manufacturer's instructions on site.
- B. Coordinate waterproofing installation with installation of products that must penetrate waterproofed surfaces.
- C. Prevent excessive drying of surface.
 - 1. Cure waterproofing for at least three days, or length of time required by manufacturer, with water spray and adequate air circulation.
 - 2. Do not use chemical curing agents unless explicitly approved by waterproofing manufacturer.
- D. Do not backfill, fill water or liquid holding structures, or apply finish coatings until time period recommended by manufacturer has passed.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Firestopping systems.
- B. Firestopping of joints and penetrations in fire-resistance-rated and smoke-resistant assemblies, and other openings indicated.

1.02 REFERENCE STANDARDS

- A. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi 2015, with Editorial Revision (2021).
- B. ITS (DIR) - Directory of Listed Products Current Edition.
- C. FM (AG) - FM Approval Guide Current Edition.
- D. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).
- E. UL (FRD) - Fire Resistance Directory Current Edition.

1.03 SUBMITTALS

- A. Schedule of Firestopping: List each type of penetration, fire rating of the penetrated assembly, and firestopping test or design number.
- B. Product Data: Provide data on product characteristics, performance ratings, and limitations.
- C. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.
- D. Installer's qualification statement.

1.04 QUALITY ASSURANCE

- A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.
 - 1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
 - 2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC-ES) at www.icc-es.org will be considered as constituting an acceptable test report.
 - 3. Submission of actual test reports is required for assemblies for which none of the above substantiation exists.
- B. Installer Qualifications: Company specializing in performing the work of this section and:
 - 1. Verification of minimum three years documented experience installing work of this type.

1.05 MOCK-UPS

- A. Install one firestopping assembly representative of each fire rating design required on project.
 - 1. Where one design may be used for different penetrating items or in different wall constructions, install one assembly for each different combination.
- B. Obtain approval of authorities having jurisdiction (AHJ) before proceeding.
- C. If accepted, mock-up will represent minimum standard for this work.
- D. If accepted, mock-up may remain as part of this work. Remove and replace mock-ups not accepted.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Firestopping Manufacturers:
 - 1. 3M Fire Protection Products: www.3m.com/firestop/#sle.
 - 2. Hilti, Inc: www.hilti.com/#sle.
 - 3. Specified Technologies Inc: www.stifirestop.com/#sle.
 - 4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

2.02 MATERIALS

- A. Firestopping Materials: Any materials meeting requirements.
- B. Volatile Organic Compound (VOC) Content: Provide products having VOC content lower than that required by SCAQMD 1168.
- C. Mold and Mildew Resistance: Provide firestopping materials with mold and mildew resistance rating of zero(0) in accordance with ASTM G21.
- D. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.
- E. Fire Ratings: Refer to drawings for required systems and ratings.
- F. Firestop System Warning Label: Minimum 3-inch by 5-inch label. Red color or with red colored type. Adhesive backed or other means for permanent attachment. "WARNING" written in bold type. Identify or include spaces for following information:
 - 1. Name of manufacturer.
 - 2. Name of installer.
 - 3. Date firestop system was installed.
 - 4. Firestop System Assembly Reference Number in O&M Manual as Closeout Submittal.
 - 5. Firestop System UL number or manufacturer's engineered design number.
 - 6. F Rating and T Rating (as applicable).

2.03 AUXILIARY AND FILL MATERIALS

- A. General: Provide auxiliary and fill materials for each firestopping system necessary to maintain fire-resistance ratings required. Use only those materials specified by the firestopping manufacturer and approved by the qualified testing agency for the designated fire-resistance-rated systems.
- B. Cast-In-Place Firestop Devices: Factory-assembled devices for use in cast-in-place concrete, consisting of an outer sleeve lined with an intumescent strip, a flange attached to one end of the sleeve for fastening to concrete formwork, and a neoprene gasket.
- C. Firestop Devices: Factory-assembled collars formed from galvanized steel and lined with intumescent material sized to fit specific diameter of penetrant.
- D. Intumescent Composite Sheets: Rigid panels consisting of aluminum-foil-faced intumescent elastomeric sheet bonded to galvanized-steel sheet.
- E. Intumescent Putties: Non-hardening, water-resistant, intumescent putties containing no solvents or inorganic fibers.
- F. Intumescent Wrap Strips: Single-component intumescent elastomeric sheets with aluminum foil on one side.
- G. Mortars: Prepackaged dry mixes consisting of a blend of inorganic binders, hydraulic cement, fillers and lightweight aggregate formulated for mixing with water at Project site to form a non-shrinking, homogeneous mortar.
- H. Pillows/Bags: Reusable heat-expanding pillows/bags consisting of glass-fiber cloth cases filled with a combination of mineral-fiber, water-insoluble expansion agents, and fire retardant additives. Where exposed, cover openings with steel-reinforcing wire mesh to protect pillows/bags from being easily removed.
- I. Plugs and Blocks: Re-enterable, foam plugs and blocks impregnated with intumescent material for use in blank openings and cable sleeves made in fire-rated wall or floor assemblies, where future penetration of pipes, conduits, or cables is expected.
- J. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, non-shrinking foam.
- K. Sealants and Caulking Materials:
 - 1. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants.
 - 2. Latex Sealants: Single-component latex formulations that do not re-emulsify after cure during exposure to moisture.

- L. Fire-Safing: Preformed rock/mineral wool, as required by Project conditions. Include specially designed safing impaling clips.
- M. Other auxiliary and fill materials required for the designated fire-resistance-rated system.

2.04 FIRESTOPPING SYSTEMS

A. Penetration Firestopping Systems:

- 1. Penetrations in Fire-Resistance-Rated Walls: Penetration firestopping systems with ratings determined per ASTM E814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.
 - a. F-Rating: Not less than the fire-resistance rating of constructions penetrated.
- 2. Penetrations in Horizontal Assemblies: Penetration firestopping systems with ratings determined per ASTM E814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.
 - a. F-Rating: At least one hour, but not less than the fire-resistance rating of constructions penetrated.
 - b. T-Rating: At least one hour, but not less than the fire-resistance rating of constructions penetrated except for floor penetrations within the cavity of a wall.
 - c. W-Rating (for water resistance): Provide penetration firestopping systems showing no evidence of water leakage when tested according to UL 1479.
- 3. Penetrations in Smoke Barriers: Penetration firestopping systems with ratings determined per UL 1479, tested at a positive pressure differential of 0.30-inch wg.
 - a. L-Rating: Not exceeding 5.0 cfm/sq. ft. of penetration opening at and no more than 50 cfm cumulative total for any 100 sq. ft. at both ambient and elevated temperatures.

B. Joint Firestopping Systems:

- 1. Joints in or between Fire-Resistance-Rated Construction (including top-of-rated wall): Joint firestopping systems with ratings determined per ASTM E1966 or UL 2079.
 - a. F-Rating: Equal to or exceeding the fire-resistance rating of the wall, floor, or roof in or between which it is installed.
- 2. Joints in Smoke Barriers: Fire-resistive joint systems with ratings determined per UL 2079 based on testing at a positive pressure differential of 0.30-inch wg.
 - a. L-Rating: Not exceeding 5.0 cfm/ft. of joint at both ambient and elevated temperatures.
- 3. Joints at Intersection between Rated Wall Assemblies and Non-Rated Horizontal Assemblies: Joint firestopping systems with ratings determined by ASTM E2837.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
- B. Do not cover installed firestopping until inspected by authorities having jurisdiction.
- C. Install labeling required by code.

3.02 CLEANING

- A. Clean adjacent surfaces of firestopping materials.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

1.02 REFERENCE STANDARDS

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer 2015 (Reapproved 2022).
- B. ASTM C834 - Standard Specification for Latex Sealants 2017 (Reapproved 2023).
- C. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications 2022.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.
- E. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016 (Reapproved 2023).
- F. ASTM C1521 - Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints 2019 (Reapproved 2020).
- G. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.
- H. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).
- I. UL 263 - Standard for Fire Tests of Building Construction and Materials Current Edition, Including All Revisions.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
- B. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- C. Installation Plan: Submit at least four weeks prior to start of installation.
- D. Installation Log: Submit filled-out log for each length or instance of sealant installed.
- E. Installer's qualification statement.
- F. Executed warranty.

1.04 QUALITY ASSURANCE

- A. Single Source Responsibility for Joint Sealant Materials:
 - 1. Obtain joint sealants from a single manufacturer for each different product required to ensure compatibility.
 - 2. Manufacturer shall instruct applicator in procedures for intersecting sealants.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.
- C. Installation Plan: Include schedule of sealed joints, including the following:
 - 1. Installation Log Form: Include the following data fields, with known information filled out.
 - a. Location on project.
 - b. Substrates.
 - c. Sealant used.
 - d. Date of installation.
 - e. Name of installer.

- f. Actual joint width; provide space to indicate maximum and minimum width.
 - g. Actual joint depth to face of backing material at centerline of joint.
 - h. Air temperature.
- D. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or another applicable method as recommended by manufacturer.

1.05 WARRANTY

- A. Manufacturer Warranty: Provide 5-year manufacturer warranty for installed sealants and accessories that fail to achieve a watertight seal, exhibit loss of adhesion or cohesion, or do not cure. Complete forms in Owner's name and register with manufacturer.
- B. Applicator's Warranty: Provide 2-year applicator warranty for installed sealants and accessories covering workmanship. Complete forms in Owner's name.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Nonsag Sealants:
 - 1. Dow: www.dow.com/#sle.
 - 2. Sika Corporation: www.usa.sika.com/#sle.
 - 3. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
 - 4. Or approved equal.

2.02 JOINT SEALANTS - GENERAL

- A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.
- B. Colors: As selected by Owner from samples of manufacturer's standard color range.
- C. Compatibility:
 - 1. Provide joint sealants, joint fillers and accessory joint materials that are compatible with one another and with joint substrates under project conditions.
 - 2. Install joint sealants, joint fillers and related joint materials that are non-staining to visible joint surfaces and surrounding substrate surfaces.

2.03 NONSAG JOINT SEALANTS

- A. Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 25 percent, minimum.
 - 2. Color: Match adjacent finished surfaces.
 - 3. Cure Type: Single component, neutral moisture curing.
- B. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
 - 1. Color: White.
- C. Acrylic-Urethane Sealant: ASTM C920, Grade NS, Uses M and A; single component; paintable; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 12-1/2 percent, minimum.
 - 2. Color: White.
- D. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, nonstaining, nonbleeding, nonsagging; not intended for exterior use.
 - 1. Color: Standard colors matching finished surfaces, Type OP (opaque).
 - 2. Grade: ASTM C834; Grade NF.
- E. Acrylic Latex Sealant: ASTM C834; for use as acoustical sealant and in firestopping systems for expansion joints and through penetrations.
 - 1. Color: Standard colors matching finished surfaces.

2. Fire Rated System: Complies with UL 263 and ASTM E119 with UL fire resistance classifications.

2.04 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
 1. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.
 2. Polystyrene foam not acceptable.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D. Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- E. Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

PART 3 EXECUTION

3.01 PREPARATION

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

3.02 INSTALLATION

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Seal joints before final coat of finish is applied to adjacent surfaces.
- C. Provide joint sealant installations complying with ASTM C1193.
- D. Install acoustical sealant application work in accordance with ASTM C919.
- E. Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
 1. Width/depth ratio of 2:1.
 2. Neck dimension no greater than 1/3 of the joint width.
 3. Surface bond area on each side not less than 75 percent of joint width.
 4. Where more than 3/4" wide pack with foam backer rod material to within 1/2" of surface.
 5. Where less than 1/2" wide install foam rod backer rod material to within 1/4" of surface.
- F. Provide backing materials in as long lengths as practicable; install with proper tool. Force backing into joint to proper depth for sealant.
- G. Install bond breaker backing tape where backer rod cannot be used.
- H. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- I. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- J. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- K. Curing
 1. Prior to painting or coating, allow sealant joints to cure as directed by sealant manufacturer, minimum seven (7) days for a single component and three (3) days for a multi-component.

2. Ambient temperatures and humidity affect the cure rate and time required for joint to be “tack-free”. Notify Owner if cure times exceed the minimums listed.

3.03 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealnt adhesion to joint substrates in accordance with manufacturer's instructions and ASTM C1193, Method A, Field-Applied Sealnt Joint Hand-Pull Tab. Perform 5 tests for each 1,000 linear feet of applied sealant.
 1. For sealants applied between dissimilar materials, test both sides of joint.
- B. Sealants failing adhesion test shall be removed, substrateds cleaned, sealants re-installed, and re-testing performed.

3.04 SCHEDULE

JOINT SEALANT	APPLICATION
Single-Component Neutral Curing Silicone Sealant	- All other exterior vertical and horizontal non-traffic joints unless noted otherwise
Single-Component Mildew-Resistant Acid-Curing Silicone Sealant	Interior joints between plumbing fixtures and adjoining walls and floors
Single-Component Nonsag Uretane Sealant	Interior joints of exterior openings
Latex Sealant	Perimeter joints between interior wall surfaces and frames of interior doors
Acoustical Sealant for Exposed and Concealed Joints	- Both faces of interior gypsum board partitions at head, sill, perimeter, and through penetrations -As required for acoustical-rated constructions-As required for gypsum board shaft wall assemblies

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Acoustic insulation.
- C. Gypsum wallboard.
- D. 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 C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2023.
- D. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2023.
- E. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.
- F. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.
- G. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- H. ASTM E413 - Classification for Rating Sound Insulation 2022.
- I. GA-216 - Application and Finishing of Gypsum Panel Products 2021.
- J. GA-600 - Fire Resistance and Sound Control Design Manual 2021.

1.03 SUBMITTALS

- A. Product Data:
 - 1. Provide data on gypsum board, accessories, and joint finishing system.
- B. Installer's Qualification Statement.

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.
- B. Interior Partitions: Provide completed assemblies with the following characteristics:
- C. Fire-Resistance-Rated Assemblies: Provide completed assemblies complying with applicable code.

2.02 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
 - 1. CertainTeed Corporation: www.certainteed.com/#sle.

2. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
 3. USG Corporation: www.usg.com/#sle.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.

2.03 GYPSUM BOARD ACCESSORIES

- A. Acoustic Insulation: ASTM C665; preformed mineral-fiber, friction fit type, unfaced; thickness 2 inches.
- B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
- C. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
1. Corner Beads: Low profile, for 90 degree outside corners.
- D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
- E. 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 FRAMING INSTALLATION

- A. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
- B. Studs: Space studs as indicated.
1. Extend partition framing to structure in all locations.
- C. Furring for Fire-Resistance Ratings: Install as required for fire-resistance ratings indicated and to GA-600 requirements.
- D. Blocking: Install wood blocking for support of:
1. Framed openings.
 2. Wall-mounted cabinets.
 3. Plumbing fixtures.
 4. Toilet partitions.
 5. Toilet accessories.
 6. Wall-mounted door hardware.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
1. Place one bead continuously on substrate before installation of perimeter framing members.
 2. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.04 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.
- C. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

- D. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.
- E. Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority. For nonrated assemblies, install as follows:
 - 1. Single-Layer Applications: Screw attachment.

3.05 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 and ceilings over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Moisture Guard Trim: Install on bottom edge of gypsum board according to manufacturer's instructions and in locations indicated on drawings.

3.06 JOINT TREATMENT

- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting 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.
 - 2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 - 3. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
- 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.

3.07 TOLERANCES

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

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Luxury vinyl plank elevator flooring.
- B. Resilient base.
- C. Installation accessories.

1.02 REFERENCE STANDARDS

- A. ASTM F1861 - Standard Specification for Resilient Wall Base; 2021.
- B. ASTM F2195 - Standard Specification for Linoleum Floor Tile; 2018.

1.03 SUBMITTALS

- A. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- B. Selection Samples: Submit manufacturer's complete set of color samples for Owner's initial selection.
- C. Verification Samples: Submit two samples, 6 by 6 inch in size illustrating color and pattern for each resilient flooring product specified.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Flooring Material: 1 box.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store all materials off of the floor in an acclimatized, weather-tight space.

PART 2 PRODUCTS

2.01 TILE FLOORING

- A. Luxury Vinyl Plank: Homogeneous wear layer bonded to backing, with color and pattern through wear layer thickness.
 - 1. Manufacturers:
 - a. Basis of Design: Evoke Flooring; Astoria Collection: www.evokeflooring.com/#sle.
 - b. Forbo Flooring, Inc; Allura LVT: www.forboflooringna.com/#sle.
 - c. Johnsonite, a Tarkett Company; iD Latitude Woods: www.johnsonite.com/#sle.
 - d. Or approved equal.
 - 2. Minimum Requirements: Comply with ASTM F2195, Type corresponding to type specified. Rigid core.
 - 3. Thickness: 1/4 inch, minimum, with built-in underlayment.
 - 4. Pattern / Texture: Match existing. Basis of Design assumed to be 'Axel' from Evoke Flooring's Astoria Collection.

2.02 RESILIENT BASE

- A. Resilient Base: ASTM F1861, Type TS, rubber, vulcanized thermoset; style as scheduled.
 - 1. Manufacturers:
 - a. Johnsonite, a Tarkett Company: www.johnsonite.com/#sle.
 - b. Or approved equal.
 - 2. Height: 4 inches.
 - 3. Thickness: 0.125 inch.
 - 4. Finish: Satin.
 - 5. Basis of Design: Johnsonite 4" Cove Base, 'Fawn'. Match existing.
 - 6. Accessories: Premolded external corners and internal corners.

2.03 ACCESSORIES

- A. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
- B. Filler for Cove Base: Plastic.
- C. Sealer and Wax: Types recommended by flooring manufacturer.

PART 3 EXECUTION

3.01 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Clean substrate.

3.02 INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
 - 1. Fit joints and butt seams tightly.
 - 2. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
- E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
 - 1. Metal Strips: Attach to substrate before installation of flooring using stainless steel screws.
- F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.03 INSTALLATION - TILE FLOORING

- A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.
- B. Lay flooring with joints and seams parallel to building lines to produce symmetrical pattern.
- C. Install plank tile with a random offset of at least 6 inches from adjacent rows.

3.04 INSTALLATION - RESILIENT BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

3.05 CLEANING

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 5. 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. Rodda Paint Co: www.rodmapaint.com/#sle.
 2. Sherwin-Williams Company: www.sherwin-williams.com/#sle.
 3. Benjamin Moore & Co.: 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, 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; 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.

3.03 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- E. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- F. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.
- G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- H. 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.

3.05 COLOR COATING SCHEDULE

- A. Schedule: Refer to Drawings for locations.
 - 1. PNT-1: Field Paint. Benjamin Moore White Dove OC-17.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Resinous flooring system in the elevator machine room.
- B. Surface preparation.

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 D4258 - Standard Practice for Surface Cleaning Concrete for Coating 2023.
- C. ASTM D4259 - Standard Practice for Preparation of Concrete by Abrasion Prior to Coating Application 2018.
- D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023c.
- E. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association Current Edition.
- F. SCAQMD 1113 - Architectural Coatings 1977, with Amendment (2016).

1.03 SUBMITTALS

- A. Product Data: Provide complete list of all 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 coating system(s) product is to be used in; include description of each system.
 - 4. Manufacturer's Safety Data Sheet (SDS).
 - 5. Manufacturer's installation instructions.
- B. Samples: Submit two samples 6 by 6 inch in size illustrating colors available for selection.
- C. Maintenance Data: Include cleaning procedures and repair and patching techniques.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum ten years documented experience.
- B. Applicator Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.
- C. A pre-installation conference shall be held between Applicator, Contractor, and the Owner to review and clarification of this specification, application procedure, quality control, inspection, and acceptance criteria and production schedule.

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 coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Coating Materials: Store at minimum ambient temperature of 60 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.
- D. Waste Disposal: Provide adequate disposal facilities for non-hazardous waste generated during installation of the system.

1.06 FIELD CONDITIONS

- A. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

- B. Do not install materials when temperature is below 60 degrees F or above 90 degrees F.
- C. The relative humidity in the specific location of the application shall be less than 85% and the surface temperature shall be at least 5 degrees F above the dew point.
- D. Maintain this temperature range, 24 hours before, during, and 72 hours after installation of coating.
- E. Provide adequate ventilation for the work area.
- F. Provide lighting level of 80 ft candles measured mid-height at substrate surface.
- G. Restrict traffic from area where coating is being applied or is curing.
- H. All open flames and spark-producing equipment shall be removed from the work area prior to commencement of application.
- I. "No Smoking" signs shall be posted at the entrances of the work area.
- J. The Owner shall be responsible for the removal of foodstuffs from the work area.
- K. Non-related personnel in the work area shall be kept out.

1.07 WARRANTY

- A. Correct defective Work within a five year period after Date of Substantial Completion.
- B. Warranty: Include coverage for bond to substrate.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. High-Performance Coatings:
 - 1. Dur-A-Flex, Inc., 95 Goodwin Street, East Hartford, CT 06108, Phone: (860) 528-9838, Fax: (860) 528-2802
 - 2. Or approved equal.

2.02 TOP COAT MATERIALS

- A. Basis of Design: Armor Top
 - 1. Percent Solids: 95 %
 - 2. VOC: 0 g/L
 - 3. Tensile Strength, ASTM D 2370: 7,000 psi
 - 4. Adhesion, ASTM 4541: Substrate Failure
 - 5. Hardness, ASTM D 3363: 4H
 - 6. 60° Gloss ASTM D 523: 70
 - 7. Abrasion Resistance, ASTM D4060 CS 17 wheel (1,000 g load) 1,000 cycles
 - a. Gloss: 4 mg loss with grit, 10 mg loss without grit
 - b. Satin: 8 mg loss with grit, 12 mg loss without
 - 8. Pot Life, 70 F, 50% RH: 2 Hours
 - 9. Full Chemical Resistance: 7 days
- B. Shellac: Pure, white type.

2.03 BASE COAT

- A. Basis of Design: Dur-A-Gard
 - 1. Percent Solids: 100 %
 - 2. VOC: 3.45 g/L
 - 3. Compressive Strength, ASTM D 695: 16,000 psi
 - 4. Tensile Strength, ASTM D 638: 3,800 psi
 - 5. Flexural Strength, ASTM D 790: 4,000 psi
 - 6. Abrasion Resistance, ASTM D 4060 C-10 Wheel, 1,000 gm load, 1,000 cycles: 35 mg loss
 - 7. Flame Spread/NFPA-101, ASTM E 84: Class A
 - 8. Flammability, ASTM D 635: Self Extinguishing
 - 9. Impact Resistance MIL D-3134: 0.025 inch Max

10. Water Absorption. MIL D-3134: 0.04 %
11. Potlife @ 70 F: 20-25 minutes

2.04 PRIMERS

- A. Basis of Design: Dur-A-Glaze #4 WB
 1. Percent Solids: 56 %
 2. VOC: 2 g/L
 3. Bond Strength to Concrete ASTM D 4541: 550 psi, substrates fails
 4. Hardness, ASTM D 3363: 3H
 5. Elongation, ASTM D 2370: 9 %
 6. Flexibility (1/4: Cylindrical mandrel), ASTM D 1737: Pass
 7. Impact Resistance, MIL D-2794: >160
 8. Abrasion Resistance ASTM D 4060, CS 17 wheel, 1,000 g Load: 30 mg loss

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 coated surfaces.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect adjacent surfaces and materials not receiving coating from spatter and overspray; mask if necessary to provide adequate protection. Repair damage.
- B. Clean surfaces of loose foreign matter.
- C. Remove substances that would bleed through finished coatings. If unremovable, seal surface with shellac.
- D. Remove finish hardware, fixture covers, and accessories and store.
- E. Concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, and bituminous products.
- F. Moisture Testing: Perform tests recommended by manufacturer and as follows.
 1. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75% relative humidity level measurement.
 2. If the relative humidity exceeds 75% then moisture mitigation system must be installed prior to resinous flooring installation per manufacturer. Slab-on grade substrates without a vapor barrier may also require the moisture mitigation system.
- G. There shall be no visible moisture present on the surface at the time of application of the system. Compressed oil-free air and/or a light passing of a propane torch may be used to dry the substrate.
- H. Mechanical surface preparation
 1. Shot blast all surfaces to receive flooring system with a mobile steel shot, dust recycling machine. All surface and embedded accumulations of paint, toppings hardened concrete layers, laitance, power trowel finishes and other similar surface characteristics shall be completely removed leaving a bare concrete surface having a minimum profile of CSP 2-3 as described by the International Concrete Repair Institute.
 2. Floor areas inaccessible to the mobile blast machines shall be mechanically abraded to the same degree of cleanliness, soundness and profile using diamond grinders, needle guns, bush hammers, or other suitable equipment.
 3. Cracks and joints (non-moving) greater than 1/8 inch wide are to be chiseled or chipped-out and repaired per manufacturer's recommendations.
- I. At spalled or worn areas, mechanically remove loose or delaminated concrete to a sound concrete and patch per manufacturer's recommendations.

3.02 APPLICATION

- A. General
 1. The system shall be applied in four distinct steps as listed below:

- a. Substrate preparation
 2. Priming
 - a. Base coat application.
 - b. Topcoat application
 3. Immediately prior to the application of any component of the system, the surface shall be dry and any remaining dust or loose particles shall be removed using a vacuum or clean, dry, oil-free compressed air.
 4. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations.
 5. The system shall follow the contour of the substrate unless pitching or other leveling work has been specified by the Owner.
 6. A neat finish with well-defined boundaries and straight edges shall be provided by the Applicator.
- B. Primer
1. The primer shall be mixed at the ratio of 1 part resin to 4 parts hardener per the manufacturer's instructions.
 2. The primer shall be applied by 1/8 inch notched squeegee and back rolled at the rate of 200-250 sf/gal to yield a dry film thickness of 4 mils.
- C. Base Coat
1. The base coat shall be comprised of two components, a resin, and hardener as supplied by the Manufacturer.
 2. The resin shall be added to the hardener and thoroughly mixed by suitably approved mechanical means.
 3. The base coat shall be applied over horizontal surfaces using "v" notched squeegee and back rolled at the rate of 100 sf/gal to yield a dry film thickness of 16 mils.
- D. Topcoat
1. The topcoat shall be roller applied at the rate of 500 sf/gal to yield a dry film thickness of 3 mils.
 2. The topcoat shall be comprised of a liquid resin, hardener and pigment that is mixed per the manufacturer's instructions.
 3. The finish floor will have a nominal thickness of 23 mils.
- 3.03 FIELD QUALITY CONTROL
- A. Testsing: The following tests shall be conducted by the Applicator:
1. Air, substrate temperatures and, if applicable, dew point.
 2. Rates for all layers shall be monitored by checking quantity of material used against the area covered.
- 3.04 CLEANING
- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.
 - B. Clean surfaces immediately of overspray, splatter, and excess material.
 - C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fire extinguisher in elevator machine room.
- B. Accessories.

1.02 REFERENCE STANDARDS

- A. FM (AG) - FM Approval Guide Current Edition.
- B. NFPA 10 - Standard for Portable Fire Extinguishers 2022.
- C. UL (DIR) - Online Certifications Directory Current Edition.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide extinguisher operational features.
- C. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.
- D. Maintenance Data: Include test, refill or recharge schedules and re-certification requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Fire Extinguishers:
 - 1. Kidde, a unit of United Technologies Corp: www.kidde.com/#sle.
 - 2. Or accepted equal..

2.02 FIRE EXTINGUISHERS

- A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
 - 1. Provide extinguishers labeled by UL (DIR) or FM (AG) for purpose specified and as indicated.
- B. Multipurpose Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gauge.
 - 1. Class: A:B:C type.
 - 2. Temperature range: Minus 40 degrees F to ___ degrees F.

2.03 ACCESSORIES

- A. Extinguisher Brackets: Formed steel, chrome-plated.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Secure rigidly in place.

3.02 MAINTENANCE

- A. Provide a separate maintenance contract for specified maintenance service.

END OF SECTION

PART 1 GENERAL

1.01 SCOPE

- A. Contractor shall provide all services and materials to furnish and install one (1) in-ground hydraulic elevator as described by the contract documents.
 - 1. General Conditions, Amendments to the General Conditions, Special Conditions, Instruction to Bidders, Division 1 and all addenda of these specifications are part of the Elevator Specifications.
 - 2. Applicable documents
 - a. Americans with Disabilities Act Accessibility Guidelines (ADAAG), and the equivalent Washington state codes, whichever are more stringent
 - b. ASME A17.1 Safety Code for Elevators and Escalators, latest edition as required by the local building code with Washington State amendments.
 - c. ASTM A167, Steel, Sheet Stainless
 - d. ASTM A366, Steel, Sheet, Carbon, Cold Rolled, Commercial Quality
 - e. AWS D1.1, Structural Welding Code - Steel
 - f. NFPA 70, National Electric Code
 - g. IBC, International Building Code
 - h. Washington Administrative Code (WAC) 296-96, Safety Regulations And Fees For All Elevators, Dumbwaiters, Escalators And Other Conveyances
 - 3. Permits and codes
 - a. All equipment and installation work shall comply with requirements of the Elevator Safety Code, and other applicable codes of the State of Washington.
 - b. Give necessary notices, obtain licenses and permits, and pay fees and other costs, including making arrangements for all inspections and tests required by regulating agencies, in accordance with the General Conditions as amended, the Supplemental Conditions, and Division 1 of this specification.
 - c. File necessary plans, prepare documents, and obtain necessary approval of governmental departments having jurisdiction and required certificates of inspection for work, in accordance with the General Conditions as amended, the Supplemental Conditions, and Division 1 of this Specification, and deliver these to the Architect before requesting acceptance and final payment for work.
 - d. Contractor is not relieved from furnishing and installing work shown or specified which may be beyond requirements of ordinances, laws, regulations and codes.

1.02 CONSTRUCTION REQUIREMENTS

- A. Drawings are partly schematic in nature.
 - 1. The Contractor shall verify exact distances between points shown on the drawings by actual measurements at the site.
 - 2. Differences between actual measurements and scaled measurements or stationing, shall not affect the bid price or add any additional cost to the owner after the bid.
- B. Operate Elevator:
 - 1. Contractor shall operate elevator for other Trades/Crafts that must work in the hoistway to perform their work at no additional cost to Owner. Contractor shall schedule work with other Crafts/Trades when such work is required for the Elevator installation at no additional cost to Owner.
- C. Cutting and patching:
 - 1. Openings required in the hoistway shall be completed by drilling or cutting. Contractor shall provide all pipe sleeves, anchor plates, hanger supports, inserts, and bolts required for their work.
 - 2. Seal all hoistway sides of the hall push button station boxes with caulking to comply with fire-rated hoistway at no additional cost to Owner.
- D. Standard products:
 - 1. Unless otherwise indicated, the equipment to be furnished under these specifications shall be the standard products of manufacturers regularly engaged in its production.

2. Apparatus, equipment and systems furnished must be similar and equal with respect to quality, functional performance, capacity and efficiency. Provide written request regarding substitutions to Engineer prior to installation. Absent a written approval, substitutions will not be accepted.
3. Where the actual equipment furnished requires certain changes in pipe location, controls, electrical equipment and foundations, the Contractor shall coordinate such changes and submit them for approval.
4. Working parts shall be accessible for inspection, servicing and repair.
5. Adequate means shall be provided for the lubrication of all wearing parts that require lubrication.

1.03 SUBMITTALS

- A. Submit shop drawings for approval. Shop drawings shall be submitted within four weeks of contract execution. Drawings shall contain enough detailed information to determine that the equipment conforms to the requirements of this specification and not less than the following information:
 1. Elevator diagrams showing service to each level of building.
 2. Show location of machinery and controls, layout of the hoistway in plan and elevation and all other layout information and clearance dimensions required by the Elevator Safety Code.
 3. Submit layout drawings as required by the Elevator Safety Code to the authority having jurisdiction (AHJ).
 4. Submittals to the AHJ shall have all information pertinent to the installation to determine whether the installation complies with all applicable codes.
 5. Provide shop drawings and catalog cuts for all contractor-furnished material and equipment, including, but not limited to, doors, frames, car enclosure, car frame, car and hall fixtures, controls, diagnostic tool, motors, guide rails, and brackets. Motor data shall include temperature rise ratings in a form that can readily be measured in the field after installation.
 6. Arrangement and connection details of pit equipment including buffers, compensating devices (if any), and pit ladder.
 7. Complete information on motor, electrical services, controls, and all other coordination information.
- B. Wiring diagrams: Provide complete and legible wiring and single line diagrams showing the electrical connections, functions, and sequence of operation of all apparatus connected with the elevators.
- C. Finish selection: Submit manufacturer's standard selection charts for exposed finishes and materials.

1.04 OPERATIONS AND MAINTENANCE MANUALS

- A. Furnish an operation and maintenance manual covering the stipulated mechanical systems and equipment. Remove system types not used. The manual shall comply with all requirements indicated in the Project Closeout section of the specifications. Furnish one complete draft manual for Owner review not later than two weeks after issue of the permanent state operating certificate.
- B. The manual shall be complete in all respects for all equipment, controls, accessories and appurtenances stipulated. Include as a minimum the following:
 1. Maintenance Control Program (MCP) specific to the equipment provided under this contract. Include all semi-monthly, monthly, quarterly and annual maintenance requirements as well as all required equipment tests.
 - a. All procedures specific to the supplied product as well as test methods required shall be provided.
 2. Drawing or diagram showing equipment location
 3. Maintenance instructions listing routine maintenance procedures, possible breakdowns and repairs, fault code definition and troubleshooting guides for all elevator equipment, including door equipment.
 4. Preventative maintenance schedule.
 5. Lubrication schedule including type, grade, temperature, range and frequency.
 6. Parts list, with manufacturers' names and catalog numbers. Lists shall be complete for the materials installed.
 7. Serial number of each major piece of equipment.
 8. Service organizations and sources of spare parts with names, addresses, and telephone numbers.

1.05 MATERIAL AND EQUIPMENT

- A. General: Material and equipment shall be new, of the best quality used for the purposes in good commercial practice, the best of their respective kinds, and as specified.
 - 1. Equipment shall be standard products of reputable manufacturers with minimum of ten (10) years of experience in the manufacture of elevator equipment.
 - 2. Where two or more units of the same class of equipment are required, those units shall be products of a single manufacturer.
 - 3. Furnish equipment complete with all parts necessary for proper operation. Material and equipment shall be cleaned, free of corrosion, and selected to provide quiet operation.
- B. Reference to a device or a part of the equipment applies to the number of devices or parts required to complete the installation.
- C. Delivery and Storage: Material and equipment shall be suitably protected against corrosion, dirt, mechanical damage, weather and chemical damage before and during installation as recommended by the manufacturer and as approved by the Engineer.
 - 1. Replace defective and damaged equipment and materials at no additional cost to the owner.

1.06 SERVICE CABINET

- A. Provide and install a metal parts cabinet in the Elevator Machine Room.
 - 1. The parts cabinet shall include items which are frequently used for minor repairs. At A minimum, the parts included shall be hall door rollers, pick-up assembly(s), Spirator(s), gibs and other hall door equipment needed in a quantity equal to the amount necessary for one complete door.
 - 2. Other equipment shall include two spare roller guides, a supply of fuses in the quantity enough to replace each control fuse twice, one extra hall and car button, and the boards necessary to drive them if separate from the devices.
 - 3. Car door hanger rollers of enough quantity for one complete door.
 - 4. This inventory shall be maintained throughout the warranty period and any subsequent maintenance agreements moving forward.
 - 5. Any parts removed from the cabinet will be replaced as fast as reasonable but not more than 30 days from the date removed.

1.07 ELEVATOR-ELECTRICAL

- A. Provide electrical components of the elevator equipment and systems, including motors, motor starters, controllers, control instruments, switches, conduit, wire, and relays under this Division as specified in this section and as necessary for complete and operable systems. Furnish interconnecting wiring for components of equipment as an integral part of the equipment. Interconnecting conduit and wiring connecting such assemblies shall conform with Division 26.
- B. Electrical equipment and wiring shall conform to applicable paragraphs of Electrical Specifications and National Electrical Code current edition.
- C. For equipment with electrical components, provide UL or equivalent label on each component for which published standards exist.
- D. The frames of all motors, pumps, controller, transformer and the metal enclosures for all electrical equipment in or on the car, hoistway and machine room shall be grounded in accordance with NFPA 70-Article 250.
- E. Provide "daisy chain" electrical grounding for all machine room electrical cabinets.
- F. Provide required and adequate electrical wiring gauge sizing and number of electrical conductors to eliminate any voltage/amperage drop/variation for all the machine room, hoistway switches/interlocks, car operating fixtures/positions indicators/exhaust fan/car lighting/inspection station/leveling devices, hall stations/position indicators and all other elevator electrical equipment.
- G. Conductors and Connections:
 - 1. Provide wiring in machine room, hoistway and car. Wiring shall be copper throughout with individual wires coded and connections on identified studs or terminal blocks.
 - 2. Use no splices or similar connections in wiring except at terminal blocks, control cabinets, and junction boxes.

3. Provide 15% spare wires in all wiring runs. Separate and mark all spare wires. All spare wire ends shall be turned back or protected against accidental exposure to any live electrical circuit or electrical ground.
4. Provide material and labor to connect machine room telephone wires to elevator controller. Owner shall provide telephone wires to the elevator machine room in a 6" x 6" electrical box adjacent to the elevator controller.

H. Wireways and Raceways:

1. Provide painted or galvanized steel conduit and duct. Conduit size shall conform to Division 26 requirements. Do not use flexible conduit exceeding thirty-six inches (36") in length.
2. Flexible heavy-duty service cord may be used between fixed car wiring and car door switches for door protection devices. Plastic wire ties shall not be allowed for conduit fastening.

1.08 PAINTING

- A. All exposed metal work furnished in these specifications, except as otherwise specified, shall be properly painted after installation.
- B. Paint hoist machine, controller and other machine room equipment with a contrasting color to the machine room floor. Pinch points, Guards around rotating equipment, trip hazards, etc. shall be painted in Safety Yellow. (OSHA reg. 1910.144 (a)(3)). If the equipment has been painted in the factory then only provide same type of paint for touch up whereby possible scratches occurred during shipment and installation, unless the original color does not contrast with Light Gray.
- C. Paint machine room and pit floor with light gray enamel.
- D. Paint all exposed metal surfaces in the elevator pit with light gray enamel with exception to the areas and or devices in the pit area which should be Safety yellow.

1.09 MAINTENANCE

- A. Provide maintenance service of the equipment for a period of 12 months from the date of substantial completion.
 1. This service shall include regular systematic examinations of the installation by competent and trained employees of this Contractor; and shall include all necessary adjustments, lubrication, cleaning, supplies and parts to keep this equipment in operation, except such parts made necessary by misuse, accidents or negligence not caused by this Contractor.
 2. Provide an MCP for each elevator. The MCP shall include, but is not limited to the following:
 - a. Examinations, maintenance, and tests of equipment at scheduled intervals in order to ensure that the installation conforms to the requirements of ASME A17.1/CSA B44/CSA B44 Section 8.6. The maintenance procedures and intervals shall be based on:
 - 1) equipment age, condition, and accumulated wear
 - 2) design and inherent quality of the equipment
 - 3) usage
 - 4) environmental conditions
 - 5) improved technology
 - 6) the manufacturer's recommendations for any SIL rated devices or circuits
 - b. Cleaning, lubricating, and adjusting applicable components at regular intervals and repairing or replacing all worn or defective components where necessary to maintain the installation in compliance with the requirements of ASME A17.1/CSA B44/CSA B44 Section 8.6.
 - c. The instructions for locating the Maintenance Control Program shall be provided in or on the controller along with instructions on how to report any corrective action that might be necessary to Owner.
 - d. The maintenance records required shall be kept at a central location agreeable and accessible to Owner and the Contractor's elevator personnel.
 3. The Maintenance Control Program shall be accessible to the elevator personnel and shall document compliance with ASME A17.1/CSA B44/CSA B44 Section 8.6.
 - a. Procedures for tests, periodic inspections, maintenance, replacements, adjustments, and repairs for all SIL rated E/E/PES electrical protective devices and circuits shall be incorporated into and made part of the Maintenance Control Program.

- b. Where unique or product-specific procedures or methods are required to inspect or test equipment, such procedures or methods shall be included in the Maintenance Control Program.
 4. The MCP shall be unique to this building's elevator equipment. Instructions for locating the MCP on site shall be located in or on the controller of each elevator. All record keeping shall be in conformance with ASME A17.1/CSA B44, Section 8.6 and be kept on site.
 5. Provide written reports of each service call, whether routine or emergency, describing services performed.
 6. Basic service work shall be performed during regular working hours (7:00am and 5:00pm) of regular working days (Monday through Friday). Emergency callback service shall be available on a 24-hour, 7-day basis. Response time shall be 2 hours maximum.
- B. Testing and Inspections
1. Place a 3-ring binder labeled "Test and Inspection Log Book" in the elevator control cabinet.
 2. During one-year period after substantial completion the contractor is responsible for providing code mandated service, testing and inspection.
 3. Provide mounted pocket for testing and inspection log sheets in elevator control cabinet.
- C. The final elevator installation shall be maintainable by a trained elevator mechanic without the need to purchase or lease additional tools or software to diagnose problems and/or change operational parameters of the elevator system.
1. All tools and software necessary to diagnose problems and/or change operational parameters of the elevator system shall be retained by the Owner and shall function for the life of the installed equipment. During the submittal process, submit written verification that all tools and software needed for diagnosing or making changes to the operation of the system will be provided to and retained by the Owner.
 2. Hardware and software needed for diagnosis and operating parameter modification shall be products offered as standard by the manufacturer of the control system.
 3. No substitutions of proprietary circuit boards, EPROMS, hardware locks, software passwords or coding shall be allowed.
 4. As a condition of the installation, the original equipment manufacturer shall guarantee to sell and deliver, on a timely basis, replacement parts and software updates to a third-party elevator maintenance company at a fair market price.

1.10 QUALITY ASSURANCE

- A. Contractor shall furnish Owner with all special tools, meters, diagnostic tools/devices, troubleshooting special hand-held tools/devices, printed information, adjusting information and all other special tools/devices to perform maintenance, troubleshooting, repairing and adjusting at conclusion of elevator installation. If any special tool, meter, diagnostic tools/device requires readjusting or re-programming Contractor shall pay for all costs including freight for a period of one year from date of elevator final acceptance by Owner. After the initial one year period, all upgrades, readjustments, or reprogramming of any or all diagnostic tools or devices will be provided as needed or required on a purchase order basis with the original Contractor that installed/manufactured the elevator equipment with Owner.
- B. Contractor shall provide and install all software improvement up-grades for a period of one year from date of elevator final acceptance by Owner and inspector. The upgrades are defined as improvements for the elevator operation. If any elevator safety software up-grades are designed or discovered by the elevator manufacturer, the up-grades shall be installed immediately. Contractor shall pay all costs of the software up-grades.
- C. Contractor shall provide Owner the ability to purchase and receive all elevator replacement parts within twenty-four (24) hours from date of parts order by Owner. Replacement and spare parts are defined as any and all items required to maintain, service, repair, adjust and operate the elevator as designed and installed, in a safe and trouble-free manner. Contractor shall sell any and all spare parts including proprietary parts to Owner during the entire life cycle of the elevator equipment.
- D. The final Elevator installation shall be maintainable by a trained elevator mechanic without the need to purchase or lease additional tools or software to diagnose problems and/or change operational parameters of the elevator system. All tools and software necessary to diagnose problems and/or change operational

parameters of the elevator system shall be retained by Owner and shall function for the life of the installed equipment. Hardware and software needed for diagnosis and operating parameter modification shall be products offered as standard by the manufacturer of the control system. No substitutions of proprietary circuit boards, EPROMS, hardware locks, software passwords or coding shall be allowed. As a condition of the Elevator installation, the original equipment manufacturer shall guarantee to sell and deliver, on a timely basis, replacement parts and software updates to Owner and/or to a third-party elevator maintenance company at a fair market price for a 5-year period.

- E. Contractor shall supply a list, in writing, of all proprietary equipment that will be provided. A list of these items shall be provided together with a guarantee of availability. This guarantee shall specify that all proprietary parts shall be available for the life of the elevator equipment and within a twenty-four (24) hour period of order placed. Owner may return the worn or defective part to Contractor after the replaced part is delivered to Owner and the elevator has been placed in normal operation. Contractor shall submit a list of all proprietary equipment that is required in the elevator drive and control system. The list shall include individual item cost and part numbers or coding. Parts ordering information shall be provided.

1.11 WARRANTY

- A. Warrant the completed elevator(s) in accordance with Washington State law and regulation, but in no case less than complete coverage of parts and labor for one year after Substantial Completion.

PART 2 PRODUCTS

2.01 GENERAL

- A. Basis of Design: Thyssenkrupp, Endura Below Ground
- B. Description and Performance: Installation will be in accordance with the following details and consist of:

Description	One (1) new hydraulic passenger elevator
Jack Type	In-ground
Load (capacity), lbs	2,100
Load Class	A
Car speed, fpm	125
Leveling	+/- 1/4 inch with any load
Operation	Simplex automatic as normal mode, Independent Service mode or functional equivalent selectable by keyswitch.
Supervisory Control	Solid state microprocessor-based system
Power supply	Primary power to be 208 volts, 3 phase, 60 hertz, (coordinate final power with Electrical)
Rise, feet	Per Architectural Documents

Number of stops	4
Number of openings	4 front 0 rear
Lighting supply	120 volts, 1 phase, 60 hertz
Cab Height	8'-0" Nominal
Clear inside car	5'-8" wide x 4'-3" deep, minimum
Type of doors for car and hoistway	Single speed, side opening
Size of opening for car and hoistway doors	36" wide x 84" high

2.02 GENERAL MATERIALS

- A. Where stainless steel is specified, it shall be corrosion resisting steel, Type 304 with 150-grit finish on exposed surfaces. Stainless steel shall have the grain of belting in the direction of the longest dimension. All surfaces shall be smooth and without waves. Bright, mirror-like finish for stainless steel is not acceptable because of the difficulty with cleaning and repair.
- B. Where cold-rolled steel is specified, it shall be low carbon steel rolled to stretcher level standard flatness, commercial quality, Class 1, matte finish, complying with ASTM A 366.
- C. Steel:
 - 1. Sheet Steel: Furniture Steel for Exposed Work: Stretcher-leveled, cold-rolled, commercial-quality carbon steel, complying with ASTM A366, matte finish.
 - 2. Sheet Steel: For Unexposed Work: Hot-rolled, commercial-quality carbon steel, pickled and oiled, complying with ASTM A569.
 - 3. Structural Steel Shapes and Plates: ASTM A6, ASTM A36 AND ASTM A108.
- D. Stainless Steel:
 - 1. Type 302 or 304 complying with ASTM A167, with standard tempers and hardness required for fabrication, strength and durability.
 - 2. Apply mechanical finish on fabricated Work in the locations shown or specified. Federal Standard and NAAMM nomenclature. Protect with adhesive-paper covering until final inspection.
 - 3. No. 4: Bright directional polish-satin finish. Graining directions as shown or, if not shown, in longest dimension.
- E. Plastic Laminate:
 - 1. ASTM E84 Class A and NEMA LD3, Fire-Rated-FR-50, Type 7, 0.050" thick, color and texture as follows: Exposed Surfaces-Color and Texture selected by OWNER. Concealed Surfaces-Manufacturer's standard color and finish.
- F. Fire Retardant-Treated Particleboard Panels:
 - 1. Minimum 3/4" thick backup for natural finished wood and plastic laminate veneered panels, edged and faced as directed. Provide with suitable anti-warp backing complying with ASTM E84 Class "I" rating with a flame-spread rating of 25 or less.

- G. Fastening Screws:
 - 1. Stainless Steel Tamper-Resistant fastening screws shall be used throughout for all operating fixture cover plates.
- H. Lighting:
 - 1. All LED shall be 100,000-hour long-life.
- I. Keys:
 - 1. Provide three (3) keys for each elevator operation. Provide each set on a metal plate with markings for each key. Attach keys to each plate.
 - 2. Provide a key box(s) or key hanger in machine room and sort keys as required by ASME A17.1/CSA B44, Section 8.1 and the AHJ. Two additional sets shall be given to OWNER.
- J. Signs:
 - 1. Provide sign on outside of machine room access door stating "Authorized Personnel Only-Storage or Installation of Equipment Not Pertaining to the Elevator is Prohibited" or as required by the AHJ. Letters shall be not less than 9.5 mm (3/8-in.) high.
 - 2. Sign shall be plastic or metal and securely fastened so as not be readily removed without the use of special tools.
- K. Finishes:
 - 1. Structural members and other components for which finish is not otherwise specified shall have prime coat finish.

2.03 ELEVATOR MACHINERY

- A. The elevator shall have a positive displacement hydraulic pump driven by an electric motor and operating a pair of telescopic hydraulic cylinders. The machine and all its components shall meet the requirements of the Elevator Safety Code.

2.04 POWER UNIT

- A. The elevator shall include a power unit consisting of the motor, pump, drive assembly, oil control unit, oil reservoir, oil temperature sensor and oil drip pan, all mounted on a structural steel base and supports with vibration isolation pads. Each power unit shall have the capability of delivering oil pressure and volume to lift the assembled elevator with rated load at rated speed. Volume of each oil reservoir shall be sufficient to lift its elevator through the rise specified, plus normal overtravel. Each power unit shall have a muffler in the discharge oil line near the pump and an enclosure of steel panels lined with sound-absorbing material.
- B. Maximum sound generation of 80 dbA within the range of 20 Hz to 20 KHz, measured at 3 feet from the equipment.
- C. Provide vibration isolation mounts capable of a minimum of 0.25" deflection.
- D. Provide isolation couplings.

2.05 HYDRAULIC PUMP

- A. The pump shall be a submerged positive displacement screw type and shall be designed and manufactured for oil-hydraulic elevator service. It shall provide steady discharge with minimum pulsations, and its output shall not vary more than 10% between no-load and full-load conditions of the elevator car.

2.06 PUMP MOTOR

- A. The pump motor shall be designed for oil-hydraulic elevator service, of standard manufacture, and of duty rating to provide the service specified herein.

2.07 OIL CONTROL UNIT

- A. The oil control unit shall include the necessary valves all built into a single housing; welded manifolds with separate valves for each function will not be accepted. All adjustments shall be accessible and shall be made without removing the assembly from the oil line.
 - 1. Relief valve shall be externally adjustable and shall be capable of bypassing the total oil flow without increasing back pressure more than 10% above working pressure.

2. Up start and stop valve shall be externally adjustable, and designed to bypass oil flow during start and stop of the motor pump assembly. Valve shall close slowly, insuring smooth up starts and stops.
3. Check valve shall be designed to close quietly without permitting any perceptible reverse flow.
4. Lowering valve and leveling valve shall be adjustable for down start speed, lowering speed, leveling speed and stopping speed to ensure smooth "down" starts and stops. The leveling valve shall be designed to level the car to the floor in the direction the car is traveling after slowdown is initiated.

2.08 JACK ASSEMBLY

1. Cylinders: Seamless steel pipe. Design head to receive unit-type packing and provide means to collect oil at cylinder head and return automatically to oil reservoir. Provide secondary containment/cylinder protection for in-ground jack. Do not use vitriolic coupling method for the packing head.
2. Plungers: Construct of selected steel tubing or pipe of proper diameter machined true and smooth with a fine polished finish. A stop ring shall be electrically welded to the end of the plunger to prevent the plunger from leaving the cylinder. Isolate the plunger from the car bolster assembly. Plunger couplings shall be the internal type, shop assembled. The outside diameter of the plunger shall not vary more than 0.01 inch throughout its entire length. Do not weld flat plate to the top of the plunger.
3. The cylinder shall be finished with rust-inhibiting air-dry enamel. Apply two coats by brush, or spray according to manufacturer's recommendations.
4. Each cylinder shall have a machined steel flange at the upper end and a heavy steel bulkhead at the lower end.
5. A packing gland with guide bearing, wiper ring and packing especially designed for the hydraulic elevator service shall be mounted at the top of each cylinder along with an oil collector ring and drain hole. The plunger seals shall be urethane cup design with integral wipers or approved equal. Replace the packing glands after all construction is completed.
6. Plungers: Polished seamless steel tubing or pipe. The plunger surface shall be a minimum of 20 micro inches RMS and shall not exceed 35 micro-inches RMS for the entire plunger length in engagement with the cylinder seals. A stop ring electrically welded to the plunger to positively prevent the plunger from leaving the cylinder. If plunger length exceeds 24 feet, provide two or more sections not exceeding 16 feet in length, or coordinate installation of longer unit at the jobsite. Join section by internal threaded couplings. Multiple section jack units shall be factory polished while assembled and marked for proper future reassembly. Isolate plunger from car frame(s). Each piston in multi-stage jacks to have individual head bearings and packing gland assemblies.

2.09 JACK SUPPORT

- A. Provide steel pit channels and support beams (if required) to support jack assembly and transmit loads to building structure. Provide intermediate stabilizers as required.

2.10 PIPE AND FITTINGS

- A. Provide pipe and fittings of the size, type and weight recommended by the manufacturer. Provide two manual gate or ball valves in line for each elevator, one adjacent to pump and one adjacent to the jacks.
- B. Seismic Rupture Valve: Provide a safety (rupture) valve in each oil hydraulic line in accordance with ASME A17.1.
- C. All piping and supports shall be acoustically isolated with neoprene hangers or mounts to prevent transmission of structural borne noise. Provide isolators capable of 0.25" minimum deflection.

2.11 BUFFERS

- A. Spring buffers shall be installed in the pit as a means for stopping the car at the bottom limits of travel. Provide for adequate working space below car when car is at the lowest level of travel.

2.12 GUIDE RAILS

- A. Provide 15 lb. planed tee (or equivalent sectional modulus) steel guide rails that meet the requirements of the Elevator Safety Code.

2.13 TRAVELING CABLES

- A. A traveling cable shall be provided for electrical connections between each car and its hoistway.
 - 1. Each cable shall have adequate conductor capacity for all control, communication and lighting functions specified herein. Provide minimum 15% spare conductors.
 - 2. Additional provisions, five (5) pair of shielded wires, two (2) RG-6/U coax cables, two (2) CAT5 equivalent cables, and two (2) pair of 14 gauge wire for optional CCTV power.
 - 3. Each cable shall have flame retarding and moisture resisting outer cover. Cables shall be flexible and shall be suitably suspended to relieve strains in the individual conductors.
 - 4. Terminate all conductors on a terminal board with permanent identification matching that used in schematic and wiring diagrams.

2.14 HYDRAULIC OIL

- A. Provide biodegradable hydraulic fluid: Vegetable-based oil or other non-petroleum biodegradable oil that meets the requirements of the elevator manufacturer with minimum flammability.

2.15 ELEVATOR CAR

- A. Car Frame, Platform:
 - 1. Provide a car frame fabricated from steel.
 - 2. Platform: Fabricated frame of formed or structural steel shapes, gusseted and rigidly welded with a steel sub-floor. Underside of the platform shall be fireproofed. The car platform shall be designed and fabricated to support one-piece loads weighing up to 25% of the rated capacity
- B. Car Enclosure: The car enclosure shall be steel and shall comply with the Elevator Safety Code.
 - 1. Walls: Cold-rolled steel with Sarum Twill applied laminate panels.
 - a. Provide protective cab buttons and pads.
 - 2. Reveals: Stainless steel, #4 finish.
 - 3. Ceiling: Suspended type, #4 stainless steel panels with LED downlights.
 - 4. Cab Fronts, Return, Transom, Soffit and Strike: #4 stainless steel.
 - 5. Car Door:
 - a. Stainless steel panels: #4 stainless finish.
 - b. Hang doors on sheave type hangers with polyurethane tires that roll on a polished steel track and are guided at the bottom by non-metallic sliding guides.
 - 6. Cab Sills: Extruded nickel silver. Rated for Class A loading.
 - 7. Handrail: Provide 1.5" diameter cylindrical metal on side and rear walls on front opening cars and side walls only on front and rear opening cars. Handrails shall have a stainless steel, #4 stainless finish.
 - 8. Floor Finish: Per section 096500.
 - 9. Exhaust Fan: Two-speed exhaust fan, shall be mounted on the car top.
 - 10. Car Operating Station: The main car control in each car shall contain the devices required for specific operation mounted in an integral swing return panel requiring no applied faceplate. Swing return shall have a brushed stainless steel finish. The main car operating panel shall be mounted in the return and comply with handicap requirements. Vandal-resistant pushbuttons that illuminate using long lasting LED's shall be included for each floor served along with keyswitch (key group #1), and emergency buttons and switches shall be provided per code.
 - a. Car Position Indicator: Provide LED car position indicator integrated with the main operating panel.
 - b. When the car passes or stops at a floor served by the elevator, a chime shall sound, once for 'up' and twice for 'down'.
 - c. An access-controlled panel segment shall contain light switch, utility outlet, fan switch, independent service switch and call cancel button, and switch for operating mode selection.
 - d. Limited Access Operation: Include provisions for installation of access card reader provided by others.
 - 11. Communication Cabinet: Provide a two-way audio-video communication panel in the car operating panel complying with ASME A17.1 2019 part 2.27.1. Rath Smartview or approved equal.
 - a. Camera and display are to be mounted in car operating panel. Controller is to be mounted behind car operating panel or on car top.

- b. Provide cellular gateway for communication with the monitoring system.
 - 1) Provide battery backup for cellular gateway providing a minimum of four (4) hours of operation after loss of normal power.
 - c. Necessary wires shall be included in the car traveling cables.
 - d. Programmable voice chip to identify:
 - 1) "Building Name, Elevator Emergency Phone".
 - 2) "Building Address".
 - 12. Emergency Car Lighting: emergency power unit shall be provided to illuminate the elevator car and provide current to the alarm bell in the event of power failure.
 - a. Battery life shall be 4 hours minimum.
 - 13. Car Riding Lanterns: provide illuminated directional lanterns on both sides of the car entrance.
 - 14. Car Top Inspection: Provide a car top inspection station with an "Auto-Inspection" switch, an "emergency stop" switch, and constant pressure "up and down" direction and safety buttons to make the normal operating devices inoperative. The station will give the inspector complete control of the elevator. The car top inspection station shall be mounted in the door operator assembly.
 - 15. Alarm Bell: Provide alarm bell.
- C. Key Groups:
- 1. Key Group #1: Manufacturers Standard
 - a. Light Switch
 - b. Fan Switch
 - c. Floor Selection lock out
 - d. Emergency stop switch
 - 2. Key Group #2: Manufacturers Standard (keyed differently from group #1)
 - a. Run/Inspection switch
 - b. Hoistway access
 - 3. Key Group #3
 - a. Building/Security keying (Use Manufacturers standard key switch, Card Compatible Reader)
 - b. Independent service
 - c. Hall call activation
 - 4. Key Group #4
 - a. Firefighters
 - 1) Cab switch
 - 2) Hall switch

2.16 POWER AND CONTROL DEVICES

- A. Hydraulic Elevators Solid state logic control: Provide a reduced voltage motor starter and solid state logic controller with voltage and current capability ample to operate the elevator at the specified conditions.
- 1. Solid state power control: Provide a solid state logic controller to operate the pump motor, valves, and other electromechanical devices.
 - a. The controller shall include interfacing pilot electromechanical devices as required for accepting the necessary elevator hoistway switches and operating switches.
 - b. These include, as a minimum, terminal slowdown devices, over-travel limit switches, solid state magnetic leveling switches, inspection operating pushbuttons, and emergency stop switch.
 - 2. Microprocessor elevator logic control: Accomplish the operation utilizing microprocessor computer logic control.
 - a. The elevator control program shall be contained in nonvolatile, programmable, read-only memory.
 - b. Construct the control such that future alterations in elevator operation, including changes of operating parameters (including but not limited to speed, acceleration, jerk, pre-opening, door speed, door dwell, floor counts for leveling, and car zoning), can readily be made as part of normal maintenance and service.
 - c. If a separate, detachable device is required, it shall be furnished.

- d. Monitor and control safety circuits by the programmable logic control with redundant protection.
 - e. Contain the microprocessor elevator logic control in a NEMA 1 cabinet.
 3. Fault diagnosis: Provide capability to diagnose faults to the level of individual circuit boards and individual discreet major components for both the solid state power controller and the elevator logic controller.
 - a. If fault diagnosis requires a separate, detachable device, it shall be furnished.
 4. Automatic Light and Fan shut down: The control system shall evaluate the system activity and automatically turn off the cab lighting and ventilation fan during periods of inactivity. The settings shall be field programmable.
- B. Battery Lower Device: Provide batter power and capacity to provide the capability of emergency power operation as follows:
1. Upon loss of normal building power, the elevator shall automatically travel to the lowest landing, open its doors and shutdown until return to normal power occurs.
- C. Firefighters service: Provide all elevator control functions, car operating devices, and hall operating devices necessary for "firefighters service - automatic elevators" as required by the Elevator Safety Code.
- D. Terminal limit switches: Provide terminal limit switches in the hoistway designed to automatically stop the car at terminal landings.
1. Design the final hoistway limit switches to automatically cut off the power and apply the brake, should the car travel beyond either terminal landing.
- E. Automatic Leveling Device: Provide the elevator with a two-way automatic maintaining leveling device.
- F. Hall Buttons:
1. Hall Stations, General: Vandal resistant buttons with center jewels which illuminate to indicate that a call has been registered at that floor for the indicated direction. Each button shall be provided with an internal automatic stop to prevent damage of switches that register the call. Provide 1 set of pushbutton risers. All fixtures shall be vandal resistant type.
 - a. Phase 1 firefighter's service key switch, with instructions, shall be incorporated into the hall station at the designated level.
 - b. Provide LED car position indicator integrated with the hall station at the main landing.
- 2.17 ENTRANCES
- A. Hoistway Entrances: Provide UL labeled metal doors and hoistway door frames.
1. Finish: Stainless steel: No. 4 brushed finish.
 2. Provide bottom of doors with removable phenolic guides which run in the sill slots with minimum clearance.
 3. Provide manual access with lunar key or other approved device at each entrance.
 4. Floor Identification Pads: Provide door jamb pads at each floor. Jamb pads shall comply with Americans with Disabilities Act (ADA) requirements.
- B. Fascia Plates
1. Provide fascia plates, fabricated from 14 gauge steel, to be fastened to the header and the sill above. Fascia plates shall have manufacturer's standard enamel finish.
- C. Landing Sills
1. Provide extruded nickel silver sills together with all necessary supports and hardware for installation. Rated for Class A loading.
 2. Install in accordance with manufacturer's recommendations.
 3. Grout sills solidly their full length after installation.
- D. Door Hangers and Tracks
1. Tracks shall be of bar steel with the working surface contoured to match the sheaves.
 2. Design the hangers for power operation and have provisions for vertical and lateral adjustment.
 3. Design hangers for two-point suspension of the door panel.
 4. Hanger sheaves shall be polyurethane with pre-lubricated and sealed bearings.
- E. Dust Cover

1. Provide dust covers, fabricated from 14 gauge steel, at each landing.
 2. Dust covers shall have manufacturer's standard enamel finish.
- F. Door Operator
1. Closed-loop, microprocessor controlled motor-driven linear door operator, with adjustable torque limits. Door movements shall be electrically cushioned at both limits of travel and the door operating mechanism shall be arranged for manual operation in event of power failure. Doors shall automatically open when the car arrives at the landing and automatically close after an adjustable time interval or when the car is dispatched to another landing.
 - a. No Un-Necessary Door Operation: The car door shall open only if the car is stopping for a car or hall call, answering a car or hall call at the present position or selected as a dispatch car.
 - b. Door Open Time Saver: If a car is stopping in response to a car call assignment only (no coincident hall call), the current door hold open time is changed to a shorter field programmable time when the electronic door protection device is activated.
 - c. Double Door Operation: When a car stops at a landing with concurrent up and down hall calls, no car calls, and no other hall call assignments, the car door opens to answer the hall call in the direction of the car's current travel. If an onward car call is not registered before the door closes to within 6 inches of fully closed, the travel will reverse and the door will reopen to answer the other call.
 - d. Nudging Operation: The doors shall remain open as long as the electronic detector senses the presence of a passenger or object in the door opening. If door closing is prevented for a field programmable time, a buzzer will sound. When the obstruction is removed, the door will begin to close at reduced speed. If the infra-red door protection system detects a person or object while closing on nudging, the doors will stop and resume closing only after the obstruction has been removed.
 - e. Limited Door Reversal: If the doors are closing and the infra-red beam(s) is interrupted, the doors will reverse and reopen partially. After the obstruction is cleared, the doors will begin to close.
 - f. Door Open Watchdog: If the doors are opening, but do not fully open after a field adjustable time, the doors will recycle closed then attempt to open six times to try and correct the fault.
 - g. Door Close Watchdog: If the doors are closing, but do not fully close after a field adjustable time, the doors will recycle open then attempt to close six times to try and correct the fault.
 - h. Door Close Assist: When the doors have failed to fully close and are in the recycle mode, the door drive motor shall have increased torque applied to possibly overcome mechanical resistance or differential air pressure and allow the door to close.
- G. Door Edge Protective Device
1. Provide each passenger car door with a Janus Elevator Products "Panachrome", or approved substitution, 3D, infrared type reopening device extending the full height.
- H. Toe Guard:
1. Provide toe guards, fabricated from 14-gauge steel, a) at the lowest landing of each hoistway, and b) on each car sill. Toe guards shall have manufacturer's standard enamel finish.
- I. Finishes
1. Structural members and other components for which finish is not otherwise specified shall have prime coat finish.
- J. Hoistway Access Switches
1. Provide hoistway access key switches, at upper and lower terminal landing.
- 2.18 PERFORMANCE
- A. Car Ride Quality
1. Horizontal acceleration within car during all riding and door operating conditions.
 2. Acceleration and Deceleration: Smooth constant and not less than 1.5 feet/second/second with an initial ramp between 0.5 and 0.75 second.
- B. Sustained Jerk: Not more than 6 feet/second/second/second

- C. Pressure: Fluid system components shall be designed and factory tested for 500 psi. Maximum operating pressure shall be 400 psi.
- D. Noise and Vibration Control
 - 1. Airborne Noise: Measured noise level of elevator equipment and its operation shall not exceed 55 dBA in elevator lobbies.
 - 2. Noise level in cab shall not exceed 55 dBA for continuous noise or 60 dBA for intermittent noise under any condition including door operation and car ventilation exhaust blower on its highest speed.
 - a. All dBA readings to be taken 5 feet off the floor and 1 foot from the wall using the “A”-weighted scale.
 - b. Vibration Control: All elevator equipment provided under this Contract, including power unit, controller, oil supply lines, and their support shall be mechanically isolated from the building structure and electrically isolated from the building power supply and to each other to minimize the possibility of objectionable noise and vibrations being transmitted to occupied areas of the building.
 - 3. Limit noise level in the pit relating to elevator equipment and its operation to no more than 80.
 - a. All DBA readings to be taken 3 feet off the floor and 3 feet from the equipment using the “A”-weighted scale.

2.19 PIT

- A. Emergency stop switch: In each elevator pit, provide an emergency stop switch accessible from the pit access opening.

PART 3 EXECUTION

3.01 INSTALLATION OF ELEVATOR SYSTEMS

- A. General: Comply with manufacturer's instructions and the Elevator Safety Code for work required during installation.
- B. Before beginning the installation, examine the hoistway to verify conditions and provide written notice of any conditions which would substantially hinder or prevent proper execution of the work. Do not proceed with the installation until the cited conditions have been corrected.
- C. Jack Installation
 - 1. Install casing plumb and true with hoistway
 - 2. Prior to insertion of the cylinder, line the casing with plastic in such a manner as to prevent ground contamination with leaking hydraulic fluid. If the cylinder is shipped in sections, wrap joint areas with triple fiberglass sealed with epoxy resin prior to insertion.
 - 3. Install cylinder plumb and true with the hoistway. Following installation, backfill between the liner and the jack with clean, dry, salt-free sand in such a manner that alignment of the jack is not disturbed.
 - 4. Contractor shall provide an active smoke control system for use during burning (torch) or welding operations. An active smoke control system is defined as a properly sized exhaust fan that utilizes a temporary duct to exhaust contaminated air or similar device.
 - 5. If manufacturer requires the cylinder to be welded, a certified welder shall perform the welding. Welding shall be completed following the manufacturer’s recommended welding and installation procedures. These specifications and procedures shall be provided with the pre-manufacturing submittals within the Project submittal package prior to the Contractor performing any welding.
- D. Rails
 - 1. Install rail brackets as needed to meet the requirements of the Elevator Safety Code.
 - 2. Align rails plumb and accurately centered for elevator car position and travel.
- E. Welded Construction: Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance and replacement of worn parts.
 - 1. Comply with standards of AWS D1.1 for workmanship and for qualifications of welding operators.

- F. Electrical Work: All work shall conform to the requirements of Division 26. Requirements specific to elevators include:
 - 1. Mark each component, including but not limited to relays, switches, timers, fuses and overload devices, with permanent identification that corresponds with the nomenclature of the wiring diagrams and the operations and maintenance manuals.
 - 2. Terminate all field wiring at each control cabinet on terminal strips suitable for the use. Field wiring shall not terminate on the studs of relays or other devices and equipment.
- G. Coordination: Coordinate elevator work with work of other trades for proper time and sequence to avoid construction delays.
 - 1. Use benchmarks, lines and levels to ensure dimensional coordination of the work.
 - 2. Coordinate installation of hoistway entrances with installation of elevator guide rails, for accurate alignment of entrances with cars.
 - 3. Where possible, delay final adjustment of sills and doors until car is operable in shaft.
 - 4. Reduce clearances to minimum, safe, workable dimension at each landing.
- H. Lubrication: Lubricate operating parts of systems, including ropes, if any, as recommended by manufacturers.

3.02 FIELD QUALITY CONTROL

- A. Acceptance testing: Upon completion of the elevator installation and before permitting use of elevator, perform acceptance tests as required by A17.1 Code and local authorities having jurisdiction. Perform other tests, if any, as required by governing regulations or agencies.
- B. Advise Owner, Contractor, Architect, and governing authorities in advance of dates and times tests are to be performed on the elevator
- C. Protection: At time of final completion of elevator work (or portion thereof), provide suitable protective coverings, barriers, devices, signs or such other methods or procedures to protect elevator work from damage or deterioration. Maintain protective measures throughout remainder of construction period. Repair or replace, to the Owner's satisfaction, any components worn significantly or damaged before the Owner obtains beneficial use.

3.03 INSTRUCTION AND MAINTENANCE

- A. Instruct Owner's personnel in proper use, operations, and daily maintenance of elevators. Review emergency provisions, including emergency access and procedures to be followed at time of failure in operation and other building emergencies. Train Owner's personnel in normal procedures to be followed in checking for sources of operational failures or malfunctions..
- B. Make a final check of each elevator operation, with Owner's personnel present, immediately before date of substantial completion. Determine that control systems and operating devices are functioning properly.

3.04 CONDITIONS PRECEDENT TO FINAL ACCEPTANCE

- A. Instructions to operators: Instruction of the designated employees of the Owner in the operation and care of equipment and systems shall have been completed.
- B. Code compliance: All code compliance tests shall have been performed and acceptance certified by the authorities having jurisdiction and permanent elevator operating permit issued.
- C. Acceptance tests: All acceptance tests shall have been completed.
- D. Submittal of maintenance manuals.
- E. Final check: Make a final check of each elevator operation, with Owner's personnel present and just prior to date of substantial completion to determine that control systems and operating devices are functioning properly. Any and all damage and/or significant wear shall have been repaired.
- F. Cleaning: The work site shall be clean. Clear away all debris, surplus materials, etc., resulting from work or operations, leaving the job and equipment furnished in a clean, first-class condition.
- G. Punchlist: All items on the punchlist shall be completed to the satisfaction of the Owner and the Engineer.

END OF SECTION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Work Included: Provide all system design, material, labor, equipment, and services necessary to provide full coverage for the space. The Contractor is responsible for performing pre-bid inspection to determine all equipment and assemblies required to provide a code compliant system. The Contractor is responsible to the Authority Having Jurisdiction, AHJ (see below) to determine any unique requirements of the municipality and including them in the bid.
- B. Summary of Work: The work shall include complete design, layout drawings indicating the new sprinkler heads, and calculations to support the design. Work shall also include submissions to the AHJ, permitting, and approvals. Any drawings provided are diagrammatic in nature and intended to show the general extent desired.
- C. Design Requirements: The design shall comply with the requirements for NFPA 13.
- D. Related Work Described Elsewhere:
 - 1. Architectural and Mechanical Drawings

1.02 QUALITY ASSURANCE

- A. Codes and Standards: This installation shall conform to the latest edition at the time of bid of each of the following:
 - 1. NFPA 13, Installation of Sprinkler Systems. All appendices.
 - 2. NFPA, Automatic Sprinkler System Handbook.
 - 3. NFPA 24, all appendices, Private Fire Service Mains.
 - 4. Washington Building code.
 - 5. Washington Fire Code.
 - 6. Washington Mechanical Code.
 - 7. Underwriters Laboratories Fire Protection Directory.
 - 8. Factory Mutual Approval Guide.
 - 9. Uniform Plumbing Code, including Local Amendments.
- B. Qualifications of Contractor:
 - 1. All work under this section shall be completed by a Fire Protection Subcontractor who has held a valid Washington contractor's license for the installation of fire sprinkler systems continuously for the last two years prior to the date of the bid for this project.
 - 2. Welding Procedures: Comply fully with NFPA 13. Welding procedures that comply with all of the requirements of AWS D10.9 Standard for Building Service Piping, level AR-3, are acceptable minimum means for welding fire protection piping. Other more stringent requirements are acceptable.

1.03 APPROVALS

- A. Authority Having Jurisdiction: For purposes of code compliance the Authority Having Jurisdiction (AHJ) for this installation will be the local Fire Department. Where there are conflicts between the AHJ and the referenced codes and standards, the more stringent shall apply. If there is a question of interpretation as to which is more stringent, it shall be decided by the Owner
- B. Material Submittals:
 - 1. Furnish to the Architect: a complete list of equipment and products, and a manufacturer's catalog sheet for each item to be included in the project. All material submittals shall include all items listed in the product section and all additional items necessary to provide a complete installation.
 - 2. Submit in accordance with the requirements of Division 1.
 - 3. Partial submittals are not acceptable and will be rejected without review. Where more than one item appears on a manufacturer's catalog sheet, the item, or items to be used shall be indicated

by a red marking or an arrow. Use a Submittal for Approval form. The items on the Submittal for Approval form shall be listed in the same order as the items in the Product Section.

- C. Shop Drawings:
1. Prepare shop drawings on a plan background furnished by the Architect. Within 45 days after the award of the contract and prior to any installation or fabrication of the system components, the contractor shall submit five complete sets of shop drawings and the same number of hydraulic calculations to the Architect for approval by the Architect, Engineer and the Owner. Contractor shall schedule submittal to Architect and include sufficient resources with bid to accommodate an additional revision and re-submittal.
 2. Incomplete shop drawings will be rejected unless prior approval is requested and given from the Architect and Owner for partial submittals. Shop drawings shall conform to, and include all items as set forth in NFPA 13.
 3. Include resources in this contract for moving and adding sprinkler heads as may be required to respond to the Architect's review comments.
 4. After acceptance is received from the Architect and Owner, submit shop drawings for Building and Fire Department approval. Deliver one copy of the shop drawings, approved by the Building and Fire Departments, to the Owner.
 5. Review of the shop drawings by the Architect, Owner, or AHJ does not relieve the Fire Protection contractor from coordinating the installation of the work with all other trades, nor from compliance with all applicable codes and standards.

1.04 RECORD DOCUMENTS

- A. Final Record Set: Upon completion of the work, the record drawings shall be submitted for approval by the Architect and Owner. After receiving approval, the record set shall be used to produce a set of reproducible drawings of the complete installation. The record set and the reproducible drawings shall be turned over to the Architect to be included with the O&M manuals.

1.05 WARRANTY

- A. Guarantee: Submit a written guarantee to the owner certifying that all the contract requirements have been completed and warranting all materials and equipment furnished under this contract to remain in satisfactory operating condition for a period of 1 year from the date of Substantial Completion. All defects or damages due to faulty materials or workmanship during this period shall be repaired or replaced without delays to the Owner's satisfaction at no cost to Owner.
- B. Limitations: Guarantee shall not be construed as requiring contractor services or maintenance required in normal operation of equipment, or to make repairs that may be needed due to normal wear and tear or Owner's negligence, abuse or breakage.

PART 2 PRODUCTS

2.01 GENERAL

- A. Materials and Equipment: All materials and equipment in the systems shall be new and current products of a manufacturer regularly engaged in the production of such materials and equipment. Where two or more pieces of equipment are required to perform interrelated functions, they shall be products of one manufacturer.
- B. Approval Guides: Unless otherwise indicated, all products shall be listed in the latest publication of Approval Guides for Underwriter Laboratory and Factory Mutual for the service intended.
- C. Acceptable Manufacturers: Manufacturer of sprinkler specialties shall be; Central, Grinnell, Reliable or Viking.

2.02 PIPE

- A. Schedule of pipe: All pipe shall be steel and meet the requirements of NFPA 13 and exceed them as specified herein. Piping 1-1/2" and smaller shall be schedule 40 black steel, ASTM A53/A120. Piping 2" and larger shall not be a thinner wall thickness than Schedule 10 black steel.
- B. Rust inhibitive Paint: All exposed threads on galvanized pipe are to be coated with rust inhibitive paint.
- C. Color Coding: Coordinate color coding with Owner and Architect. Provide a stenciled legend and flow directional arrow painted on a 24-inch long band; paint band all around pipe and a minimum of 2 inches beyond stenciled legend.
 - 1. Conclude color coding in furred ceiling and other concealed spaces prior to closure.

2.03 FITTINGS AND COUPLINGS

- A. Rust Inhibitive Paint: Grooved fittings and couplings shall be coated with a rust inhibiting paint.
- B. Threaded Fittings: Threaded fittings shall be cast iron class 125, rated for 175 psi. cold water working pressure and shall conform to ANSI B16.4, ASTM 126 and ANSI B2.1 NPT. Malleable threaded fittings will not be permitted.
- C. Nipples: No close nipples will be permitted. Use standard short nipples for short pipe connections.
- D. Adjustable Nipples: Adjustable drop nipples may be used on flush or concealed type sprinklers only and must be of double o-ring seal design.
- E. Thread-O-Lets: Shop welded Thread-O-Lets may be used where a certified welder is used, meeting the requirements of paragraph 1.02 B. of this section, and the Thread-O-Lets are listed.
- F. Grooved fittings: 90's, 45's, Tees, and reducers shall be malleable iron or ductile. The fittings shall be by Gustin-Bacon, Gruvlok, or Victaulic.
- G. Adapter Flanges: Adapter flanges (fittings) shall be cast iron/class 125 conforming to ANSI B-16.1, with a rust inhibiting coating. The adapter flanges shall be by Gustin-Bacon, Gruvlok or Victaulic.
- H. Grooved Couplings: Grooved couplings and reducers shall be malleable or ductile iron conforming to ASTM A-47. Coupling gasket shall be molded Elastomer (EPDM) per ASTM D2000, Victaulic grade "E" (type A) or equal. On dry pipe systems a "FlushSeal" or "Flush Gap" gasket shall be used. Grooved couplings and reducers shall be of the same manufacturer as used for the grooved fittings.
- I. Plain End Couplings: No plain end couplings (Roust-A-Bouts, Plainlocks or similar couplings) may be used on either new or existing sprinkler systems.
- J. Hole Cut Outlets, New Systems: No hole cut outlets may be used on new sprinkler systems.
- K. Hole Cut Outlets, Existing Systems: Hole cut bolted branch outlets couplings may be used on existing sprinkler systems only in isolated locations as approved by the Owner. Hole cut outlets shall be a full bodied outlet (U-bolt outlets will not be permitted) style 920 by Victaulic or approved equal by Gruvlok or Gustin Bacon.

2.04 HANGERS AND SUPPORTS

- A. Hangers: Provide hangers to support all piping: in perfect alignment without sagging or interference, to permit free expansion and contraction, and meet the requirements of NFPA 13.
- B. Pipe Rings: Pipe rings to be zinc coated Grinnell figure 69 or approved equal.
- C. Hanger Rods: Hanger rods to be electro-galvanized.
- D. C-Clamps: All c-clamps (beam clamps) shall be equipped with earthquake retaining straps.
- E. Riser Clamps: Riser clamps shall not protrude more than 2" beyond the edge of the hole. The riser clamps need only be UL listed, Grinnell figure 261 or approved equal.

- F. Concrete Anchors: Concrete expansion anchors are to be Hilti Drop-in Anchor, Phillips concrete fasteners or approved equal. "Kwik" bolts or similar concrete anchors are not permitted.
- G. Explosive Anchors: Explosive type fasteners are not permitted.

2.05 EARTHQUAKE BRACING

- A. Earthquake bracing shall be with a pipe clamp and pipe with a swivel type anchor or similar to applicable NFPA figures. Other types of braces shall not be used unless listed in the Factory Mutual Approval Guide.

2.06 SPRINKLERS

- A. Sprinklers: Sprinklers shall have a 1/2" orifice and be quick response throughout:
 - 1. Pendant Sprinklers: Coordinate sprinkler configuration with architect and mechanical drawings. Viking, Gem, Central Sprinkler.
- B. Spare sprinklers: Spare sprinklers and escutcheons shall be provided for each type and style of sprinkler used in accordance with NFPA 13 and proportioned based upon the number of each type and style of sprinkler used on the job. Spares of dry-pendent sprinklers are not required.

2.07 SPRINKLER HEADGUARD

- A. Sprinkler headguards shall be provided for sprinkler heads subject to mechanical damage or for any sprinkler lower than 7'-0" above the floor. Sprinkler headguards need be only UL Listed.

2.08 SLEEVES

- A. Sleeves set flush with floors, partitions, ceilings, and in construction without waterproof membrane shall be constructed of 24 gauge galvanized sheet steel with lock seam joints. Use schedule 40 galvanized steel pipe sleeves for sleeves which extend above the floor line and for sleeves in exterior walls. Provide schedule 40 pipe sleeves with clamping rings in floors on grade or exterior walls having below grade penetrations. Provide sleeves through roofs with flashing collars.

2.09 WALL ESCUTCHEON

- A. Escutcheons shall be chromed steel split ring type and are to be painted to match the wall in new construction. Coordinate size and finish of escutcheons with Architect. Escutcheons are only required with exposed pipe installations.

2.10 FIRESTOPPING MATERIAL

- A. Firestopping material is to be UL classified 3M brand Fire Barrier Caulk CP-25 or approved equal.

2.11 PIPE THREAD SEALANT

- A. Provide a brush-on pipe thread sealant with Teflon, Grinnell Tuff-Loc or approved equal. Teflon tape will not be permitted.

PART 3 EXECUTION

3.01 GENERAL

- A. Requirements Prior to Installation: Do not order, fabricate, or install any material prior to receipt of all approvals as stipulated in Part 1 of this Section.
- B. Standards and Requirements: All installation work shall be performed in accordance with the reference standards without exception, as required by the AHJ. All piping shall be installed straight, true and plumb.
- C. Changes to the Work: The contractor shall install all piping as shown on the approved shop drawings. Minor deviations shall be carefully noted on the record drawings as outlined in Part 1 of this Section.

Before making significant deviations from the approved drawings, written approval must be obtained from the Owner and the AHJ.

- D. Coordination of Work: All work shall be carefully coordinated with all other trades so that unnecessary offsets and revisions to the approved drawings are avoided. Failure to coordinate does not relieve the contractor from meeting the performance standards given herein.
- E. Coordination with Electrical and Mechanical Equipment: Prior to submitting shop drawings to the design team for review. Provide these drawings to the Electrical and mechanical subcontractor for coordination of any electrical panels or mechanical equipment that may be located within the project bounds. Any fire suppression pipe, regardless of approved status of shop drawings, that is found to be in conflict with electrical panels and mechanical equipment shall be moved at the expense of the fire suppression subcontractor.

3.02 SHUTDOWN OF EXISTING SYSTEMS

- A. Any shutdowns of existing water distribution systems, fire sprinkler systems, domestic water systems or fire alarm systems shall be approved by the Owner. Advance written notice of at least 14 days prior to the shutdown must be provided to the Owner.

3.03 PENETRATIONS

- A. Required Clearance Around Pipe: Piping passing through any wall, floor or fire rated assembly shall be provided with clearance around the entire circumference of the pipe as required by NFPA 13. Piping 3-1/2" and smaller shall have a minimum one inch clearance around the entire circumference of the pipe and pipe larger than 3-1/2" shall have a minimum two inch clearance around the entire circumference of the pipe. No exceptions. Penetrations of walls, floors or ceilings shall be made in a neat manner using properly sized hole saw or masonry/concrete coring as necessary. Responsibility for ensuring proper clearance for sprinkler piping lies strictly with the sprinkler contractor. Careful coordination with the other trades is required.
- B. Fire Rated Assemblies: The annular space between the wall or pipe sleeve and the sprinkler pipe in fire rated assemblies shall be filled with UL classified fire-stopping material in accordance with the manufacturer's recommendation, also see paragraph 2.19
- C. Escutcheons: Split wall plates or escutcheons shall be installed where exposed piping or hangers pass through a finished floor, wall or ceiling and shall fit snugly, securely and cover the opening.

3.04 EARTHQUAKE BRACING

- A. Earthquake bracing shall be installed, as necessary, strictly in accordance with NFPA 13 and as clarified in the Handbook of Automatic Sprinkler Systems. Earthquake bracing shall be provided as follows, but is not limited to these locations:
- B. Lateral Bracing: Lateral bracing shall be provided at least every 40 feet, regardless of length of hanger.
- C. Longitudinal Bracing: Longitudinal bracing shall be provided at least every 80 feet for long straight runs of main.
- D. Flexible Couplings: All flexible couplings shall be braced, except for risers where flexibility is required. Four-way bracing shall be provided for all tees, elbows and offsets.

3.05 INSPECTION, PUNCH LIST AND HYDROSTATIC TESTS

- A. Partial System Test or Inspection: All tests shall be performed with all of the sprinklers installed in their final positions. Where it is critical to the continuance of the project as a whole to cover portions of the piping with ceilings or walls prior to the completion of the entire system, partial testing of the system may be performed after receiving written approval from the owner. In this case "partial" indicates an entire zone or floor of one system. A satisfactory partial test does not relieve the contractor from performing all final testing procedures.

- B.** Preliminary Hydrostatic Test: After the system has been fully installed and ready for service, and prior to installation of suspended ceilings, it shall be subjected by the contractor to a hydrostatic test conforming to the requirements of NFPA 13. All pipe from the riser control valves through sprinkler heads shall be hydrostatically tested. The contractor shall take special precautions to detect and stop water leakage so that any water damage will be minimal. The expense of correcting any sprinkler related water damage is the responsibility of the fire protection contractor.
- C.** Test of Fire Alarm Equipment: The contractor shall also test the operation of the waterflow, pressure, and supervisory switches. When the contractor has satisfied himself that the system is in complete operating condition in every respect, he shall notify the Construction Coordinator in writing that he has inspected and tested the system and that it is ready for final inspection.
- D.** Final hydrostatic Test and Inspection: Final inspection of all phases of the work shall be made by the Engineer, Fire Marshal and the Owner. The contractor shall notify the Construction Coordinator at least 14 days in advance of making the required tests, so that arrangements may be made for the presence of the Owner, Engineer and local Fire Marshal to witness the tests. The installing foreman or other competent representative of the contractor shall be present at this time to conduct any operating tests of alarm, or other system functions requested by the AHJ, Engineer or Owner. All portions of the system shall be tested for not less than 2 hours at a pressure of 200 psi (or 50 psi above static pressure, whichever is greater), without the addition of any water. Any leaks or drips shall be repaired immediately by the contractor.
- E.** Punch List: Deficiencies found in the system will be recorded on a punch list and delivered to the contractor. All punch list items shall be corrected by and at the expense of the contractor within two weeks of the receipt of the Punch list. No exceptions.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description: Work includes plumbing pumps and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 sections apply to Work in this section.

1.02 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. ASTM A 48, Standard Specification for Gray Cast Iron Castings.
 - 2. UL 508, Industrial Control Equipment.
 - 3. UL 778, Motor-Operated Water Pumps.

1.03 SUBMITTALS

- A. Comply with requirements in Division 01.
- B. Product Data: Submit manufacturer's technical product data and maintenance data for the following. Include each type of piping, fittings, and associated appurtenances.
 - 1. Elevator Sump Pump System
 - 2. Blank copy of start-up test and report form
- C. Pump Curves: Submit head, efficiency, brake horsepower, and NPSH curves compared to capacity for each pump. Plot curves from zero to maximum flow. Indicate pump operating point. Identify pump equipment number, fluid pumped, specific gravity, pump speed, and impeller size. Submit family of impeller curves for selected pump size. A single pump curve not acceptable.
- D. Test Reports:
 - 1. Start-up and test reports.
 - 2. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.

PART 2 PRODUCTS

2.01 SELECTION

- A. Pumps are selected in mid-range of available impeller diameters for a given pump, at no less than 2/3 the flow rate at maximum efficiency, and with a drive motor sized to operate non-overloading at any point on the pump curve for the impeller selected.
- B. Pump casing shall be sized large enough to accommodate impeller at least 1 cataloged diameter larger than size of impeller to be furnished.
- C. Pump shall have maximum 15 feet per second discharge velocity.

2.02 ELEVATOR SUMP PUMP SYSTEM

- A. Description: Submersible type pump with control panel, oil switch and liquid sensor.
- B. Pump:
 - 1. Casing: One piece cast iron volute type.
 - 2. Impeller: Cast iron, semi-open, non-clog type, dynamically balanced.
 - 3. Shaft Seal: Mechanical with silicon carbide seal faces. Stainless steel metal parts, BUNA-N elastomers.
 - 4. Bearings: Upper and lower ball bearings.
 - 5. Motor: Fully submerged type with Class B insulation for motors 1-1/2 HP and smaller and Class F insulation for 2 HP and larger. Corrosion-resistant, stainless steel shaft. Built-in overload with automatic restart. UL 778.

- 6. Power Cord: Severe duty rated, oil and water resistant. Epoxy seal on motor end. NEMA 3 prog grounding plug for motors 1 HP and smaller and bare lead cord ends for pumps 1-1/2 HP and larger. Length to suit installation of system components.
- C. Control Panel: NEMA 4X fiberglass enclosure with hinged door. Input from oil switch and liquid sensor. Include high level alarm with red alarm light and alarm horn. Include output connection for high water annunciation to Direct Digital Control (DDC) system if applicable. Panel to be located outside of elevator machine room.
- D. Oil Switch: Include Pump On and Pump Off sensing points and 20 foot power cord. UL 508.
- E. Liquid Sensor: Solid state sensing device that differentiates between oil and water.
- F. Manufacturers: Stancor SE50 with Oil Minder control system, Bell & Gossett Model 2EC Series pump with CentriPro Model ELKT2EC Series elevator sump kit and components, Liberty Pumps or approved.

PART 3 EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 INSTALLATION OF PUMPS

- A. General: Support pumps and piping separately so piping is not supported by pumps.
- B. Installation of elevator sump pump and associated control system shall comply with all requirements listed in Labor and Industries (L&I) technical clarification #20-30. https://www.lni.wa.gov/licensing-permits/_docs/TC2003SumpPumpTesting.pdf

3.05 PLUMBING SYSTEMS TRAINING

- A. Provide in-person training to Owner if requested.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description: Work includes building drainage piping and associated appurtenances.
- B. General Requirements: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 sections apply to Work in this section.

1.02 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. Applicable plumbing code pertaining to materials, products, and installation of soil, waste, vent, and storm drain piping.
 - 2. ACI 318, Building Code Requirements for Reinforced Concrete.
 - 3. ASME B16.3, Malleable Iron Threaded Fittings: Classes 150 and 300.
 - 4. ASME B16.12, Cast Iron Threaded Drainage Fittings.
 - 5. ASTM A 53, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 6. ASTM A 74, Standard Specification for Cast Iron Soil Pipe and Fittings.
 - 7. ASTM A 888, Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
 - 8. ASTM C 564, Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.
 - 9. ASTM C 1277, Standard Specification for Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings.
 - 10. AWWA C 110/A 21.10, Standard for Ductile-Iron and Gray - Iron Fittings.
 - 11. AWWA C 111/A 21.11, Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 - 12. AWWA C 153/A21.53, Standard for Ductile-Iron Pipe Compact Fittings for Water Service.
 - 13. CISPI 301, Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data and maintenance data for the following. Include blank copy of start-up and test report form.
 - 1. Piping, tubing, and fittings
 - 2. Piping specialties

PART 2 PRODUCTS

2.01 GENERAL

- A. Furnish products of sizes, ratings, and characteristics indicated which comply with manufacturer's standard materials, design, and construction in accordance with published product information. Furnish quantity of piping and appurtenances required for complete installation.
- B. Piping specified in this section apply to the following systems:
 - 1. Waste.

2.02 PIPING, TUBING, AND FITTINGS

- A. Piping Materials:
 - 1. Cast Iron:
 - a. Pipe and Fittings: Service weight cast iron soil pipe marked with collective trademark of Cast Iron Soil Pipe Institute (CISPI) and be listed by NSF International. ASTM A 888 or CISPI No. 301. AB&I Foundry, Charlotte Pipe and Foundry, or Tyler Pipe. No substitutions.

- b. Hub and Spigot Joints: ASTM A 74, compression gasketed type, specifically designed for pipe and fittings used or caulked type. Gaskets ASTM C 564, rubber.
 - c. Hubless Joints: ASTM A 888, CISPI No. 310 for heavy duty and standard duty couplings. Tested to ASTM D 3677.
 - 1) Heavy Duty Couplings for Underground Pipe and Fittings and Rainleaders and Overflow Rainleaders: Comply with ASTM C 1540, Type 304 stainless steel housing or shield and stainless steel clamps, neoprene gasket with sealing rings to ASTM C 564. Clamp-All HI TORQ 125, Husky SD 4000, or Thermafit Industries POC acceptable.
 - 2) Standard Duty Couplings for Above-Ground Pipe and Fittings: Comply with ASTM C 1540, Type 304 stainless steel housing or shield and stainless steel clamps, neoprene gasket with sealing rings to ASTM C 564 or ASTM C 1277. Clamp-All HI TORQ 80 or, Husky HD 2000, Mission Rubber Company HeavyWeight, Ideal Heavy Duty, Tyler Pipe, and Thermafit Industries POC acceptable.
 - d. Fittings: ASTM A 74 for hub and spigot piping and ASTM A 888 or CISPI 301, and CISPI 310 for hubless piping.
 - e. Hubless Joint Restraints: Galvanized steel straps and band clamps. HOLDRITE® 117 Series or approved.
- 2. Galvanized Steel:
 - a. Pipe: Standard weight or Schedule 40, ASTM A 53 or ASTM A 106.
 - b. Fittings:
 - 1) Drainage Fittings: Galvanized cast iron drainage pattern, screwed, ASME B16.12.
 - 2) Vent Fittings: 150 pound galvanized malleable iron, screwed, ASME B16.3.
 - 3. Copper:
 - a. Pipe: Type DWV, hard drawn drainage tubing, ASTM B 306.
 - b. Fittings: Cast copper, ASME B16.23 or wrought copper, ASME B16.29, solder joint.
- B. Above-Ground Drain, Waste, VentPiping:
 - 1. 1-1/2 Inch and Smaller: Galvanized steel, cast iron, or copper.
 - 2. 2 Inch and Larger: Cast iron.
 - C. Indirect Drain (Condensate) Piping: Copper.
 - D. Footing Drains: Perforated PVC, ASTM D 1784 and ASTM D 2729, Schedule 40, minimum 4 inch size, plain ends, standard hole pattern, white color.

PART 3 EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

- A. General: Install, apply, erect, and perform the work in accordance with Article "Quality Assurance" provisions, specifications, and manufacturer's installation instructions and directions. Where these may be in conflict, the more stringent requirements govern.
- B. Do not cover up or enclose work until inspected and approved. If in non-compliance, uncover work, remove, and provide new to satisfaction of A/E at no additional cost to Owner.

3.04 PIPING INSTALLATION

A. General:

1. Install with uniform pitch of at least 1/4 inch per foot for horizontal waste, rainleader, and overflow rainleader piping, unless otherwise indicated on the Drawings or allowed by AHJ.
2. Install cast iron soil piping according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook".
3. Pitch vents for proper drainage. Vent piping may be installed horizontal if required to avoid conflict with building elements.
4. Joints and Connections:
 - a. Bell and Spigot: Neoprene compression seals.
 - b. Hubless: Alternately and incrementally tighten clamp bolts to manufacturer's recommended torque value, using single setpoint torque wrench specifically manufactured for this purpose. Do not use screwdrivers or other types of wrenches. Retorque after 24 hours if required by manufacturer's installation instructions. Install with no-hub fitting restraints at branch openings and changes in direction per CISPI No. 310 for pipe sizes 5 inch and larger.
5. Copper waste piping for urinals not acceptable.
6. Clean interior of piping. Remove dirt and other superfluous material as work progresses.
7. Place plugs in ends of uncompleted piping at end of day or whenever work stops.

B. Above-Ground Piping:

1. Support horizontal piping to maintain alignment, prevent grade reversals, and prevent sagging.
2. Support vertical stacks at each floor with riser clamps.
3. Hub and Spigot Pipe: Support at 5 feet maximum centers and within 18 inch of each joint. Minimum 1 hanger or support between any 2 joints and fittings.
4. Hubless Pipe: Provide hangers and supports per applicable plumbing code.

3.05 EQUIPMENT CONNECTIONS

- A. Install soil and waste piping runouts to plumbing fixtures and drains with approved trap and sizes indicated on the Drawings, but in no case smaller than that required by the applicable plumbing code.
- B. Locate piping runouts as close as possible to bottom of floor slab supporting fixtures and drains.
- C. Make gas- and watertight. Use 1 piece special molded gaskets for connections between outlet of fixtures and soil pipe flanges.

3.06 PRESSURE TESTING

- A. Test drainage piping in accordance with applicable plumbing code. Include test results in Operation and Maintenance Manuals.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The provisions and intent of the General and Supplementary Conditions, Special Conditions, and Division 01 apply to Work in this section.

1.02 SUMMARY

- A. Provide all labor, materials, tools, equipment, supervision, and services required for the construction, installation, connection, testing and operation of electrical work described herein and shown on the Contract Drawings. This section applies to all Division 26.

1.03 PERMITS

- A. Purchase the necessary permits, including State of Washington Labor and Industries permit fees, licenses and approvals required for execution of this work and include all costs in the bid.

1.04 CODES AND STANDARDS

- A. Execute electrical work in strict accordance with the 2020 National Electrical Code, and the current Washington State Electrical Rules and Regulations, and local ordinances and regulations.
- B. Conform to applicable industry standards, UL standards, NEMA standards, and other standards as noted.
 - 1. Notify the A/E of deviations in Contract Documents to applicable codes and ordinances prior to installation of the Work. Perform changes in the Work after initial installation due to requirements of code enforcing agencies at no additional cost to the Owner.
 - 2. If conflict occurs between legally adopted codes and the Contract Documents, the codes prevail, except that this shall not be construed as relieving the Contractor from complying with requirements of the Contract Documents which may exceed code requirements and not contrary to same.

1.05 DEFINITIONS AND ABBREVIATIONS

- A. Refer to Division 01 for definitions and abbreviations. Additional definitions and abbreviations are as follows.
- B. "Approved" or "Approval" means written approval by the owner or "Owner's agent" (A/E).
- C. "Codes" means AHJ adopted codes, rules, ordinances, and additional codes as specified herein.
- D. "Concealed" means spaces out of sight. For example, above ceilings, below floors, between double walls, furred-in areas, pipe and duct shafts, and similar spaces.
- E. The word "Contractor", as used in Division 26 sections, means the electrical subcontractor.
- F. "Coordination", "Coordinating", and "Coordinate" means to bring, or the bringing, into a common action, movement, or combination so as to act together in a smooth concerted way.
- G. "Directed", "Requested", "Accepted", and Similar Terms means these terms imply "by the A/E" unless otherwise indicated.
- H. "Exposed" means open to view. For example, raceways installed in a tunnel or raceways installed in a room and not covered by other construction.
- I. "Furnish" means supply and deliver to the project site ready for unloading, unpacking, assembly, installation, and similar activities.
- J. "Indicated" and "Indicated on the Drawings" means shown on Contract Drawings by notes, graphics or schedules, or written into other portions of Contract Documents. Terms such as "shown", "noted", "scheduled" and "specified" have same meanings as "indicated" and are used to assist the reader in locating particular information.
- K. "Install" means to place in position for service or use. Includes operations at project site, such as unloading, unpacking, assembly, erection, placing, preserving, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar activities.
- L. "Provide" means furnish and install for a complete, finished, and operable system and ready for intended use.

- M. "Shop Drawings" means Document which fully details equipment and intended installation relative to this specific Project.
- N. "Substantial Completion" shall mean that the entire project (or readily definable portion thereof if so designated in the Contract Documents) is acceptable to code enforcement authorities and to extent required by such authorities, has been inspected and approved by such authorities, and is suitable for occupancy by the Owner or occupant for the purpose intended. Refer to Division 0 and 1 for additional requirements.
- O. "Work" or "Project" means entire scope of work required by the Contract Documents.
- P. Abbreviations:
 - A/E Architect
 - AHJ Authorities Having Jurisdiction
 - ANSI American National Standards Institute
 - ASTM American Society for Testing and Materials
 - C Degrees Celsius
 - ETL Environmental Technology Laboratory
 - F Degrees Fahrenheit
 - FM Factory Mutual Engineering Corporation
 - IBC International Building Code
 - NEC National Electrical Code, NFPA 70 (latest adopted edition with Amendments)
 - NEMA National Electrical Manufacturer's Association
 - NFPA National Fire Protection Association
 - OSHA Occupational Safety and Health Administration
 - UL Underwriters Laboratories Inc.
 - RMS Root Mean Square
 - THD Total Harmonic Distortion
 - V Volts

1.06 SUBMITTALS

- A. Comply with requirements in Division 01 and with additional requirements indicated in this article.
- B. Comply with requirements in Section 013300 and additional requirements indicated in this article.
- C. Confirm with A/E whether product data and shop drawings may be submitted electronically in lieu of physical submittal. Format organization and requirements shall follow that of a physical submittal.
- D. Pre-Construction Submittals:
 - 1. Product Data: (Electronic copy)
 - a. Submit prior to fabrication of assemblies and delivery of purchased items.
 - b. Submit complete at one time. Submit each specification section complete at one time with a dedicated submittal number for each section. Partial product submittals are not acceptable and will be returned not reviewed.
 - c. Clearly mark catalog pages, equipment, and model number to be used electro. Note required accessories.
 - d. Provide product data in Adobe PDF format with Bookmarks for each submittal section allowing browsing to the paragraph number.
 - e. Provide a table of contents for each specification section.
- E. Approval: Approval of a manufacturer's name or product by the A/E does not relieve the Contractor of the responsibility for providing materials and equipment which comply in detail with requirements of the Contract Documents.
- F. Re-Submittals: Clearly identify re-submittals. Provide revised tabs, indexes, page renumbering, and other formats to interface with original submittal. Identify changes and include date for project tracking.
- G. Test reports and Certificates: Submit as a package prior to Substantial Completion.
- H. Certifications: Submit written certifications from the governing building authorities stating that work has been inspected and accepted and complies with applicable codes and ordinances.
- I. Record Drawings: Comply with Article "Record Drawings" in this section.

1.07 MATERIALS

- A. Where 2 or more manufacturers are listed, select for use any of those listed. The first mentioned, in general, was used as the basis of design. Bids on any manufacturer named acceptable as long as that manufacturer meets every aspect of the Contract Documents. Note that equipment layout is based on equipment listed in equipment schedules.
- B. Where other than the first named manufacturer is selected, include cost of resulting work and redesign of associated services and structure.
- C. Ensure that equipment will fit within available space, including manufacturer's recommended clearances and code required clearances.

1.08 STANDARDS OF QUALITY

- A. Materials and Equipment: UL listed and labeled or other AHJ approved testing laboratory and in compliance with other industry standards as specified.
- B. Equipment shall be manufacture's regularly catalogued items and shall be supplied as a complete unit in accordance with manufacturer's standard specifications and any optional items required for proper installation for equipment unless otherwise noted. Equipment and materials shall be installed in accordance with the manufacturer's recommendations and best trade practices.
- C. Products shall be new unless indicated otherwise in the Contract Documents.
- D. Fabricator and Manufacturer Qualifications: Specialists with at least 5 years experience and regularly engaged in manufacture of equipment and materials specified.
- E. Furnish products of a single manufacturer for items which are used in quantity. A Product, for the purpose of this paragraph, is an assembly of components such as switchboards, transformers, panelboards, and similar items. Materials such as wire and cable, raceways, outlet boxes, and similar items not requiring maintenance are not included in the single manufacturer requirement of this paragraph.
- F. Installer Qualifications: Specialists with at least 5 years experience and regularly engaged in the installation of the system, equipment, and materials specified. Where required by the AHJ, employ licensed trades persons.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle products in accordance with manufacturer's recommendations, using means and methods to prevent damage, deterioration, and loss, including theft.
- B. Deliver products to site in manufacturer's original containers, complete with labels.
- C. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- D. Store products subject to damage by weather conditions above ground, under cover in weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

1.10 SUBSTITUTIONS

- A. Comply with requirements in Division 01 with additional requirements indicated in this article.
- B. Substitutions will be considered following bid award only when a product becomes unavailable through no fault of the Contractor.
- C. Where "Manufacturer" paragraphs include the words "or approved", prior approval of the proposed substitution is required. The A/E is sole judge of quality of proposed substitution.
- D. When the A/E approves a substitution request, the approval is given with the understanding that the Bidder:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.

4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Whenever a Product is described by detail, specification, trade name, manufacturer's name or catalog reference, use only such Product, unless written approval is given for substitution prior to bid. Submit written requests on substitution request form included in Division 1.
- F. Provide as specified certain products, materials, and systems where "manufacturer" paragraphs are followed by the words "no substitutions".
- G. Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals, without separate written prior approval, or when approval will require revision to the Contract Documents.

1.11 DRAWINGS AND SPECIFICATIONS

- A. General: The electrical Contract Drawings are diagrammatic. Complete details of building features which affect electrical installation may not be shown. For additional details, refer to other Contract Documents. Report any discrepancies to the A/E along with suggested revisions. Obtain written response from the A/E before proceeding with changes.
- B. Depiction of Work: Contract Drawings do not show the exact characteristics of the work including, physical arrangement of equipment, lengths of wiring or conduit runs. Base work on actual field measurements and conditions. Provide work required to complete the installation.
- C. Dimensions: Do not scale drawings. Dimensional accuracy is not guaranteed, and field verification of dimensions, locations, and levels to suit field conditions is required.
- D. Since the Drawings of floor, wall, and ceiling installation, are made at small scale, outlets, devices, equipment, and similar items are indicated only in their approximate location. Locate outlets and apparatus symmetrically on floors, walls, and ceilings where not dimensioned and coordinate such locations with work of other trades to prevent interferences.
- E. Discrepancies: Field verify dimensions and existing conditions prior to performing work. Bring to the A/E's attention any discrepancies within the Contract Documents and between the Contract Documents and field conditions. Also, for any design and layout changes required due to specific equipment selection, prior to the Contractor's work (equipment and material purchasing and installation). Any corrective work required by the Contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be at no additional cost to the Owner.
- F. Specifications: These specifications are written in imperative mood and streamlined form. The imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

1.12 RECORD DRAWINGS

- A. Comply with requirements in Division 01, with additional requirements as indicated in this article.
- B. Prepare Record Drawings. Record Drawings shall be new blue line prints (pencil and black pen not acceptable) and shall show the measured locations of portions of the Work and changes the Contractor has made.
- C. Record corrections and changes made during the progress of the work, showing work as actually installed. In general, tolerance plus or minus 1'-0" from actual location. Indicate installed locations for underground raceways. Neatly hand-draft on daily basis. Keep readily available at project site. Use latest revisions and keep neat and clean. Do not use Contractor's working drawings.
- D. Record Drawings are subject to review by the A/E on a regular basis throughout construction. At end of construction, check drawings for completeness and accuracy.
- E. Drawings shall show addendum items, change orders, clarifications, supplemental instructions, and deviations from the Drawings.

1.13 COORDINATION

- A. Coordinate Division 26 work with other trades.
- B. Be aware of restricted space for installation of electrical systems. Include offsets and perform rerouting and coordination to fit elements in available space. Include provisions for such requirements in bid.

- C. Electrical equipment and systems shown are based on existing drawings as available and on limited project site observations to the extent possible under current conditions. Field verify existing conditions prior to commencement of work. Obtain specific locations of structural and architectural features or equipment items from referenced drawings, field measurements, or trade providing material or equipment.
- D. Coordinate raceway installations to clear light fixtures and electrical cable trays. Include clearance over light fixtures to allow removal and replacement. Include minimum 12-inch clearance above and to at least one side of cable trays.
- E. Existing Conditions:
 - 1. General Construction:
 - a. Installation of electrical work will require openings, removal and replacement of ceilings, sleeves, and restoration of general construction to match existing. Some work occurs in areas not requiring alterations as part of architectural work. Coordinate new openings and restoration work so that there is no additional cost to the Owner.
 - b. General construction work shown on the architectural drawings may require removal, relocation, and reinstallation of existing electrical work. Since existing conditions cannot be completely detailed on the Drawings, survey the site and perform required Work at no additional cost to the Owner.
 - 2. This project may require work in the presence of asbestos containing material (ACM). Division 26 does not provide for or cover the identification, removal, encapsulation, or disposal of such material. If the presence of ACM is suspected, notify the General contractor prior to proceeding with in the vicinity of ACM.
- F. Be responsible for beam penetrations as they relate to the electrical work. Submit sizes and locations to the structural engineer for review and determination of structural details.
- G. Coordinate attachments to structure to verify that attachment points on equipment and structure can accept seismic, weight, and other loads imposed.

1.14 WORKMANSHIP

- A. Work shall be in accordance with best trade practices. Remove substandard workmanship and provide new material at no extra cost to the Owner.

1.15 SITE VISIT

- A. The Contractor shall visit site during bidding period to note conditions affecting installation of Work. No additional charges allowed due to failure to adequately review conditions.
- B. Investigate each space through which equipment must be moved. Where necessary, arrange with equipment manufacturers to ship equipment in sections with suitable dimensions for moving through restricted spaces. For movement through occupied spaces, ascertain from the Owner as acceptable times of day or night that movement could occur. Include costs in bid for off hours labor, reassembly, and field testing.

1.16 CERTIFICATION

- A. By submitting a bid for the electrical systems, the Contractor and his subcontractors acknowledge and certify the following:
 - 1. That they have carefully examined and fully understand the Contract Drawings and Specifications (including but not limited to architectural, site, utility, mechanical, structural, and electrical drawings and specifications. In addition, they have determined that the Contract Drawings and Specifications are adequate to complete the electrical systems and that they can provide a complete finished and operable system in accordance with the Contract Documents.
 - 2. That they have had a reasonable opportunity to discover any ambiguities in the Contract Documents and such ambiguities have been brought to the attention of the A/E in writing prior to submitting the bid.

3. That they have reviewed the project progress schedule with the general contractor, fully understand the schedule, and they have verified, prior to submitting a bid, availability of necessary labor and materials, including supervision and office backup, and can comply with the schedule requirements.
4. That there may be changes to the scope of work and that they understand that any proposal submitted for performance of additional work shall include costs associated with such change including but not limited to labor, materials, subcontracts, equipment, taxes, fees, schedule impact, loss of efficiency, supervision, overhead and profit.
5. That the Contract requires them to coordinate their work with that of other trades and that responsibility for coordination includes rerouting, offsets, and similar provisions, to fit Work and address manufacturer's recommended clearances for service access, maintenance, and replacement of equipment in a manner that is compatible with work of other trades in the same area.
6. That routing of elements of electrical systems shown on the Contract Drawings is schematic only and that offsets and rerouting probably will be required in installation and that labor and materials have been included for such in their bids.
7. That they have consulted with affected utilities and included in their bids labor and materials to meet requirements which may be imposed by each utility and have included in their bids costs and fees to be paid to such utilities, including temporary services and temporary and permanent connections unless specifically excluded in the Contract Documents.
8. That they understand submittals of material and equipment to the A/E is for the purpose of establishing what they are providing for the project. Any review undertaken by the A/E does not relieve them of their responsibilities to furnish and install materials and equipment required for work in the project nor does such review relieve them of their responsibilities for coordination with other trades and designers to ensure that such materials and equipment will fit and be suitable for purpose intended.
9. That they agree to receive payment for bid amounts as full compensation for furnishing materials and labor which may be required in prosecution and completion of work required under the Contract Documents, and in respects to complete the contract work to the satisfaction of the A/E.
10. That they include in their bids costs to furnish bonds as specified in the Contract Documents.

1.17 WARRANTY

- A. Conform to requirements in General Conditions, Supplementary Conditions, and Division 01.
- B. Contractor shall provide a parts and labor guarantee on all Work. Contractor's guarantee shall be for a period of one (1) year from Date of Acceptance, except where warranty coverage from a supplier or equipment manufacturer extends for a longer period of time.
- C. Warranty periods within Divisions 26 shall not commence until Substantial Completion.
- D. Contractor's guarantee shall cover all costs associated with troubleshooting, repair, and replacement of defective Work, including but not limited to costs for labor, transportation, lodging, materials, and equipment.

1.18 OWNER FURNISHED CONTRACTOR INSTALLED (OFICI) EQUIPMENT

- A. Material Handling and Delivery:
 1. Coordinate delivery of FOIC equipment. Receive, off load, transport, store, hoist, unpack, dispose of packing, same as for other project equipment arriving at job site. Requirements of the Contract Documents apply to FOIC equipment.
- B. Operation and Maintenance Data:
 1. Obtain from the Owner operation and maintenance data for the FOIC equipment and incorporate them into the Operations and Maintenance Manuals.
- C. Start-up and Warranty:
 1. FOIC equipment suppliers will pass on to the Contractor start-up information, maintenance and parts information, and warranty provisions of their products in accordance with the equipment suppliers contract requirements. Organize and coordinate start-up and warranty requirements for the FOIC equipment.

2. Include one year warranty on FOIC equipment starting at Substantial Completion regardless of shorter time limits by FOIC suppliers.

1.19 DEMONSTRATION

- A. Comply with requirements in Division 01 with additional requirements indicated in this article.
- B. Following installation of electrical work and prior to final acceptance, demonstrate that equipment and systems operate as indicated in the Contract Documents and in accordance with manufacturer's recommendations.
- C. Perform in presence of the A/E and Owner's representative, unless otherwise directed by the A/E. Give minimum 1 week notice prior to demonstrations.
- D. Provide instruments and personnel required to conduct demonstrations.

1.20 SUBSTANTIAL COMPLETION

- A. Comply with requirements in Division 01.
- B. Prepare list of items that are not complete prior to asking for a substantial completion review by the A/E.

1.21 ALTERNATES

- A. General: See Bid Form and Alternates described in Division 01 for possible effect on work of Division 26.

1.22 CONTINUITY OF EXISTING UTILITY SERVICES

- A. Shutdown Duration: Comply with requirements in Division 01. Perform work without shutdown of more than 4-hour duration of existing electrical systems. Schedule each shutdown in writing with the Owner at least 14 days in advance of shutdown and obtain advance written approval from the Owner.
- B. Temporary Services: Provide during necessary interruptions of existing utilities.
- C. Owner Occupancy:
 1. Perform work in the existing building with respect for the necessity of the Owner's employees to perform their regular work.
 2. Plan installation of new work and connections to existing work to assure minimum interference with regular operation of existing facilities. Do not remove, disconnect, or shutdown systems without prior review by the Owner to confirm that areas needed to remain in operation are not affected.
 3. Provide temporary, wiring, lighting, and similar systems and connect to existing systems to keep existing electrical systems in operation to service areas that need to remain occupied.

1.23 OPERATION AND MAINTENANCE MANUALS

- A. Prepare Operation and Maintenance Manuals for equipment and materials furnished under Division 26.
- B. Comply with requirements in Division 01 with additional requirements indicated in this article.
- C. Submit electronic copy in PDF format of Operation and Maintenance Manuals for review at least 4 weeks prior to Substantial Completion date. Assemble Operation and Maintenance Manual book marking each separate category, such as Electrical, Telecommunications, and Electronic Safety and Security.
- D. Include complete cleaning and servicing data compiled in clearly and easily understandable form. Include serial numbers of each piece of equipment, complete lists of replacement parts, motor ratings, and similar information. Each item of equipment shall have its own individual sheet.
- E. Include the Following Information:
 1. Identifying name and mark number.
 2. Certified outline drawings and Shop Drawings.
 3. Parts list.
 4. Performance curves and data.
 5. Wiring diagrams.
 6. Manufacturer's recommended operating and maintenance instructions.

7. Vendor's name, address and telephone number for all parts and equipment.
8. Name, address and telephone number of Contractor performing the work.
9. Test reports.
10. Product data and Record Drawings.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Furnish specified items acceptable to AHJ as suitable for intended use.
- B. Furnish new materials, unless otherwise indicated, free from defects and the standard products of reputable manufacturers regularly engaged in production of such equipment.
- C. Furnish materials of the same type or classification and used for the same purpose by the same manufacturer.
- D. Materials and Equipment: Shall be UL listed and labeled or other AHJ approved testing laboratory, approved by inspection authorities, and rated by the manufacturer as suitable for the intended use.
- E. Remove rejected or damaged material from site.
- F. Samples may be required for non-standard or substituted items before installation. Submit samples as required in specific specification sections.
- G. Furnish required items necessary for installation and testing procedures.

2.02 POSTED INSTRUCTIONS

- A. Posted Operating Instructions: Furnish simplified, consolidated equipment control and power diagrams. Graphically represent entire system and actual equipment installed. Include concise written instructions on how to start and stop systems. Show settings and conditions to be observed. Indicate what control adjustments are to be made or maintained by the operator.
 1. Include control diagrams and specific operating instructions.
 2. Indicate how to energize each major component of systems. Show what action must be taken in an emergency, how to restore power following an outage, and what precautions to be taken when maintenance is required.
 3. Include photographic or comparable non-fading reproductions, either framed under glass or encased in non-discoloring plastic.
 4. Include one-line diagrams of electric power distribution riser.
- B. Copies of operating instructions shall be used with Operation and Maintenance Manuals as basis in training Owner's employees in the operation and maintenance of systems and related installed equipment.

2.03 ENCLOSURES

- A. NEMA Type 1 – Dry Interior locations unless otherwise noted on drawings or as specified below.
- B. NEMA 3R Weather-proof/Rain-proof – Windblown rain, sleet, ice – Provide in all locations where exposed to moisture unless otherwise noted.
- C. NEMA 4 – Water-tight/Rain-tight – Splashing and hose directed water, windblown dust, ice.
- D. NEMA 4X– Water-tight/Rain-tight – Splashing and hose directed water, windblown dust, ice, corrosion resistant.
- E. NEMA 12 – Dust-tight/Water-tight/Drip-tight – Circulating dust, falling dirt, dripping non-corrosive liquids.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify installation conditions as satisfactory to receive work of the various sections. Do not install until unsatisfactory conditions are corrected.

3.02 INSPECTIONS

- A. Confirm that installations have been inspected before enclosure within building features, buried, or otherwise hidden from view. Pay costs associated with uncovering or exposing installations and features not previously inspected and for repair to exposed surfaces.

3.03 PREPARATION

- A. Protect surrounding areas and surfaces to prevent damage as work is installed.
- B. Obtain equipment roughing-in dimensions from approved Shop Drawings or actual measurements.
- C. Be familiar with the location of other trade's equipment. Eliminate conflicts. Check door swings before installing switches. Locate switches on strike side of doors unless noted otherwise.
- D. Layout electrical, telecommunications, and electronic safety and security work in advance of construction to eliminate unnecessary cutting, drilling, channeling, and similar activities. Where such cutting, drilling, channeling, and similar activities become necessary for proper installation, perform with care using skilled mechanics of trades involved. Repair damage to building and equipment at no additional cost to the Owner.
- E. Provide all openings required for the electrical, telecommunications, and electronic safety and security work.
- F. Perform cutting work of other trades only with consent of that trade. Cutting structural members not permitted without consent of the A/E.

3.04 INSTALLATION

- A. Install Work as specified and in accordance with the Contract Drawings and manufacturer's instructions. Where these conflict, manufacturer's instructions govern.
- B. Review Architectural, Mechanical, and other applicable drawings and applicable Shop Drawings to prevent switches, outlets, and other equipment from being hidden behind doors, cabinets, counters, heating equipment, and similar items, or from being located in whiteboards, tackboards, glass panels, and similar items. Relocate electrical devices and connections as directed by the A/E at no additional cost to the Owner if the work is not properly coordinated.
- C. Where conduit, outlets, and apparatus are encased in concrete, locate and secure at point of installation. Check locations of electrical items before and after concrete and masonry installation and relocate displaced items.
- D. Provide block-outs, sleeves, demolition work, and similar items required for installation of Work specified in this division.

3.05 WORKMANSHIP

- A. Work and materials will be subject to observation at any time by the Owner and the A/E.
- B. Install equipment and material in a neat and workmanlike manner and align, level, and adjust for satisfactory operation. Install equipment so that all parts are easily accessible for inspection, operation, maintenance, and repair. Install material and equipment in accordance with manufacturer's instructions. Provide calibrated torque wrenches and screwdrivers as required.
- C. Cutting and Patching: Do not weld to, cut, or notch structural members or building surfaces without approval of the A/E. Restore surfaces neatly to original condition after cutting, channeling, chasing, and drilling of walls, partitions, ceilings, paving, and anchorage of conduit, raceways, and other electrical equipment.

3.06 WELDING, CUTTING, AND DRILLING

- A. Perform in accordance with American Welding Society Standards.

3.07 CLEANING

- A. Clean equipment, conduit, and fittings and remove packing cartons and other debris created by Division 26 Work.
- B. Before Substantial Completion, carefully clean equipment, fixtures, exposed raceways, and similar items. Remove construction labels, dirt, cuttings, paint, plaster, mortar, concrete, and similar items. Clean fixtures, interiors and exteriors of equipment and raceways.

- C. The premises must be kept free of accumulated materials, rubbish, and debris at all times. Surplus material and equipment must not be stored at the job site.

3.08 IDENTIFICATION

- A. Provide nameplates and decals required to identify equipment and components, comply with requirements in Section 260553.
- B. Mount operating instructions and diagrams near equipment or elsewhere as otherwise designated by the Owner.

3.09 REMOVAL AND REPLACEMENT OF EXISTING ACCESSIBLE CEILING PANELS

- A. Remove and reinstall necessary panels in existing accessible ceilings to install Division 26 Work in areas where no architectural work is being performed. Where existing ceiling panels are damaged, replace with new to match existing. After ceiling removal and reinstallation is complete, ceiling system appearance shall match adjacent similar ceilings that have not been removed.

3.10 PROTECTION

- A. Protect equipment during and after electrical hookup, painting, and final testing.

3.11 PUNCHLIST AND FINAL REVIEWS

- A. At the time of punchlist and final reviews, the project electrical foreman shall accompany the reviewing party, and remove coverplates, panel covers, and other access panels as requested to allow review of entire electrical system.

3.12 PROJECT CLOSEOUT

- A. Punchlists will be done at Substantial Completion and final completion dates. Submit Record Drawings and final Operation and Maintenance Manuals prior to Substantial Completion date.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes final electrical connection to equipment having electrical requirements. Contractor shall make final connections for Owner furnished equipment including switches, receptacles, and similar items. See other applicable specification sections for building temperature control wiring requirements specified in Divisions 22, and Contract documents.
- B. Connection to Equipment Specified in Divisions 22, and Contract Documents as Follows unless Specified Otherwise:
 - 1. For motorized only equipment with built-in controllers (packaged equipment), Connect power and provide an external disconnect mounted independently at equipment. Mechanical contractor will provide control wiring.
 - 2. For motorized only equipment with external controller (non-packaged equipment), provide external motor controller, disconnect switch, and make power wiring complete to equipment. Mechanical contractor will provide control wiring.
 - 3. For electric duct heaters with built-in controllers (packaged type equipment), connect power complete and provide external disconnect switch at equipment. Mechanical contractor will provide control wiring.
 - 4. For equipment requiring a full voltage non-reversing starter, include as a combination disconnect unit.
 - 5. Provide a fused disconnect switch at all equipment whose nameplate indicates "Maximum Fuse Size".
- C. Refer to sections of other divisions for specific individual equipment power requirements.

1.03 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. NEC Compliance: Comply with applicable portions of NEC as to type of products used and installation of electrical power connections.
- C. Comply with applicable NEMA standards and refer to NEMA standards for definitions of terminology herein. Comply with NEC for workmanship and installation requirements and to applicable Division 26 sections.
- D. UL Labels: Provide electrical connection products and materials which have been UL listed and labeled.

PART 2 - PRODUCTS

2.01 ELECTRICAL CONNECTIONS MATERIALS

- A. For each electrical connection indicated, include complete assembly of materials, including but not limited to, raceways, conductors, cords, cord caps, wiring devices, pressure connectors, terminals (lugs), electrical insulating tape, heat-shrinkable insulating tubing, cable ties, solderless wire nuts, and other items and accessories to complete splices, terminations, and connections.
- B. Comply with requirements in Section 260519 for wires and cables, Section 260533 for raceway systems, and Section 262726 for wiring devices.
- C. Include Final Connections for Equipment Consistent with the Following:
 - 1. Permanently Installed Fixed Equipment: Flexible sealite conduit from branch circuit terminal equipment, and raceway to equipment, control cabinet, terminal junction box, and wiring terminals. Totally enclose wiring in raceway.
 - 2. Movable and/or Portable Equipment: Wiring device, cord cap, and multi-conductor cord suitable for equipment and in accordance with NEC requirements.

3. Other methods as required by NEC and as required by special equipment and field conditions.

PART 3 - EXECUTION

3.01 INSTALLATION OF ELECTRICAL CONNECTIONS

- A. Make electrical connections in accordance with connector manufacturer's written instructions and with recognized industry practices and complying with requirements of NEC and NECA's "Standard of Installation" to ensure that products fulfill requirements.
- B. Connect electrical power supply conductors to equipment conductors in accordance with equipment manufacturer's written instructions and wiring diagrams.
- C. Coordinate installation of electrical connections for equipment with installed equipment.
- D. Verify electrical loads (voltage, phase, full load amperes, number and point of connections, minimum circuit ampacity, and similar characteristics) for equipment furnished under other divisions, by reviewing respective Shop Drawings furnished under each division. Meet with each subcontractor furnishing equipment requiring electrical service and review equipment electrical characteristics. Report variances from electrical characteristics noted on electrical drawings to the A/E before proceeding with rough work.
- E. Obtain and review equipment submittals and shop drawings to determine particular final connection requirements before rough-in begins for each equipment item.
- F. Comply with requirements in Section 240553 for identification of electrical power supply conductor terminations.

3.02 STARTERS (CONTROLLERS)

- A. Install non-packaged starters and wiring devices near motors or as indicated on the Contract Drawings. Securely support and anchor in accordance with manufacturer's installation instructions. Locate for proper operational access, including visibility for safety.

3.03 PROVISIONS FOR MECHANICAL CONTROLS

- A. Provide 120 Volt, 20 Amp circuit at locations required. Coordinate exact locations prior to installation.

3.04 EQUIPMENT SHORT CIRCUIT CURRENT RATING

- A. All mechanical equipment, packaged systems, control panels, motor starters, motor controllers, variable frequency drives and similar equipment shall carry a Short Circuit Current Rating (SCCR) equal to or greater than the available fault current delivered from the electrical system. Coordinate final available fault currents with the contractors providing this equipment.

3.05 MECHANICAL - ELECTRICAL INTERFACE SCHEDULE

- A. See Mechanical - Electrical Interface Schedule in Mechanical Contract documents. Comply with all requirements referenced as Division 26.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01, and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes phased demolition of existing electrical work as indicated in the Contract Documents.

1.03 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county and state codes and ordinances.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 EXISTING CONDITIONS

- A. Dust Control: Provide protective measures to minimize transfer of noise, dust, dirt, and refuse to adjacent areas of building. Such measure may include dust tight barriers, temporary walls, portable exhaust fans, vacuum systems, and temporary partitioning.
- B. Extent: Keep areas of demolition as clean and orderly as physically possible. Do not allow demolition debris to accumulate. Gather debris and dispose daily. Broom or vacuum-clean work areas on daily basis.
- C. Protection: Protect existing equipment, furnishing, and systems with protective coverings. Protect finished surfaces including floors, ceilings, and walls.

3.02 DAMAGES

- A. Repairs: Promptly repair damage to existing surfaces, equipment, finishes, or adjacent facilities at no cost to the Owner and to the satisfaction of the A/E and the Owner.

3.03 DEMOLITION

- A. General: Provide demolition work required in existing building for removal of existing electrical equipment, raceways, and conductors and for installation of new electrical equipment, raceways, and conductors. Relocate and modify existing electrical equipment, raceways and conductors as required by general construction alterations and by installation of new electrical equipment, raceways, and conductors in existing building to achieve a complete and functioning installation as defined in the Contract Documents.
- B. Extent: Remove and dispose of existing materials indicated in the Contract Documents to be removed.
- C. Reuse: Do not reuse existing products unless indicated on the Drawings.
- D. Materials to Owner: Deliver items to the Owner's Representative as indicated in the Contract Documents.
- E. Materials to Contractor: Materials other than those reserved by the Owner.
- F. Existing Conditions: Comply with requirements in Division 01. Verify specific demolition work and operating conditions to be encountered from on-site review and coordination with the Owner. Maintain service to existing equipment and devices during new construction work as required by construction sequencing/scheduling provisions. In areas adjacent to new construction work, provide temporary services as necessary to meet these conditions. Protect active conductors encountered. Notify the A/E of utilities encountered whose services are not known.
- G. Repair of Damages to Underground Utilities: Exact location of existing underground utilities is not definitely known. Should any underground utilities be damaged in excavations, restore such utilities without additional cost to the Owner.

3.04 DISPOSAL OF DEMOLISHED MATERIALS

- A. Disposal: Remove debris, rubbish, and other materials resulting from demolition operations from building site unless reinstalled or delivered to the Owner as indicated in the Contract Documents. Transport and legally dispose of material off site.
- B. Burning: Burning of removed materials is not permitted on project site.

3.05 CLEAN-UP AND REPAIR

- A. Clean-Up: Upon completion of demolition work, remove tools, equipment and demolished materials from site. Remove protection and leave interior areas clean.
- B. Repair: Repair demolition performed in excess of that required at no additional cost to Owner. Return structures and surfaces to conditions existing prior to commencement of demolition work or as directed by the Owner.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes wire, cable, splices, and terminations for systems 600 Volts and less and associated appurtenances.
- B. The word "Cable" in this section relates to wire only. It does not infer Metal Clad Cable. See Specification 260521 METAL CLAD CABLES for information on this wiring method, if approved for use on this project.
- C. If no Specification 260521 METAL CLAD CABLES is included in project specification, no MC cable is permitted.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
- E. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to: test documentation, material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county and state codes and ordinances.
- B. Products shall be new unless indicated otherwise in the Contract Documents.
- C. Codes and Standards:
 - 1. NFPA 70, National Electrical Code (NEC).
 - 2. UL 83, Thermoplastic-Insulated Wires and Cables.
- D. Comply with NEC as applicable to construction and installation of electrical wire and cable. Electrical wire and cable UL listed and labeled.
- E. Comply with applicable portions of NEMA/Insulated Cable Engineers Association standards pertaining to materials, construction and testing of wire and cable.
- F. Comply with applicable portions of ANSI/ASTM and IEEE standards pertaining to construction of wire and cable.

PART 2 - PRODUCTS

2.01 POWER AND LIGHTING CIRCUITS

- A. Factory-fabricated conductors of sizes, ratings, materials and types indicated on the Contract Drawings for each service. Where not indicated, select to comply with project's installation requirements and NEC standards. Comply with the following:
 - 1. UL 83.
 - 2. Copper Conductor. No. 12 AWG and smaller AWG cable to be solid. Wire and cable larger than No. 10 AWG stranded.
 - 3. Insulation type THHN/ THWN dual rated, 600 Volt for circuits from 115 to 600 Volts.
 - 4. Use only 90° C insulated conductors based on 75° C ampacity tables of the NEC.
- B. Aluminum Conductors: Used at Contractor's option (except for ground cable) subject to the following requirements:
 - 1. Increased size for same current capacity (increased raceway size may be necessary).
 - 2. No aluminum conductors smaller than No. 2 AWG.
 - 3. Insulation requirements same as for copper wire and cable.
 - 4. Where aluminum conductors are used, compact stranded. Aluminum Association 8000-Series alloy conductor material. Alcan Cable, Stabilyo, or Southwire Triple E. No substitutions.

2.02 REMOTE CONTROL AND SIGNAL CIRCUITS

- A. Class 1:
 - 1. UL 83.
 - 2. Stranded copper conductor.
 - 3. Insulation type THHN, or THWN, 600 Volt for circuits from 115 to 600 Volts.
- B. Class 2 and 3:
 - 1. Copper conductor, 300 Volt insulation, rated 75° C in dry locations and 60° C in wet locations. Individual conductors twisted together and covered with non-metallic jacket unless otherwise noted on the Contract Drawings.
 - 2. UL listed for use in air handling ducts and hollow spaces used as ducts and plenums.

2.03 PLASTIC CABLE TIES

- A. Teflon or nylon, locking type.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 WIRING AND CABLE INSTALLATION, GENERAL

- A. Install electric conductors and cables as indicated on the Contract Drawings, in compliance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standards of Installation," and in accordance with recognized industry practices.
- B. Coordinate installation work with electrical raceway and equipment installation work for proper interface.
- C. Pull cables by direct attachment to conductors or by use of basket weave pulling grip applied over cables. Attachment to pulling device made through approved swivel connection. Non-metallic jacketed cables of small size may be pulled directly by conductors by forming them into a loop to which pull wire can be attached. Remove insulation from conductors before forming loop. Larger sizes of cable may be pulled by using basket weave pulling grip, if pulling force does not exceed limits recommended by manufacturer. If pulling more than one cable, bind them together with friction tape before applying grip. For long pulls requiring heavy pulling force, use pulling eyes attached to conductors.
- D. Do not exceed manufacturer's recommendations for maximum allowable pulling tension, side wall pressure, and minimum allowable bending radius. In all cases, pulling tension applied to conductors limited to 0.008 lbs. per circular mil of conductor cross-section area.
- E. Pull in cable from end having the sharpest bend (bend closest to reel). Keep pulling tension to minimum by liberal use of lubricant, turning of reel, and slack feeding of cable into duct entrance. Employ not less than one man at reel and one in maintenance hole or vault during this operation.
- F. For training of cables, minimum bend radius to inner surface of cable shall be 12 times cable diameter.
- G. Where cable is pulled under tension over sheaves, conduit bends, or other curved surfaces, make minimum bend radius 50 percent greater than specified above for training.
- H. Apply wire and cable pulling compound recommended by specific cable manufacturer.
- I. Seal cable ends unless splicing is done immediately.
- J. Support cables in maintenance hole or vault, concrete trenches, and similar locations by cable racks. Secure to rack insulators with nylon cord or self-locking nylon cable ties. Place each cable on separate insulator.
- K. Follow manufacturer's instructions for splicing and cable terminations.
- L. Provide separate neutral conductor for each circuit serving single phase loads, unless indicated otherwise on the Contract Drawings.
- M. Branch circuit wiring shall be grouped in separate raceways as indicated on the Contract Drawings. Where branch circuit raceways are not indicated on Contract Drawings, a maximum of three circuits may be installed in the same raceway if each circuit originates from the same panelboard.

3.05 WIRING METHODS, GENERAL

- A. Install wiring in raceways unless shown on the Contract Drawings or authorized by the A/E.
- B. Install Wire After:
 - 1. Interior of building is protected from weather.
 - 2. Mechanical work likely to injure conductors is completed.
 - 3. Conduits have been cleaned and moisture removed.
- C. Neatly train and lace wiring inside boxes, equipment, and panel boards.
- D. Clean raceway system before installing conductors.
- E. Use half-lapped synthetic tape if taping is utilized for insulation purposes.
- F. Provide conductor support devices as required by NEC in vertical conduit runs.
- G. Torque conductor connections and terminations to manufacturer's recommended values.
- H. Maintain minimum 12-inch clearance between open cabling and heat sources such as flues, steam pipes, and heating appliances.

3.06 MINIMUM SIZES

- A. Minimum No. 12 AWG for power and lighting circuits.

- B. Minimum No. 14 AWG for control wiring.

3.07 CABLE INSTALLATION

- A. Support cable with bridle rings, drive rings, or Teflon cable ties. Support from conduit not acceptable.
- B. Protect exposed cables where subject to damage.
- C. Support cables above accessible ceilings. Do not rest on ceiling tiles.
- D. Use suitable cable fitting and connectors.

3.08 WIRING SPLICES AND TERMINATIONS

- A. Splice only in accessible junction boxes.
- B. Use compression-set pressure connectors with insulating covers or screw-on pressure (wire nuts) for wire splices and taps sizes No. 10 AWG and smaller.
- C. Use compression-set pressure connectors with insulating covers for wire splices and taps sizes No. 8 AWG and larger. Split bolt splices and connectors not acceptable.
- D. Except where equipment is furnished with bolted or screw type lug, use compression set pressure connectors with insulating covers for wire terminations.
- E. Terminations: Eye-type compression lug when termination is to a bolt or screw terminal.
 - 1. 250 kcmil and larger, two-hole long barrel compression lugs.
 - 2. Smaller than 250 kcmil: Single-hole compression lug.
- F. Tape un-insulated portions of conductor and connectors with electrical tape to 150 percent of conductor insulation value.
- G. Clean wires before installing lugs and connectors.
- H. Make splices, taps, and terminations to carry full capacity of conductors without perceptible temperature rise.
- I. Leave minimum 8 inches of pigtail at outlet boxes for connection to fixtures and devices. Where wiring is continued to other outlets, splice connection wire in a tap. In no case will continuity through double terminal of device be allowed for either hot or neutral leg of circuit.
- J. Insulate ends of spare conductors with electrical tape or wire nut.
- K. Terminate control circuit conductors at terminal blocks only.
- L. Utilize eye or forked tongue type compression set terminator for conductors No. 12 AWG and smaller when termination is to a bolted or screw set type terminal block or terminal cabinet.
- M. Make below grade splices in manholes watertight with epoxy resin type splicing kits similar to Scotchcast.

3.09 ALUMINUM CONDUCTORS

- A. Aluminum Conductors: Terminate or splice using compressing type oxide inhibiting compound filled aluminum lugs only. Terminate or splice with bolted pressure fittings not acceptable. Where device is available with bolted lugs only, special type compression set aluminum lug with aluminum or copper "Finger" manufactured for this purpose may be used.
- B. Compression Fittings: Sized for conductor used and set with tool which ensures preset deformation before release.
- C. Plated Aluminum Lugs: Install where in contact with copper studs, bolts, or bus.
- D. Bolted Aluminum Lugs: Install with Belleville washer under nuts unless permitted otherwise by the A/E.

3.10 FIELD QUALITY CONTROL

- A. Test for Cables 600 Volts and Less:
 - 1. After installation and prior to energization, test cable and wire for continuity of circuitry and for short circuits. Megger circuits of 100 Amp and greater rating. Correct malfunctions.
 - 2. Subsequent to wire and cable connections, energize circuitry and demonstrate functioning in accordance with requirements of the Contract Documents.

3. Inspect wire and cable for physical damage and proper connection.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes grounding requirements for underground metal water piping, gas piping, grounding electrodes, rods, and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
 - 2. Shop Drawings:
 - a. Drawing shall provide layout of ground ring, location of system grounding electrode connections, and routing of grounding electrode conductor.
- E. Test Report Submittal:
 - 1. Field test reports.
 - 2. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.
- F. Record Drawing Submittal:
 - 1. Record drawings set shall indicate where material, equipment, and system component are installed differently than indicated on the Contract Drawings, clearly and neatly using red ink or indelible red pencil during construction.
 - 2. Prepare electronic set of Record Drawings, incorporating changes during construction.
 - 3. Submit Record Drawings to the Owner's Representative for review and acceptance.
- G. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect or Engineer under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test documentation, material transmittals, Record Drawings, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. IEEE C2, National Electrical Safety Code (NESC).
 - 2. IEEE 81, Guide for Measuring Earth Resistivity, Ground Impedance and Earth Surface Potentials of a Ground System Part 2: Normal Measurements.
 - 3. NFPA 70, National Electrical Code (NEC).
 - 4. NFPA 780, Standard for the Installation of Lightning Protection Systems

5. UL 467, Standard for Grounding and Bonding Equipment.
 6. UL486A-486B, Wire Connectors
 7. ANSI C119.4, Electric connectors - connectors to use between Aluminum-to-aluminum or aluminum-to-copper conductors.
- C. Comply with NEC and IEEE requirements as applicable to electrical grounding and ground fault protection systems.
- D. Products shall be Underwriters Laboratories, Inc., listed and labeled.
- E. Products shall be new unless indicated otherwise in the Contract Documents.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Ground Rods: Sectional copper clad steel, conical points, threaded joints or couplings, 3/4-inch diameter by 10 foot long sections. Ground rods minimum 20 feet long (2 sections) at each location. Copper-Weld or approved.
- B. Ground Conductors: Soft drawn bare copper.
- C. Ground Conductor in Non-Metallic Conduits: Bare, stranded, annealed, copper.
- D. Ground Connections:
1. Conductor to Conductors, Conductor to Steel, and Conductor to Ground Rod: Exothermic-welded type connectors. Cadweld, Thermoweld, or approved.
 2. Conductor to Water Service, Conductor to Bars, and Conductor to Grounding Lugs of Electrical Equipment: UL listed grounding terminal compression set on grounding conductor.
 3. When making bolted connection to aluminum and galvanized structures, apply corrosion-inhibitor to contact surfaces between cable, connector, and surface of structure. Penetrox A or approved.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

- A. Field Measurements: Field verify locations of new and existing work prior to commencing work of this section.
- B. Protection: Protect surrounding areas and surfaces to preclude damage from work of this section.
- C. Preparation of Surfaces: Clean contacting surfaces of ground connections to bright metal before connecting.

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 GROUNDING INSTALLATION

- A. Ground each separately derived system neutral to nearest building steel.
- B. Bond together system neutrals, service equipment enclosures, exposed noncurrent carrying metal parts of electrical equipment, metal raceway systems, grounding conductor in raceways and cables, receptacle ground connectors, underground metal water piping systems, and gas piping systems.
- C. Install separate, insulated equipment grounding conductor in all feeders and branch circuits. Terminate each end on grounding lug, bus, and bushing and to intermediate metallic enclosures.
- D. Connect grounding conductors to motors in accordance with NEC. Remove paint, dirt, and other surface coverings at grounding conductor connection points so that good metal-to-metal contact is made.

- E. Ground shields of shielded power and control cable at each splice and termination as recommended by manufacturer.
 - F. Ground metal sheathing and exposed vertical metal structural elements of building. Ground metal fences enclosing electrical equipment. Bond metal equipment platforms which support electrical equipment to equipment ground. Provide electrical contact between metal frames and railings supporting pushbutton stations, receptacles, instrument cabinets, raceways, and similar items carrying circuits to these devices.
 - G. Grounding Connections:
 - 1. Provide full weld between coupling and ground rod at joint.
 - 2. Connect grounding conductors to ground rods at upper end of rod with end of rod and connection point below finished grade.
 - 3. When making Thermite welds, wire brush or file point of contact to bare metal surface. Use Thermite welding cartridges and molds in accordance with manufacturer's recommendations. After welds have been made and cooled, brush slag from the weld area and clean joint. Use connectors of specified size for conductors and ground rods. Notify A/E before backfilling ground connections.
 - 4. Where conditions are not suitable for exothermic welding, provide permanent, non-reversing mechanical connections.
 - H. System ground not to exceed maximum 5 ohms meggered resistance.
 - I. Size main grounding system per NEC. Provide conduit to protect ground wire from damage to an area 6 feet above floor.
 - J. Install ground conductor in all non-metallic conduits.
- 3.05 FIELD QUALITY CONTROL
- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Sections 260500 apply to Work in this section.
- B. Related Sections:
 - 1. 260500 – General Electrical Provisions

1.02 SUMMARY

- A. Work includes conduit and equipment supports, fastening hardware, and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
- E. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test documentation, material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Products shall be new unless indicated otherwise in the Contract Documents.

PART 2 - PRODUCTS

2.01 MATERIAL

- A. General: Built-up framing for electrical raceway and equipment supporting systems, including but not limited to channel, rod, clamps, and hardware.
- B. Hardware, including Nuts (Locking Type), Bolts, and Set Screws: Corrosion resistant, designed for intended use.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

- A. Field Measurements: Field verify locations of new and existing work prior to commencing work of this section.

- B. Protection: Protect surrounding areas and surfaces to preclude damage from work of this section.

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 SUPPORTING DEVICES INSTALLATION

- A. Install diagonal bracing for trapeze support systems at 2 right angle planes to brace against:
 - 1. Horizontal and torsional movement lateral seismic forces.
 - 2. Vertical (uplift) movement caused by vertical seismic forces.
 - 3. Horizontal distortions in conduit system caused by wire pulling.
- B. Fasten hanger rods, conduit clamps, and outlet and junction boxes to building structure using expansion anchors or beam clamps. Spring steel clips and clamps not acceptable.
- C. Install toggle bolts or hollow wall fasteners in hollow masonry, plaster, and gypsum board partitions and walls. Install expansion anchors or preset inserts in solid masonry walls, self-drilling anchors, and expansion anchors on concrete surfaces.
- D. Do not fasten supports to piping, ductwork, mechanical equipment, and conduit.
- E. Powder actuated fasteners not acceptable.
- F. Drilling and welding to structural steel members not acceptable except as indicated on the Contract Drawings.
- G. Fabricate supports from structural steel or steel channel, rigidly welded, or bolted to present a neat appearance. Use hexagon head bolts with spring lock washers under nuts.
- H. Free Standing Electrical Equipment: Bolt to concrete base with leveling channels. Comply with requirements in Section 260500 for concrete.
- I. Bridge studs top and bottom with channels to support flush-mounted cabinets and panelboards in stud walls.
- J. Conduit:
 - 1. Perforated pipe straps, ceiling support wires, fixture support wire, and wires installed primarily to support single runs of conduit not acceptable.
 - 2. Install trapeze support systems for 2 or more parallel runs of conduit with 25 percent space (6 inches minimum) for future conduit runs.
 - 3. Welding conduit and conduit fittings to structure not acceptable.
 - 4. Space conduit so that conduit fittings are accessible to accommodate pulling or splicing.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes outlet, junction, and pull boxes and associated appurtenances required to enclose devices, permit pulling conductors, and for wire splices and branches.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-Construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
- E. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to: test documentation, material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. NEMA 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
 - 2. NFPA 70, National Electrical Code (NEC).
 - 3. UL 514A, Metallic Outlet Boxes.
- C. Products shall be new unless indicated otherwise in the Contract Documents.

PART 2 - PRODUCTS

2.01 OUTLET BOXES FOR INTERIOR WIRING

- A. General: Outlet and pull boxes pressed steel, zinc coated with plaster ring where applicable, minimum 4-inch size.
- B. Surface Metal Raceway: Boxes of same manufacturer and to match raceway. Boxes shall accommodate standard devices and device plates.
- C. Concrete and Masonry: Boxes for casting in concrete and mounting in masonry walls of type specifically designed for that purpose.
- D. Ceiling Outlet Boxes: Galvanized octagonal 4 inch, 1-1/2 inches deep (without fixture stud) and 2-1/8 inch deep (with fixture stud).
- E. Sheet Metal Boxes Larger than 12 Inches in any Dimension: Include hinged enclosure.

2.02 OUTLET BOXES FOR EXTERIOR WIRING

- A. General: Weather resistant and rain tight, with appropriate covers, gaskets, and screws.
- B. Above Grade: Outlet and junction boxes cast or malleable iron or cast of corrosion resistant alloy compatible with raceway to which they are connected. Pull boxes fabricated of hot dipped galvanized heavy gage steel. Boxes with gasketed covers.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 COORDINATION OF OUTLET BOX LOCATIONS

- A. Locate as shown on the Contract Drawings and as required to facilitate pulling. Limit number of bends per NEC.
- B. Electrical box locations shown on the Contract Drawings are approximate unless dimensioned. Verify location of floor boxes and outlets before roughing in.
- C. Locate outlet boxes to allow access. If inaccessible, furnish, arrange, and pay for installation of access doors.
- D. Coordinate Work of this section with the Work of other sections and trades to avoid conflicts. Check and verify door swings and locations of built-in cabinets, plumbing, heating, and ventilating equipment.
- E. Install outlet boxes of sizes and at locations necessary to serve equipment furnished under this or other divisions of the specifications. Make final connections thereto. Outlet boxes required if equipment is furnished with pigtail for external connection, does not have space to accommodate branch circuit wiring, or requires wire with insulation rating different from branch circuit wiring. Review equipment Shop Drawings for required outlet locations.
- F. Where more than one outlet box is shown on the Contract Drawings and indicated to be at same elevation or one above the other, align them exactly on center lines horizontally or vertically. Relocate outlet boxes which are not so installed (including lighting, receptacle, power, signal, and temperature control outlets) at no additional cost to the Owner.
- G. Centered on Built-In Work: In the case of doors, cabinets, recessed or similar features, or where outlet boxes are centered between such features, such as between door jamb and cabinet, make these outlet box locations exact. Relocate outlet boxes which are not centered.
- H. Flush mount boxes with front edge of box or plaster ring even with finished surface of wall and ceiling, except those mounted above accessible ceilings and where surface mounting is permitted.
- I. Locate to maintain headroom and to present a neat appearance.
- J. Route conduit from switch and receptacle boxes in walls vertically to space above ceiling. Install junction box before horizontal run.
- K. Offset outlet boxes minimum of one stud horizontal separation between flush boxes mounted on opposite sides of acoustic rated common wall.
- L. Install outlet boxes with minimum 6-inch horizontal separation between closest edges of flush boxes mounted on opposite sides of common wall.

- M. Ceiling Locations: Locate outlet either at corner joint or in center of a panel, whichever is closer to normal spacing. Locate outlet boxes in same room in same panel locations.
- N. Conceal outlet boxes for electric water coolers behind cooler unit housing.

3.05 OUTLET BOX INSTALLATION

- A. Anchor boxes so they will not shift or rock when devices are operated (including insertion and removal of cord caps).
- B. Firmly anchor flush outlet boxes directly or with concealed bracing to studs and joists.
- C. Close unused openings.
- D. Support boxes independently of conduit except for cast outlet boxes that are connected to 2 rigid metal conduits, both supported within 12 inches of outlet box.
- E. Use multiple-gang outlet boxes where 2 or more devices are mounted together. Do not use sectional boxes.
- F. Install blank covers or plates over outlet boxes that do not contain devices.
- G. In inaccessible ceiling areas, install outlet and junction boxes within 6 inches of recessed luminaire to be accessible through luminaire ceiling openings.
- H. Install recessed outlet boxes in finished areas. Secure outlet boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness. Use stamped steel stud bridges for flush outlets in hollow stud wall and adjustable steel channel fasteners for flush ceiling outlet boxes.
- I. Install outlet boxes in walls without damaging wall insulation.
- J. Seal conduit boxes, telephone boxes, and similar items air-tight with acoustical caulk where located in acoustical rated walls that are not fire rated.
- K. Install outlet boxes in masonry walls to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat openings for outlet boxes. Use outlet boxes with sufficient depth to permit conduit hubs to be located in masonry void space.
- L. Install pull boxes to be accessible after completion of building construction.

3.06 ELECTRICAL WORK IN COUNTERBACKS, MILLWORK, AND CASEWORK

- A. Install as shown on the Contract Drawings. Furnish templates to other trades for drilling and cutting to ensure accurate location of electrical fixtures (outlets and devices) as verified with the A/E. Install wiring, devices, plates, and connections required by said fixtures.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes conduit, electrical metallic tubing, wireway, surface metal raceway, and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
- E. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to: test documentation, material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. UL 1, Standard for Flexible Metal Conduit.
 - 2. UL 5, Standard for Surface Metal Raceways and Fittings.
 - 3. UL 6, Standard for Rigid Metal Conduit.
 - 4. UL 360, Standard for Liquid-Tight Flexible Steel Conduit.
 - 5. UL 514B, Standard for Conduit, Tubing, and Cable Fittings.
 - 6. UL 651, Standard for Schedule 40 and 80 Rigid PVC Conduit.
 - 7. UL 651A, Standard for Type EB and A Rigid PVC Conduit and HDPE Conduit.
 - 8. UL 797, Standard for Metallic Tubing – Steel.
 - 9. UL 870, Standard for Wireways, Auxiliary Gutters, and Associated Fittings.
 - 10. UL 1242, Standard for Intermediate Metal Conduit – Steel.
 - 11. UL 2420, Standard for RTRC Conduit and Fittings for underground – Fiberglass
 - 12. UL 2515, Standard for RTRC Conduit and Fittings for above ground - Fiberglass
 - 13. NFPA 70, National Electrical Code (NEC).
- C. Comply with applicable portions of NEC as to type of products used and installation of electrical power connections.
- D. Comply with applicable NEMA standards and refer to NEMA standards for definitions of terminology herein. Comply with NEC for workmanship and installation requirements of raceway systems.

- E. Products shall be new unless indicated otherwise in the Contract Documents.
- F. Manufacturers:
 - 1. Companies regularly engaged in the manufacture of raceway systems of types and sizes specified and whose products have been in satisfactory use in similar service for not less than 3 years.

1.05 WARRANTY AND SERVICE

- A. Contractor shall provide a parts and labor guarantee on all Work. Contractor's guarantee shall be for a period of one (1) year from Date of Acceptance, except where warranty coverage from a supplier or equipment manufacturer extends for a longer period of time.
- B. Contractor's guarantee shall cover all costs associated with troubleshooting, repair, and replacement of defective Work, including but not limited to costs for labor, transportation, lodging, materials, and equipment.

PART 2 - PRODUCTS

2.01 RIGID METAL CONDUIT (RMC) AND FITTINGS

- A. Ferrous Metal Conduit: Steel, UL 6, hot dip galvanized.
- B. Fittings and Conduit Bodies: UL 514B, threaded galvanized.

2.02 INTERMEDIATE METAL CONDUIT (IMC) AND FITTINGS

- A. Ferrous Metal Conduit: Steel, UL 1242, hot dip galvanized.
- B. Fittings and Conduit Bodies: UL 514B, threaded galvanized.

2.03 ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS

- A. Ferrous Metal Conduit: Steel, UL 797, hot dip galvanized.
- B. Fittings: UL 514B, galvanized steel, insulated throat, rain tight compression ring type through 1-1/4 inch, set screw type for 1-1/2 inch and larger. Drive-on type and cast fittings not acceptable.
- C. Use of aluminum EMT not permitted.

2.04 FLEXIBLE METAL CONDUIT AND FITTINGS

- A. Ferrous Metal Conduit: Steel, UL 1, galvanized. UL listed for grounding as available. Aluminum and flexible metallic tubing not acceptable.
- B. Fittings: Insulated throat, UL 514B, galvanized steel, UL listed for grounding as available.
- C. Use of aluminum Flexible Metal Conduit not permitted.

2.05 LIQUID-TIGHT FLEXIBLE METAL CONDUIT AND FITTINGS

- A. Ferrous Metal Conduit: Galvanized with PVC weatherproof cover, UL 360 listed for grounding as available.
- B. Fittings: Insulated throat, UL 514B, galvanized steel, UL listed for grounding as available.

2.06 RIGID NON-METALLIC CONDUIT

- A. PVC Conduit: Schedule 40, UL 651, rigid type unless noted otherwise. UL 651A Type A permitted for underground concrete duct banks.
- B. Fittings: UL 651 and UL 651A.
 - 1. For electric (power) duct, 90-degree elbows factory manufactured PVC coated rigid steel with minimum 48-inch radius or Fiberglass (RTRC) with min. 60-inch radius.
 - 2. For telephone and cable television duct, 90-degree elbows factory manufactured PVC coated rigid steel with minimum 60-inch radius or Fiberglass (RTRC) with min 60-inch radius.
- C. Conduit bodies cast malleable iron, zinc or cadmium plated with threaded connections. Covers gasketed, blank steel, or cast malleable iron, zinc or cadmium plated, and of same manufacturer as conduit body. Where conduit bodies are used as junction or splice boxes, comply with NEC.

2.07 EXPANSION FITTINGS

- A. Malleable iron, hot dip galvanized allowing 4 inches (plus or minus 2 inches) conduit movement. OZ/Gedney Type AX Series, Thomas and Betts Type EJK series or approved.

2.08 SEALING FITTINGS

- A. Wall Sealing Fittings: At each wall sealing fitting, include conduit seal fitting, OZ/Gedney FSK Series, Crouse Hinds EYS Series, or approved.
- B. Raceway Stub-ups and Stub-outs: Conduit seals together with wall sealing fittings. OZ/Gedney CSB Series or approved.
- C. For Exterior Wall Penetrations below Grade: Include sealing bushing at interior end of penetrating raceway. Only threaded fittings are permitted in entering raceways ahead of sealing bushing. OZ/Gedney Type CSB or approved.

2.09 CONDUIT SUPPORTS

- A. Conduit Clamps, Straps, and Supports: Steel or malleable iron. Comply with requirements in Section 260529.

2.10 FIRE RATED SEALING COMPOUND

- A. Dow Corning 3-6548 Silicone RTV Foam or approved.
- B. 3M Fire Barrier Moldable Putty Stix MP+ or approved.
- C. 3M Fire Barrier Moldable Putty Pads MPP+ or approved.
- D. 3M Fire Barrier Pillows and Self-Locking Pillows or approved.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 RACEWAY SIZING, ARRANGEMENT, AND SUPPORT

- A. Unless otherwise shown on the Contract Drawings, size conduit for conductor type installed. Minimum size 3/4 inch.
- B. Install conduit to maintain headroom and present neat appearance in unfinished spaces. Install a minimum of 9'-6" above finished floor in spaces unless otherwise indicated on the Contract Drawings.
- C. Install conduit concealed in walls, below floors, and above ceiling in spaces, except conduit may be exposed in mechanical rooms, electrical rooms, and similar unfinished spaces.
- D. Horizontal conduit installation is not allowed in floor slab unless specifically noted on electrical and structural Contract Drawings.
- E. Route conduit parallel and perpendicular to building planes.
- F. Maintain minimum 6-inch clearance between conduit and piping. Maintain 12-inch clearance between conduit and heat sources such as flues, steam pipes, heating and hot water pipes, and heating appliances.
- G. Brace conduit or conduit supports to prevent distortion of alignment by wire-pulling operations.

- H. Where conduit is run in parallel, group on formed channel supports. Comply with requirements in Section 260529.
- I. Do not fasten or support with wire or perforated pipe straps. Remove temporary conduit supports used during construction before conductors are pulled.
- J. Raceway to be routed around structural members. Do not cut structural members for passage of raceway. Structural Engineer to approve proposed modifications of structural elements prior to commencement of work.

3.05 RACEWAY INSTALLATION

- A. Cut conduit square using a saw or pipe cutter. Deburr cut ends.
- B. Bring conduit to shoulder of fittings and couplings and tighten securely.
- C. Use conduit hubs for fastening conduit to cast boxes and for fastening conduit to sheet metal boxes in damp or wet locations.
- D. Do not use conduit bodies to make sharp changes in direction unless shown on the Contract Drawings.
- E. Use hydraulic one-shot conduit bender or factory elbows for bends in 2-inch conduit and larger.
- F. Provide plastic bushings on conduit stubs used for transition from conduit to open cable runs.
- G. During construction, use suitable conduit caps to protect installed conduit against entrance of dirt and moisture.
- H. Distance Between Supports:
 - 1. Threaded Rigid Metal Raceways: Maximum 8-foot centers and within 18 inches of each outlet, junction box, and bend.
 - 2. Electrical Metallic Tubing: Maximum 8-foot centers at each bend and within 12 inches of each outlet, junction box, and coupling.
 - 3. Surface Metal Raceway, Auxiliary Gutter, and Wireway: Maximum 5-foot centers or in accordance with manufacturer's instruction, whichever is less, unless otherwise shown on the Contract Drawings.
- I. Install nylon pull string with printed footage indicators secured at each end of each empty conduit, except sleeves and nipples. Identify with tags at each end origin and destination of each empty conduit.
- J. Route conduit through roof inside openings for ductwork where possible. Otherwise, install through roof jack and seal weather tight.
- K. Install no more than equivalent or four 90-degree bends between boxes.
- L. Avoid moisture traps where possible. Where unavoidable, install junction box with drain fitting at conduit low point.
- M. Sealing of Conduit Penetrations:
 - 1. Exterior Wall Surfaces above Grade: Seal around penetrations with caulking approved by the A/E. For concrete construction above ground level, cast conduit in wall or core drill wall and hard pack with mixture of equal parts of sand and cement.
 - 2. Exterior Wall Surfaces below Grade: Cast conduit into wall (and floor) or use manufactured seal assembly cast in place.
 - 3. Roofs: Install mopped and flashing roof jack and where conduit penetrates roof membrane.
 - 4. Fire Rated Construction: Seal penetrations with fire rated sealing compound to maintain fire rating of construction penetrated.
- N. Sealing of Raceways: Seal interior of raceways that pass-through building roof and through outside walls of building, above or below grade. Seal on end inside building. Use raceway sealing fittings manufactured for purpose sealed with non-hardening, compound-type mastic, specially designed for such service. Pack around wires in raceways.
- O. Do not install conduit on exterior surface of building, except as shown on the Contract Drawings and as approved by the A/E.
- P. Where flexible metal or liquid tight flexible metal conduit is installed, install bonding conductor to ensure electrical continuity of raceway. Route bonding jumper inside conduit and terminate at grounding

bushing or grounding locknut installed on inside of junction boxes at each side of flexible section. In instances where this method is not feasible (such as when cast boxes with hubs are used or where required by the NEC, route bonding jumper on outside of flexible conduit and terminate in accordance with methods acceptable to the AHJ.

- Q. Raceway shall not penetrate sheet metal ducts.
- R. Branch circuits shall be installed overhead, except circuits serving floor boxes, outdoor circuits or unless indicated otherwise on the Contract Documents.
- S. Support raceways below roof decking to provide minimum 1-1/2" separation from raceway surface to nearest surface of metal roof decking.
- T. Install 6 spare 3/4-inch conduits (capped) from each recessed/flush mounted branch panelboard into ceiling space or mechanical platform if one exists. Extend conduits required distance necessary to reach accessible ceiling space.
- U. In finished areas with exposed structure, subject to the approval of the A/E, raceways may be installed exposed. Install raceways as high as possible, tight to the ceiling deck, and neatly arranged. Submit shop drawing indicating routing of proposed surface raceways and boxes in finished areas.

3.06 SURFACE METAL RACEWAY INSTALLATION

- A. Use flat-head screws to fasten channel to surfaces. Mount plumb and level.
- B. Install insulating bushings and inserts at connections to outlets and corner fittings.
- C. Maintain grounding continuity between raceway components for continuous grounding path.
- D. Fastener Option: Use manufacturer's standard clips and straps for installed purpose.

3.07 AUXILIARY GUTTER INSTALLATION

- A. Bolt auxiliary gutter to steel channels fastened to wall or in self-supporting structure. Install level.
- B. Gasket each joint in oil-tight gutter.
- C. Mount raintight gutter in horizontal position only.

3.08 RACEWAY SCHEDULE

- A. Rigid Metal Conduit:
 - 1. Acceptable in all locations except as modified in this section.
 - 2. Where in contact with earth or concrete, install protective coating consisting of spirally wrapped 20 mil PVC tape with 1/2-inch minimum overlap of 3M Scotchrap Tape 51 or approved equal; or utilize PVC Coated Rigid Metal Conduit.
 - 3. Completely wrap and tape field joints.
 - 4. Required for exposed raceways in areas subject to physical damage.
- B. PVC Coated Rigid Metal Conduit:
 - 1. Required in corrosive environments or where indicated on the Contract Drawings.
- C. Intermediate Metal Conduit:
 - 1. May be used in lieu of rigid metal conduit unless otherwise prohibited by code or indicated on the Contract Drawings.
 - 2. Not acceptable for circuits over 600 Volts.
- D. Electrical Metallic Tubing:
 - 1. Acceptable for dry interior locations where not exposed to moisture or physical damage.
 - 2. Not acceptable for circuits over 600 Volts.
- E. Rigid Non-Metallic Conduit:
 - 1. Acceptable underground with minimum 24 inches of cover.
 - 2. Acceptable below concrete slab on grade installed a minimum of 2 inches below bottom of slab.
 - 3. Acceptable within masonry walls subject to approval by structural engineer.
 - 4. Not acceptable for raceways extending through concrete; utilize Rigid Metal Conduit.

5. Not acceptable for bends 45 degrees and greater unless concrete encased; utilize Rigid Metal Conduit as specified herein or PVC Coated Rigid Metal Conduit or Fiberglass (RTRC). Field bends not acceptable.
- F. Flexible Steel Conduit:
1. For connections to recessed light fixtures and devices installed in suspended ceilings, maximum six-foot length.
 2. For connections to motors, transformers, and other equipment subject to vibration. Minimum of three foot and maximum of six-foot length with 90-degree loop.
- G. Liquid-Tight Flexible Metal Conduit.
1. For pump motors and equipment subject to vibration in damp and wet locations, in areas subject to being washed down, and for machinery where cutting oil is used. Minimum of three foot and maximum of six-foot length with 90-degree loop.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes nameplates, wire and cable markers, conduit color coding, buried duct marking tape, and associated appurtenances.

1.03 SUBMITTALS

- A. Comply with requirements in Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
 - d. Nameplate schedule.
- E. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. NFPA 70, National Electrical Code (NEC).
- C. Products shall be new unless indicated otherwise in the Contract Documents.

PART 2 - PRODUCTS

2.01 IDENTIFICATION MATERIAL

- A. Nameplates:
 - 1. Engraved three-layer laminated plastic.
 - a. Normal Power: White letters on black background.
 - 2. Panelboards and Switchboards:
 - a. 1/2-inch-high letters to identify equipment designation. 1/4-inch-high letters to identify voltage rating and source.
 - 3. Enclosed Circuit Breakers, Disconnect Switches, Motor Starters:
 - a. 1/4-inch-high letters to identify load served and source.
 - 4. Transformers:
 - a. 1/2-inch-high letters to identify equipment designation. 1/4-inch-high letters to identify primary and secondary voltages, primary source, and secondary load and location.
 - 5. Power Monitoring:

- a. 1/2-inch-high letters to identify meter designation. 1/4-inch-high letters to identify metering category.
6. Control Panels and Equipment (Lighting and Receptacle Control):
 - a. 1/2-inch-high letters to identify equipment designation. 1/4-inch-high letters to identify source.
- B. Adhesive Printed Labels:
 1. Laminated tape – Brother TZe Series 12mm width tape or equivalent.
 - a. Normal Power: Black letters on clear background.
 2. Switches:
 - a. 1/4-inch letters to identify load controlled.
 3. Receptacles:
 - a. 1/4-inch letters to identify panelboard and circuit number.
- C. All outlet boxes, junction boxes and pull boxes for fire alarm system devices and conductors shall be red in color, both inside and outside.
- D. Permanent felt marker for junction and pull box circuit notation.
 1. Normal Power: Black letters.
- E. Wire and Cable Markers:
 1. Split sleeve or tubing type. Vinyl impregnated cloth, vinyl, and Mylar self-adhesive types not acceptable.
- F. Phase Identification:
 1. Vinyl colored electrical tape.
- G. Electrical Hazard Marking Tape:
 1. Black and yellow striped vinyl 2” wide hazard tape, Identi-Tape #VH2BKY or equal.
- H. Printed Labels:
 1. Printed labels shall be clear polypropylene with adhesive back designed for exterior applications. Label text shall be 4.8 mm (3/16”) high, black and shall be applied to the label by a thermal transfer printer.
- I. Directory Cards:
 1. Directory cards shall consist of heavy cardstock, metallic mounting frames and plastic covers. Mounting frames shall be attached to the back side of panelboard doors. Directories shall contain typewritten text indicating the circuit breaker number, type of load served and room number in which each load is located. Unused circuit breakers shall be designated with “SPARE” written in pencil. Spaces for future circuit breakers shall be left blank. Circuit designations on directory cards shall match the installed conditions with respect to loads and physical arrangement within panelboards.
- J. Wiring Color Code Schedules:
 1. Color code schedules shall be prepared using a color printer and shall be laminated between two layers of clear plastic. Schedules shall show color designation for each phase, neutral and ground of each system voltage. Schedules shall be 130 mm by 180 mm (5 inch by 7 inch).

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

- A. Field Measurements: Field verify locations of new and existing work prior to commencing work of this section.

- B. Protection: Protect surrounding areas and surfaces to preclude damage from work of this section.

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

- A. Description: Install, apply, erect, and perform work in accordance with Article "Quality Assurance" provisions, specifications, and manufacturer's installation instructions and directions. Where these may be in conflict, more stringent requirements govern.
- B. Nameplates:
 - 1. Degrease and clean surfaces to receive nameplates.
 - 2. Install nameplates parallel to equipment lines.
 - 3. Secure nameplates to equipment fronts using screws or rivets. Adhesives are not acceptable.
- C. Wire Identification:
 - 1. Install wire markers on conductors in panelboard gutters, pull boxes, outlet and junction boxes, and at load connection. Identify with branch circuit or feeder number for power and lighting circuits and with control wire number as indicated on schematic and interconnection diagrams or equipment manufacturer's shop drawings for control wiring.
 - 2. Install solid-colored jackets for wire sizes smaller than number 8 AWG. Wire sizes larger than number 10 AWG may be taped at both ends and at pull and junction boxes with appropriate colored tape. Color coding tape to completely encircle conductor at least 3 inches wide.
- D. Decals: Install decal behind circuit breaker door where it can be easily seen when circuits are added.
- E. Felt Marker Identification: Apply on front of cover in non-finished areas, such as mechanical/electrical rooms, above ceilings, and similar locations, and on back of cover in finished areas.

3.04 INSTALLATION

- A. General:
 - 1. Provide identification for electrical equipment as specified herein.
 - 2. Attach identification in durable manner, suitable to each respective type of identification. Nameplates shall be securely fastened to equipment with two (2) rivets. Wiring color code schedules shall be fastened to equipment with permanent adhesive.
- B. Control Panels/Equipment:
 - 1. Provide a nameplate for each relay panel and/or control units. Nameplate text shall include the relay panel name or space and zone controlled as designated on the Contract Drawings.
- C. Disconnect Switches:
 - 1. Provide a nameplate on the outside front of each disconnect switch enclosure. Nameplate text shall include the name of the load controlled as designated on the Contract Drawings, and also the designation of the equipment that serves as the power source for the circuit that supplies the disconnect.
- D. Control Switches:
 - 1. Provide a nameplate for each equipment control switch with a device plate as specified in Section 262726. Nameplate text shall include the name of the load controlled as designated on the Contract Drawings.
 - 2. Provide a nameplate or printed label on each control switch that does not have a device plate as specified in Section 262726. Verify type with Architect's Consultant. Text shall include the name of the load controlled as designated on the Contract Drawings.
- E. Wiring Devices:
 - 1. Receptacle Labels: Indicate panelboard and circuit number.
 - 2. Provide an engraved printed label for each switch that controls luminaires not within sight of the switch or that controls receptacles. Engraved printed label text shall include the type and location of the load controlled.
- F. Junction Boxes and Pull Boxes:

1. Provide nameplates on the outside of the front cover of junction boxes and pull boxes in finished areas and of junction boxes and pull boxes that are larger than 150 mm by 150 mm (6 inch by 6 inch). Nameplate text shall designate the system for which wiring is to be enclosed in the box. In the case of power system junction boxes or pull boxes, the nameplate text shall also include the panelboard name and circuit number. Nameplates for emergency power junction boxes or pull boxes shall be orange in color.
2. Junction boxes and pull boxes 150 mm by 150 mm (6 inch by 6 inch) or smaller in unfinished areas and above accessible ceilings shall be color coded by spray painting the outside edges of the box and spray painting the cover with the following colors:

3.05 VAC Power: Unpainted

3.06 VAC Power: Tan
Fire Alarm & Detection: Red
Security and Video Surveillance: Light Blue
Telecommunications: White
Intercom/Paging & Clock: Green
Television: Black
Audio-video: Gold

1. After painting, mark the covers of power system junction boxes and pull boxes with the panelboard name and circuit numbers. Marking shall be done with a wide-tip, permanent-ink black marker.

B. Outlet Boxes:

1. Outlet boxes for fire alarm circuits shall be color coded by spray painting the box inside and outside with the following colors:
Fire Alarm & Detection: Red

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SECTION INCLUDES

- A. Work includes testing requirements for individual components, equipment, systems, and integration to ensure intended facility operation. Test equipment per manufacturer guidelines and industry standards. Test modes of operation and interlocks and alarm functions. This section presents a guideline of system testing. Provide complete, comprehensive testing in addition to minimum requirements specified in individual sections and in this section.
- B. Include comprehensive Owner operation and maintenance training of individual components, equipment, and systems. Training includes normal operation and alternate modes of operations.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as test reports, testing agency qualifications, certifications, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Qualifications:
 - a. Testing agency qualifications.
 - 2. Testing Plan and Schedule:
 - a. Detailed test plan and schedule of testing and training for acceptance by the Owner and the A/E prior to initiation of work.
 - 3. Test Procedures:
 - a. Test procedures and sample test forms.
- E. Test Report Submittal:
 - 1. Submit detailed report of testing functions with associated results. Include date of testing and corresponding line item for system tested and individual components. Include testing checklists for each system and device tested. Include for each line item corrective work taken and retest date and confirmation. Include copy of reports in the Operation and Maintenance Manual.
- F. Certification: Certification that tests have been completed.
- G. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test documentation, certification of completed tests and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. ANSI/NETA ATS 2009, Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems.
 - 2. ANSI/NETA MTS-2011, Standard for Maintenance Testing Specifications for Electrical Power Equipment and Systems.
 - 3. NFPA 70B, Recommended Practice for Electrical Equipment Maintenance.
 - 4. NFPA 70, National Electrical Code (NEC).

- C. Testing Agency:
 - 1. Testing shall be accomplished by an approved testing agency. Retain services of a NETA certified firm or approved.
 - 2. Testing agency shall not be associated with manufacturer of equipment or systems under test.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 GENERAL

- A. Perform acceptance tests in accordance with manufacturer's recommendations, NFPA 70 and ANSI/NETA ATS.
- B. Report any system, material, or workmanship which is found defective on basis of electrical inspections and tests to the A/E.
- C. If test reveals a fault or problem, repeat entire test until problem is corrected. Submit additional written test reports.
- D. Maintain written record of tests. Upon completion of project, assemble and certify final test report and include in the Operation and Maintenance Manual. Compile field test reports signed by individuals performing the tests.

3.05 GENERAL COMPONENT AND EQUIPMENT TESTING REQUIREMENTS

- A. Phase Relationship Tests: Check connections to existing and new equipment for proper phase relationship. During such check, disconnect devices which could be damaged by application of voltage or reversed phase rotation.
- B. Grounding:
 - 1. Test each ground electrode system. Comply with requirements in Sections 260526.
 - 2. Visual and Continuity Test: Perform for each of the following ground connections:
 - a. Equipment ground connections.
- C. Feeders:
 - 1. After installation and prior to energization, test cable and wire for continuity of circuitry and for short circuits, Megger circuits of 100 Amp and greater. Correct malfunctions. Submit record of megohmmeter readings to the A/E.
 - 2. Inspect wire and cable for physical damage and proper connection.

3. Inspect ground conductor's installation to ensure ground terminations, jumpers, and devices have solid, mechanical connection.
 4. For circuits above 80 Amps, perform torque test for each conductor termination. Torque connections per manufacturer's recommendations and tabulate results.
- D. Overcurrent Protective Device Calibration:
1. Perform necessary field settings and adjustments to conform to the coordination study specified in Section 260573.
- E. Receptacles:
1. Test for open ground, reversed polarity, open hot, open neutral, hot and ground reversed, and hot on neutral.

3.06 REPORTS

- A. Prepare test reports for each system, equipment and device tested. Include copy of each test report in the Operation and Maintenance Manual. Utilize test forms for systems and equipment tested. Use manufacturer's standard or other appropriate test forms commensurate with test performed. Test reports shall include the following.
1. Summary of project.
 2. Description of equipment tested.
 3. Description of test.
 4. Test results including retesting results.
 5. Test dates.
 6. Tester's name.
 7. Witnesses (when required).
 8. Corrective work.
 9. Acceptance criteria.
 10. Conclusions and recommendations.
 11. Appendix including appropriate test forms.

END OF SECTION 260810

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes wall switches, receptacles, device plates, box covers, and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
 - 2. Provide plate engraving schedule for device plates.
- E. Test Report Submittal:
 - 1. Field test reports.
 - 2. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.
- F. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test results, schedules, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. Federal Specification W-C-596, Electrical Power Connector, Plug, Receptacle, and Cable Outlet.
 - 2. Federal Specification W-S-896, Switch, Toggle.
 - 3. NEMA WD 1, General Color Requirements for Wiring Devices.
 - 4. NFPA 70, National Electrical Code (NEC).
 - 5. UL 498, Standard for Attachment Plugs and Receptacles.
- C. Products shall be new unless indicated otherwise in the Contract Documents.

1.05 WARRANTY AND SERVICE

- A. Contractor shall provide a parts and labor guarantee on all Work. Contractor's guarantee shall be for a period of one (1) year from Date of Acceptance, except where warranty coverage from a supplier or equipment manufacturer extends for a longer period of time.
- B. Contractor's guarantee shall cover all costs associated with troubleshooting, repair, and replacement of defective Work, including but not limited to costs for labor, transportation, lodging, materials, and equipment.

PART 2 - PRODUCTS

2.01 MANUFACTURER SUBSTITUTIONS

- A. Substitutions: The substitution of products shall adhere to the requirements defined in Division 01. Section 017700 – Substitutions.
 - 1. Wiring devices shall be from a manufacturer with at least 5 years of experience in the manufacturing of equipment.
 - a. Approved manufacturers:
 - 1) Wall switches: Leviton, Bryant Electric, General Electric, Hubbell, Pass and Seymour or approved.
 - 2) Receptacles: Leviton, Bryant Electric, Crouse Hinds, Hubbell, Pass and Seymour, or approved.
 - 3) Device Plates: Bryant Electric, Hubbell, Leviton, Pass and Seymour, or approved.

2.02 WALL SWITCHES

- A. Wall Switches for Lighting Circuits: NEMA WD 1. General use snap switch with ivory colored toggle handle rated 20 Amps and 120/277 Volts AC. Switch with back and side wired screw type terminals. Units specification grade.
 - 1. Manufacturer Leviton:
 - a. Single-Pole Toggle Switch, Part No. 1221-2.
 - b. Double-Pole Toggle Switch, Part No.1222-2.
 - c. Three-Way Toggle Switch, Part No.1223-2.
 - d. Four-Way Toggle Switch, Part No.1224-2.
- B. Weatherproof: Switches mounted in a cast metal box with gasketed, weatherproof device plate.
- C. Finish: Confirm Color and finish with Architect.

2.03 Push Button Switches

- A. Multipurpose Push Button Switches shall be comprised of a molded Polycarbonate housing, in color yellow with stainless steel back plate and Stopper Station Shield and feature push button operation. Rotation of button shall reset device. Device shall be ADA compliant and.
 - 1. Manufacturer Safety Technology International, Inc.
 - a. Emergency Power Off, Part No. SS-2221PO
 - 1) Shell label: “EMERGENCY POWER OFF”

2.04 RECEPTACLES

- A. Convenience and Straight-Blade Receptacles: NEMA WD 1. Units specification grade.
- B. Convenience Receptacle Configuration:
 - 1. 20A-125V, NEMA 5-20R, straight blade with grounding type with, back and side wired screw type terminals.
 - 2. Manufacturer Leviton:
 - a. Duplex Receptacle, Part No. 5362.
 - b. Single Receptacle, Part No. 5361.
 - c. Isolated Ground Duplex Receptacles, Part No. 5362-IG.
 - d. USB Charger/Duplex Receptacle, Part No. T5832.
 - e. GFCI Receptacles Duplex, convenience receptacle with integral ground fault circuit interrupter. Units feed-through type for downstream device protection, Part No. GFNT2.
 - f. Controlled Receptacle, Part No. 5362-S2.
- C. Weatherproof Receptacles: Receptacles mounted in a cast steel box with gasketed, weatherproof device plate. Leviton W7899-TRW.
- D. Finish: Confirm Color with Architect.

2.05 DEVICE PLATES

- A. Plates in Finished Areas: Confirm Color with Architect, smooth plastic, except as noted below:
 - 1. Wall plates for receptacles protected by GFCI circuit breaker or feed-through GFCI receptacle to be provided with 1/4 inch specially engraved black letters "GFCI PROTECTED".
 - a. Manufacturer Leviton, Part No. 80401-GFW.
- B. Plates on Surface Mounted Boxes: Sized to fit box without extending over sides of box.
- C. Cast Metal Plates: Cast metal box. Steel plates with steel boxes and copper-free aluminum with aluminum boxes. Stainless steel screws.
- D. Weatherproof Cover Plate:
 - 1. Cast metal with hinged gasketed device covers.
 - 2. Manufacturer Leviton,
 - a. While In-Use Cover: Part No. IUM1V-GY unless otherwise noted on the Contract Drawings.
 - b. Not In-Use Cover: Part No. WM1V-GY only where noted on the Contract Drawings.
- E. Finish of Attachment Screws: Match that of its respective device plate.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 WIRING DEVICE INSTALLATION

- A. Install wiring devices in clean electrical boxes, free from excess building materials, dirt, and debris.
- B. Install jumbo size plates for outlets in masonry walls.
- C. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- D. Install devices and wall plates flush and level.
- E. Fasten each device to outlet box at wall surface to bring receptacle flush with plate or for switch handle the proper distance through plate.

3.05 ORIENTATION

- A. Install switches vertical with handle operating vertically, up position "ON". Install center at 44 inches above finished floor unless noted otherwise on the Drawings.
- B. Install receptacles vertical with ground slot down centered at 18 inches above finished floor and 6 inches above counters.
- C. Install exterior receptacles horizontal at 18 inches above finished grade.

3.06 RECEPTACLE GROUNDING

- A. Install bare bonding wire between receptacle grounding terminal and box. Plaster ear screws connecting frame to box are not acceptable for grounding.

3.07 HANDICAPPED ACCESS

- A. Comply with requirements of Washington State Handicapped Access Code.

3.08 FIELD QUALITY CONTROL

- A. Comply with requirements in Section 260810. Include copy of field test reports in the Operation and Maintenance Manual.
- B. Prior to energizing circuitry, test wiring devices for electrical continuity and polarity connections. After energizing circuitry, test wiring devices to demonstrate compliance with requirements.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01, and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes overcurrent protective devices for operation at 600 Volts and below, including circuit breakers and fuses as individual components in separate enclosures and for installation as integral components of switchboards and panelboards and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets for coordination with item and model number of overcurrent protective devices, including catalog cuts, time-current trip characteristic curves, and mounting requirements.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
 - 2. Shop Drawings:
 - a. Provide dimensioned drawings of overcurrent protective devices to include layouts of circuit breakers with spatial relationships to proximate equipment.
- E. Test Report Submittal:
 - 1. Field test reports.
 - 2. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.
- F. Record Drawing Submittal:
 - 1. Keep complete set of overcurrent protective device drawings in job-site office to show actual installation of cabling and equipment during construction for recording as-built conditions.
 - 2. Record drawings set shall indicate where material, equipment, and system component are installed differently than indicated on the Contract Drawings, clearly and neatly using red ink or indelible red pencil during construction.
- G. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test results, Record Drawings, product data, manufacturer warranty and Operation and Maintenance Manuals.
 - 3. Provide signed documentation confirming all circuit breaker settings were adjusted to match the power studies final report.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. NFPA 70, National Electrical Code (NEC).
 - 2. UL 489, Molded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures.

- C. Comply with NEMA and ANSI standards as applicable to construction and installation of overcurrent protective devices.
- D. Products shall be new unless indicated otherwise in the Contract Documents.

1.05 WARRANTY AND SERVICE

- A. Contractor shall provide a parts and labor guarantee on all Work. Contractor's guarantee shall be for a period of one (1) year from Date of Acceptance, except where warranty coverage from a supplier or equipment manufacturer extends for a longer period of time.
- B. Contractor's guarantee shall cover all costs associated with troubleshooting, repair, and replacement of defective Work, including but not limited to costs for labor, transportation, lodging, materials, and equipment.

1.06 MATERIALS PROVISIONS

- A. Materials shall be provided to the Owner as specified herein. Deliver to the Owner Representative or General Contractor, as coordinated, 14 days prior to Substantial Completion. Include a signed transmittal to the Owner or Owner's Representative and General Contractor for each item type provided with an itemized summary of each fuse type. Transmittal shall be included as part of the O&M manuals.
- B. Provide additional materials as follows:
 - 1. Fuses: For each type and rating, furnish additional fuses amounting to 1 unit for every 5 units installed, but not less than 2 units of each size and type.
 - 2. Spare Fuse Cabinet: Provide one, sized to house spare fuses provided under this contract plus 25% additional space for future.
 - 3. Electronic Trip Unit Test Set: Furnish one set, including associated software, capable of testing all circuit breakers.

PART 2 - PRODUCTS

2.01 MANUFACTURER SUBSTITUTIONS

- A. Substitutions: The substitution of products shall adhere to the requirements defined in Division 01. Section 017700 – Substitutions.
 - 1. Overcurrent protective devices shall be from a manufacturer with at least 5 years of experience in the manufacturing of equipment.
 - a. Approved manufacturers:
 - 1) Circuit Breakers: Circuit breaker manufacturer shall be same as panelboard and switchboard manufacturer when installed therein.
 - 2) Fusible Circuit Breakers: Bussmann Mfg. Co.
 - 3) Fuses: Bussmann Mfg. Co., Mersen Electrical Power or Ferraz Shawmut. Fuses shall be by one manufacturer.

2.02 CIRCUIT BREAKERS

- A. General:
 - 1. UL 489 fixed mounted molded case type with unless indicated otherwise.
 - 2. Overcenter, trip-free, toggle type operating mechanisms with quick-make, quick-break action and positive handle indication.
 - 3. Common trip for two and three pole Circuit breakers. Handles permitted on approval of samples.
 - 4. Trip ratings imprinted on handle or visible through deadfront cover.
 - 5. Constructed for mounting and operating in any physical position and calibrated for operation in ambient temperature up to 40° C.
 - 6. Mechanical screw type removable connector lugs, AL/CU rated, to accommodate conductors specified. Rated for 75° C conductors for 60 Amp and larger circuit breakers.
 - 7. Amperage and Voltage as indicated.
 - 8. Short circuit rating:

- a. RMS interrupting rating as indicated.
 - b. Minimum 10,000 AIC rating at 120, 208 and 240 Volts.
 - c. Minimum 14,000 AIC rating at 277 and 480 Volts.
9. Ground Fault Interrupter (GFI) circuit breakers:
- a. Equipped with integral Class B ground fault interrupter set to trip on ground fault of thirty milliamps or greater.
 - b. Adjustable settings shall not exceed 1200 amperes.
10. Ground Fault Circuit Interrupter (GFCI) circuit breakers:
- a. Equipped with integral Class A ground fault circuit interrupter set to trip on ground fault of six milliamps or greater.

2.03 FUSES

- A. General:
1. Fuses of type, sizes, ratings, and electrical characteristics of single manufacturer.
 2. Fuses labeled UL Class L, UL Class R, current limiting, rated for up to 200,000 Amps.
- B. Where fuses are shown on the Drawings feeding individual or groups of equipment items, comply with manufacturer's recommendation for fusing. Adjust fuse size and type to comply with manufacturer's recommendation.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.04 CIRCUIT BREAKERS

- A. Install in panelboards, switchboards and enclosures, in accordance with the manufacturer's recognized industry practices to ensure that protective devices comply with requirements. Comply with NEC and NEMA standards.
- B. Install handle ties for multiwire branch circuits per Section 260519.

3.05 FUSES

- A. Install fuses in switches, panelboards, switchboards and enclosures. Install fuses so current rating is visible from front when cover is open.
- B. Do not install until equipment is ready to be energized.
- C. Coordinate with equipment furnished by others for proper fuse type and size.
- D. For motor and equipment circuits, fuse sizes shown on the Contract Drawings are for general guidance only. Size fuses in accordance with fuse manufacturer's recommendation for given motor nameplate ampere rating. Test operation. If nuisance tripping occurs, increase fuse size and disconnect device (if necessary) for nuisance free tripping. Adjust fuse size for ambient temperature, frequent starting and stopping of motor loads, and for loads with long start times.

3.06 FIELD QUALITY CONTROL

- A. Test circuit breakers as specified in Section 260810.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 and Section 260500 apply to Work in this section.

1.02 SUMMARY

- A. Work includes disconnect switches, enclosed circuit breakers, and associated appurtenances.

1.03 SUBMITTALS

- A. Provide submittals in accordance with Division 01 and Section 260500.
- B. Submittal for this section shall be complete with all required information. Partial product submittals are not acceptable and will be returned unreviewed.
- C. Submittal shall be arranged under categories such as manufacturer warranty, products, and similar items. Include index with the submittals.
- D. Pre-construction Submittal:
 - 1. Product Data:
 - a. Organize by specification infrastructure components described in Part 2 of this section.
 - b. Submit Product Data information sheets and manufacturer's maintenance data for each type of item and model number. Include equipment characteristics such as ratings, enclosure type, dimensions and weight.
 - c. Where more than one product is shown on a page, mark product with arrow or by other means to identify exact product or products being submitted by specific part number.
- E. Arc-Flash Study: Perform an Arc-Flash Study in accordance with the NEC and Authority Having Jurisdiction to determine the incident energy exposure, the flash protection boundary, shock hazard approach limits and required PPE levels.
 - 1. Study to provide required data for approved arc flash warning labels on all disconnect switches.
 - 2. Provide and adhere Arc Flash labels to equipment.
- F. Closeout Submittal:
 - 1. Submit closeout documentation to the Owner's Representative and Architect under provisions of Division 01, Section 260500 and this section.
 - 2. Provide all project closeout documentation including but not limited to; test documentation, material transmittals, product data, manufacturer warranty and Operation and Maintenance Manuals.

1.04 QUALITY ASSURANCE

- A. Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards:
 - 1. NFPA 70, National Electrical Code (NEC).
 - 2. UL 98, Enclosed and Dead-Front Switches.
 - 3. UL 489, Molded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures.
- C. Products shall be new unless indicated otherwise in the Contract Documents.

1.05 WARRANTY AND SERVICE

- A. Contractor shall provide a parts and labor guarantee on all Work. Contractor's guarantee shall be for a period of one (1) year from Date of Acceptance, except where warranty coverage from a supplier or equipment manufacturer extends for a longer period of time.
- B. Contractor's guarantee shall cover all costs associated with troubleshooting, repair, and replacement of defective Work, including but not limited to costs for labor, transportation, lodging, materials, and equipment.

PART 2 - PRODUCTS

2.01 MANUFACTURER SUBSTITUTIONS

- A. Substitutions: The substitution of products shall adhere to the requirements defined in Division 01. Section 017700 – Substitutions.
 - 1. Disconnect switches and circuit breakers shall be same as panelboard and switchboard manufacturer, unless prior approved.
- B. Disconnect Switches and Enclosed Circuit Breakers: Manufacturer shall be same as panelboard and switchboard manufacturer, unless prior approved.

2.02 GENERAL

- A. Ratings: Voltage, Amperage and horsepower rating suitable for circuit and equipment controlled. Service entrance rated where indicated or required.
- B. Enclosures: (Surface-mounted)
 - 1. NEMA Type 1, in general.
 - 2. NEMA Type 3R where exposed to moisture and where shown on the Contract Drawings.
- C. Accessories:
 - 1. Padlockable in “OFF” position.
 - 2. Labeled “ON”/”OFF” position.
 - 3. Ground lug.
 - 4. Neutral lug where applicable.
 - 5. Other accessories as indicated.
- D. Nameplates: Per Section 260553.

2.03 DISCONNECT SWITCHES

- A. General: Heavy duty, UL 98, horsepower rated with external handle.
- B. Interlock: Defeatable door interlock that prevent door from opening when operating handle is in “ON” position.
- C. Fusible or non-fusible as indicated. Provide fuse rejection clips where Class R fuses are specified.
- D. Quick-make, quick-break mechanism. Visible blades.

2.04 ENCLOSED CIRCUIT BREAKERS

- A. Circuit Breaker: Thermal magnetic circuit breaker per Section 262813. One form “C” auxiliary contact activated when circuit breaker open.
- B. Short Circuit Interrupting Rating: Fully rated for available fault current as noted in Contract Documents.

PART 3 - EXECUTION

3.01 INSPECTION

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

3.02 PREPARATION

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

3.03 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

- A. General: Install, apply, erect, and perform the work in accordance with Article “Quality Assurance” provisions, specifications, and manufacturer’s installation instructions and directions. Comply with applicable requirements of NEC, NEMA and NECA standards, and with recognized industry practice. Where these may be in conflict, the more stringent requirements govern.

- B. Install where indicated on the Contract Drawings and where required. Mount independent of equipment served; do not attach to equipment served.
- C. Coordinate installation work with electrical raceway, wire, and cable work as necessary for proper interface. Comply with requirements in Section 260533.
- D. Install within sight of equipment or controller served.
- E. Where locations are not shown on Contract Drawings, locate on wall adjacent to equipment being served or on formed steel channel frame at face of equipment. Coordinate location to maintain equipment clearances.

3.04 FIELD QUALITY CONTROL

- A. Comply with requirements in Section 260810. Include copy of field test reports in the Operation and Maintenance Manual.

END OF SECTION