

REQUEST FOR BIDS

SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS

15035 8th AVENUE SOUTH
BURIEN, WA 98148

RELEASED BY:



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

BID DATES

ISSUANCE DATE: FEBRUARY 17, 2023

DUE DATE: MARCH 10, 2023

TIME: 1:00PM



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A - SECTION

INFORMATIONAL FORMS

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INVITATION FOR BID **DUE DATE: MARCH 10, 2023**

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: SUNNYDALE APARTMENTS EXTERIOR RENOVATIONS

Sunny Dale is a 3 story apartment building, including the daylight basement. The Contractor is responsible to field verify all dimensions and item quantities. The building is currently vacant. Contractor will provide materials, labor, and incidentals to complete a total envelope package. The Envelope and Roof project is comprised of (but is not limited to) the removal of the existing marble-crete panel, exterior trim, aluminum windows, barges, fascia, soffits, gutters and downspouts, exterior doors, pre-cast concrete stairs and landing, steel handrails, selected concrete walkways and slabs, hose bibs, sidewall venting, asphalt roofing, signage, flashings, and lighting.

Scope also included the complete removal and replacement of underlayment, existing asphalt shingles, flashing, roof anchors, and any plywood deck rot. Remove and replace all pipe boots, flashings, fall arrest anchors, fascia boards, barge boards, roof jacks. The Contractor will supply an approved engineering plan for fall arrest anchors. Provide and install new exhaust vents for the seven- 3rd floor bathroom exhaust fans.

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

DRAWINGS – PROJECT MANUAL DISTRIBUTION:

Drawing and bid documents can be downloaded from:

<https://www.kcha.org/business/construction/open>

PRE-BID CONFERENCE:

Date: **March 1, 2023**
Time: **11:00 AM**
Jobsite Address: **15035 8th Avenue South, Burien, WA 98148**
Notation: Attendance of the Pre-Bid Site Visit is **MANDATORY**.
Questions / Direct Questions, Requests or Clarification by Email or Fax to:
Contact Person: Project Manager: Don Hatfield
Email Address: donaldh@kcha.org
Phone Number: 206-574-1213
No Later Than: March 7, 2023

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: **March 10, 2023**
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:

SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS



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

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

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

BID BOND OR CERTIFIED CHECK:

Amount: **Five (5%) Percent** of the Total bid must accompany Each Bid **greater than one hundred fifty (\$150,000) dollars.**

Payable to: King County Housing Authority

Process: Bid Bond or Certified Check will be returned to the Unsuccessful Bidders within **Ten (10) Days** after the Contract Award.

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

COVID-19 REQUIRED COMPLIANCE

Contractor’s employees and all sub-contractors’ employees will be required to wear a mask if they are in a building or a resident’s unit. Contractor shall report to KCHA any COVID positive or exposed employees so KCHA can determine if any follow-up is required. All sub-contractors are to report any COVID positive or exposed employees to the Contractor.

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.

WASHINGTON STATE PREVAILING WAGE:

Bidders should note that the current Washington State Prevailing Wage Rates, payroll uploading, intent and affidavit filing apply to this job.

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

CONTACT PERSON:

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



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EXAMPLE OF SEALED ENVELOPE PROCEDURE / PREPARATION:

<p>FROM:</p> <p>ENTER YOUR COMPANY NAME Street Address City, State, Zip Code</p> <p>TO:</p> <p>KING COUNTY HOUSING AUTHORITY CAPITAL CONSTRUCTION DEPARTMENT 700 Andover Park West, Suite C Tukwila, WA 98188</p> <p>BID DUE:</p> <p>Date: March 10, 2023 Time: 1:00 PM</p> <p>PROJECT NAME: SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS</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 Harassment and Discrimination Policies**
- B.10 WMBE Survey (Form is not required to be responsive, but requested)**
- B.11 Preliminary Project Schedule – Provided by Contractor**



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. Project Manuals will be available for purchase at the Pre-Bid Conference. **ATTENDANCE OF THE PRE-BID CONFERENCE IS REQUIRED FOR ACCEPTANCE OF BID FROM THE CONTRACTOR.**

PROJECT SITE ADDRESS: **Sunny Dale Apartments**
15035 8th Avenue South
Burien, WA 98148

CONFERENCE DATE: **March 1, 2023**

TIME: **11:00 AM**

CONTACT NAME: **Don Hatfield**

EMAIL: **donaldh@kcha.org**



PROJECT WAGE RATES

A. WASHINGTON STATE PREVAILING WAGE

TYPE OF WAGE RATES: RESIDENTIAL RATES

WAGE DECISION DATE: MARCH 1, 2023

COUNTY: KING

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

Wage Decision Date: For contracts entered into pursuant to competitive bidding procedures, the bid opening date “locks-in” the wage decision date provided that the contract is awarded within six (6) months. If the contract is awarded more than six (6) months after bid opening, the contract award date “locks-in” the wage decision date.

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.

TAX APPLICATIONS

TAX APPLICATIONS

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

WAC 458-20-17001

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

(1) Special business and occupation tax applications and special sales/use tax applications pertain for prime and subcontractors who perform certain construction, installation, and improvements to real property of or for the United States, its instrumentalities, or a county or city housing authority created pursuant to chapter 35.82 RCW. These specific construction activities are excluded from the definition of "sale at retail" under RCW 82.04.050. All other sales to the United States, its agencies or instrumentalities are taxable as retail sales or wholesale sales, as appropriate. See WAC 458-20-190.

(2) The definitions of terms and general provisions contained in WAC 458-20-170 apply equally for this rule, as appropriate. In addition, the terms, "clearing land" and "moving earth" include well drilling, core drilling, and hole digging, whether or not casing materials are installed and any grading or clearing of land, including the razing of buildings or other structures.

Business and Occupation Tax

(3) Amounts derived from constructing, repairing, decorating, or improving new or existing buildings or other structures, including installing or attaching tangible personal property therein or thereto, and clearing land or moving earth, of or for the United States, its instrumentalities, or county or city housing authorities of chapter 35.82 RCW are taxable under the government contracting classification of business and occupation tax. The measure of the tax is the gross contract price.

(4) Government contractors who manufacture or produce any tangible personal property for their own commercial or industrial use as consumers in performing government contracting activities are subject to the manufacturing classification of business and occupation tax measured by the value of the property manufactured or produced. See also, WAC 458-20-134. The manufacturing tax applies even though the property manufactured or produced for commercial use may be subsequently incorporated into buildings or other structures under the government contract and may thereby enhance the gross contract price.

Retail Sales Tax

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



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

Use Tax

(7) The use tax applies upon the value of all materials, equipment, and other tangible personal property purchased at retail, acquired as a bailee or donee, or manufactured or produced by the contractor for commercial or industrial use in performing government contracting and upon which no retail sales tax has been paid by the contractor, its bailor or donor.

(8) Thus the use tax applies to all property provided by the federal government to the contractor for installation or inclusion in the contract work as well as to all government provided tooling.

(9) The use tax is to be reported and paid by the government contractor who actually installs or applies the property to the contract. Where the actual installing contractor pays the tax, no further use tax is due upon such property by any other contractor.

(10) Note to contractors: The United States Supreme Court has sustained the government contracting tax applications for this state, even though the ultimate economic burden of the tax is borne by the United States Government (Washington v. US, 75 L.Ed 2d 264, 1983).

(11) This rule does not apply to public road construction. See WAC 458-20-171.
[Statutory Authority: RCW 82.32.300. 86-10-016 (Order ET 86-9), § 458-20-17001, filed 5/1/86.]

PROGRESS PAYMENT SUSPENSION CRITERIA

CRITERIA will include:

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

EXECUTIVE ORDER 11246 (as AMENDED)

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

Executive Order 11246 - Equal Employment Opportunity

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

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

Part I - Nondiscrimination in Government Employment

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

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

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

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

Subpart B - Contractors' Agreements

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

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

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.



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(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States."

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

SEC. 203. Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

(b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

(c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.

(d) The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this Order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and



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

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

SEC. 204 (a) The Secretary of Labor may, when the Secretary deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this **Order** in any specific contract, subcontract, or purchase **order**.

(b) The Secretary of Labor may, by rule or regulation, exempt certain classes of contracts, subcontracts, or purchase orders (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; or (4) to the extent that they involve subcontracts below a specified tier.

(c) Section 202 of this **Order** shall not apply to a Government contractor or subcontractor that is a religious corporation, association, educational institution, or society, with respect to the employment of individuals of a particular religion to perform work connected with the carrying on by such corporation, association, educational institution, or society of its activities. Such contractors and subcontractors are not exempted or excused from complying with the other requirements contained in this **Order**.

(d) The Secretary of Labor may also provide, by rule, regulation, or **order**, for the exemption of facilities of a contractor that are in all respects separate and distinct from activities of the contractor related to the performance of the contract: provided, that such an exemption will not interfere with or impede the effectuation of the purposes of this **Order**: and provided further, that in the absence of such an exemption all facilities shall be covered by the provisions of this **Order**."

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

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

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

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

SEC. 206. The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor to determine whether or not the contractual provisions specified in Section 202 of this Order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor.

(b) The Secretary of Labor may receive and investigate complaints by employees or prospective employees of a Government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this Order.

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

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



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

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

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

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

Subpart D - Sanctions and Penalties

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

(1) Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this Order or of the rules, regulations, and orders of the Secretary of Labor.

(2) Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this Order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this Order.

(3) Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of 1964.

(4) Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.

(5) After consulting with the contracting agency, direct the contracting agency to cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended, any contract, or any portion or portions thereof, for failure of the contractor or subcontractor to comply with equal employment opportunity provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the Secretary of Labor.

(6) Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this Order.

(b) Pursuant to rules and regulations prescribed by the Secretary of Labor, the Secretary shall make reasonable efforts, within a reasonable time limitation, to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a)(2) of this Section, or before a contract shall be cancelled or terminated in whole or in part under subsection (a)(5) of this Section.

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

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

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

SEC. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this Order or submits a program for compliance acceptable to the Secretary of Labor.

[Sec. 211 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

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

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

Subpart E - Certificates of Merit

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

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

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

Part III - Nondiscrimination Provisions in Federally Assisted Construction Contracts

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



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

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

SEC. 302. "Construction contract" as used in this Order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

(b) The provisions of Part II of this Order shall apply to such construction contracts, and for purposes of such application the administering department or agency shall be considered the contracting agency referred to therein.

(c) The term "applicant" as used in this Order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this Part, and it includes such an applicant after he/she becomes a recipient of such Federal assistance.

SEC. 303. The Secretary of Labor shall be responsible for obtaining the compliance of such applicants with their undertakings under this Order. Each administering department and agency is directed to cooperate with the Secretary of Labor and to furnish the Secretary such information and assistance as the Secretary may require in the performance of the Secretary's functions under this Order.

(b) In the event an applicant fails and refuses to comply with the applicant's undertakings pursuant to this Order, the Secretary of Labor may, after consulting with the administering department or agency, take any or all of the following actions: (1) direct any administering department or agency to cancel, terminate, or suspend in whole or in part the agreement, contract or other arrangement with such applicant with respect to which the failure or refusal occurred; (2) direct any administering department or agency to refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received by the Secretary of Labor from such applicant; and (3) refer the case to the Department of Justice or the Equal Employment Opportunity Commission for appropriate law enforcement or other proceedings.

(c) In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing.

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

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

Part IV - Miscellaneous

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



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

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

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

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

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

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

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

EXECUTIVE ORDER 13496

New Employee Notification Requirements for Federal Contractors and Subcontractors

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

The regulations require Federal contractors:

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 \(dol.gov\)](#)



B - SECTION

SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS

15035 8TH AVENUE SOUTH, BURIEN, WA 98148

DUE DATE: March 10, 2023

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 Harassment and Discrimination Policies**
- B.10 WMBE Survey (Form is not required to be responsive, but requested)**
- B.11 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:

Sunny Dale Apartments
15035 8th Avenue South, Burien, WA 98148

SCOPE OF WORK:

Sunny Dale is a 3 story apartment building, including the daylight basement. The Contractor is responsible to field verify all dimensions and item quantities. The building is currently vacant. Contractor will provide materials, labor, and incidentals to complete a total envelope package. The Envelope and Roof project is comprised of (but is not limited to) the removal of the existing marble-crete panel, exterior trim, aluminum windows, barges, fascia, soffits, gutters and downspouts, exterior doors, pre-cast concrete stairs and landing, steel handrails, selected concrete walkways and slabs, hose bibs, sidewall venting, asphalt roofing, signage, flashings, and lighting.

Scope also included the complete removal and replacement of underlayment, existing asphalt shingles, flashing, roof anchors, and any plywood deck rot. Remove and replace all pipe boots, flashings, fall arrest anchors, fascia boards, barge boards, roof jacks. The Contractor will supply an approved engineering plan for fall arrest anchors. Provide and install new exhaust vents for the seven- 3rd floor bathroom exhaust fans.

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

BASE BID:

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

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

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

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.

Bidding Contractor’s Company Name: _____ Initials: _____



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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	\$28,493.00
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		

ADDITIONAL COVID-19 REQUIREMENTS

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

UNIT PRICES:

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

UNIT PRICE # 1 ROOF SHEATHING OSB		
Contractor to provide a Unit price based for addition/deduct of one (1) 4’x8’ (32SF) x 7/16” OSB to include removal and legal disposal of existing 7/16” 4’ x 8’ roof sheathing and install new 7/16” x 4’ x8’ OSB roof sheathing. These unit values shall include full compensation for furnishing, placing, removing, legal disposal, installing, all labor and necessary equipment related to this item. . All damaged sheathing must be reviewed and approved by the Owner’s representative prior to the removal and replacement.		
A.	Materials , including all applicable Taxes	\$
B.	Labor	\$
C.	O & P , including all applicable Fees	\$
TOTAL BID AMOUNT: (all costs inclusive – A, B, and C)		\$
And No/100 Dollars		
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.		

Bidding Contractor’s Company Name: _____ Initials: _____



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UNIT PRICE # 2 WALL SHEATHING OSB		
Contractor to provide a Unit price based for addition/deduct of one (1) 4’x8’ (32SF) x 7/16” OSB to include removal and legal disposal of existing 7/16” 4’ x 8’ wall sheathing and install new 7/16” x 4’ x8’ OSB wall sheathing. These unit values shall include full compensation for furnishing, placing, removing, legal disposal, installing, all labor and necessary equipment related to this item. . All damaged sheathing must be reviewed and approved by the Owner’s representative prior to the removal and replacement.		
A.	Materials , including all applicable Taxes	\$
B.	Labor	\$
C.	O & P , including all applicable Fees	\$
TOTAL BID AMOUNT: (all costs inclusive – A, B, and C)		\$
		And No/100 Dollars
Enter Written Total Bid Amount above. NOTE: PRINT dollar amount, round to nearest dollar, no cents.		

COMPLETE BID:

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

LOW BIDDER DETERMINATION:

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

RIGHT TO AWARD THE CONTRACT:

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

RIGHT TO REJECT BIDS:

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

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

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

Calendar Days: 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.

Bidding Contractor’s Company Name: _____ Initials: _____



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 Twenty (120)*

** 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.

Retention Rate: FIVE PERCENT (5%)

CLOSEOUT PERCENTAGE:

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

Closeout Percentage: FIVE PERCENT (5%)

Bidding Contractor’s Company Name: _____ Initials: _____



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 Indemnitee against liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the intentional misconduct or sole negligence of the Indemnitee, and if such damages are caused by or result from the concurrent negligence of the Indemnitee and the Contractor or its employees or agents, then the Contractor’s indemnity hereunder shall be limited to the extent of the negligence of the Contractor or its employees or agents. For purposes of this Indemnity, the Contractor waives its immunity under industrial insurance, Title 51 of the Revised Code of Washington, and acknowledges that the parties have negotiated this waiver for the purposes of this agreement.

The Contractor hereby agrees to require all its Subcontractors or anyone acting under its direction or control or on its behalf in connection with or incidental to the performance of this contract to execute an indemnity

Bidding Contractor’s Company Name: _____ Initials: _____



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.

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

The undersigned acknowledges:

1. To have carefully reviewed and understood the scope of work and requirements under the Contract Documents and the complete scope of work as required under the Bid Proposal,
2. To have been provided the opportunity to physically assess the project site,
3. And affirms that the bid entered herein, shall be a complete bid in accordance with the terms of the Contract Documents,
4. And hereby agrees to complete the Work required under the terms of the Contract Documents by the Completion Dates enumerated therein, and
5. That all Documents Submitted to KCHA will become Public Records, as per RCW 42.56. If you are submitting information, which you think is confidential and / or

Bidding Contractor’s Company Name: _____ Initials: _____



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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.

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:** _____



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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: _____
(Must be a valid WA State License)

EMPLOYMENT SECURITY NUMBER: _____

BOND REGISTRATION NUMBER: _____

L&I's WORKERS' COMP. ACCT. ID: _____

L&I PUBLIC WORKS TRAINING: YES NO

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

CONTINUOUSLY BEEN IN BUSINESS FROM YEAR _____ NO. OF REGULAR FULL TIME EMPLOYEES _____

TOTAL NUMBER OF PROJECT COMPLETED IN THE PAST 5 YEARS _____

NUMBER OF PROJECTS COMPLETED _____ AHEAD _____ ON-TIME _____ BEHIND

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

AS FOLLOWS: AS PRIME CONTRACTOR: _____ AS SUB-CONTRACTOR: _____
NO. OF YEARS NO. OF YEARS

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

NAME OF BONDING COMPANY: _____

ADDRESS: _____

PHONE NUMBER: _____

CONTACT PERSON: _____

BONDING CAPACITY: _____



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

NAME	TITLE	HOW LONG WITH BIDDER

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

PROJECT NAME: _____

OWNER/CONTACT NAME & NUMBER: _____

TOTAL CONTRACT AMOUNT: _____

IF SUB, YOUR CONTRACT AMOUNT: _____

YEAR PROJECT COMPLETED: _____

PROJECT NAME: _____

OWNER/CONTACT NAME & NUMBER: _____

TOTAL CONTRACT AMOUNT: _____

IF SUB, YOUR CONTRACT AMOUNT: _____

YEAR PROJECT COMPLETED: _____

PROJECT NAME: _____

OWNER/CONTACT NAME & NUMBER: _____

TOTAL CONTRACT AMOUNT: _____

IF SUB, YOUR CONTRACT AMOUNT: _____

YEAR PROJECT COMPLETED: _____

PROJECT NAME: _____

OWNER/CONTACT NAME & NUMBER: _____

TOTAL CONTRACT AMOUNT: _____

IF SUB, YOUR CONTRACT AMOUNT: _____

YEAR PROJECT COMPLETED: _____



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

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: SUNNYDALE APARTMENTS EXTERIOR RENOVATIONS

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)

- _____ **I** / _____ **We** have a complete copy of the Bid Documents and Drawings (if applicable) for this project as supplied by the King County Housing Authority.
- _____ **I** / _____ **We** have no contractual obligation or other disabilities that would prevent _____ **Me** / _____ **Us** from meeting the various requirements contained in the Bid Documents to the greatest extent feasible and with good faith efforts to attempt to meet the attached goals.
- _____ **I** / _____ **We** do not and will not maintain, nor permit _____ **My** / _____ **Our** employees to work in a location where segregated facilities are maintained, except for separate or single-user toilets and changing facilities, if necessary, to assure privacy between the sexes.
- _____ **I** / _____ **We** that _____ **Have** / _____ **Have Not** participated in an Equal Employment Opportunity Plan in the past that required filing reports with the Government; and that if _____ **I** / _____ **We** have, _____ **I** / _____ **We** _____ **Have** / _____ **Have Not** filed all reports due. If not, the reports will be filed within the next (_____) days.
- The number shown on this form is _____ **My** / _____ **Our** correct Taxpayer Identification Number OR _____ **I Am** / _____ **We Are** waiting for a number to be issued to _____ **Me** / _____ **Us** and
- _____ **I** / _____ **We** further certify that _____ **I** / _____ **We** are not subject to Backup Withholding because;
 - _____ **I Am** / _____ **We Are** Exempt from Backup Withholding, or
 - _____ **I** / _____ **We** have not been notified by the Internal Revenue Service (IRS) that _____ **I Am** / _____ **We Are** subject to Backup Withholding as a result of a failure to report all interest or dividends, or



KCHA – SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS
CAPITAL CONSTRUCTION DEPARTMENT

(c) the IRS has notified ____ **Me** / ____ **Us** that ____ **I Am** / ____ **We Are** no longer subject to Backup Withholding.

(If you ARE subject to Backup Withholding, leave #6 blank and go to #7)

7. ____ **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 #6 – you are NOT subject to Backup Withholding, leave #7 blank)

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

AUTHORIZED OFFICIAL:

SIGNATURE

NAME (PLEASE PRINT)

TITLE (PLEASE PRINT)

DATE



EQUAL OPPORTUNITY CLAUSE – RETURN EACH FORM SINGLE SIDED

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

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

AUTHORIZED OFFICIAL:

SIGNATURE

NAME (PLEASE PRINT)

TITLE (PLEASE PRINT)

DATE

Bidding Contractor's Company Name: _____ Initials: _____



BID SECURITY – RETURN EACH FORM SINGLE SIDED

BID DEPOSIT:

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

_____ Dollars (\$_____)

-- OR --

BID BOND:

The undersigned, _____ (Principal), and

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

_____ Dollars (\$_____),

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

CONDITIONS:

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

SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS

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.

Bidding Contractor's Company Name: _____ Initials: _____



**KCHA – SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS
CAPITAL CONSTRUCTION DEPARTMENT**

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.

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)

Bidding Contractor’s Company Name: _____ Initials: _____



**KCHA – SUNNY DALE APARTMENTS EXTERIOR RENOVATIONS
CAPITAL CONSTRUCTION DEPARTMENT**

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: _____



**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: _____

REQUIREMENTS FOR PUBLIC WORKS PROJECTS

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

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

- A. **Filed Immediately** after the contract is awarded and before work begins, if that is possible. **NO PAYMENTS CAN BE MADE** until the contractor has submitted an Intent form that has been approved by the Industrial Statistician.
- B. **SUBCONTRACTORS must file using the PRIME CONTRACTOR’S “Form ID Number” after the PRIME has received approval for their Statement of Intent.**
- C. Wage payment requirements for this project are determined to be
 1. **Washington State Prevailing Wage**
 - a. The Intent is then filed with the question *“Is this a Housing Act of 1937 Project?”* answered as *No*.

Certified Payroll - filed at a minimum, monthly, for the duration of the project

- A. Submitted, at a minimum, on a monthly basis, beginning with the first month that the Contractor works on the Project, and for every month afterward until the Contractor completes the Work.
- B. Consisting of a certified payroll report and a statement of compliance.

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.



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: March 10, 2023
PROJECT NAME: Sunny Dale Exterior Renovations
RETURN FORM TO: donaldh@kcha.org

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

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

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

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

Other:

2. I would have Bid on this Contract if:

COMPANY NAME: _____

ADDRESS: _____

CITY-STATE-ZIP _____

SIGNATURE: _____
PRINCIPAL OR OFFICER DATE

C - SECTION

CONTRACT DOCUMENTS for Bid Package

- C.1 Construction Contract and General Conditions – Sample Template
- C.2 Performance and Payment Bond with Directions (for projects \$35,000 & over)
- C.3 Certificate as to Corporate Principal (If Performance & Payment Bonds are required)
- C.4 Instructions to Bidders for Insurance Requirements
- C.5 Site Specific Safety Plan – List of Plan Requirements
- C.6 Subcontractor Verification
- C.7 Certification of Compliance with Washington State Wage Payment Statutes
- C.8 Vendor Set Up Form
- C.9 Final Affidavits of Amounts Paid – Contractors

If selected, the documents that are numbered 2 through 7 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
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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

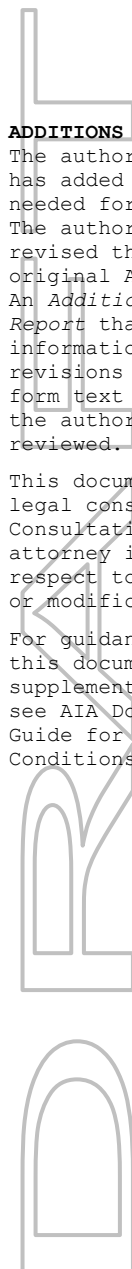
City, State Zip

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

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) _____ (Title)	(Corporate Seal)
----------------------------------	--	------------------

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

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.

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

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

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

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



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



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 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.

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

CONTRACT DOCUMENTS C.8

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: _____
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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

FINAL AFFIDAVIT OF AMOUNTS PAID

Every Sub-Contract Participant must Complete and Sign a Final Affidavit Form, regardless of tier. Every Prime Participant must Complete and Sign, Certifying the Statement from the Sub-Contract Participant. Notary must witness and verify Prime Participant.

PROJECT NAME / TITLE: _____

CONTRACT NUMBER: _____

SCOPE OF WORK: _____

PRIME

UBI NUMBER: _____

CONTRACTOR / CONSULTANT: _____

ADDRESS-CITY-STATE-ZIP: _____

CONTRACT TYPE:

CONSTRUCTION

ARCHITECT / ENGINEERING

CONSULTANT

OTHER: _____

ORIGINAL CONTRACT AMOUNT:

\$ _____

TOTAL # OF AMENDMENTS: (____)

\$ _____

TOTAL # OF CHANGE ORDERS: (____)

\$ _____

FINAL CONTRACT AMOUNT:

\$

0.00

SUB - CONTRACT PARTICIPANT :

CHECK BOX THAT APPLIES:

SUB-CONTRACTOR

SUB - CONSULTANT

MATERIALS SUPPLIER

ENTER NAME AND ADDRESS OF COMPANY	UBI NUMBER	DATE WORK COMPLETED	SUB-CONTRACT AMOUNT	AMOUNTS IN RETAINAGE TO DATE	AMOUNT PAID TO DATE

I, the Undersigned, do hereby certify that all taxes and other fees imposed upon my company, by Labor & Industries, Employment Security, and Department of Revenue have been paid and all accounts **are in good standing**. I further certify that all employees and Sub-Contractors, Sub-Consultants and Materials Suppliers who have worked under my company on this project **have been paid in full**, except for any retainage that is agreed upon under a Sub-Contract. I acknowledge receipt of payment as indicated in this form.

NAME OF COMPANY: _____

PRINT NAME OF AUTHORIZED PERSON

TITLE

SIGNATURE

DATE

The **Sub-Contractor Participant** above has signed upon receipt for amounts paid. I, the undersigned, do hereby certify that in connection with all work on the project for which this statement is submitted, by the Sub-Contract Participant named above has been paid the amount shown for work completed or portions thereof listed.

PRIME PARTICIPANT

Signature / Title: _____

DATE: _____

Subscribed and Sworn before me this _____ **day of** _____ **20** _____.

Notary Public in and for the State of Washington.

(PRINT NAME)

Notary Seal

Residing at: _____

Signature: _____

D - SECTION

THIRD PARTY REPORTS

D.1 Limited Hazardous Materials Survey – November 2022

Limited Hazardous Materials Survey Report

Sunnydale Apartments
15035 8th Avenue South
Burien, Washington 98148

Prepared for:
King County Housing Authority (KCHA)
700 Andover Park West
Seattle, Washington 98188

November 2022
PBS Project 40573.242



214 EAST GALER STREET, SUITE 300
SEATTLE, WA 98102
206.233.9639 MAIN
866.727.0140 FAX
PBSUSA.COM

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Supporting Data

APPENDICES

Appendix A: PLM Bulk Sampling Information

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

Appendix B: AA Lead Paint Chip Sampling Information

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

Appendix C: PBS Inspector Certifications

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1 INTRODUCTION

1.1 Project Background

PBS Engineering and Environmental Inc. (PBS) performed a limited hazardous materials survey of the Sunnydale Apartments building, at 15035 8th Avenue South, in Burien, Washington in conjunction with the planned renovation of the structure. The intent of this investigation is to ensure compliance with applicable regulatory requirements that a "good faith inspection" for asbestos-containing materials (ACMs) be performed prior to renovation and restoration activities.

At the request of KCHA, asbestos sampling was limited to interior flooring and walls, and exterior cladding and sealants. Lead-containing paint (LCP) sampling included interior and exterior painted components.

1.2 Building Descriptions

The Sunnydale Apartments, built in 1987, consists of a three-story wood framed structure. The building totals approximately 12,000 square feet with 17 apartment units and additional common areas in the basement. Interior flooring finishes consist of the following: concrete, light weight concrete, vinyl floor tile, sheet vinyl flooring, and tac down carpet. Interior walls are gypsum wallboard with knockdown texture on walls and ceiling. Exterior finishes include Marble Crete, windows are metal framed.

1.3 Survey Process

Accessible areas included in the project scope were inspected by Asbestos Hazard Emergency Response Act (AHERA) Certified Building Inspector Claire Tsai (Cert. No. IR-21-7316B Exp. 12/10/2022) on October 6 and 17, 2022. PBS endeavored to inspect all accessible areas of the scope of work. Inaccessible areas consist of those requiring selective demolition, fall protection, or confined space entry protocols to gain access.

When observed, suspect materials were sampled. Fifty-one (51) samples were assigned a unique identification number and transmitted for analysis to Seattle Asbestos Test (NVLAP #200768-0) in Lynwood, Washington under chain-of-custody protocols. Samples were analyzed according to EPA Method 600R-93/116 using Polarized Light Microscopy (PLM), which has a reliable limit of quantification of 1% asbestos by volume.

PBS endeavored to determine the presence and estimate the condition of suspect materials in all inaccessible areas included in the scope of work. While PBS has endeavored to identify the ACMs that may be found in concealed locations, additional unidentified ACMs may exist.

2 FINDINGS

2.1 Asbestos-Containing Materials (ACMs)

Regulated asbestos-containing building materials are defined by EPA as containing greater than 1% asbestos by weight.

No materials were found to contain asbestos as part of this investigation.

The following materials sampled and found not to contain detectable concentrations of asbestos as part of this investigation:

- Yellow carpet mastic – level 1 TV room closet
- Cream mastic and associated black rubber stair tread and landing pads – all stairwells
- Light weight concrete – levels 2 and 3 below floor finishes
- Grey leveling compound – various areas throughout below flooring finishes
- 12" beige with brown flakes vinyl floor tile and associated yellow mastic – room 35 kitchen
- 12" beige/brown vinyl floor tile and associated yellow mastic – level 2 hall
- 12" off-white with color flakes vinyl floor tile and associated yellow mastic – level 1/basement hallway, room 35 closet and restroom
- 12" cream/beige vinyl floor tile and associated yellow mastic – dining room, tv room, level 3 hallway
- Vinyl floor tile and associated yellow mastic under 12" cream /beige vinyl floor tile – tv room
- 12" off-white with brown flakes vinyl floor tile and associated yellow mastic – room 26
- 12" beige with brown streaks and associated yellow mastic – crafts room, room 27
- Rectangle/ square pattern sheet vinyl flooring and associated mastic – room 26 restroom
- Square tile pattern sheet vinyl flooring and associated mastic – room 36 kitchen
- Sheet vinyl flooring and associated mastic below square tile pattern sheet vinyl flooring – room 36 kitchen
- Tan/ orange square pattern sheet vinyl flooring – laundry room, rooms 27, 28, 29, 30, 31, 32, 33, 34, 37, 38, 39, 40, 41, and 42
- White door frame caulk – east elevation doors
- Soft brown caulk – north elevation wood siding
- Soft tan caulk – north elevation vents
- Hard yellow window caulk – east elevation near main doors
- Hard dark brown caulk – exterior vents
- Brown building paper – all elevations below Marble Crete
- Marble Crete – all elevations
- Joint compound and gypsum wallboard assemblies – throughout
- Knockdown wall texture – throughout
- 4" black, brown, beige, or tan vinyl cove base and associated yellow, brown, and/or cream mastic – throughout
- 2" brown vinyl cove base and associated cream mastic – throughout

Refer to Appendix A for specific samples locations and associated laboratory analysis.

2.2 Lead-Containing Components

Nine (9) representative painted coatings were sampled for lead content. The samples were assigned unique identification numbers and transmitted to NVL Laboratories, Inc. (AIHA IH #101861) in Seattle, Washington under chain-of-custody protocols for analysis using Flame Atomic Absorption.

Lead **was detected** in the following painted coatings.

- Brown paint on metal flashing – all elevations at base of Marble Crete panels (0.012% lead)
- White paint on wood door – Level 3 south stairwell (0.14% lead)

The following painted coatings were sampled and determined **not** to contain detectable lead.

- Purple paint on metal door – east elevation south door
- Brown paint on metal door – east elevation north door
- Brown paint on wood framing – east elevation center area
- White paint on metal doorframe – Level 1 TV room
- Off-white paint on gypsum wallboard wall – Level 2 room 39
- White paint on wood doorframe – Level 2 room 32
- White paint on gypsum wallboard wall – Level 3 north stairwell

Refer to Appendix B for specific sample locations and associated laboratory analysis.

3 RECOMMENDATIONS

3.1 Asbestos-Containing Materials (ACMs)

No asbestos-containing materials were found in the work scope area during this survey.

Per the client's request, this survey was limited to interior flooring and walls, exterior cladding, and exterior sealants. Should future renovation, maintenance, or demolition activated impact materials other than those included in this investigation, additional sampling of suspect ACMs will be required to meet the regulatory requirements of a "Good Faith Inspection".

The possibility exist that suspect ACMs may be present/concealed in equipment, floor, wall and ceiling cavities, included in the scope of renovations. These may include but are not limited to ACM pipe insulation and hard-mudded fittings in wall cavities, chase areas and ceiling plenums, construction mastics and adhesives within wall/ceiling assemblies, mechanical insulation/components on ductwork and equipment, and/or weatherproofing/moisture barriers.

PBS recommends that any previously unidentified materials revealed during renovation activities be sampled for asbestos content prior to impact. If suspect ACMs is uncovered during construction, contractor should stop work immediately and inform the owner promptly for confirmation testing. All untested materials should be presumed asbestos-containing or tested for asbestos content prior to impact.

3.2 Lead-Containing Components

Representative interior and exterior painted coatings were found to contain lead. All construction activities performed in pre-1978 residential buildings require compliance with the Environmental Protection Agency (EPA) and State of Washington lead paint regulations including but not limited to 40 CFR 745 Renovation, Repair and Painting (RRP) program regulations and 24 CFR 35 Lead-Based Paint Poisoning in Certain Residential Structures, Washington Administrative Code (WAC) 296-155-176 Lead in Construction, and WAC 173-303 State of Washington Department of Ecology Dangerous Waste Regulations.

The paint sampling performed as part of this survey was intended to provide information regarding lead-content of representative painted surfaces for compliance with the L&I Lead in Construction regulations. The paint sampling was not intended to meet the requirements of the RRP regulations or the Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint in Housing.

Painted coatings may exist in inaccessible areas of the work area or in secondary coatings. Any previously unidentified painted coatings not sampled should be considered lead containing until sampled and proven otherwise. Dust control and housekeeping is crucial in preventing worker and occupant exposures.

Please do not hesitate to contact us if you have any questions regarding this report or require additional information.

Report prepared by:

Report reviewed by:

Claire Tsai
Project Manager
AHERA Building Inspector
Cert. # IR-21-7316B Exp. 12/10/2022

Mark Hiley
Senior Project Manager

APPENDIX A

PLM Bulk Sampling Information

PLM Bulk Sample Inventory

PLM Bulk Sample Laboratory Data Sheets

PLM Bulk Sample Chain of Custody Documentation

**Sunnydale Apartments
King County Housing Authority
PLM ASBESTOS SAMPLE INVENTORY**

**PBS Engineering + Environmental
PBS Project #40573.242**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.242-01	Yellow carpet mastic	Level 1 TV room closet	Layer 1: Yellow mastic	NAD	SAT
40573.242-02	Cream mastic	Level 3 south landing under black rubber mat	Layer 1: Cream mastic	NAD	SAT
40573.242-03	Black stair tread Cream mastic	Level 1 north stairs	Layer 1: Black soft/elastic material Layer 2: Cream mastic Layer 3: Brown wood block	NAD NAD NAD	SAT
40573.242-04	12" Beige with brown flakes vinyl floor tile Yellow mastic Gray leveling compound	Room 35 kitchen	Layer 1: Beige/brown tile Layer 2: Yellow mastic Layer 3: Gray brittle material	NAD NAD NAD	SAT
40573.242-05	12" Beige/brown vinyl floor tile Yellow mastic Light weight concrete	Level 2 hall south	Layer 1: Beige/brown tile Layer 2: Yellow mastic Layer 3: Gray brittle material	NAD NAD NAD	SAT
40573.242-06	12" Off-white with color flakes Yellow mastic on wood	Room 35 closet	Layer 1: Off-white tile Layer 2: Yellow mastic	NAD NAD	SAT
40573.242-07	12" Off-white with color flakes Yellow mastic	Level 1 south fire sprinkler closet	Layer 1: Off-white tile Layer 2: Yellow mastic	NAD NAD	SAT
40573.242-08	12" Cream/beige vinyl floor tile Yellow mastic	Level 1 TV room	Layer 1: Cream/beige tile Layer 2: Yellow mastic	NAD NAD	SAT
40573.242-09	12" Cream beige vinyl floor tile Yellow mastic Light weight concrete	Level 3 hall north	Layer 1: Cream/beige tile Layer 2: Yellow mastic Layer 3: Gray/sandy brittle material	NAD NAD NAD	SAT
40573.242-10	12" Cream/beige vinyl floor tile Yellow mastic	Level 1 dining room closet	Layer 1: Cream/beige tile Layer 2: Yellow mastic	NAD NAD	SAT

**Sunnydale Apartments
King County Housing Authority
PLM ASBESTOS SAMPLE INVENTORY**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.242-11	12" Off-white with brown flakes Yellow mastic	Room 26 east area	Layer 1: Off-white/brown tile Layer 2: Yellow mastic	NAD NAD	SAT
40573.242-12	12" Beige with brown streaks Yellow mastic	Room 27 main area	Layer 1: Beige/brown tile Layer 2: Yellow mastic	NAD NAD	SAT
40573.242-13	Rectangle/square tile pattern sheet vinyl flooring Yellow mastic	Room 26 restroom	Layer 1: Gray sheet vinyl Layer 2: Yellow mastic Layer 3: Gray sandy/brittle material	NAD NAD NAD	SAT
40573.242-14	Square tile pattern sheet vinyl flooring Gray leveling compound Sheet vinyl flooring Light weight concrete	Room 36 kitchen	Layer 1: Gray sheet vinyl Layer 2: Gray fibrous material with mastic Layer 3: Gray brittle material Layer 4: Gray sheet vinyl Layer 5: Gray fibrous material with mastic Layer 6: Light gray brittle material	NAD NAD NAD NAD NAD NAD	SAT
40573.242-15	Square tile pattern sheet vinyl flooring, Gray leveling compound Light weight concrete	Room 36 closet	Layer 1: Gray sheet vinyl Layer 2: Gray fibrous material with mastic Layer 3: Light gray brittle material	NAD NAD NAD	SAT
40573.242-16	Tan/orange square pattern sheet vinyl flooring Light weight concrete	Room 27 kitchen	Layer 1: Tan/orange sheet vinyl Layer 2: Gray fibrous material with cream mastic	NAD NAD	SAT
40573.242-17	Tan/orange square pattern sheet vinyl flooring Gray backing cream mastic	Room 39 closet	Layer 1: Tan/orange sheet vinyl Layer 2: Gray fibrous material with cream mastic Layer 3: Light gray sandy/brittle material	NAD NAD NAD	SAT
40573.242-18	Tan/orange square pattern sheet vinyl flooring	Room 32 closet	Layer 1: Tan/orange sheet vinyl Layer 2: Gray fibrous material with cream mastic	NAD NAD	SAT

**Sunnydale Apartments
King County Housing Authority
PLM ASBESTOS SAMPLE INVENTORY**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
	Light weight concrete		Layer 3: Light gray sandy/brittle material	NAD	
40573.242-19	Light weight concrete	Room 31 living area under carpet	Layer 1: Light gray sandy/brittle material	NAD	SAT
40573.242-20	Light weight concrete	Room 34 living area under carpet	Layer 1: Light gray sandy/brittle material	NAD	SAT
40573.242-21	White door frame caulk	East elevation south door	Layer 1: White soft/elastic material	NAD	SAT
40573.242-22	Soft brown caulk	North elevation wood siding near laundry vents	Layer 1: Brown soft/elastic material	NAD	SAT
40573.242-23	Soft tan caulk	North elevation at white vent	Layer 1: Tan soft/elastic material	NAD	SAT
40573.242-24	Hard yellow window caulk	East elevation window near south door	Layer 1: Yellow hard brittle material	NAD	SAT
40573.242-25	Hard yellow window caulk	East elevation window near north door	Layer 1: Yellow hard brittle material	NAD	SAT
40573.242-26	Hard dark brown caulk	North elevation at brown vent	Layer 1: Brown hard soft material	NAD	SAT
40573.242-27	Hard dark brown caulk	South elevation east area at brown vent	Layer 1: Brown hard soft material	NAD	SAT
40573.242-28	Brown building paper	South elevation near east window	Layer 1: Brown paper	NAD	SAT
40573.242-29	Brown building paper	North elevation center area	Layer 1: Brown paper	NAD	SAT
40573.242-30	Marble Crete	South elevation east area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-31	Marble Crete	South elevation west area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT

**Sunnydale Apartments
King County Housing Authority
PLM ASBESTOS SAMPLE INVENTORY**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.242-32	Marble Crete	West elevation center area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-33	Marble Crete	West elevation north area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-34	Marble Crete	North elevation center area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-35	Marble Crete	North elevation east area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-36	Marble Crete	East elevation south area	Layer 1: Gray sandy/brittle material Layer 2: Pink sandy/brittle material	NAD NAD	SAT
40573.242-37	Joint compound Gypsum wallboard	Level 1 dining room	Layer 1: White powdery material with paint and paper Layer 2: White chalky material with paper	NAD NAD	SAT
40573.242-38	Joint compound Gypsum wallboard	Level 2 north hall	Layer 1: White powdery material with paint and paper Layer 2: White chalky material with paper	NAD NAD	SAT
40573.242-39	Joint compound Gypsum wallboard	Level 3 Room 37 east wall	Layer 1: White powdery material with paint and paper Layer 2: White chalky material with paper	NAD NAD	SAT
40573.242-40	Knockdown wall texture	Level 1 Room 27 north wall	Layer 1: White powdery material with paint	NAD	SAT
40573.242-41	Knockdown ceiling texture	Level 1 Room 28	Layer 1: White powdery material with paint	NAD	SAT
40573.242-42	Knockdown wall texture	Level 2 south stairwell	Layer 1: White powdery material with paint	NAD	SAT
40573.242-43	Knockdown wall texture	Level 2 Room 29 north wall	Layer 1: White powdery material with paint	NAD	SAT

**Sunnydale Apartments
King County Housing Authority
PLM ASBESTOS SAMPLE INVENTORY**

**PBS Engineering + Environmental
PBS Project #40573.242**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40573.242-44	Knockdown ceiling texture	Level 2 north hall	Layer 1: White powdery material with paint	NAD	SAT
40573.242-45	Knockdown wall texture	Level 3 Room 42 south wall	Layer 1: White powdery material with paint	NAD	SAT
40573.242-46	Knockdown ceiling texture	Level 3 Room 42	Layer 1: White powdery material with paint	NAD	SAT
40573.242-47	4" Black vinyl covebase Yellow mastic, brown mastic	South stairwell Level 2/3	Layer 1: Black rubbery material Layer 2: Brown/yellow mastic	NAD NAD	SAT
40573.242-48	4" Brown vinyl covebase Cream mastic	Level 1 crafts room	Layer 1: Brown rubbery material Layer 2: Cream mastic	NAD NAD	SAT
40573.242-49	4" Beige vinyl covebase Cream mastic	Level 1 north stairwell	Layer 1: Beige rubbery material Layer 2: Cream mastic	NAD NAD	SAT
40573.242-50	4" Tan vinyl covebase Cream mastic	Level 2 south hall	Layer 1: Tan rubbery material Layer 2: Cream mastic	NAD NAD	SAT
40573.242-51	2" Brown vinyl covebase Cream mastic	Level 2 Room 30 north wall	Layer 1: Beige rubbery material Layer 2: Cream mastic	NAD NAD	SAT

SEATTLE ASBESTOS TEST, LLC

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager: Mark Hiley	Date Analyzed: 10/7/2022
Client: PBS Engineering and Environmental, Seattle	Client Job#: 40573.242
Address: 214 E Galer Street, Suite 300, Seattle, WA 98102	Project Location: Sunnydale Apartments
Tel: 206.233.9639	Laboratory batch#: 202211220
Date Report Issued: 10/10/2022	Samples Received: 36

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

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

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory. If the sample is inhomogeneous the sub-samples of the components are analyzed separately as layers. This report in its entirety consists of this cover letter, the customer sampling COC or data sheet, and the analytical report which is page numbered.

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

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

Sincerely



Steve (Fanyao) Zhang
Approved Signatory



LABORATORY CHAIN OF CUSTODY

2022/1/220

Project: Sunnydale Apartments

Project #: 40573.242 Page 1 of 2

Analysis requested: PLM

Date: 10/6/2022

Relinq'd by/Signature: Claire Tsai

Date/Time: 10/6/2022

Received by/Signature: [Signature]

Date/Time: 10/7/22 16:40

Email ALL INVOICES to: seattleap@pbsusa.com

E-mail results to:

- | | | |
|--|---|--|
| <input type="checkbox"/> Willem Mager | <input type="checkbox"/> Allison Welch | <input type="checkbox"/> Cameron Budnick |
| <input type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Toan Nguyen | <input type="checkbox"/> Mae Reilly |
| <input checked="" type="checkbox"/> Mark Hiley | <input type="checkbox"/> Peter Stensland | <input type="checkbox"/> Nick San |
| <input type="checkbox"/> Tim Ogden | <input checked="" type="checkbox"/> Claire Tsai | <input checked="" type="checkbox"/> Kameron DeMonnin |
| <input type="checkbox"/> Ryan Hunter | <input type="checkbox"/> Holly Tuttle | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Prudy Stoudt-McRae | <input type="checkbox"/> Mike Smith | |
| <input type="checkbox"/> Janet Murphy | <input type="checkbox"/> Ferman Fletcher | |

TURN AROUND TIME:

- | | | |
|----------------------------------|--|--------------------------------------|
| <input type="checkbox"/> 1 Hour | <input type="checkbox"/> 24 Hours | <input type="checkbox"/> 3-5 Days |
| <input type="checkbox"/> 2 Hours | <input checked="" type="checkbox"/> 48 Hours | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> 4 Hours | | |

SAMPLE DATA FORM

Sample #	Material	Location	Lab
40573.242-01	Yellow carpet mastic	Level 1 TV room closet	SAT
40573.242-02	Cream mastic	Level 3 south landing under black rubber mat	
40573.242-03	Black stair tread Cream mastic	LV1 north stairs	
40573.242-04	12" beige with brown flakes vinyl floor tile Yellow mastic Grey leveling compound	Room 35 kitchen	
40573.242-05	12" beige/brown vinyl floor tile Yellow mastic Light weight concrete	Level 2 hall south	
40573.242-06	12" off-white with color flakes Yellow mastic on wood	Room 35 closet	
40573.242-07	12" off-white with color flakes Yellow mastic	Level 1 south fire sprinkler closet	
40573.242-08	12" cream/beige vinyl floor tile Yellow mastic Vinyl floor tile Yellow mastic	Level 1 TV room	
40573.242-09	12" cream/beige vinyl floor tile Yellow mastic Light weight concrete	Level 3 hall north	
40573.242-10	12" cream/beige vinyl floor tile Yellow mastic Vinyl floor tile Yellow mastic	Level 1 Dining room closet	
40573.242-11	12" off-white with brown flakes Yellow mastic	Room 26 east area	
40573.242-12	12" beige with brown streaks Yellow mastic	Room 27 main area	
40573.242-13	Rectangle/square tile pattern sheet vinyl flooring Yellow mastic	Room 26 restroom	
40573.242-14	Square tile pattern sheet vinyl flooring Grey leveling compound sheet vinyl flooring Light weight concrete	Room 36 kitchen	



LABORATORY CHAIN OF CUSTODY

202211220

Project: Sunnydale Apartments

Project #: 40573.242 Page 2 of 2

SAMPLE DATA FORM

Sample #	Material	Location	Lab
40573.242-15	Square tile pattern sheet vinyl flooring Grey leveling compound Light weight concrete	Room 36 closet	
40573.242-16	Tan/orange square pattern sheet vinyl flooring Grey backing cream mastic	Room 27 kitchen	
40573.242-17	Tan/orange square pattern sheet vinyl flooring Light weight concrete	Room 39 closet	
40573.242-18	Tan/orange square pattern sheet vinyl flooring Light weight concrete	Room 32 closet	
40573.242-19	Light weight concrete	Room 31 living area under carpet	
40573.242-20	Light weight concrete	Room 34 living area under carpet	
40573.242-21	White door frame caulk	East elevation south door	
40573.242-22	Soft brown caulk	North elevation wood siding near laundry vents	
40573.242-23	Soft tan caulk	North elevation at white vent	
40573.242-24	Hard yellow window caulk	East elevation window near south door	
40573.242-25	Hard yellow window caulk	East elevation window near north door	
40573.242-26	Hard dark brown caulk	North elevation at brown vent	
40573.242-27	Hard dark brown caulk	South elevation east area at brown vent	
40573.242-28	Brown building paper	South elevation near east window	
40573.242-29	Brown building paper	North elevation center area	
40573.242-30	Marble Crete	South elevation east area	
40573.242-31	Marble Crete	South elevation west area	
40573.242-32	Marble Crete	West elevation center area	
40573.242-33	Marble Crete	West elevation north area	
40573.242-34	Marble Crete	North elevation center area	
40573.242-35	Marble Crete	North elevation east area	
40573.242-36	Marble Crete	East elevation south area	

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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

ANALYTICAL LABORATORY REPORT

[PLM] EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Attn.: Mark Hiley

Client: PBS Engineering and Environmental, Seattle

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

Job#: 40573.242

Batch#: 202211220


Date Received: 10/7/2022

Samples Rec'd: 36

Date Analyzed: 10/7/2022

Samples Analyzed: 36

Project Loc.: Sunnydale Apartments

Analyzed by: 

Approved Signatory: Steve (Fanyao) Zhang, President

SZhang

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	40573.242-01	1	Yellow mastic		None detected	Mastic/binder	5	Synthetic fibers, Cellulose
2	40573.242-02	1	Cream mastic		None detected	Mastic/binder	4	Cellulose
3	40573.242-03	1	Black soft/elastic material		None detected	Binder, Filler	4	Cellulose
		2	Cream mastic		None detected	Mastic/binder	4	Cellulose
		3	Brown wood block		None detected	Wood aggregates	4	Cellulose
4	40573.242-04	1	Beige/brown tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose
		3	Gray brittle material		None detected	Filler, Binder	2	Cellulose
5	40573.242-05	1	Beige/brown tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Gray brittle material		None detected	Filler, Binder	2	Cellulose
6	40573.242-06	1	Off-white tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose
7	40573.242-07	1	Off-white tile		None detected	Vinyl/binder, Mineral grains	3	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
8	40573.242-08	1	Cream/beige tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
9	40573.242-09	1	Cream/beige tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
10	40573.242-10	1	Cream/beige tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
11	40573.242-11	1	Off-white/brown tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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

ANALYTICAL LABORATORY REPORT

[PLM] EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples;
EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Attn.: Mark Hiley

Client: PBS Engineering and Environmental, Seattle

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

Job#: 40573.242

Batch#: 202211220


Date Received: 10/7/2022


Samples Rec'd: 36

Date Analyzed: 10/7/2022

Samples Analyzed: 36

Project Loc.: Sunnysdale Apartments

Analyzed by:  G. Xu

Approved Signatory:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
12	40573.242-12	1	Beige/brown tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
13	40573.242-13	1	Gray sheet vinyl		None detected	Vinyl/binder		None detected
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
14	40573.242-14	1	Gray sheet vinyl		None detected	Vinyl/binder		None detected
		2	Gray fibrous material with mastic		None detected	Binder/filler, Mastic/binder	65	Cellulose
		3	Gray brittle material		None detected	Filler, Binder	2	Cellulose
		4	Gray sheet vinyl		None detected	Vinyl/binder		None detected
		5	Gray fibrous material with mastic		None detected	Binder/filler, Mastic/binder	63	Cellulose
		6	Light gray brittle material		None detected	Filler, Binder	3	Cellulose
15	40573.242-15	1	Gray sheet vinyl		None detected	Vinyl/binder		None detected
		2	Gray fibrous material with mastic		None detected	Binder/filler, Mastic/binder	64	Cellulose
		3	Light gray brittle material		None detected	Filler, Binder	3	Cellulose
16	40573.242-16	1	Tan/orange sheet vinyl		None detected	Vinyl/binder		None detected
		2	Gray fibrous material with cream mastic		None detected	Binder/filler, Mastic/binder	65	Cellulose
17	40573.242-17	1	Tan/orange sheet vinyl		None detected	Vinyl/binder		None detected
		2	Gray fibrous material with cream mastic		None detected	Binder/filler, Mastic/binder	63	Cellulose
		3	Light gray sandy/brittle material		None detected	Sand, Filler, Binder	4	Cellulose
18	40573.242-18	1	Tan/orange sheet vinyl		None detected	Vinyl/binder		None detected

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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ANALYTICAL LABORATORY REPORT

[PLM] EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Attn.: Mark Hiley

Client: PBS Engineering and Environmental, Seattle

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

Job#: 40573.242

Batch#: 202211220

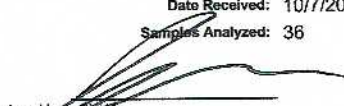
Date Received: 10/7/2022


Samples Rec'd: 36

Date Analyzed: 10/7/2022

Samples Analyzed: 36

Project Loc.: Sunnysdale Apartments

Analyzed by:  Qixu

Approved Signatory:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
34	40573.242-34	2	Pink sandy/brittle material		None detected	Sand, Filler, Binder	4	Cellulose
35	40573.242-35	1	Gray sandy/brittle material		None detected	Sand, Filler, Binder	4	Cellulose
		2	Pink sandy/brittle material		None detected	Sand, Filler, Binder	5	Cellulose
36	40573.242-36	1	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
		2	Pink sandy/brittle material		None detected	Sand, Filler, Binder	4	Cellulose

SEATTLE ASBESTOS TEST, LLC

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager: Mark Hiley	Date Analyzed: 10/17/2022
Client: PBS Engineering and Environmental, Seattle	Client Job#: 40573.242
Address: 214 E Galer Street, Suite 300, Seattle, WA 98102	Project Location: Sunnydale Apartments
Tel: 206.233.9639	Laboratory batch#: 202211278
Date Report Issued: 10/17/2022	Samples Received: 15

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

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

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory. If the sample is inhomogeneous the sub-samples of the components are analyzed separately as layers. This report in its entirety consists of this cover letter, the customer sampling COC or data sheet, and the analytical report which is page numbered.

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

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

Sincerely

S Zhang

Steve (Fanyao) Zhang
Approved Signatory



LABORATORY CHAIN OF CUSTODY

202211278

Project: Sunnydale Apartments

Project #: 40573.242 Page 1 of 1

Analysis requested: PLM

Date: 10/17/2022

Relinq'd by/Signature: Claire Tsai

Date/Time: 10/17/22

Received by/Signature: [Signature]

Date/Time: 10/17/22 12:45

Email ALL INVOICES to: seattleap@pbsusa.com

E-mail results to:

- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Ryan Hunter
- Prudy Stoudt-McRae
- Janet Murphy
- Allison Welch
- Toan Nguyen
- Peter Stensland
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Cameron Budnick
- Mae Reilly
- Nick San
- Kameron DeMonnin
- _____

TURN AROUND TIME:

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

Composite if positive***

SAMPLE DATA FORM

Sample #	Material	Location	Lab
40573.242-37	Joint compound Gypsum Wallboard ***	Level 1 Dining Room	SAT
40573.242-38	Joint compound Gypsum Wallboard ***	Level 2 north hall	
40573.242-39	Joint compound Gypsum Wallboard ***	Level 3 Room 37 east wall	
40573.242-40	Knockdown wall texture	Level 1 Room 27 north wall	
40573.242-41	Knockdown ceiling texture	Level 1 Room 28	
40573.242-42	Knockdown wall texture	Level 2 south stairwell	
40573.242-43	Knockdown wall texture	Level 2 Room 29 north wall	
40573.242-44	Knockdown ceiling texture	Level 2 north hall	
40573.242-45	Knockdown wall texture	Level 3 Room 42 south wall	
40573.242-46	Knockdown ceiling texture	Level 3 Room 42	
40573.242-47	4" black vinyl cove base Yellow mastic Brown mastic	South stairwell Level 2/3	
40573.242-48	4" brown vinyl cove base Cream mastic	Level 1 Crafts room	
40573.242-49	4" beige vinyl cove base Cream mastic	Level 1 north stairwell	
40573.242-50	4" tan vinyl cove base Cream mastic	Level 2 south hall	
40573.242-51	2" brown vinyl cove base Cream mastic	Level 2 Room 30 north wall	

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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ANALYTICAL LABORATORY REPORT

[PLM] EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples;
 [PLM] EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Attn.: Mark Hiley

Client: PBS Engineering and Environmental, Seattle

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

Job#: 40573.242

Batch#: 202211278


Date Received: 10/17/2022

Samples Rec'd: 15

Date Analyzed: 10/17/2022

Samples Analyzed: 15

Project Loc.: Sunnydale Apartments

Analyzed by:  Steve (Fanyao) Zhang

Approved Signatory: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	40573.242-37	1	White powdery material with paint and paper		None detected	Binder/filler, Paint	35	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	25	Cellulose
2	40573.242-38	1	White powdery material with paint and paper		None detected	Binder/filler, Paint	35	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	26	Cellulose
3	40573.242-39	1	White powdery material with paint and paper		None detected	Binder/filler, Paint	34	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	24	Cellulose
4	40573.242-40	1	White powdery material with paint		None detected	Binder/filler, Paint	5	Cellulose
5	40573.242-41	1	White powdery material with paint		None detected	Binder/filler, Paint	6	Cellulose
6	40573.242-42	1	White powdery material with paint		None detected	Binder/filler, Paint	4	Cellulose
7	40573.242-43	1	White powdery material with paint		None detected	Binder/filler, Paint	5	Cellulose
8	40573.242-44	1	White powdery material with paint		None detected	Binder/filler, Paint	4	Cellulose
9	40573.242-45	1	White powdery material with paint		None detected	Binder/filler, Paint	5	Cellulose
10	40573.242-46	1	White powdery material with paint		None detected	Binder/filler, Paint	6	Cellulose
11	40573.242-47	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Brown/yellow mastic		None detected	Mastic/binder	2	Cellulose
12	40573.242-48	1	Brown rubbery material		None detected	Rubber/binder	3	Cellulose
		2	Cream mastic		None detected	Mastic/binder	4	Cellulose
13	40573.242-49	1	Beige rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Cream mastic		None detected	Mastic/binder	3	Cellulose
14	40573.242-50	1	Tan rubbery material		None detected	Rubber/binder	3	Cellulose
		2	Cream mastic		None detected	Mastic/binder	3	Cellulose

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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ANALYTICAL LABORATORY REPORT

[PLM] EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples;
 [PLM] EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Attn.: Mark Hiley

Client: PBS Engineering and Environmental, Seattle

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

Job#: 40573.242

Batch#: 202211278

Date Received: 10/17/2022


Samples Rec'd: 15

Date Analyzed: 10/17/2022

Samples Analyzed: 15

Project Loc.: Sunnysdale Apartments

Analyzed by:  Cici Xu

Approved Signatory:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
15	40573.242-51	1	Beige rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Cream mastic		None detected	Mastic/binder	4	Cellulose

APPENDIX B

AA Lead Paint Chip Sampling Information

AA Lead Paint Chip Sample Inventory

AA Lead Paint Chip Laboratory Data Sheets

AA Lead Paint Chip Chain of Custody Documentation

**Sunnydale Apartments
King County Housing Authority**

**PBS Engineering + Environmental
PBS Project #40573.242**

AA LEAD PAINT CHIP SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Paint Color / Component or Substrate</u>	<u>Sample Location</u>	<u>Results (mg/kg)</u>	<u>Results (%)</u>	<u>Lab</u>
40573.242-PB01	Purple / Metal / Door	East elevation South door	<49	<0.0049	NVL
40573.242-PB02	Brown / Metal / Door	East elevation North door	<52	<0.0052	NVL
40573.242-PB03	Brown / Wood / Framing	East elevation center area	<51	<0.0051	NVL
40573.242-PB04	Brown / Metal / Flashing	South elevation East area at base of Marble Crete panels	120	0.012	NVL
40573.242-PB05	White / Metal / Doorframe	Level 1 TV room	<51	<0.0051	NVL
40573.242-PB06	Off-white / Gypsum wallboard / Wall	Level 2 Room 39 kitchen south wall	<48	<0.0048	NVL
40573.242-PB07	White / Wood / Doorframe	Level 2 Room 32	<50	<0.0050	NVL
40573.242-PB08	White / Gypsum wallboard / Wall	Level 3 north stairwell	<50	<0.0050	NVL
40573.242-PB09	White / Wood / Door	Level 3 south stairwell	1400	0.14	NVL

October 7, 2022

Claire Tsai

PBS Environmental - Seattle

214 E Galer St. Suite. 300
Seattle, WA 98102



NVL Batch # 2218029.00

RE: Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: 40573.242
Location: Sunnydale Apartments

Dear Ms. Tsai,

NVL Labs received 4 sample(s) for the said project on 10/7/2022. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Shalini Patel', is written over a light blue horizontal line.

Shalini Patel, Manager Metals Lab

Enc.: Sample results



Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Total Lead (Pb)



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

Batch #: 2218029.00

Matrix: Paint
Method: EPA 3051/7000B
Client Project #: 40573.242
Date Received: 10/7/2022
Samples Received: 4
Samples Analyzed: 4

Attention: Ms. Claire Tsai
Project Location: Sunnysdale Apartments

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
22412604	40573.242-PB01	0.2058	49	< 49	<0.0049
22412605	40573.242-PB02	0.1907	52	< 52	<0.0052
22412606	40573.242-PB03	0.1952	51	< 51	<0.0051
22412607	40573.242-PB04	0.1697	59	120	0.012


Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Shalini Patel

Date Analyzed: 10/07/2022

Date Issued: 10/07/2022


Shalini Patel, Manager Metals Lab

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

Note : Method QC results are acceptable unless stated otherwise.

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

RL = Reporting Limit

'<' = Below the reporting Limit

Bench Run No: 2022-1007-05

FAA-02

LEAD LABORATORY SERVICES



Company PBS Environmental - Seattle	NVL Batch Number 2218029.00
Address 214 E Galer St. Suite. 300 Seattle, WA 98102	TAT 2 Days AH No
Project Manager Ms. Claire Tsai	Rush TAT
Phone (206) 233-9639	Due Date 10/11/2022 Time 8:00 AM
	Email claire.tsai@pbsusa.com
	Fax (866) 727-0140

Project Name/Number: 40573.242 **Project Location:** Sunnydale Apartments

Subcategory Flame AA (FAA)
Item Code FAA-02 EPA 7000B Lead by FAA <paint>

Total Number of Samples 4 **Rush Samples**

Lab ID	Sample ID	Description	A/R
1	22412604	40573.242-PB01	A
2	22412605	40573.242-PB02	A
3	22412606	40573.242-PB03	A
4	22412607	40573.242-PB04	A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Drop Box				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	10/7/22	800
Analyzed by	Yasuyuki Hida		NVL	10/7/22	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Instructions:

Date: 10/7/2022
 Time: 8:34 AM
 Entered By: Kelly AuVu

October 18, 2022

Mark Hiley

PBS Environmental - Seattle

214 E Galer St. Suite. 300

Seattle, WA 98102



NVL Batch # 2218623.00

RE: Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: 40573.242
Location: Sunnydale Apartments

Dear Mr. Hiley,

NVL Labs received 5 sample(s) for the said project on 10/17/2022. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Shalini Patel'.

Shalini Patel, Manager Metals Lab

Enc.: Sample results



Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Total Lead (Pb)



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

Batch #: 2218623.00

Matrix: Paint
 Method: EPA 3051/7000B
 Client Project #: 40573.242
 Date Received: 10/17/2022
 Samples Received: 5
 Samples Analyzed: 5

Attention: Mr. Mark Hiley
 Project Location: Sunnysdale Apartments

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
22416792	40573.242-PB05	0.1956	51	< 51	<0.0051
22416793	40573.242-PB06	0.2074	48	< 48	<0.0048
22416794	40573.242-PB07	0.2011	50	< 50	<0.0050
22416795	40573.242-PB08	0.2017	50	< 50	<0.0050
22416796	40573.242-PB09	0.2082	48	1400	0.14


Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Shalini Patel

Date Analyzed: 10/18/2022

Date Issued: 10/18/2022


 Shalini Patel, Manager Metals Lab

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

Note : Method QC results are acceptable unless stated otherwise.

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

RL = Reporting Limit

'<' = Below the reporting Limit

Bench Run No: 2022-1018-04

FAA-02

LEAD LABORATORY SERVICES



Company PBS Environmental - Seattle
Address 214 E Galer St. Suite. 300
 Seattle, WA 98102
Project Manager Mr. Mark Hiley
Phone (206) 233-9639
Office: (800) 628-9639

NVL Batch Number **2218623.00**
TAT 1 Day **AH** No
Rush TAT
Due Date 10/18/2022 **Time** 2:20 PM
Email mark.hiley@pbsusa.com
Fax (866) 727-0140

Project Name/Number: 40573.242 **Project Location:** Sunnydale Apartments

Subcategory Flame AA (FAA)
Item Code FAA-02 EPA 7000B Lead by FAA <paint>

Total Number of Samples 5 **Rush Samples** _____

	Lab ID	Sample ID	Description	A/R
1	22416792	40573.242-PB05		A
2	22416793	40573.242-PB06		A
3	22416794	40573.242-PB07		A
4	22416795	40573.242-PB08		A
5	22416796	40573.242-PB09		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Courier				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	10/17/22	1420
Analyzed by	Yasuyuki Hida		NVL	10/18/22	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Instructions: _____

Date: 10/17/2022
 Time: 2:20 PM
 Entered By: Kelly AuVu

APPENDIX C

PBS Inspector Certifications

THIS IS TO CERTIFY THAT

CLAIRE TSAI

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

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

Course Date: 12/10/2021

Course Location: Online,

Certificate: IR-21-7316B



CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 12/10/2022

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

A handwritten signature in black ink that reads "Andy Fridley".

Andy Fridley, Instructor

E - SECTION

DRAWINGS & SPECIFICATIONS

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

SCOPE OF WORK & TECHNICAL SPECIFICATIONS

SCOPE OF WORK

DIVISION 1 – GENERAL REQUIREMENTS

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

DIVISION 02 – SITE CONSTRUCTION

02 41 00	Selective Demolition
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DIVISION 03 – CONCRETE

03 30 00	Cast-in-Place Concrete
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DIVISION 05 – METALS

05 05 13	Shop Applied Coatings
05 05 23	Welding
05 12 00	Structural Steel Framing
05 31 00	Steel Decking
05 50 00	Metal Fabrications
05 51 00	Pre-Engineered Metal Stairs and Railings
05 52 00	Metal Railings

DIVISION 06 – WOOD & PLASTICS

06 10 00	Rough Carpentry
06 65 00	Exterior Synthetic Trim

DIVISION 07 – THERMAL MOISTURE CONTROL

07 01 50	Preparation for Re-Roofing
07 25 00	Weather Resistant Barrier
07 31 00	Asphalt Shingles
07 46 46	Fiber Cement Siding and Trim
07 62 00	Sheet Metal Flashing and Trim
07 72 20	Roof Accessories



07 92 00 Joint Sealants

DIVISION 08 – DOORS & WINDOWS

08 16 13 Fiberglass Doors
08 53 13 Vinyl Windows
08 71 00 Door Hardware

DIVISION 09 – FINISHES

09 21 00 Gypsum Wallboard
09 91 00 Painting

DIVISION 11 – EQUIPMENT

11 24 28 Fall Protection Systems

DIVISION 12 – FURNISHINGS

12 21 16 Window Coverings

DIVISION 22 – PLUMBING

22 30 00 Plumbing Equipment

DIVISION 26 – ELECTRICAL

26 05 32 Outlet Boxes for Electrical Systems
26 51 00 Lighting

ADA Requirements for Doors

Fence Flashing

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SD 1.0	Site Plan
A1.0	First Floor Plan
A1.1	Second Floor Plan
A1.2	Third Floor Plan
A.1.3	Roof Plan
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A2.	Elevations
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A3.1	Cladding Details
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A4.2	Fenestration Flashing Sequencing Detail
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 - Division 06 – Wood, Plastics, and Composites**
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 - 06 20 13 Exterior Finish Carpentry
 - Division 07 – Thermal and Moisture Protection**
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 - 07 25 00 Weather Resistant Barrier
 - 07 31 00 Asphalt Shingles

07 46 46 Fiber Cement Siding and Trim
07 62 00 Sheet Metal Flashing and Trim
07 72 20 Roof Accessories
07 92 00 Joint Sealants

Division 08 – Openings

08 16 13 Fiberglass Doors
08 53 13 Vinyl Windows
08 71 00 Door Hardware

Division 09 – Finishes

09 21 00 Gypsum Wallboard
09 91 00 Painting

Division 10 – Finishes

10 44 00 Fire Extinguisher Cabinet

Division 11 – Equipment

11 23 28 Fall Protection Systems

Division 12 – Furnishings

12 21 16 Window Coverings

Division 22 – Plumbing

22 30 00 Plumbing Equipment

Division 26 – Electrical

26 05 19 Low Voltage Electrical Power Conductors
26 05 32 Outlet Boxes for Electrical Systems
26 05 33 Raceway Systems
26 51 00 Lighting

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SECTION 001010 SCOPE OF WORK

1.0 PROJECT SUMMARY

A. Overview

Sunnydale is a 3 story apartment building, including the daylight basement. The Contractor is responsible to field verify all dimensions and item quantities. The building is currently vacant. Contractor will provide materials, labor, and incidentals to complete a total envelope package. The Envelope and Roof project is comprised of (but is not limited to) the removal of the existing marble-crete panel, exterior trim, aluminum windows, barges, fascia, soffits, gutters and downspouts, exterior doors, pre-cast concrete stairs and landing, steel handrails, selected concrete walkways and slabs, hose bibs, sidewall venting, asphalt roofing, signage, flashings, and lighting. The Contractor is to protect all existing raceways and utilities. Building must be secure by end of each work day.

Insulation for exterior walls is being replaced during this project by others, the Contractor is responsible for coordination with KCHA Weatherization staff for removal of existing insulation and installation of new blow-in dense packing in the walls along with air sealing and blown insulation in the attic.

Included in the scope of work is the complete removal and replacement of underlayment, existing asphalt shingles, flashing, roof anchors, and any plywood deck rot. Remove and replace all pipe boots, flashings, fall arrest anchors, fascia boards, barge boards, roof jacks. Install new roof jacks per clouded scope note #28 on plan page A1.3. Provide and install new exhaust vents for the seven-3rd floor bathroom exhaust fans, materials and installation of new hard pipe ducting to bathroom exhaust fans performed by KCHA Weatherization. The Contractor will supply an approved engineering plan for fall arrest anchors.

At the completion of the demo the Contractor will install:

1. New exterior weather resistant barrier per specifications section 072500, including 3rd party inspection.
2. New exterior 5/8" DensGlass sheathing over OSB sheathing on entire exterior of building.
3. New fiber cement siding, trim, flashings, caulking, barges, rake, Hardi vented soffits and fascia boards. Contractor to leave existing sub-fascia board.
4. Exterior paint.
5. New roofing, roof jacks, underlayment, fall protection, flashings and ridge vent.
6. Install new roof access hatch.
7. New gutters and downspouts with gutter guards.
8. At ADA units - new exterior doors, door hardware and windows.
9. Contractor to install two (2) new building entrance doors to include crash bar/panic hardware and card reader blocking. Installation of card reader and striker by others. Contractor to make sure entrance doors contain backing for hardware.
10. Paint exterior doors and jambs inside and out.
11. There are three ADA unit entry door locations that required reframing: One location requires reframing of one existing sliding glass door opening to accommodate a new ADA door and window. Two locations require cutting of existing concrete stem wall at two (2) existing window locations and reframe to accommodate new ADA entrance and window.
12. New privacy fence per KCHA supplied detail with 1 x 6 Trex fence boards. Contractor to install new Trex on both sides of new fence. Trex color: Clam Shell. See drawing for details.
13. New concrete stairs and sidewalk with powder coated steel guardrail, refer to North entry stair detail in plans. Contractor to supply shop drawings prior to ordering. New guardrails to be core drilled into concrete.

14. New cast-in-place concrete deck and stairs with powder coated steel framing and guardrails, refer to South entry stair detail in plans. Contractor to add new handrail against building at South entrance. Provide shop drawing for all steel work
15. New reinforced 4 inch on-grade concrete slab (front of building) with three 6" X 6" buck outs filled with drain rock for DHP unit draining. DHP install and materials provide by others (see details).
16. New concrete sidewalk, steps, and concrete retaining walls for steps at North Entry, refer to North Entry Stair Detail in plans. Include new concrete step at North entry door per plan note #7 on plan page S1.0.
17. Remove existing CCTV cable from siding and salvage. Reinstall on new siding in metal conduit. CCTV materials and installation by others.
18. Blocking for six (6) CCTV camera locations.
19. Blocking for Fire Alarm Bell/Horns for two (2) locations.
20. New blocking for existing light fixtures, Contractor to verify count.
21. New light fixtures, including blocking at lower entrance doors.
22. Provide and install new wiring for two exterior porch lights with new switch at lower ADA units. Include new blocking for lights. Contractor to provide all drywall demo, drywall reinstall, tape, texture, trim work, prime and painting.
23. Installation of new 5/8" x 1-1/2" plywood strips around all four sides of window framing for nailing. No untreated wood is to touch composite siding products.
24. Reframe existing window opening at south entrance so handrail at new front entry deck does not land on window after rebuilding deck with new dimensions. Dimensions change due to existing Fire Department Connection location below South building entrance. Southeast landing location. Refer to cloud on plan page A4.0 for new window dimensions.
25. Install two (2) new through-wall dryer vents, with blocking at existing locations for laundry room. Remove the two abandoned dryer wall vents.
26. Replace all existing side wall vents (bath fans etc.) with new, including blocking.
27. Provide blocking for any and all wall penetrations (plumbing, electrical boxes, drain pipes, etc.)
28. New signage, including blocking.
29. New blocking for address sign.
30. Installation of new 3/4" Azek plywood with 5/4 inch by 4 inch trim out with flashing, for future DHP install. See plan page A2.0/detail #1 for estimated location. Azek panel size is 4'x4' for estimating purposes. Exact locations and dimensions to be discussed on site during demo.
31. New ERV vent and DHP head blocking at each unit. Coordinate with KCHA for new ERV and DHP install by others, include blocking for disconnects. Refer to plans for estimated locations, exact locations to be discussed on site during demo. Blocking dimensions ERV: 12"x27", DHP head: 8"x8", Disconnects: 8"x8". All blocking to be 5/4".
32. Remove existing hose bibs and replace with new, including blocking. Includes drywall removal, drywall replacement tape, texture, prime and painting. Contractor to verify count.
33. Relocate existing mail boxes to North side of existing pavilion, provide concrete pedestals for mounting.
34. Remove the two existing gable vents and replace with Builders Edge 12in x12 in square gable vent or similar. Color: paint to match siding. Contractor to block and fill in sheathing to accommodate smaller vent.
35. Install new roof hatch, refer to specification section 077220. Product type: Personnel II Single-leaf metal lid for ladder, ship stair, or alternating tread stair access, 36 by 36 inches.
36. Unit entry modification for southernmost ADA unit on the lower level: The exterior entrance drawn on plans is to be reversed as, refer to plan page A2.0/detail #1.
37. Contractor to move light fixture and switch on lower southernmost unit to right side of window. Contractor to provide all electrical, drywall demo, drywall reinstall, tape, texture, trim work, prime and painting to complete this task.

- 38. New roof structure over South entry deck, refer South Entry Roof detail in plans.
- 39. New building address identification numbers, similar to existing – color: black.

The Contractor’s scope of work will include, but is not limited to, all labor, materials, equipment, and sequencing to supply KCHA with a “turnkey” project (limited to Contractor’s Scope). It is critical that the Contractor take all precautions to provide a safe construction site for the workers and KCHA staff. The Contractor is responsible to field verify all dimensions and item quantities.

2.0 PROJECT ADMINISTRATION REQUIREMENTS

A. Pre-Construction Administration

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

1. Project Master Schedule

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

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

2. Schedule of Values (SOV)

- a. Each item must correlate to the project schedule.
- b. Schedule of Values to contain a five (5%) percent line item for the closeout documents.
- c. Schedule of Values to reflect detailed tasks by labor and material.
- d. Contractor to include a separate line item for each item listed below:
 - 1) Overhead and Profit.
 - 2) General Conditions.
 - 3) Material and Labor for each task or based on subcontracted work. This will allow KCHA to pay for materials purchased at the beginning of the project or during the course of construction (once KCHA has established that the Contractor has ordered, has been invoiced, and has a suitable location to store materials. See Contract documents for requirements.)
 - 4) Mobilization.
 - 5) COVID Monitoring/Cost.

3. Submittal Schedule

- All submittals to King County Housing Authority (KCHA) prior to start of related work.
- a. The Contractor shall provide and manage a schedule of all submittals required on the project as listed in each specification section.
 - b. Submittals will be processed with enough time for the Owner to reasonably provide feedback fourteen (14) calendar days prior to materials being delivered to the site.

- c. Any material submitted that is not listed in the project specifications will need to be submitted with a Substitution Request Form for review.
4. **Site Specific Safety Plan:** The Site Specific Plan should be submitted for review then kept on site during construction. Verify regular safety meetings are being held per proposed plan.
Contractor's employees and all sub-contractors' employees will be required to wear a mask if they are in a building or a resident's unit. Contractor shall report to KCHA any COVID positive or exposed employees so KCHA can determine if any follow-up is required. All sub-contractors are to report any COVID positive or exposed employees to the Contractor.
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., 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. Prevailing 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 Burien 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 framing, sheathing, 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, scaffold, 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. Mockups: The Contractor will provide all mockups, within his base scope, required for the project as listed in each specification section. Mockups and color samples will be produced with enough time for the Owner to reasonably provide feedback one (1) week prior to these components being staged and implemented on site. Mockups will set expectations of quality expected for the project.
4. Quality Assurance/ Quality Control: The Contractor will provide ongoing QA/QC at each step of work and take corrective measures prior to the next element of work being performed. This will include, but is not limited to, sequencing partial punches and substantial completions throughout the project.
5. Contractor responsible for subcontractor's quality of workmanship and materials, completion of scope, and scheduling on site.
6. It is incumbent on the Contractor to inform the Owner of any conflicts between manufacturers' requirements and the provided plans and specifications through the RFI process and prior to submitting a bid.

D. Inspection of Work

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

E. Site Requirements

1. All communication and coordination will be with Owner representatives only.
2. Work shall be coordinated not to interrupt services (i.e. garbage, mail, EMS, etc.).
3. Emergency and tenant access must be maintained at all times.
4. 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.
5. 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.

6. 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.
7. The Contractor must read and comply with all safety requirements as stated in Section 4 A.
8. The Contractor is responsible for all necessary locates (both private and public), grading, and staking as required.

F. General Restrictions

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

G. Work Hours

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

H. Contractor's Responsibilities

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

I. Project Phasing

1. This project will directly impact zero residential dwelling units and the parking lot. The Owner's expectation is to have the building protected from the elements at the end of each work day. Each window and door replacement to be swapped out on the same day. KCHA is allowing 120 calendar days for this project.
2. The Owner's expectation is not to open up "Vast" areas of the project for prolong periods of time. Contractor must realize and accept that this project is being conducted in a residential community of multifamily units that are occupied and all that it encompasses (families, elderly, children out of school, 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 trenching plan and sequence the work accordingly. 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.
3. Contractor to incorporate into their schedule the coordination and installation of mounting blocks for HVAC equipment to be installed by a KCHA weatherization contractor.

4.0 SAFETY, PROTECTION & RESTORATION

A. Safety

1. Contractor shall provide and have on site at all times a site specific safety plan.
Contractor's employees and all sub-contractors' employees will be required to wear a mask if they are in a building or a resident's unit. Contractor shall report to KCHA any COVID positive or exposed employees so KCHA can determine if any follow-up is required. All sub-contractors are to report any COVID positive or exposed employees to the Contractor.
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 existing roofing, concrete walkways, paving, landscaping and all other finished surfaces which are to remain.
2. Contractor will provide protection at landscape areas where material laydown, storage, construction trailers or equipment are stored.
3. Contractor is responsible to protect and maintain all areas within the project work limits including, but not limited to, landscaping, hardscapes, exterior amenities, existing improvements, and adjacent/abutting finishes to remain (roofing, soffits, gutters etc.). If necessary, Contractor shall coordinate with Owner for removal / relocation of tenant property on front and back patios.
4. See individual scope item related to protection Dust and debris control Best Management Practices (BMPs) will be applied daily in all work areas (i.e. use of tarps, water truck, street sweeper etc.).

C. Restoration

1. Contractor responsible for restoration of any damage due to construction related activities. Contractor is advised to do a pre-construction walk and do an assessment with KCHA site personal prior to construction to note and document existing conditions.

2. Contractor will restore all landscape impacted by construction to existing pre-construction conditions.
3. Contractor to restore all lawn areas damage during construction.
 - a. Contractor to rake up all foreign debris once construction is complete.
4. Planted areas that are damaged are to be conditioned with new wood chip mulch:
 - a. Will be free from deleterious materials and suitable as a top dressing.
 - b. Loosen subgrade of planting beds to a minimum of four (4") inches. Remove stones larger than one inch in any dimensions and sticks, roots, rubbish and other extraneous matter and legally dispose. Mulch shall contain minimal nutrient content.
 - c. Areas shall be conditioned with new top soil, tilled in to a depth of two (2") inches, and then two (2") inches of mulch placed throughout the effected. Mulch should be a minimal nutrient, non-growth promoting mulch (non-die/stain/colored, wood chip/mulch, mulch that does not promote growth) spread around the affected area and section of planting bed/box/defined area. Contractor should work with KCHA to determine limits of mulch required for the project.

D. Hazardous Materials

1. If lead based paint is known to be present, the Contractor is responsible for removal using the HUD Lead-Safe-Work protocol. HUD Lead Safe Work protocol is more restrictive than RRP protocols. Contractors should refresh all workers on the HUD portion of Lead Safe work Practices before the project starts. The contractor will be responsible to retain copies of all workers RRP training certificates on the work site at all times, and be able to produce them when asked.
2. Owner will make any hazardous material reports available to the Contractor. Contractor will be responsible to determine at what level of abatement and protection is required when disturbing hazardous materials.
3. The Contractor agrees to indemnify, defend and hold the Owner harmless from any claims arising out of or relating to the improper handling of hazardous materials that may be present on site.
4. Contractors are responsible for reviewing all Hazmat surveys provided by KCHA and must identify all areas or works that have lead base paint, or asbestos containing materials. Contractor is responsible for sharing hazmat surveys with their sub-contractors prior to any work completed on site.
5. Traces of asbestos containing materials (ACM) may be present. These should be removed by properly trained and protected personnel using appropriate work practices and engineering controls. Workers potentially working with (ACM) are advised to confirm training requirements of WISHA and to ensure that proper worker protection and work practices are implemented.
6. The Contractor agrees to indemnify, defend and hold the Owner harmless from any claims arising out of or relating to the presence of asbestos/hazardous material in the Owner's building that the Contractor has sub-contracted the removal and legal disposal of the asbestos/hazardous material.

5.0 DIVISIONS

DIVISION 1 GENERAL CONDITIONS

A. Site Staging and Deliveries

1. The Contractor will coordinate bulk material deliveries with Owner forty-eight (48) hours prior to deliveries where potential 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. There is no Contractor or subcontractor parking onsite. 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. KCHA staff will designate 2 to 3 parking spaces that will be fenced off around the perimeter and locked, to store materials for current phases of work. KCHA will also designate areas around the building for additional material storage. No trash and debris will be stored, and must be removed from the site on a daily basis. Contractor must perform daily clean up around staging site to ensure dust and debris does not build up in the parking lot.

B. Temporary Facilities

1. Use of onsite restroom facilities will not be permitted. Contractor is responsible for portable toilets; Contractor to consult with Owner for placement. Contractor to follow the Covid requirements on maintenance of portable toilets. Contractor per Covid protocol shall provide a portable sink with soap and water at locations specified on the Covid Plan.
2. Contractor is not permitted to use tenant power.

DIVISION 2 SITE CONSTRUCTION

A. Existing Utilities Work Summary

Prior to commencement of any excavation or trenching, the Contractor shall be responsible to provide all utility locates (both private and public) and shall become familiar with locations of all existing systems and related shut offs. The Contractor shall have the contact information for service providers posted and readily available in the event of an emergency or necessary shutoff requiring provider's knowledge.

B. Existing Utilities General Requirements

1. Electrical

- a. Contractor to verify any existing equipment, devices, fixtures, cabling, wires and conduit is in operational order prior to moving, relocating, replacing or re-routing. 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.
- b. 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.
- c. Contractor responsible for repairing all wires, cables, communication boxes etc. damaged by construction activities on same day incident occurs.
- d. 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.
- e. TV dishes KCHA will be responsible for moving, storage and protection of tenant's personal items and will coordinate with Contractor to have these items moved and secured prior to start of work at each building. If items have not been removed prior to the start of work, the Contractor may be compensated for moving items and any damage to personal items during this process will be the sole responsibility of the tenant.

2. Water

- a. Shut Downs: Contractor will provide proper notification (minimum of seventy-two [72] business hours to the Owner.

- b. 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. Fire/Sprinkler System

- a. The Contractor is to protect existing fire suppression and monitoring system during construction. Any damaged caused to these systems during construction are to be repaired at no cost to Owner.
- b. The Contractor is responsible for notifying monitoring company for any work that could interfere with fire monitoring and suppression systems.

4. Grub and Clear

- a. All clearing and grubbing will be completed by KCHA maintenance staff prior to project start.

C. Selective Demolition Summary

The Contractor shall remove and legally dispose of all items listed below and as shown, described and inferred in the drawings to allow for the installation of specified materials unless otherwise specified. Existing Materials included to be removed and disposed of are as follow but non-inclusive:

1. General Demolition

- a. Roof shingles and underlayment, ridge vents, misc. roof vents, and fall arrest anchors.
- b. Gable end vents, sidewall venting, fascia and barges, and barge and rake boards.
- c. Marble-crete siding, trim and weather barrier down to existing OSB sheathing.
- d. Gutters, downspouts, hose bibs, vents, light fixtures (salvage), and signage.
- e. Windows, slider, screens, blinds and associated hardware at all exterior doors and windows.
- f. Flashings at all window heads, and door and window, sill pans if applicable.
- g. Exterior Doors and casings of all doors to be replaced.
- h. Contractor shall protect existing cable and phone lines as necessary until they are to be reinstalled

D. Selective Demolition General Requirements

Refer to Specification Section 024100 Selective Demolition, Specification Section 070150 Preparation for re-roofing

1. Install temporary barriers as necessary to protect workers and KCHA staff during demolition.
2. Recycling efforts will be performed to the fullest extents possible as specified in the contract documents.
3. Burying of rubbish on-site or otherwise is prohibited.
4. Saw cutting shall be required at all selected concrete areas scheduled for removal for patchwork and as necessary for the installation new ADA entrances. Also where existing concrete (i.e., sidewalks, curb & gutter) are to remain where it meets new concrete. Contractor to work with KCHA to coordinate definitive location for cut. Concrete cutting shall be straight and perpendicular to adjoining surfaces.

E. Trenching

1. Trenching Work Summary

The Contractor shall open trenches, install pipe line, and backfill as required for installation of new water pipelines as shown, described or reasonably inferred on the drawings.

2. Trenching General Requirements

- a. **Opening Trenches: The Contractor shall open trenches and export all materials to the depth required for the installation of site systems.**

- 1) Trenches shall not be opened ahead of pipe laying operations any further than is necessary for proper laying operations. Trenches shall be progressively backfilled and consolidated; excess material shall be removed immediately behind laying operations
- 2) Hand digging and or use of a vactor truck shall be performed where trenching intersects existing underground services and as necessary to clear significant tree roots.
- 3) De-watering Trenches: All excavations shall be dewatered properly before laying pipe. Where running sand is encountered, dewatering shall be done by well pointing whenever possible. Where soil conditions are not favorable for use of well points, trench drains of graded stone shall be constructed to suitably locate sumps and the water removed by bailing or pumping.
- 4) Shoring shall be provided per WISHA requirement.
- 5) Trenches shall be protected during inclement weather.

Note: No extra payment will be made for dewatering. All costs of equipment, labor, crushed stone and other materials required for dewatering shall be included in the bid

2. All areas adjacent to excavation activities to be protected or restored to existing conditions at Contractor's expense. If pedestrian access is obstructed to the site, residential units, management office or community center, the Contractor is responsible to provide safe access to these and all common areas which may include, but are not limited to, temporary ramps, hand rails, compacted graveled paths, barricades and fencing.
3. Contractor and subcontractors must comply with all health and safety regulations when working on site including but not limited to; trenching, equipment operation, loading, trucking, etc.
4. Contractor responsible for all trenching to install new pipe from the pole light to the building. All open trench lines shall be monitored, protected, and covered with a minimum of 3/4" plywood and cordoned off with caution tape when trench work is not in progress or at the end of each day.
5. Contractor to cover and protect spoils prior to removal. Contractor will submit a bid for one hundred (100%) percent disposal of spoils and one hundred (100%) percent of import. Contractor may negotiate with Owner to use native soils, but Owner must approve prior to back fill. Provide clean fill with four (4") inches of crush rock base and compact to eighty (80%) percent when providing for hardscapes. Firm and unyielding back fill with four (4") inches of conditioned top soil or soil to receive sod or mulch for exterior of building. Under crawl space condition Contractor is to back fill trenching to firm and unyielding.
6. It is the Contractor's means and methods for performing the work. Owner anticipates continuous trenching and pipe lay from site lighting pole to buildings. Open trenches shall be protected at all times, trench box or adequate shoring in place for depth beyond four (4') feet, trenches safely secured and protected from falls, and safety flagged or signage for visual warning by all pedestrians. The Owner's expectation is not to open up "Vast" areas of the project for prolong periods of time or shutting down "Vast" areas to accommodate staging, stock piling, mobilization or for convenience of construction. Contractor must realize and accept that this project is being conducted in a residential community of multifamily units that are occupied and all that it encompasses (families, elderly, children out of school, 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 trenching plan and sequence the work accordingly. The Contractor must review their risk factors to accommodate these considerations. Trenching shall be to the minimum depth required by code or greater to clear foundation or other obstacles.
7. After trenching has been completed Contractor to put back landscaping to original conditions.

DIVISION 3 CONCRETE

A. Concrete General Requirements

Refer to Specification Section 033000 Cast in Place Concrete /SD1.0

1. Contractor to coordinate with KCHA for the fence post base installation per plan section SD1.0
2. Concrete walkways are typically 4" thick slabs. Actual condition on site may vary from four (4") to six (6") inches depending on sub-grade. The Owner is only listing typical details or conditions and is informing the Contractor that the concrete slab and walkways may vary in thickness. The Contractor should include a factor to budget for additional variance in quantities.
3. The Contractor will be responsible to match existing elevations or plan provided elevations. Closely monitor and adjust elevations as needed to maintain finished elevations shown on drawings. Where drawings do not show finished elevations, Contractor to work with existing grades to incorporate new work.
4. Concrete to be broom finish.
5. Contractor's site superintendent to submit concrete mix truck/load tickets to Owner's representative for every delivery received on site.
6. Install rebar dowels 2'oc at all joints between new and existing concrete.
7. Contractor will be required to install one (1) standard panel section **mock-up** of a concrete slab to demonstrate the form, finish, expansion and control joint quality. If approved by KCHA, the Contractor can incorporate into scope of work and this **mock-up** will be the basis for slab quality for the duration of the project. If approved, the Contractor can incorporate into scope of work and this sample will be the basis for new slab quality for the duration of the project. Owner feels this is critical to a successful project.
8. Install new cast in place concrete walkway entrance tying in with new concrete retaining walls and cast in place stairs for North building entrance. Concrete mix for sidewalk slabs to be minimum mix of 3000 psi. New sidewalks to be 4" thick and with broom finish. The Owner is only listing typical details or conditions and is informing the Contractor that the elevation of the concrete walkways and landings may vary in thickness. The Contractor should include a factor to budget for additional base material or crushed rock to adjust elevation.
9. All cast in place on grade slabs and walkways to receive structural steel reinforcement with #4 rebar with a 14" on center grid pattern.
10. All new flatwork to sit on a minimum of a 3" crushed 5/8 minus base with 95% compaction. Owner to verify prior to cover.
11. Concrete installed over metal decking at South building entrance to be architectural grade Class A finish as defined in ACI Table 3.1. PSI to be 4000.
12. Contractor to provide straight and square saw cuts between existing slabs and where new work will occur. KCHA and the Contractor to coordinate locations and limits of saw cutting.
13. Stair treads to be concrete infill on steel stair stringers to match concrete at pan deck for main building entrance.
14. Contractor to cut out existing concrete foundation stem wall at two areas for new ADA unit entrances at front of building (East wall).
15. Refer to concrete details in plans for concrete requirements.

DIVISION 5 METALS

A. Shop Applied Coatings for Metals

Refer to Specification Section 050513 and drawings

1. Shop applied coating samples to be provided and approved by KCHA prior to applications. Metal guardrails and railings to be powder coated. Color to be black, medium gloss.
2. Coatings applicator to be qualified and experienced per specifications.
3. All shop coated steel to have protective covering prior to installation.

B. Structural Steel Fabrication

Refer to Specification Section 051200 and drawings for steel sizing, installation methods, materials and protective coatings

1. Steel fabrication to be performed by company specializing in work of this Section with minimum (5) years documented experience with commercial quality work of comparable scope. Steel fabricator to be certified by AISC Quality Certification Program: Standard for Steel Building Structures.
2. At the Owner's expense, a material testing service will inspect the fabrication shop and welder certification. Owner and Contractor to perform inspection prior to fabrication.
3. Contractor to field verify all steel dimensions and placement locations. Approved shop drawings are required for all structural steel systems, pan decking, embeds, reinforcing steel guardrails and railings prior to ordering steel.
4. All structural steel to be installed plumb, level and meet all specifications for attachment, bracing and welding methods.
5. This project does require special inspections by Owner's material testing consultant and needs to be coordinated prior to covering. Special inspections include soils, concrete, steel construction, steel construction other than structural steel.

C. Steel Pan Decking

Refer to Specification Section 053100 and drawings for decking with composite concrete slab

1. KCHA will require special inspections for the pan decking and for reinforcement steel and embeds. Contractor to replace any failed components and be responsible for any costs of re-inspections.
2. Manufacturer to be Verco Manufacturing Co. or approved equal.
3. Lap decking 2". Place decking flat, square and with cells aligned. Anchor deck securely in place following manufacturer's directions and approved shop drawings.
4. All welding to be performed by experienced AWS qualified WABO certified welders.
5. Secure steel decking to supporting members.

D. Metal Fabrication

Refer to Specification Section 055000 and drawings for metal fabrications

1. Provide shop drawings that indicate profiles, sizes, connection attachments, reinforcement, anchorage, size and type of fasteners and accessories.
2. Provide mock-up. Owner accepted mock-up may be incorporated into work.
3. Fabricator Qualifications: Company specializing in work of this section with minimum 5 years' experience.

E. Metal Stairs and Railings

Refer to Specification Sections 055100, 055200 and drawings for pre-engineered metal stairs and railings.

1. Shop drawings required for all metal stair stringers, guardrails and railings.
2. Pre-engineered metal stair and railing system to carry 25 year manufacturer's warranty.
3. Contractor responsible for protecting all metal components from damage and dirt. Site conditions are to be acceptable to accommodate storage and installation.

4. Manufacturers and Products
 - a. American Stair Corp.
 - b. Pacific Stair Corp. (basis of design)
 - c. Duvinage / Worthington
 - d. Approved equal
5. Concrete-filled stairs and steel tube railings
 - a. Stairs: Pacific Stairs S100 Series concrete filled stair system
 - b. Finish: Shop applied powder coat
6. Landings: Refer to specifications and drawings
7. Guardrails: Pacific Stair R400 series picket Rail
 - a. Vertical Posts 1 ½" square tube .120" thick
 - b. Pickets ½" square bar
 - c. Handrail 1 ½" diameter pipe (1.66" outside diameter)
 - d. Finish: Shop applied powder coat
8. Handrails and Brackets
 - a. Manufacturer's standard 1 ¼" diameter (1.66 outside diameter)
 - b. Handrail Brackets: Manufacturer's standard
 - c. Handrails and Brackets to conform to requirements of IBC and ADA
 - d. Finish: Shop applied black powder coat. Color: Black

DIVISION 6 WOOD & PLASTICS

A. Rough Carpentry Work Summary

1. General Contractor to field coordinate layout of work prior to beginning installation.
2. General Contractor to provide labor and materials 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. Existing walls and selective roof demo may require additional blocking, shimming and infill. The new assembly is comprised of, new 5/8" DensGlass sheathing, Tyvek drain wrap, fiber cement board and trim nailed through 7/16 OSB into 2x wood framing. The Contractor will be responsible to ensure that all new components provide necessary structural support for new elements to be installed as well as plane out with existing surfaces.

B. Rough Carpentry General Conditions

Refer to Specification Section 061000 Rough Carpentry

1. Field coordinate and layout work prior to beginning installation. Cut, fit and install rough carpentry construction at locations indicated in drawings and required to complete work of contract.
2. Secure with sufficient and hot-dip galvanized fasteners, anchorages, and accessories to insure rigidly in place.
3. Use preservative treated wood products for materials for permanent construction at all exposed framing and where resting on concrete, masonry or roofing as otherwise indicated, or required.
4. Contractor responsible to coordinate design, and all installation requirements with manufacturer and all code requirements.
5. Contractor to reframe lower units at window to incorporate a new ADA door and smaller window.
6. Fence is to be constructed with 4x4 treated post anchored with a Simpson CBSQ44-SDS2 Column Base in 18" of concrete. Framing will consist of treated 2x4 top and bottom rails with treated 2x4 studs, 16" on center. Fencing material will be 1x6 Trex with a ¼" spacing applied on both sides of fence. Apply new metal ridge cap (refer to privacy fence detail in plans).

C. Interior Finish Carpentry Work Summary

General Contractor to provide labor and materials to complete interior finish carpentry inclusive of the modification, removal and replacement of interior trim items such as door and window casings and window blinds where applicable. Contractor to include removal of one sliding glass door.

D. Interior Finish Carpentry General Conditions

Refer to section 062000 Interior Finish Carpentry; section 092100 Gypsum Wallboard; and section 099100 Painting. Apply finish methodology listed in Section 079200 Joint Sealants for putty, caulking, and finishes of interior trim surfaces

1. General Contractor to provide labor and materials to complete interior trim removal and replacement at doors. Provide and install prefinished ¼" x 1" scribe molding, beveled wood trim to cover any gap between the new window existing liner/GWB.
2. Any scribe molding installed at windows to allow for proper operation of new blinds.
3. Interior base shall be modified as necessary for the proper installation of doors and casing, base shall match existing.
4. A **mock-up** of the interior window and door packages and associated trim is required. Once approved by Owner, this will set the quality standard for the entire project.
5. Contractor shall be responsible to provide protection to existing finishes to remain when installing trim and painting. Clean area of work inside each residential unit at the end of each work day.
6. The Contractor shall be responsible for the repair of any damage to interior GWB that is incurred from the modification, removal and replacement of the exterior or interior finishes (i.e. new hose bibs, interior door and window casing). Drywall shall be taped, textured and painted to match existing color (Birch White). GWB, texture and paint repairs shall be required at areas where new trim does not cover the caulk line of the old trim.
7. Contractor to provide and install a new metal, carpet or vinyl transition strip between existing flooring and all new door frames or entry door threshold where necessary.
8. Contractor to provide and install floor protection in any area work is being performed.

E. Exterior Finish Carpentry General Conditions

Refer to section 062013 Exterior Finish Carpentry, 074646 Fiber Cement Siding and Trim, 076200 Sheet Metal, Flashings and Trim, 079200 Joint Sealants, 081613 Fiberglass doors, 085313, Vinyl Windows and Patio Doors, 099100 Painting

1. General Contractor to provide labor and materials necessary to install new doors, windows, fiber cement siding, soffits, fascia, barges, and trim, including new fencing and necessary flashings.

NOTE: **All removal and installation of windows will be performed by a Glazier.

2. The Contractor shall shim, modify and repair minor irregularities in the assemblies in order produce a finished product that is consistent in plane prior to cover.
3. Use lengths of material that when installed and provide minimal amount of splicing. All splices are to be weather cut in the correct direction.
4. All new privacy fence color selection to be submitted to KCHA for approval prior to ordering.

DIVISION 7 THERMAL AND MOISTURE PROTECTION

A. Weather Resistant Barrier Work Summary

The Contractor shall provide all labor and materials to install Dupont Tyvek "Drain Wrap" incorporating all required flashing(s) at penetrations and openings. Installation shall conform to the manufacturer's best practices and as shown, described, or reasonably inferred on drawings.

B. Weather Resistant Barrier General Requirements

Refer to Section 072500 Weather Barriers, Section 061000 Rough Carpentry, 073100 Fiberglass Siding and Trim, 079200 Joint Sealants

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

C. Roofing Work Summary

The Contractor shall provide all labor and materials to remove existing roof shingles, underlayment, ridge vents, roof anchors, roof vents, flashing and all associated materials in preparation for new roof assembly.

D. Roof Accessories General Conditions

Refer to Specification Section(s) 073100 Asphalt Shingles, 076200 Sheet Metal Flashing and Trim, 077220 Roof Accessories, 112428 Fall Protection Systems

1. Contractor to take in to account (for bidding purposes) all roof vents will be Contractor's responsibility to reconnect to existing duct work. Contractor will perform this work from inside the attic space if necessary.
2. Contractor to provide roof color for selection.
3. Contractor to provide and install GAF WeatherWatch underlayment or equal alternative self-adhesive product meeting GAF warranty requirements.
4. Contractor to confirm existing bath fan locations are connected. If not, provide roof vent and connect to existing bath fan.
5. Existing building envelope, including roof decking, shall remain water tight throughout the construction process.
6. Comply with accessory manufactures' instructions and recommendations. Coordinate installation with roofing system to ensure weather tight performance. Anchor securely to structure to with stand inward and outward loads.
7. Contractor to only remove areas of replacement that can be covered with new material in the same day of work. Removing vast areas of work, exposing the building to the elements for more than a day will not be acceptable.
8. The Contractor is to carry a material and installation contingency for the roof and side walls sheathing. This will include removal, disposal and installation of new OSB sheathing to replace any unforeseen rot. Any leftover sheathing will be credited back to KCHA.
 - a. Roof: 20 sheets 7/16 x 4 x 8 inch OSB
 - b. Side walls: 30 sheets 7/16 x 4 x 8 inch OSB

E. Siding and Exterior Work Summary

The Contractor to provide all labor and materials for the installation of a complete siding system, inclusive of all siding, soffits, fascia, trim (i.e. inside and outside corners, window and door casings, mounting blocks for lighting, fixtures, hose bibs), and all necessary caulking and fasteners. Refer to specifications for dimensions of various sizes and depth of siding materials.

F. Fiber Cement Siding and Exterior General Conditions

Refer to Specification Sections 074646 Fiber Cement Siding and trim, 062013 Exterior Finish Carpentry, 072500 Weather Resistant Barrier, 076200 Sheet Metal, Flashings and Trim, 079200 Joint Sealants, 099100 Painting

1. Patch and repair damaged sheathing to match existing thickness for uniform substrate to receive new siding assembly.
2. Soffits at building cantilevered locations will consist of vented factory primed smooth finish. See plan and specifications for dimensions.
3. Provide blocking and head flashings at all penetrations (i.e. solid blocking around gas meters penetrations, hose bibs, electrical panels, soffits, new lighting, exterior GFI's, venting, fire extinguisher cabinets and any appurtenances).
4. Fasteners: Stainless steel, T or pan head type as recommended by panel manufacturer, of equal or greater holding power than required by manufacturer.
5. All exterior trim shall be shimmed, planed and back cut as necessary to provide a smooth and even surface at joints.
6. Contractor is responsible to correct any substandard structural, level and plumb framing components prior to cover. The Contractor will be responsible to ensure that all existing components provide the necessary structural support for new elements to be installed, as well as flush out with existing adjacent surfaces.

G. Sheet Metal, Flashing and Trim Work Summary

The Contractor shall provide labor and materials to install metal flashings and counter-flashings, at perimeter edge, roof to wall, window and door heads, fixture blocking, belly bands, as required for weather-tight installation.

H. Sheet Metal, Flashing and Trim General Conditions

Refer to Specification Section 076200 Sheet Metal, Flashing and trim, 079200 Joint Sealants

1. Contractor to provide and install new .027 gauge five (5") inch aluminum K-Style gutters, new two by three (3"x4") inch downspouts and fittings. Gutters are to be installed to provide fall towards drain, downspouts are to be installed plumb and parallel to adjacent building lines in line with existing tight line. Contractor to provide and install new tight line adapters for 3 x 4 downspouts.
2. The gutter and downspout metals shall be Kynar 500 (PVFD) finish, color selected by Owner from standard color chart.
3. Contractor shall provide new black corrugated downspout adapter cap (black) and where applicable reducer and vertical run of pipe to new downspout connection. Connection termination shall be no greater than four (4") inches above adjacent grade.
4. Contractor to provide and install with self-tapping screws, Gutter Debris protection (Amerimax Metal Lock-In Gutter Guards) at all new gutter locations.
5. All windows head flashings shall not have any penetrations and shall have appropriate end dams formed to prevent water penetration (i.e. hemmed edges, soldered corners, plastic cement, etc.). All related finishes shall be pre-painted however, where necessary, these surfaces must be rust-proof, primed and/or can accept exterior paint without blemish.
6. All fasteners will be hot-dip galvanized or stainless steel.
7. Contractor to supply and install new sidewall exhaust vents. All new venting will be installed on new Sturdi blocking. Contractor to supply and install all new vent piping to extend new exhaust venting.
8. Contractor to use Sturdi blocking for at all exterior wall mounted items and fixture.

9. The Contractor to install Azek plywood at specified locations with 5/4" x 4" casing on all sides, include flashing.

DIVISION 8 OPENINGS

A. Exterior Doors Work Summary

Exterior door removal and installation of ADA unit entry doors and building entry doors per plans and door schedule. All doors and frames to be removed and replaced within the same day.

B. Exterior Doors General Conditions

Refer to Specification Sections 081613 Fiberglass Doors, 061000 Rough Carpentry, 062000 Interior Carpentry, 062013 Exterior Carpentry, 072000 Joint Sealants, 076200 Sheet Metal Flashing and Trim, 087100 Door Hardware, and 099100 Painting

1. The Contractor shall verify existing rough openings and conditions prior to ordering. It is recommended door modifications be made prior to application of finish. The Contractor shall plane, shim and infill as necessary to provide a maximum of a 1/2" clearance for door installation to allow for backer rod and/or insulation installation.
2. Contractor will protect all KCHA possessions and finished surfaces from dust, mud, texture and/or paint. Any damaged items will be replaced/repared at Contractor's expense.
3. All doors will be installed true, level and plumb with square and consistent reveals and close (and latch) firmly with the single push of a hand (i.e. entry closers, bomber hinges, etc.).
4. Contractor to installed doors and provide a proper seal and not allow daylight to be seen on from either side of door.
5. Thresholds shall be ADA type and installed on a firm foundation and supported to prevent bow or bend when pressure is applied to threshold. Where applicable thresholds shall be grouted with non-shrink grout between threshold and concrete slab. In locations were grout may degrade existing substrate, Contractor shall us shims, adhesive, or other approved materials that will prevent threshold from bow or bending when pressure is applied.
6. Contractor to verify all unit doors that will require ADA accessible thresholds. All other doors will receive an adjustable thresholds. Refer to door hardware specifications.
7. Contractor to protect all doors prior and during installation. KCHA will not accept doors damaged during transport or installation.
8. All door casing will be replaced with new 1 x 3 trim at top with 9/16 x 2-1/2" trim at sides.
9. All doors to be pre-painted prior to installation. Do not touch-up door paint. If door paint is damaged, entire door to be repainted to original specifications. Do not paint fire rated door labels.
10. All interior door casing shall be caulk and painted to match existing trim.
11. Refer to "Typical ADA Locations and Information for Door Hardware" in hardware schedule below for hardware installation heights.

C. Door Hardware Work Summary

Contractor to provide a complete finish hardware and suitable fastenings for the Project in accordance with Drawings, Specifications and Schedules.

D. Door Hardware General Conditions

Refer to Specification Section 087100 Door Hardware, 081613 Fiberglass Doors.

1. Contractor to coordinate keying with Owner prior to ordering.

E. Vinyl Windows and Patio Doors Work Summary

Contractor to provide and install all new Milgard white vinyl windows. Remove all windows, sliding glass door, window blind treatments, and associated hardware. Contractor is responsible to dispose and/recycle all windows & sliding glass door.

F. Vinyl Windows and Patio Doors General Conditions

Refer to Specification Sections 085313 Vinyl Windows and Patio Doors, 061000 Rough Carpentry, 062000 Interior Finish Carpentry, 062013 Exterior Finish Carpentry, 076200 Sheet Metal Flashing and Trim, 079200 Joint Sealants, 121116 Window Coverings

1. The Contractor is responsible to field verify all window and door openings prior to pricing and ordering materials. The Contractor will provide complete window and door systems including all shimming, flashings, proper fitting thresholds, air sealing, door painting, trims, new interior sills, drywall repairs and interior painting for a complete "Turnkey" application. The Contractor will install each window and door on the same day as removal.
2. Contractor will provide Owner with schedule of work two (2) weeks. When framing in new exterior doors, the Contractor must have door installed and both sides of wall sheeted for security by end of work day.
3. Contractor to perform any corrective drywall surface, texture, interior paint repairs, and trim applications to interior surfaces affected by work.
4. Contractor will be responsible to mask off area of work and clean area of work inside of residential units at the end of each work day at a minimum; this includes floors and walls.
5. Contractor to clean all newly installed windows, doors and patio sliders inside and out.
6. Contractor to supply and install new ¼ x 1" scribe mold to all interior windows where window setback does not meet window liner. Caulk around all edges and paint to match existing conditions.

Note: Mock-ups will be required for KCHA approval demonstrating flashing and weather resistant barrier (WRB) applications are consistent with manufacturer's recommendations.

G. Door Hardware Work Summary

Contractor to provide a complete finish hardware and suitable fastenings for the Project in accordance with Drawings, Specifications and Schedules.

DIVISION 9 FINISHES

A. Gypsum Wallboard Work Summary

Contractor will patch any interior wall damage incurred during demolition or installation. Contractor shall install all required fire rated assemblies to complete applicable code attic drafts stops and access doors.

B. Gypsum Wallboard General Conditions

Refer to Specification Sections 092100, 061000 Rough Carpentry, 062000 Interior Finish Carpentry, 079200 Joint Sealants

1. Contractor shall install all fire rated assemblies per plans and specifications.
2. Contractor to install backing on all drywall patch seams that do not lay on an existing joist or stud. 2x lumber or ¾" plywood is acceptable material for use as backing on all edges.
3. Contractor will apply an interior GWB, tape, mud and texture to match and blend in to the existing surface plane and texture quality/density.
4. Contractor will need to demo drywall from inside unit to remove and replace hose bib. After new hose bib has been installed Contractor to patch, tape, texture, prime and paint new drywall patch.

C. Exterior Painting Work Summary

Contractor will provide labor and materials to paint exterior fascia boards, barge boards, soffits, lap siding, siding panels, trim, fiber cement blocks, doors, jambs and fencing. This work shall be inclusive labor and materials to perform surface preparation, fill, sanding and prime and paint. Contractor to submit all paint drawdowns for Owner approval prior to paint applications.

D. Exterior Painting General Conditions

Refer to Specification Sections 091000 Painting, 062000 Interior Finish Carpentry, 062013 Exterior Finish Carpentry, 074646 Fiber Cement Siding and Trim, 079200 Joint Sealants, 081613 Fiberglass Doors, 092100 Gypsum Wallboard

1. Exterior siding & trim

- a. All new installed exterior trim to have one (1) coat of primer (even if pre-primed) and two (2) coats of paint applied. Primed materials to have two (2) of coats paint applied.
- b. Contractor to caulk all new exterior trim to bevel siding, around exterior windows and doors where they meet new exterior trim with a high quality color matched poly urethane caulk.
- c. No untreated wood is to touch composite siding products.

2. Exterior doors and jambs

- a. All doors and jambs to be pre-painted (all six [6] sides) prior to installation.
- b. Exterior doors and jambs to be pre finished off site in a controlled environment. Doors delivered to site completely dry/cured.

Note: Contractor will be responsible for full protection of door finish (up to substantial completion) and will be responsible for repair and repaint of all doors top to bottom.

*****Touch up paint will not be accepted, Full door will be painted*****

3. Sidewall Vents

- a. Prep and prime sidewall vents accordingly for final paint. Vents to be same color as building

4. General Exterior Paint

- a. Contractor to provide qualified and experienced caulker for all sealant work.
- b. There will be a pre-paint inspection once caulking is completed and prior to the start of painting.
- c. No over applications, smears, or ruts will be accepted.
- d. Caulking color to match siding colors and touch up paint. Caulking shall be neat and consistent applied by an experienced applicator. Contractor to include caulking as part of the siding and trim mock-up to establish quality expectation.
- e. Contractor will protect all resident possessions and finished surfaces from dust, mud, texture or overspray. Contractor will clean and/or replace any damaged items not receiving paints and coatings.
- f. Exterior paint will consist of one (1) coat primers two (2) coats finish paint.
- g. Any metal work should be coated with metal self-etching primer prior to painting.
- h. Contractor will supply all exterior paint and leave all excess paint on site in a location designated by building staff.

E. Interior Paint Work Summary

This work shall be inclusive labor and materials to perform surface preparation, fill, sanding and prime and paint interior walls and trim.

F. Interior Paint General Conditions

Refer to Specification Section 099100 Painting

1. General Interior Paint

- a. Contractor will protect all resident possessions and finished surfaces from dust, mud, texture or overspray and clean and/or replace any items not to receive paints and coatings.

- b. All caulking and putty will be allowed to cure per manufacturer's instruction prior to paint touch up (refer to Section 079200 Joint Sealants). Caulk to be high quality paintable latex caulk. Caulk and/or putty all joints, seams and nail holes using approved materials and methods as specified and per manufacturer's instructions.
 - c. All caulking and putty to be applied in a smooth and uniform fashion without defects, gaps, seams, or smears to plane and seamlessly integrate with abutting surfaces.
 - d. Contractor to coordinate with Owner's representative in regards to color, placement and line breaks.
 - e. Contractor will supply one five (5) gallon bucket of each paint used and leave paint on site in location designated by building staff
2. **Interior trim** (i.e. window liners, door and window casings)
- a. All interior trim shall be pre-painted prior to install unless otherwise specified or necessary.
 - b. One (1) coat of primer and two (2) coats of specified interior trim paint shall be applied upon completion of all prep and priming.
 - c. Nail holes, seams and joints shall be filled with an approved color match putty and wiped clean where pre-finished trim is used; trim to be finished in place shall be filled, prepped and painted.
 - d. Inside corners and gaps in trim shall be caulked with high quality color matched and /or paintable latex caulk (i.e. where door and window trim abuts sheetrock and the door jamb, inside corners of liners where the liner meets the vinyl window).
3. **Interior walls**
- a. Contractor will patch, texture and paint to match any existing interior or exterior wall or siding damage incurred during demolition and/or installation.
 - b. 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.
 - c. Touchup shall be allowed for interior walls unless there is 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.

DIVISION 10 SPECIALTIES

A. Site Signage Work Summary

Contractor will provide labor, equipment and fasteners to install new site signage (i.e. Unit numbers, building numbers, FDC).

B. Site Signage General Conditions

1. Contractor to provide temporary site signage for duration of project as required by authority.
2. Contractor to coordinate locations with Owner for installation and provide adequate backing and fasteners for each location.

DIVISION 11 EQUIPMENT

A. Fall Protection System Work Summary

Contractor to remove all existing roof anchors, flashings, mounting hardware and all other specified hardware from areas where materials are to be removed.

B. Fall Protection Systems General Conditions

Refer to Specification Sections 112428 Fall Protection Systems, 061000 Rough Carpentry, 070150 Preparation for Re-Roofing, 073100 Asphalt Shingles, and 077220 Roof Accessories

1. Contractor to submit shop drawings engineered and designed to accommodate roof decking, roofing type, structural requirements, and watertight seal at roofing system for new fall protection system.

2. Verify layout of fall-protection anchors and structural connections suitable for work.
3. Install components per engineered specifications.
4. Contractor to supply and install proper number of new engineered fall protection anchors at sloped roofs. Install per OSHA and state administrative code safety standard requirements.

DIVISION 12 FURNISHINGS

A. Window Coverings Work Summary

The Contractor is responsible for removing existing horizontal and vertical blinds. Provide and install new window blinds to per specification in color and operation, KCHA to provide color from Contractor supplied color chart. Verify all measurements prior to placing new order due to window installation modifications; allow no more than ½” gap either side of jamb. All openings must be verified by Contractor.

B. Window Coverings General Conditions

Refer to Specification Sections 122116 Window Coverings, 085313 Vinyl Windows and Patio Doors

1. Contractor to fabricate blinds to fill the opening completely from jamb to jamb and from head to sill.
2. Contractor to verify all openings and measurements prior to placing new blind order due to window installation modifications.
3. Install with sufficient brackets to prevent deflection of headrail.
4. Allow for necessary clearances for operating hardware.
5. Adjust blinds for smooth operation, cut draw strings accordingly.
6. Replace defective and damaged units.

DIVISION 22 PLUMBING

A. Plumbing

Existing hose bibs will be replaced with new Prier frost free wall hydrant model P-264 mounted on blocking with a consistent and even reveal. This will include additional piping and plumbing. Contractor shall schedule and coordinate water shut offs forty-eight (48) hours in advance, work shall be inclusive of all labor and materials necessary to complete installation. Contractor will need to cap off existing hose bibs that will not be reused. See KCHA’s layout for locations of new hose bibs.

1. Hose bibs and blocks shall be pre-drilled and fastened securely with stainless steel screws. Blocks shall be installed over appropriate flashing, be flush, level and cleanly caulked. Coordinate with siding contractor for all blocking and head flashing prior to installation.
2. Installation of necessary Sturdi blocking from the exterior wall to assure stable and sturdy install.
3. Provide and install new extension piping for all pressure relief valves as a result of block application.

DIVISION 26 ELECTRICAL

A. Electrical

Refer to Specification Sections 262519 Low Voltage Electrical Power, 260532 Outlet Boxes for Electrical Systems, 260533 Raceway Systems, 265100 Lighting

1. The Contractor will furnish and install new building exterior lighting at existing locations. All lights to be installed to reflect a uniform appearance. Contractor to verify all quantities.

2. Contractor will remove all exposed/surface conduit and pull new wiring necessary to hide any wiring associated with new CCTV. This includes exterior elevation lighting.
3. Contractor will provide and install junction boxes which are missing or damaged. Extend junction boxes as required to fit all mounting blocks or new materials. The Contractor should carry a small budget for the material and labor associated with cutting and installation of junction boxes.
4. Blocks for lights and outlets shall be installed flush, level and cleanly caulked. Refer to Specification Section 074646 for sizing details. Coordinate with siding contractor for all blocking and flashing prior to installation.
5. Contractor responsible to pull utility boxes (cable, phone and electrical meters) away from building surface to allow installation of vapor shield per manufacturer's instructions. It is Owner's expectation that the Contractor will not be required to shut power off to the building or unit to install siding. These conditions must be approved by both Contractor and Owner prior to demo.
6. 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.
7. Contractor to detach and reset existing lighting on exterior of building. Lighting will be installed back on a new block at original location. Lighting for the three ADA entrances will be new. Refer to 8/A3.1 for detail.

B. Doors & Millwork Schedule

ADA UNIT ENTRY OUTSWING DOORS

3	EA	LOCKING PIN HINGE	5PB1 4" X 4"	652	IVES
1	EA	PASSAGE SET	F10ELA	626	SCHLAGE
1	EA	SGL CYL DEADBOLT	B660R	626	SCHLAGE
1	EA	CONVENTIONAL CORE	23-030C	626	SCHLAGE
1	EA	KICK PLATE	8400 10" X 34" LDW B-CS	630	IVES
1	EA	DOOR STOP	060	652	IVES
1	EA	SEAL	BY FIBERGLASS ENTRY DOOR MFG		B/O
1	EA	BOTTOM SWEEP	ADA/REPLACEMENT		PEMKO
1	EA	THRESHOLD	PUBLIC ACCESS SILL W/ THERMAL BREAK		THERMA-TRU
1	EA	DOOR KNOCKER	621V	626	IVES
1	EA	VIEWER	975U	626	IVES
1	EA	VIEWER	976	626	TRIMCO

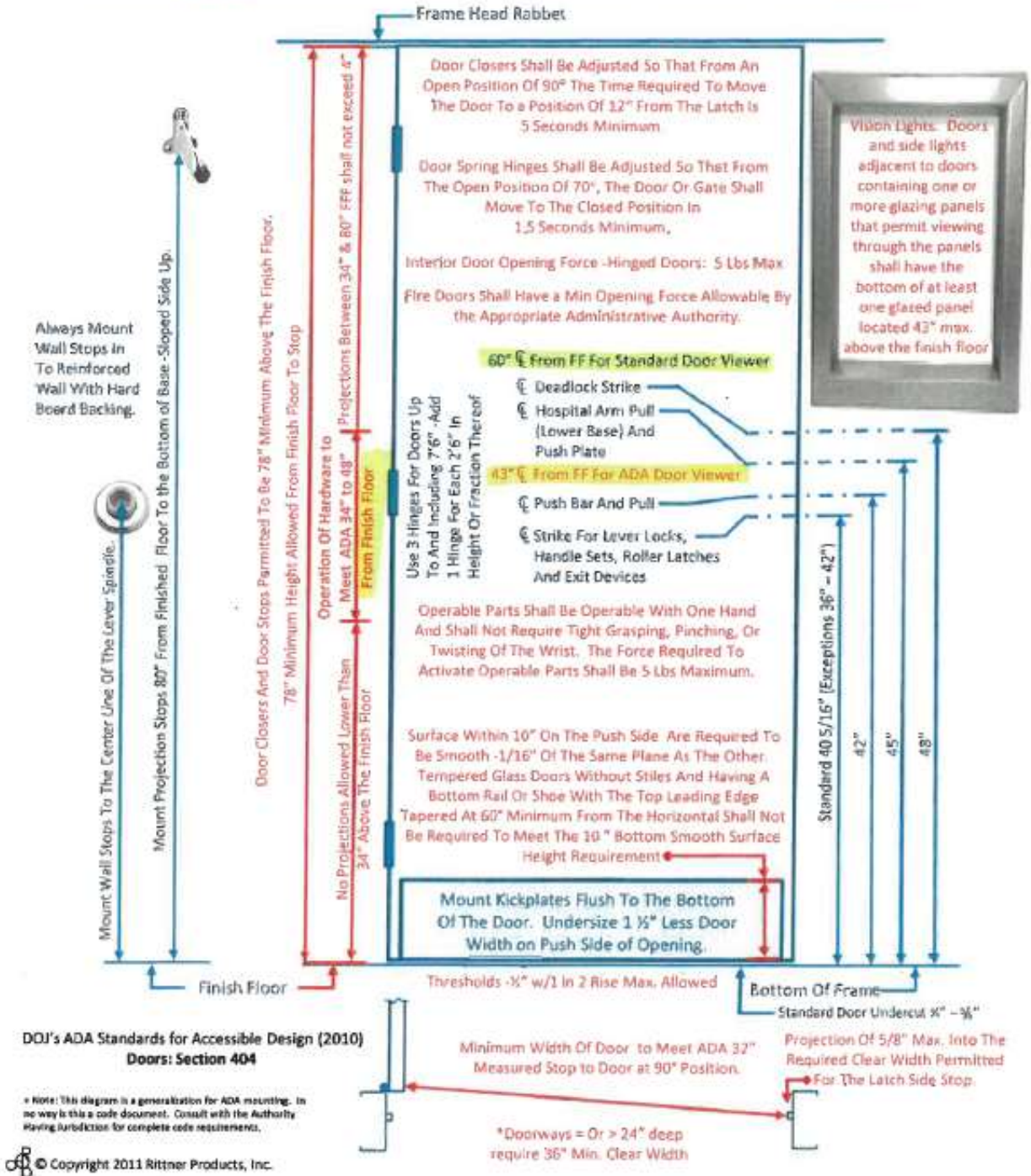
BUILDING ENTRIES OUTSWING DOOR HARDWARE

3	EA	HINGE	5BB1 4" X 4" NRP	630	IVES
1	EA	PANIC HARDWARE	98NL-OP	626	VON
1	EA	CYLINDER	20-057	626	SCHLAGE
1	EA	OFFSET PULL	8190HD-0	630	IVES
1	EA	KICK PLATE	8400 LDW	630	IVES
1	EA	WALL STOP	WS406/407CCV	630	IVES
1	EA	SURFACE CLOSER	1461 RW/PA	689	LCN
1	EA	DOOR SWEEP	18061CNB	AL	PEMKO
1	EA	THRESHOLD	172A MSSES10	AL	PEMKO
1	EA	GASKET	S88D	DKB	PEMKO

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Typical ADA Locations And Information For Door Hardware



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: Sunny Dale Exterior Renovations
 2. Project Location: 15035 8th Ave. S., Burien, WA 98148
- B. Owner/Developer: King County Housing Authority
1. Owner's Representative: Don Hatfield
 2. Contact Phone: 206-574-1213
- C. Architects / Engineer:
1. Representative: Nexus
 2. Contact Phone: 253-625-7090
- 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



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: SUNNY DALE EXTERIOR RENOVATIONS
Project Address: 15035 8th Ave. S., Burien, WA 98148
Work Order No.: 1365 **Job No.:** 380.4

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

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

DEMOLITION PHASE				
MATERIAL	QUANTITY Lbs./CY/Tons	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

SITE NAME - PROJECT NAME; Contract No. CCxxxxx65

APPLICATION NO:

APPLICATION DATE:

PERIOD FROM:

PERIOD TO:

06 FINAL

04.19.21

04.01.21

04.19.21

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	PERIOD TO: 04.19.21	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	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..... (Line 4 Less Line 5 Total)	\$546,771.54
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT..... (Line 6 from prior Certificate)	\$488,582.85
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: _____ Date: _____
By: _____
State of: _____
County of: _____
Subscribed and sworn to before
me this _____ day of _____
Notary Public: _____
My Commission expires: _____

OWNER'S REPRESENTATIVE CERTIFICATE FOR PAYMENT

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

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

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

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

OWNER'S REPRESENTATIVE:
By: _____ Date: _____

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



GENERAL CONTRACTOR CERTIFICATION UPON APPLICATION FOR PAYMENT

OWNER:	<u>King County Housing Authority</u>	PAY REQUEST NUMBER:	<u>06</u>
GENERAL CONTRACTOR:	<u>CONTRACTOR NAME</u>	DATE: PERIOD FROM:	<u>04.01.21</u>
PROJECT NAME:	<u>SITE NAME</u>	THROUGH:	<u>04.19.21</u>
SCOPE OF WORK:	<u>PROJECT NAME</u>	CONTRACT NUMBER:	<u>CCxxxxx65</u>

1.	ORIGINAL CONTRACT AMOUNT:	\$	<u>583,767.96</u>
2.	APPROVED CHANGE ORDER(S):	\$	<u>(8,218.97)</u>
3.	CURRENT CONTRACT AMOUNT:	\$	<u>575,548.99</u>
4.	AMOUNT OF PREVIOUS CERTIFICATES FOR PAYMENT:	\$	<u>488,582.85</u>
5.	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: _____
 _____ Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain: _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: No Yes (If Yes): Add Deduct _____ days.

* If Contract time is to be extended, a Change Order must be prepared.

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____



SUBSTITUTION REQUEST

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, included A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 3300.
- Substitution approved as noted - Make submittals in accordance with Specification Section 0 13300.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E _____

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Selective demolition and removal of building and site elements as indicated on drawings including but not limited to:
 - a. Existing Marble Crete siding and trim, exterior insulation, and weather proofing,
 - b. Existing soffits,
 - c. Existing vent covers,
 - d. Existing roof shingles, underlayment, trim, and roof vents,
 - e. Existing gutters and downspouts,
 - f. Existing windows and doors,
 - g. Existing entry stairs and landing
 - h. Concrete walkways/Concrete cutting
 - i. Existing interior window coverings,
 - j. Existing hose bibb fixtures,
 - k. Salvage interior window trim,
 - l. Salvage existing cable utility boxes,
 - m. Salvage existing door hardware and provide to Owner,
 - n. Salvage existing fire extinguishers and cabinets,
 - o. Salvage existing pipe fittings,
 - p. Salvage existing exterior lighting fixtures and provide to Owner.
2. Protect existing building and site elements scheduled to remain during demolition activities and while new work is being installed.

1.2 RELATED SECTIONS:

- A. Section 070150 – Preparation for Re-Roofing
- B. Section 223000 – Plumbing Equipment

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. 29 CFR 1926 - U.S. Occupational Safety and Health Standards.
- C. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Schedule: Submit for approval selective demolition schedule, including schedule for any interruption of utility service to affected units.
 1. Schedule of demolition activities to be updated at each scheduled construction meeting.
 - a. Indicate detailed sequence of demolition and removal work with starting and ending dates for each activity.
 - b. Indicate any interruption of services.
 - c. Indicate locations of temporary protection from the work and means of egress from the building.
- C. Site Plan: Showing:
 1. Vegetation to be protected.
 2. Restore landscaping at areas disturbed by construction.

3. Areas for temporary construction and field offices.
4. Areas for temporary and permanent placement of removed materials.
- D. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
 2. Identify demolition firm and submit qualifications.
 3. Include a summary of safety procedures.
 4. Indicate protection and separation of occupied premises.
 5. Continuity of site utilities: Underground utilities, including water, telephone, data, cable television, and gas, must remain in full operation during the work.
- E. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.5 QUALITY ASSURANCE

- A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers. Maintain watertight integrity as needed to protect construction to remain from structural and environmental damage.

1.6 PROJECT CONDITIONS

- A. Building to be selectively demolished will remain fully occupied during the construction sequence. Isolating work areas to limit dust, dirt, noise, and debris is critically important during the construction process.
- B. Protection of Existing Improvements: Provide, erect, and maintain barricades, coverings, or other types of protection necessary to prevent damage to existing improvements. Restore any site improvements, including but not limited to landscaping, pavement, walks, structures, fences, and planters, damaged by this work to their original condition, as acceptable to Owner.
- C. Existing Conditions: Refer to construction drawing set for information. No responsibility for portions of building to be demolished will be assumed by the Owner.

PART 2 PRODUCTS

2.1 DEMOLITION APPLICATIONS

- A. To Contractor: All other salvage becomes property of the Contractor.
- B. Selective Building Demolition:
 1. Demolition of specified building and site elements and as indicated on drawings.
 2. Protection of portions of building adjacent to or affected by selective demolition.
 3. Notification to Owner of schedule of shut-off of utilities which serve occupied spaces.
 4. Pollution control during selective demolition.
 5. Removal and legal disposal of materials.
 6. Protection of existing site improvements and adjacent construction.
 7. Utilities: Interruption, capping or removal as applicable.

PART 3 EXECUTION

3.1 SCOPE

- A. Remove portions of existing buildings as indicated on the drawings.
- B. Remove other items indicated for salvage, relocation, or recycling.
- C. 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 (1) year after completion.
- D. Restore landscaping at areas disturbed by construction.
- E. Do not damage building elements and improvements indicated to remain. Items of salvage value, not included on schedule of salvage items to be returned to Owner, shall be removed from the site. Storage or sale of items at project site is prohibited.
- F. Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner; Owner requires minimum ninety-six (96) hours' notice of any utility shutoffs affecting units or common spaces. Email notice to Owner's Project Manager is acceptable as official "written notice".

3.2 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Refer to Section 017419 Construction Waste Management and Disposal for additional requirements.
 - 2. Obtain required permits.
 - 3. Comply with applicable requirements of NFPA 241.
 - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 5. Provide, erect, and maintain temporary barriers and security devices.
 - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 8. Do not close or obstruct roadways or sidewalks without permit.
 - 9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.

3. Stop work immediately if adjacent structures appear to be in danger.
- D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. If hazardous materials are discovered during removal operations, stop work and notify the Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.

3.3 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least seven (7) days' prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least three (3) 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.

3.4 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 1. Verify that construction and utility arrangements are as shown.
 2. Report discrepancies to Owner before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions.
- B. Separate areas in which demolition is being conducted from other areas that are still occupied.
 1. Provide, erect, and maintain temporary dustproof partitions in locations of work.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- D. Remove existing work as indicated and as required to accomplish new work.
 1. Remove items indicated on drawings.
 2. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
- E. Services (including but not limited to HVAC, Plumbing, Fire Protection, Electrical and Telecommunications): Remove existing systems and equipment as indicated.
 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.

2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 3. Verify that abandoned services serve only abandoned facilities before removal.
 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch as specified for patching new work.

3.5 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site. Do not allow demolished materials to accumulate on site. See Division 01 Project Administration for compliance with Waste Management requirements and procedures. Refer to BID PACKAGE for these GENERAL REQUIREMENTS.
- B. Remove from site all materials not to be reused on site.
- C. Leave site in clean condition, ready for subsequent work.
- D. Clean up spillage and wind-blown debris from public and private lands.

3.6 SCHEDULE

- A. Items for Protection during Demolition and Construction:
 1. Common spaces and exterior walkways, including entryways.
 2. Adjacent construction.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cast-in-place concrete bridge footings, reinforcing and accessories,
2. Pre-engineered metal stair treads.

1.2 RELATED SECTIONS

A. Section 051200 – Structural Steel Framing

1.3 REFERENCES

A. Reference Standards: As specified by Structural Notes.

1.4 COORDINATION

A. Preinstallation Meeting: Arrange, in accordance with Section 013100.

1. Attendance: Contractor, installer, Owner, Structural Engineer, Special Inspector and testing agencies, manufacturer's representatives, batch plant representative, and those requested to attend.
2. Meeting Time: Minimum 3 weeks prior to beginning work of this Section and work of related Sections affecting work of this Section. Notify attendees ten (10) days prior to scheduled date of meeting.
3. Location: Project Site.
4. Review procedures for conducting work of this Section, including:
 - a. Submittal requirements.
 - b. Schedules for testing, inspection, and certifications.
 - c. Mix designs, admixtures, and additives.
 - d. Delivery at project site.
 - e. Placement procedures and tolerances.
 - f. Joint spacing and joint fillers.
 - g. Curing.
 - h. Mock-ups.
 - i. Finishing.
 - j. Moisture vapor and relative humidity testing.
 - k. Topping slabs and underlayments
 - l. Project schedule.

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.
- C. Mix Design: Submit for approval mix design proposed for use.

1.6 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three (3) years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Concrete Producer Qualifications:
 - 1. Company specializing in manufacturing ready-mixed concrete products conforming to ASTM C94.
 - 2. Producer Member of the National Ready Mixed Concrete Association (NRMCA).
- C. Installer Qualifications:
 - 1. Company specializing in work of this Section.
 - 2. Able to show minimum three (3) years documented experience in successful commercial quality work of comparable scope and quality when requested by Owner.
- D. Testing: Employ an independent testing agency acceptable to Owner to design concrete mixes and to perform material evaluation tests. Provide 7- and 28-day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.
- E. Standards:
 - 1. ACI 301, Specifications for structural Concrete for Buildings.
 - 2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice.
- F. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.
- G. Floor Flatness and Levelness Tolerances:
 - 1. Subfloors Under Materials Such As Vinyl Tile, Epoxy Toppings, Paint, and Carpet: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 20, floor levelness (Fl) of 17.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Conform to provisions of Section 016000 and manufacturer's instructions
- B. Mixing and Delivery: Conform to ASTM C94.
- C. Sampling at Delivery: Conform to ASTM C172. Cure 4-inch by 8-inch cylinders to provisions of ASTM C31 and compression test compressive strength of cylinders to ASTM C39 and as specified Section 014523.
- D. Batch Tickets: Accompany with each load, fully executed, and signed by authorized batch plant representative. Log in with inspector at time of entry. Conform to Source Quality Control requirements specified by this Section.
 - 1. Information: Conform to ASTM C94, Option A or C. Include additional batch ticket information to that required by ASTM C94.
 - a. Concrete mix design.
 - b. Water content and water withheld at batch plant.
 - c. Time to nearest minute that batch was dispatched from plant, when it arrived at site, and when unloading began and was finished.
 - d. Ambient air temperature and concrete internal temperature of at time of arrival.
 - e. Written record of water and other additives added to design mix following time that mix truck has left batch plant.
 - 2. Truck loads not accompanied with batch tickets will be rejected.
- E. Elapsed Time From Start of Batching at Plant to Discharge at Project Site: Conform to following except where set-reducing admixtures are added by batch plant for hauls requiring longer time periods.

1. Maximum 90 minutes and maximum 300 revolutions, whichever comes first, following introduction of mix water.
 2. Air Temperatures:
 - a. Reduce mixing and delivery time to maximum 75 minutes for between 85 degrees F and 90 degrees F.
 - b. Reduce mixing and delivery time to 60 minutes for temperature above 90 Degrees F.
 - c. Monitor concrete in truck and reject if temperature rises to 89 degrees or 5 degrees F in 10 minutes, indicating that concrete is setting up prior to discharge.
- F. Reject concrete that has reached internal temperature of 89 degree F or above and when temperature has risen 5 degrees in 10 minutes, indicating that concrete is setting up prior to discharge.

1.8 FIELD CONDITIONS

- A. Ambient Conditions: Conform to ACI 301, 5.3.2 for placement of concrete weather considerations. Do not place concrete during falling rain, sleet, or snow.

1.9 WARRANTY

- A. Waterproof Concrete: Manufacturer's standard minimum ten (10) year waterproofing and repair Warranty to repair leakage through epoxy injection or other means as accepted by Owner.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

A. Cast-In-Place Concrete:

1. Concrete Forming and Accessories: Ceme-Tube LLC; Newark Paperboard Products; Scott System, Inc.; Symons; Universal Building Products, Inc.; or approved equal.
2. Concrete Anchoring: Powers Fasteners.; or approved equal.
3. Integral Waterproofing of Concrete: Xypex Chemical Corp.; or approved equal.
4. High Tolerance Floor Treatment: Dayton Superior Specialty Chemical.
5. Concrete Curing, Sealing and Hardening: Armorlon, Division of Reef Industries, Inc.; Ashford Formula, By Curecrete.; or approved equal.
6. Cement Grouts, Adhesives and Sealants: Five Star Products, Inc.; or approved equal.

2.2 REGULATORY REQUIREMENTS

- A. Testing and Special Inspections: Conduct testing as specified by Structural Notes.
1. Conform to provisions of IBC Chapter 17, reference standards specified by ACI 318, procedures specified by ACI 301.
 2. Conform to ASTM C31, ASTM C39, and ASTM C143 for placement of concrete with specified 28 day strength greater than 2500 psi.
- B. Batch Tickets: Retain record of concrete delivered and placed on site.
1. Include exact mix proportions, slumps, test strength, date, time, location of placement, weather conditions at time of placement, and source of concrete.
 2. Submit copies to Owner/Structural Engineer, Special Inspector, and Building Code Official.

2.3 MATERIALS

- A. Concrete Design Mixes: ASTM C 94, 28-day compressive strength suitable for project requirements and site conditions.
- B. Formwork: Plywood or metal panel formwork sufficient for structural and visual requirements.
- C. Reinforcing Bars: ASTM A 767, Class II, galvanized.

- D. Steel Wire: ASTM A 82.
- E. Steel Wire Fabric: ASTM A 497, welded, deformed.
- F. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.
- G. Concrete Admixtures: Containing less than 0.1 percent chloride ions.
- H. Reglets: Galvanized sheet steel reglets, minimum 26 gauge (.018 inch).
- I. Waterstops: Rubber, PVC or self expanding butyl/bentonite waterstops.
- J. Liquid Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class A.
- K. Underlayment Compound: Free-flowing, self-leveling cement-based compound.
- L. Bonding Compound: Polyvinyl acetate or acrylic base.
- M. Epoxy Adhesive: ASTM C 881, two-component material.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify installation conditions as satisfactory to receive work of this Section before beginning.
- B. Verify that anchors, seats, plates, reinforcement, and other items cast into concrete are accurately located, securely in place, and approved before concrete placement.

3.2 PREPARATION

- A. Protect Surrounding Areas: Preclude damage from work of this Section.
- B. Vapor Retarder, Formwork, Reinforcing, and Embedded Items: Remove deleterious matter, including snow, ice, water, frost, mud from surfaces contacting concrete placement.
- C. Weather Conditions:
 - 1. Prepare in advance for conditions where ambient temperature necessitates hot or cold weather concrete placements.
 - 2. Do not begin placement when sun, heat, wind, or other limitations may prevent proper consolidation, finishing, and curing.
 - 3. Do not place concrete when rain, sleet, or snow are falling, except where adequate means are taken to cover and protect concrete placements. Do not allow rain water to increase mixing water or to damage concrete surface finish during or following placement.
 - 4. Take measures to prevent rapid evaporation of surface bleed water due to high evaporation conditions, including high winds and low humidity.
- D. New Concrete Cast Against Previously Placed Concrete: Clean concrete with steel brush and apply bonding agent as instructed by manufacturer prior to placement of new concrete.
- E. Reinforcement Doweled into Previously Placed Concrete: Drill holes into previously placed concrete. Place adhesive grout, and insert steel dowels.
- F. Formwork, Reinforcing, and Embedded Items: In place, and approved before placement of concrete.

3.3 INSTALLATION

- A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Chamfer exposed edges/corners to provide straight lines.
- C. Tolerance: Plus 1/8 inch in 10 inches for grade, alignment, and straightness.
- D. Construction Joints: Use keyways, continue reinforcement through joint.

- E. Expansion Joints: For exterior work locate 30 feet o.c. at approved locations. Provide smooth dowels across joint which permit 1 inch horizontal movement and no vertical shear movement.
- F. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.
- G. Control Joints: Provide sawn or tooled joints or removable insert strips; depth equal to 1/4 slab thickness. Spacing as required and approved.
- H. Slab Finishes: Obtain sample approval before beginning work.
 - 1. Scratch: For surfaces to receive mortar setting beds or cementitious flooring materials.
 - 2. Trowel: Hard, smooth, uniform surface for areas to receive resilient flooring, carpet, or other thin finish material.
- I. Testing and Special Inspections: Conform to requirements structural drawings
- J. Cure and protect work. Report defective work in writing.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Shop-applied coatings including but not limited to metal handrails, metal screen wall frames, and other metal fabrications.

B. Related Sections:

1. Section 055000 – Metal Fabrications
2. Section 050523 – Welding
3. Section 055200 - Metal Railings

1.2 REFERENCES

A. ASTM International:

1. ASTM B 117 - Practice for Operating Salt Spray (Fog) Apparatus.
2. ASTM D 1654 - Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
3. ASTM D 2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
4. ASTM D 2247 - Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
5. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test.
6. ASTM D 4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.

1.3 SUBMITTALS

A. Submit under provisions of Section 013300.

B. Product Data: Provide in the same order as scheduled by this Section:

1. Manufacturer's Product Data Sheets for each product.
 - a. Performance features, substrate recommendations, primer recommendations (where required), and product limitations.
 - b. Recommended dry film thickness.
 - c. Solids by weight.
 - d. Solids by volume.
2. Product/Label Analysis for paint products:
 - a. Pigment and vehicle percentages by weight.
 - b. Pigment composition analysis, including fillers in percent by weight.
 - c. Vehicle Composition analysis, including resins, solvents, and additives by weight.
3. Material Data Safety Sheets (MSDS) :
 - a. Solvents, driers, additives, and fillers.
 - b. Volatile organic compounds (VOC) emissions in grams per liter.
4. Finish Coat System Product Testing Results:
 - a. Abrasion resistance.
 - b. Color retention.
 - c. Gloss retention.
 - d. Salt Fog Spray Test.

- C. Samples for Selection: For each color, gloss specified.
- D. Samples for Verification: For each coating product, for each color, gloss, and texture specified, on specified substrate.
- E. Product test reports.
- F. Qualifications: For shop-applied coatings Applicator.
- G. Maintenance data.
- H. Warranty: Sample of special warranty.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Employ locally available technical field representative, testing equipment, and services as necessary to perform inspections, observations, and to determine compliance with manufacturer's instructions and provisions of Contract Documents.
- B. Applicator Qualifications:
 - 1. Company with employees specializing in work of this Section.
 - 2. Able to list minimum 3 projects within last 3 years documented experience showing satisfactory performance for projects of equivalent size and scope.
 - 3. Employ qualified journeymen painters, apprentices under direction of qualified journeymen, in accordance with trade regulations.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 016000.
- B. Deliver, unload, and store shop-coated items so that they remain free of damage or deformation. Package and protect items during shipping and handling. Protect stored items from water; stack to facilitate drainage. Keep shop-coated items out of contact with materials that may adversely affect the coating.
- C. Protect shop-coated items with protective covering until installed.

1.6 WARRANTY

- A. Conform to Warranty provisions specified Section 017700.
- B. Coating Warranty: Coating Applicator's warranty in which Applicator agrees to repair finish or replace coated items that demonstrate deterioration of shop-applied finishes within warranty period indicated.
 - 1. Exposed Coating: Deterioration includes but is not limited to:
 - a. Color fading in excess of 5 Delta E Hunter units per ASTM D 2244.
 - b. Peeling, checking, or cracking of coating adhesion to metal.
 - c. Chalking in excess of a No. 8 per ASTM D 4214, when tested per Method D 659.
 - d. Corrosion of substrate in excess of a No. 6 on cut edges and a No. 8 on field surfaces, when measured per ASTM D 1654.
 - 2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Provide shop-applied coatings manufactured by PPG Industries, Inc., Pittsburgh, PA, (888) 774-4332, Email: ideascapes@ppg.com; Website:

www.ppgideascales.com

1. PPG Ultradurable formulation.
 2. PPG Ultradurable clear coat.
- B. Substitution Requests: Conform to provisions of Section 012500 for products specified by this Section.

2.2 REGULATORY REQUIREMENTS

- A. Conform to requirements of Section 014100.
- B. Shop Applied Coatings: Conform to State of Washington and US Environmental Protection Agency for maximum volatile organic compound (VOC) emissions.

2.3 SHOP GALVANIZED FINISHES

- A. Where galvanized finishes are specified, conform to the following:
1. Galvanized Structural Steel Members: Hot-dip zinc-coat galvanize after fabrication, ASTM A123. Zinc coat galvanize exterior steel, including steel embeds, steel in contact with masonry and concrete, weldments, connectors, and other miscellaneous steel framing exposed to weather, except as otherwise indicated.
 - a. Up to 3/16 Inch Thick Steel: 2.0 oz. average and 1.8 oz. minimum.
 - b. 1/4 Inch and Thicker Steel: 2.3 oz. average and 2.0 oz. minimum.
 2. Galvanized Sheet Steel: As specified by applicable Sections. Where galvanized sheet steel is shown on Drawings but not otherwise specified, conform to ASTM A653 G90 at exterior exposed steel, G60 for exterior steel protected from weather, and G40 for interior steel.
 3. Bolts and Threaded Fasteners: Hot-dip galvanize, ASTM A153, Class C or D.
 4. Touch-up for damaged galvanized surfaces to remain unfinished: 95 percent zinc cold galvanizing compound.
 - a. ZRC Worldwide, Galvilite. <http://www.zrcworldwide.com>
 - b. ITW Devcon, Devcon Z. <http://www.devcon.com>
 - c. ITW LPS Cold Galvanize Corrosion Inhibitor.

2.4 SHOP-APPLIED COATINGS SCHEDULE

- A. Powder-Coat Finish for Steel Items fabricated from Shapes and Plates: fluoropolymer finish: AAMA 2605. Basis of design: PPG Industries, Inc., Ultradurable Powder Coating
1. Coated Items: Metal guardrails, metal handrails.
 2. Color: Black
 3. Gloss: Medium
 4. Surface: Fine Texture

2.5 SOURCE QUALITY CONTROL

- A. Shop Prepared steel to receive finish coatings under Work of Other Sections: Free of drips and other imperfections causing telegraphing through finished coating.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section.

3.2 PREPARATION

- A. Prepare surfaces as recommended by manufacturer, as specified by this section and Section 055000.

3.3 APPLICATION

- A. Apply in accordance with manufacturer's instructions and provisions of Contract Documents.
- B. Touch up damaged surfaces prior to special coating application as specified by this Section and Section 055000.
- C. Apply number of coats to achieve specified dry film thickness (DFT) and as instructed by manufacturer.
- D. Apply under-coatings in 3/4 tone color difference from final coat.
- E. Apply additional coats as required for full coverage with no holidays, color variations, or other surface imperfections.

3.4 PATCHING

- A. At completion of work, repair surfaces damaged by other trades and requiring touch-up or refinishing by recoating entire surface, as necessary for uniform appearance.

3.5 FIELD QUALITY CONTROL

- A. Environmental Conditions: During coating application, make hourly record, maintain record in job shack, and submit upon request by Owner.
- B. Film Thickness Tests:
 - 1. Verify mil thickness with wet film gauge, in selected locations.
 - 2. Test surfaces with Tooke or approved dry film gauge, for total dry film thicknesses.

3.6 CLEANING

- A. As Work proceeds, promptly remove spilled, splashed, or splattered products so as not to damage surfaces. Keep premises free from unnecessary accumulation of tools, equipment, surplus materials, and debris.
- B. At conclusion of Project, thoroughly clean paint and splatters from surfaces including adjacent surfaces.
 - 1. Take care not to scratch or otherwise damage surfaces.
 - 2. Verify chemical compatibility of cleaners to be applied to materials to be cleaned.
- C. Leave premises neat and clean; free from debris and residue from work of this Section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Welding materials and methods of joining miscellaneous and structural metals.

B. Related Sections:

1. Section 055000 - Metal Fabrications
2. Section 055200 - Metal Railings

1.2 REFERENCES

A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section:

AISC	Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings, American Institute of Steel Construction, latest Edition.
AWS A2.4	American Welding Society (AWS) Standard Symbols for Welding, Brazing, and Non-Destructive Examination
AWS A3.0	Standard Welding Terms and Definitions
AWS A5 Series	Specification for Steel Electrodes
AWS D1.1	Structural Welding Code – Steel
AWS D1.2	Structural Welding Code – Aluminum
AWS D1.3	Structural Welding Code - Sheet Steel
AWS D1.4	Structural Welding Code - Reinforcing Steel
AWS D1.6	Structural Welding Code - Stainless Steel
AWS D1.8	Structural Welding Code - Seismic Supplement
IBC	International Building Code

1.3 SUBMITTALS

A. Submit in accordance with Section 013300, Submittal Procedures, Shop Drawings, Product Data and Samples:

1. Welding Procedures and Qualifications:
 - a. Structural Steel: For welded joints prequalified by AWS D1.1, submit a description of welding procedures proposed for use on structural steel.
 - b. Reinforcing: Description of reinforcement weld locations, welding procedures, and welder qualifications when welding is permitted.
 - c. Other procedures as required by Contract Documents.
 - d. Welding Procedures shall be submitted to the Owner.
2. Shop Drawings: Indicate welded connections on Shop Drawings in technical sections using standard AWS symbols. Show each welded connection with details indicating size, length, location, type of weld, and whether shop-welded or field-welded.
3. Manufacturer's Certification: Filler material for welding.
4. Qualifications Data: Certifications for welders and installers.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Welder Qualifications / Certifications: Each welder performing work on this project shall be qualified before commencement of welding on this project, in accordance with AWS and Washington Association of Building Officials (WABO).
2. Welding shall be performed by "Certified Welders", certified within previous 12 months.
3. Copies of each welder's certification records shall be made available to the Owner for review.
4. If re-qualification/certification is required, the cost of these tests shall be borne by the Contractor.

B. Installer Qualifications: Welders shall be AWS/WABO certified.

C. Comply with requirements in referenced AWS welding codes.

1. Use only pre-qualified welds.

PART 2 - PRODUCTS

2.1 PERFORMANCE

A. Regulatory Requirements: Comply with IBC and other requirements of Authorities Having Jurisdiction (AHJ).

B. Test and Inspections: This Work is subject to special testing and inspection.

1. A qualified inspector under the requirements of the building code shall continuously inspect field welds.
 - a. Full penetration field and shop welds shall be full time inspected and tested by ultrasonic, non-destructive procedures.
2. Notice shall be given for joints requiring inspection for proper end preparation, root opening, and the like, prior to welding.
3. Charpy V-Notch Testing: Testing shall be in accordance with ASTM A6 Supplement 30, where this test is specifically required.
4. Ultrasonic testing and visual inspection of plate material and rolled sections greater than 1 1/2 inches in thickness and located at welded connections for discontinuities.
5. Submit results for tests to Owner (informational submittal).

2.2 GENERAL

A. Refer to Structural General Notes.

B. See individual technical Specification Sections for metals to be welded.

C. Electrodes: See referenced AWS codes for requirements.

1. Steel: In accordance with Structural General Notes on Drawings and as required to develop strength of particular grade and section welded in accordance with AWS D1.1 and D1.8 requirements. Use E70XX electrodes.
2. Others as indicated in Contract Documents.

D. See Structural General Notes for filler requirements for complete joint penetration groove welds.

PART 3 - EXECUTION

3.1 GENERAL

A. Structural Steel Framing:

1. Welding processes other than shielded metal arc, flux core arc, and submerged arc may be used, provided AWS welder qualifications submitted for each process.
2. Types of Welds: Required weld types are indicated by symbols on Drawings; characteristics of welds shall be in accordance with standard specifications or codes as applicable; each welder shall mark his identification symbol on his work.
3. Preparation of Steel Surfaces to be Welded: Prepare edges to be joined by welding as indicated on Drawings and in accordance with AWS. Welds shall be made to clean base material. Steel: Remove coatings, galvanizing, grease, scale, rust, and other foreign matter at locations that are to be welded in accordance with AWS D1.1.
4. Consider the toughness and notch sensitivity of the steel in the formation of welding procedures to prevent brittle and premature fracture during fabrication and erection.
5. Detail connections, welding sequences, and preheat methods to minimize restraint and accumulation and concentration of through thickness strains due to weld shrinkage.
6. At welded joints not hidden by architectural finish materials, remove projecting ends of runoff tabs, backer bars, and any other erection aids; grind flush with edges of plates.

B. Reinforcing Steel: Welding or tack welding of reinforcing bars to other bars or plates, angles, and similar shapes is prohibited, except where specifically shown on plans or accepted by Owner. Where required, use electrodes in accordance with requirements of AWS D1.4 and Structural General Notes.

C. Studs and Anchors: Comply with AWS. Do not weld when base metal material temperature is below 0 deg. F.

D. Non-Fusible Backing Materials: The use of non-fusible backing materials, in accordance with Structural General Notes, is permitted only by welders prequalified per AWS for such materials.

3.2 PREPARATION

A. Welding: Shape edges shall be joined as indicated on Drawings; prepare and clean edges of oil, grease, scale, and rust in accordance with AWS D1.1.

B. Miscellaneous and Reinforcing Steel: See Drawings for welding of reinforcing bars or plates, angles, and similar shapes. Conform to referenced AWS D1.1 or D1.4.

C. Protection: Take the precautions required by regulations, standards, and Specifications to protect personnel and property.

1. Carefully mask or shield adjacent surfaces to prevent damage from heat or welding materials.
2. Take particular care to prevent fires.
3. When welding finished assemblies adjacent to or above finished materials, protect surfaces from damage due to welding.

3.3 WELDING PROCEDURES

A. Clean and weld in accordance with referenced AWS D1.1, D1.2, D1.3, D1.4, D1.6 and D1.8.

1. See also, as applicable, AISC Design Guides for welding and modification of existing steel.

- B. Electrodes shall be thoroughly dry prior to use.
- C. Grind smooth welds exposed to view. Remove service metal and piece marks on steel items exposed to view.
- D. After inspection, protect weld from rust with protective primer, applicable to substrate and compatible with final finish. Refer to requirements indicated in technical sections.

3.4 CLEANING

- A. Remove slag or flux remaining on any bead.
- B. Remove any cracks or blowholes appearing on any bead. Use methods such as chipping, grinding, or gas gouging.
- C. Touch up cold galvanizing over galvanized steel at field welds.

3.5 REPAIR

- A. Repair damaged finishes as directed, or replace damaged items at no added cost to Owner.
- B. Repair welds found defective and re-inspect by same methods originally required.

3.6 FIELD QUALITY CONTROL

- A. Verify work in accordance with the requirements of the building code for field welds.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural steel bridge framing and support members.

1.2 RELATED SECTIONS

- A. Section 050560 – Welding
- B. Section 053100 – Steel Decking
- C. Section 055000 – Metal Fabrications

1.3 REFERENCES

A. American Institute of Steel Construction (AISC):

1. AISC 303-05 - Code of Standard Practice for Steel Buildings and Bridges
2. AISC 325-05 - Steel Construction Manual.
3. ANSI/AISC 341-05 - Seismic Provisions for Structural Steel Buildings and Supplement No. 2
4. ANSI/AISC 360-05 - Specification for Structural Steel Buildings

B. Research Council on Structural Connections (RCSC): <http://www.boltcouncil.org>

1. RCSC - Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts.
2. RCSC - Test Method to Determine the Slip Coefficient Used in Bolted Connections.
3. RCSC - Guide to Design Criteria for Bolted and Riveted Joints

C. ASTM International (ASTM):

1. ASTM A6 - Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling.
2. ASTM A36 - Standard Specification for Carbon Structural Steel
3. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
4. ASTM A108 - Standard Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality
5. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
6. ASTM A992 - Standard Specification for Steel for Structural Shapes For Use in Building Framing
7. ASTM F436 - Standard Specification for Hardened Steel Washers
8. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength

D. American Welding Society (AWS): Qualification of Field Welding

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the state of Washington.
- C. Submit for approval test reports.
- D. Certificate: Submit certification letter showing that the fabricator, erector, and welders are certified and attesting that completed work is in accordance with this Specification.

1.5 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: AISC, Code of Standard Practice for Steel Buildings and Bridges, and applicable regulations.
- C. Architecturally Exposed Structural Steel: Comply with fabrication requirements, including tolerance limits, and installation tolerances of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for structural steel identified as architecturally exposed structural steel.
- D. Testing: Independent testing laboratory as specified by Structural Notes.
- E. Erection Tolerances: AISC standards.

1.6 QUALIFICATIONS

- A. Steel Fabricator:
 1. Company specializing in work of this Section with minimum five (5) years documented experience with commercial quality work of comparable scope.
 2. Certified by AISC Quality Certification Program: Standard for Steel Building Structures (STD). Web Site <http://www.aisc.org> .
- B. Steel Erector:
 1. Company specializing in work of this Section with minimum three (3) years documented experience with commercial quality work of comparable scope.
 2. Certified by AISC Quality Certification Program:
 - a. Certified Steel Erector (CSE).
- C. Welders: AWS Certified and Washington Association of Building Officials (WABO), Standard Qualification Procedure.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 016000
- B. Delivery: Identify and maintain unity of lifts. Stagger blocks. Perform additional handling as required.
- C. Storage: Store metal above ground on platforms or skids above snow or mud. Locate items to permit easy access for inspection and identification. Do not store on structure in a manner causing distortion or damage to structure.
- D. Protect from moisture and corrosion until erected.
- E. Include templates and instructions for proper setting of anchor bolts.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Structural Steel: As specified by Structural Drawings
- B. Auxiliary Materials:
 - 1. Direct Tension Indicators: ASTM A 959.
 - 2. Electrodes for Welding: AWS Code.
 - 3. Structural Steel Primer Paint: SSPC - Paint 13, compatible with topcoats.
 - 4. Cement Grout: Portland cement, sand.
 - 5. Metallic Shrinkage-Resistant Grout: Premixed ferrous aggregate grouting compound ASTM C 1107. Nonmetallic Shrinkage-Resistant Grout: Premixed nonmetallic grouting compound, ASTM C 1107.

2.2 FABRICATION

- A. Fabricate structural steel in accordance with requirements of referenced AISC Specifications and details as shown on accepted shop drawings.
 - 1. Identify steel at mill showing grade and yield point.
 - 2. Identify each piece with erection mark corresponding to identifications noted on erection drawings.
- B. Cutting: Do no flame cutting by hand, except as accepted in writing by Owner and in strict conformance to NFPA 51B. Where approved, smooth handcuts by chipping, planing, or grinding. Cut and fit to required tolerances. No sharp kinks or bends permitted.
- C. Straightened Material: Examine straightened material prior to fabrication for signs of distress or other defects. No distressed or otherwise defective material accepted.
- D. Connections: Punch and drill steel for attachment of other materials shown or attached permanently to structural steel. Provide required connection angles, plates, and brackets. Attach as shown on Drawings. Weld or bolt shop connections as indicated.
- E. Bolted Construction: Install high-strength threaded fasteners in accordance with RDSC - Specifications for Structural Joints Using ASTM A325 or A 490 Bolts.
 - 1. Fit bolted parts together tightly. Remove loose scale, burrs, dirt, and other foreign material preventing solid seating of parts.
 - 2. Remove oil, paint, lacquer, and galvanizing from contact surfaces of high strength bolted connections.
- F. Base and Bearing Plates: Drill and fabricate to accurate sizes as drawn. Include fasteners and accessories required for installation.
 - 1. Manufacturer of bearing material to perform bonding.
 - 2. Protect bearing surfaces from damage. Bearing pads with scratches, or other marks, will be rejected.
- G. Camber: As shown by Structural Drawings. Provide beams with required camber, in-place, prior to erection of steel decking and concrete slab placement. Compensate for loss of camber due to shipping and handling. Conform to requirements of AISC - Specification for Structural Steel Buildings.
- H. Where finishing is required, complete assembly, including welding of units, before start of finishing operations. Finish surfaces of members exposed in final structure free of markings, burrs, and other defects.

2.3 FABRICATION TOLERANCES

- A. Unless otherwise noted, fabricate structural members to AISC Specifications for allowable tolerances.

- B. Straightness: Conform to ASTM A6 tolerances allowed by wide flanged shapes for tolerances of structural members of single rolled shapes or built-up structural members.

2.4 SURFACE FINISH PREPARATION

- A. Conform to AISC - Code of Standard Practice for Structural Steel Buildings and Bridges.
 - 1. Clean surfaces of oil, grease, scale, dirt, and other foreign matter present in sufficient quantities to impair bond.
 - 2. Remove rust and mill scale in accordance with Section 6. Make exposed surfaces and edges smooth, free of burrs and sharp edges.
 - 3. Conform to Section 10 for additional requirements for Architecturally Exposed Structural Steel (AESS).

2.5 SHOP PRIMERS AND FINISHES

- A. Shop Preparation, Priming, and Shop Galvanizing of Structural Steel and Components: Conform to provisions of Section 055000.
- B. Structural Steel Receiving Finish Paint and Special Coatings: Shop prepare and shop apply primers for interior and exterior steel specified Section 055000, compatible with finish coatings specified Section 099100.
- C. Load and Resistance Factor Design (LRFD): Coat structural steel conforming to IBC Section 2205 and AISC 360.
 - 1. Coatings at Faying Surfaces at Slip-Critical Structural Steel Joints: Conform to RCSC - Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts
 - 2. Shop Primers: Class B.
 - 3. Galvanized Coatings: Class C.
- D. Do not shop prime structural steel framing members within concealed construction.
- E. Exterior Structural Steel Receiving Galvanized Coating: Hot-dip galvanize, in conformance to Section 055000 for exposed galvanized surfaces exposed to weather, steel embeds in contact with masonry and concrete, weldments, connectors, and other steel items, as indicated.
- F. Bolts and Threaded Fasteners: Hot-dip galvanize, ASTM A153, Class C or Class D, where exposed to weather or moisture.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with AISC codes and specifications, and with AWS "Structural Welding Code."
- B. Employ a registered engineer to check elevations and plumb and level tolerances; certify that installed work is within AISC Standards. Owner will engage testing/inspection agency to inspect welded and bolted connections as specified by Structural Notes.
- C. Architecturally exposed steel: Fabricate with special care using materials carefully selected for best appearance. Store materials off ground and keep clean. Cut, fit and assemble work with surfaces smooth, square and with complete contact at joints. Set all cambers up. Weld all work continuously; grind smooth and flush to make seams not visible after priming. Prepare surfaces to comply with SSPC-SP6; apply prime coat within 24 hours after cleaning.
- D. Touch up field welds and abraded areas with shop primer.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural steel bridge decking for composite concrete slab.

1.2 RELATED SECTIONS

- A. Section 033000 – Cast-In-Place Concrete
- B. Section 051200 – Structural Steel Framing
- C. Section 055000 – Metal Fabrications

1.3 REFERENCES

- A. American Iron and Steel Institute (AISI): Specifications for the Design of Cold Formed Steel Structural Members.
- B. American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI): ASCE 3 - Structural Design of Composite Slabs.
- C. ASTM International:
 1. ASTM A108 - Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.
 2. ASTM A653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 3. ASTM A1008 - Standard Specifications for Steel, Sheet, Cold-Rolled, Carbon, Structural, High Strength Low-Alloy and High Strength Low Alloy with Improved Formability.
- D. American Welding Society (AWS):
 1. AWS D1.3 - Specification for Welding Sheet Steel in Structures.
 2. AWS A5.1 - Specifications for Low-Alloy Steel Covered Arc-Welding Electrodes.
- E. Steel Deck Institute (SDI): Code of Recommended Standard Practices.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in state of Washington.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Conform to provisions of Section 016000 and manufacturer's instructions.
- B. Deliver on long-bed trucks or trailers or adequately supported members to prevent bending and other damage.
- C. Unload by hand, by appropriate slings, or other means that will prevent damage.
- D. Store off ground with one end elevated for drainage. Cover deck with waterproof material, ventilated to avoid condensation.
- E. Package to prevent damage during shipping. Do not bend, deform, or otherwise mar steel decking.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Steel Deck:
 - 1. Verco Manufacturing Co.; or approved equal.

2.2 MATERIALS

- A. Structural Steel Floor Deck: Type, gauge, size, and profile as specified by Structural Drawings.
 - 1. Hot Dip Galvanize to ASTM A653 G90.
 - 2. Bottom Side: Factory clean, etch, phosphatize, and apply baked-on rust inhibitive light gray or off-white acrylic primer.
- B. Shear Connectors: As specified by Structural Drawings.
- C. Sheet Metal Accessories: ASTM A 653, G60, commercial quality, galvanized.
- D. Paint: Rust-inhibitive paint.

2.3 FABRICATION

- A. Design: Conform to Steel Deck Institute (SDI) and Structural Notes.

2.4 FINISHES

- A. Paints/Coatings for Exposed Steel Decking: Field coating systems specified Section 099100.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Check supporting members for correct layout and alignment.
- B. Verify that surfaces to receive steel decking are free of debris.

3.2 INSTALLATION

- A. Form to span at least 3 supports and with 2-inch laps. Place deck flat, square and with cells aligned. Anchor deck securely in place following manufacturer's directions and approved shop drawings.
- B. Cut and fit neatly around penetrations; provide additional framing, reinforcement and closure pieces to maintain structural continuity. Anchor closure strips at ends, edges, and penetrations.
- C. Welding:
 - 1. Perform welding by AWS qualified welders experienced in welding light gauge steel.
 - 2. Secure steel decking to supporting members in accordance to Structural Notes and Drawings.
- D. Touch up damaged coatings with primer or galvanized repair paint.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Miscellaneous metal fabrications including but not limited to the following:
 - a. Steel angles, plates, and supports,
 - b. Perforated metal panel,
 - c. Fasteners, mounting clips, connectors, washers, and accessories as required,
 - d. Preparation, priming, and galvanizing of shop coated ferrous metal fabrications.

1.2 RELATED SECTIONS:

- A. Section 050523 - Welding Section 055200 - Metal Railings

1.3 REFERENCES

- A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section.
- B. AISC:
 1. Manual of Steel Construction
 2. Code of Standard Practice for Steel Buildings and Bridges
 3. Load and Resistance Factor Design (LFRD) Specification for Structural Steel Buildings
 4. Seismic Provisions for Structural Steel Buildings
 5. Specification for Allowable Stress Design of Single-Angle Members, and for Load and Resistance Factor Design of Single Angle Members
- C. ASTM International: Standards indicated herein.
- D. Architectural Metal Products Division of National Association of Architectural Metal Manufacturers (NAAMM): Metal Finishes Manual for Architectural and Metal Products.
- E. NAAMM-AMP 555: Code of Standard Practice for Architectural Metal Industry.
- F. The Society for Protective Coatings (SSPC): Volume 1, Good Painting Practice, and Volume 2, Systems and Specifications.
- G. Research Council on Structural Connections (RCSC): Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Conform to Section 013100 for coordination with work of other Sections.
 1. Coordinate requirements for primed and unprimed steel conforming to provisions of this Section and provisions required by applicable treatments and coating systems.
 2. Other metal fabrications indicated.

1.5 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Include manufacturer's publications, specifications, instructions, performance criteria, and limitations. Show conformance with specifications.
- C. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable. Prepare placing plan locating structural connectors.
 1. Include embedded items, including anchor bolts.
 2. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate weld

length.

D. Certification: Submit certification letter attesting that specified shop finish preparation, procedures, and products, including galvanized plating and SSPC procedures have been followed.

E. Samples:

1. Provide Mockup in accordance with Section 014000
 - a. Owner accepted mock-up may be incorporated into work.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: Company specializing in work of this Section with minimum 5 years documented experience.

B. Welders Qualifications: AWS qualified, WABO Certified within last 12 months.

C. Welding: Perform in accordance with regulatory agencies. See Section 050523, Welding.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 016000, Product Storage and Handling Requirements, and following:

1. Protect from moisture and corrosion until erected.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General:

1. Provide rolled shapes, bars, plates, sheets, strips, accessories, and the like, as detailed or required for complete installations.
2. Sizes, dimensions, and configurations as indicated on Drawings or as required.

B. Steel:

1. Steel Plate, Shapes, and Bars: ASTM A36.
2. Tubular Steel and Pipe: Cold formed hollow structural steel (HSS), ASTM A500 Grade B or hot formed ASTM A501, electric resistance welded (ERW), seamless.
3. Steel Pipe: ASTM A53, Type S, Grade B, standard weight, Schedule 40 seamless.
4. Stainless Steel Bolts, and Screws: ASTM F593.
5. Welding Electrodes: Conform to AWS Standards.
6. Miscellaneous Metal: Provide rolled shapes, bars, sheets, strips, accessories, and as detailed or required for complete installations.
7. Non-Shrink Grout: As specified Section 033000.

C. Perforated Metal Panel:

1. Manufacturer: McNichols or approved equal.
2. Product: Round, Galvanized Steel, G90, 20 Gauge, 1/4" on 5/16" staggered centers.

2.2 MISCELLANEOUS FABRICATIONS

A. Steel Sections: Welded assemblies of standard structural shapes as required to complete the Work. Galvanize steel exposed to weather, embedded in concrete or within cavity formed by exterior veneer, unless directed otherwise.

B. Miscellaneous Framing and Support:

1. Provide miscellaneous steel framing, and supports which are not a part of structural steel framework, as required to complete work. Fabricate miscellaneous units to sizes, shapes and profiles shown or, if not shown, of required dimensions to receive adjacent other

- work to be retained by framing.
2. Except as otherwise shown, fabricate from structural steel shapes and plates and steel bars of welded construction using mitered joints for field connection. Cut, drill and tap units to receive hardware and similar items.
 3. Fabricate components required for anchorage of fabrications of same material and finish as fabrication, except where specifically noted otherwise.
 4. Galvanize or prime miscellaneous framing and supports with zinc-rich primer where indicated.
- C. Form steel to accurate sizes and shapes, with clean straight lines and angles.
1. Fit and shop assemble in largest sections, for delivery to site.
 2. Fabricate items with joints fitted and secured. Miter corners of frames with square or angled joints.
 3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated, or, if none indicated, Phillips flathead (countersunk) screw or bolts.
 4. Except where exposed bolts are detailed or indicated, do not use screws or bolts, if avoidable. When used, countersink heads and draw up tight; nick threads to prevent loosening.
- D. Bolt, drill, tap, punch, and shear to leave clean surfaces.
- E. Joints and Fastenings: Detail for ample strength and stiffness. Where exposed to weather, form to exclude water.
- F. Provide holes and connections for work of other trades.
- G. Welding:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Weld permanent connections in accordance with Section 050523. Grind exposed welds smooth. Conform to NOMMA Guideline 1: Joint Finishes, Finish #1.
 3. Obtain fusion without undercut or overlap. Remove welding flux immediately.
 4. Make exposed joints butt tight flush, and hairline.
 5. Welds shall be smooth and invisible after finishing; grind exposed joints flush and smooth with adjacent surface (before galvanizing, where galvanizing indicated).
 6. Ease exposed edges to small uniform radius (1/32 inch unless otherwise indicated).

2.3 ACCESSORIES

- A. Fastenings, connectors, flanges, radius ells and accessories as specified, detailed or required for complete installation.
1. Sleeve seams in running pipe.
 2. Inside Radius Ells: Seamless steel, as detailed and to suit conditions of installation.
 3. End Caps and Cover Caps: As detailed and to suit conditions of installation.
 4. Connectors: Steel, types as detailed and to suit conditions of installation.
 5. Other components to be as manufactured or fabricated to suit installation.
- B. Galvanizing Repair and Touch-Up for Galvanized Surfaces: Product complying with ASTM A780, for application 2.5 mils dry thickness.

2.4 GALVANIZATION

- A. Zinc-coated (galvanized) ferrous metal assemblies indicated to be galvanized. Hot-dip

galvanize after fabrication and grinding in accordance with ASTM A123 (other steel products) and ASTM A153 (hardware):

1. Required coating weights per square foot of actual surfaces:
 - a. Steel 3/16 inch and Less: 2.0 oz. Average; 1.8 oz. Minimum.
 - b. Steel 1/4 inch and Heavier: 2.3 oz. Average; 2.0 oz. Minimum.
2. Galvanize bolts and similar threaded fasteners, in accordance with referenced Standards/ASTM A307, Class A, B, C, and D, as applicable.
3. ASTM A653/A924 - G90 galvanizing process (zinc with tin) for fabricated steel sheet.
4. Galvanize steel exposed to weather, or that is within cavity formed by exterior siding.

2.5 SHOP FINISH/FACTORY PRIME

- A. Shop Primer for Exterior, Ungalvanized Ferrous Metal Receiving Finish Coating Systems: Single component, moisture cured, micaceous iron oxide and zinc filled polyurethane (MIOZinc). Color: Green/Gray
 1. Tnemec Co, Series 394, PerimePrime.
 2. Wasser, MC Miozinc 100.
- B. Where not specified, assume Tnemec, Uni-Bond, Self-Crosslinking Acrylic, Corrosion Resistant Primer Series 115 and verify with Owner.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Conform to manufacturer's instructions and provisions of Contract Documents.
- B. Protect against galvanic action from uncoated dissimilar metals. Except as otherwise indicated, embed (uncoated portion) of steel items into concrete and steel inserts with specified non-shrink grout.
- C. Fabricated Items: Install plumb and true to line. Anchor securely in place.
- D. Miscellaneous: Install metal items and fabrications as required to fully complete the Work whether specifically indicated or not.

3.2 TOUCH-UP AFTER INSTALLATION

- A. After installation and erection, remove weld spatter, grind smooth, and clean steel of oil and grease in accordance with SSPC-SP-1. Clean abraded, bolted, and welded areas.
- B. Damaged Shop Primed Ferrous Metal Surfaces: Reapply specified shop primer to make free of scratches and stains.
- C. Damaged Galvanized Surfaces to Receive Finish Coating: Touch up with specified organic, zinc rich, urethane primer.
- D. Site Welding: Clean and strip primed steel to bare metal where site welding is required and apply touch-up primer or cold galvanizing compound as specified in Section 099100, Painting.

3.3 CLEAN UP

- A. Leave premises clean and free from residue of Work of this Section ready for field coating of Section 099100, Painting.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pre-engineered, preassembled, straight run steel stairs and railings.
 - a. Exterior stairs and railings with concrete filled metal pans, solid risers, and steel pipe railings,
 - b. Steel guardrail at bridges,
 - c. Shop-applied primer and field-applied finish coat at stairs and railings,
2. Auxiliary materials and accessories required for a complete installation,
3. Delegated design.

B. Related Sections:

1. Section 033000 – Cast-in-Place Concrete
2. Section 050523 - Welding
3. Section 055000 - Metal Fabrications
4. Section 099100 - Painting

1.2 REFERENCES

A. Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section:

ANSI A117.1	Accessible and Usable Buildings and Facilities Standards Accessible Design 2010 Standards for Accessible Design (ADA)
ASTM	Standards indicated herein
AWS D1.1	Structural Welding Code - Steel
AWS D1.3	Structural Welding Code - Sheet Steel
NAAMM	Standards and Manuals for Architectural Metal Products
SSPC	Volume 1, Good Painting Practice, and Volume 2, Systems and Specifications Editions current as of date of Project Manual.
WABO	Washington Association of Building Officials: Welder Certification

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordinate concrete placement, finish at concrete filled pan treads and landings.
2. Coordinate structural connections, anchorage, and adjacent construction as indicated.
3. Coordinate substrate preparation, shop-applied primer and field-applied finish coatings.

B. Pre-Installation Meeting: Convene to review conditions and coordination requirements.

1.4 SUBMITTALS

A. Submit in accordance with Section 01 33 00, Submittal Procedures:

1. Product Data: Manufacturer's literature for each product and material specified.
2. Shop Drawings. Indicate:
 - a. Profiles, sizes, gauges, dimensions, modifications, connection of attachments, reinforcing, size and type of fasteners, and assembly of components.
 - b. Stringers, treads, safety nosings and risers.
 - c. Welds, anchorages and attachment details to the building structure.
 - d. Installation clearances.
 - e. Coordinate with existing stair landings.
3. Engineering Calculations: Engineering calculations and shop drawings for stairs and

railings, and attachment to structure, shall be stamped and signed by a qualified professional Engineer licensed in State of Washington.

4. Certificates: Attest to galvanized plating indicated.
5. Qualifications Data: For fabricator/engineer/detailer, welders, and installer.

1.5 QUALITY ASSURANCE

A. Manufacturer/Fabricator Qualifications:

1. Shall have plant facilities and personnel sufficient to fabricate and erect metal stairs and railings indicated; and be qualified under AISC 201, or have minimum of 5 years' experience on projects similar in scope, magnitude and quality for this project.
2. Delegated Design Qualifications: Shall have on-staff engineer including the following:
 - a. Structural engineering calculations shall be by qualified professional engineer licensed in the State of Washington.
 - b. Detailing shall be performed by the qualified professional engineer, or under the direct supervision of the qualified professional engineer.
3. Welding: Shall be performed by WABO Certified Welders, certified in last 12 months.
4. Installation: Fabricators shall perform installation of their respective systems. Installer with experience installing the systems specified may be allowed, if acceptable to manufacturer/fabricator and Owner.

B. Quality of workmanship for exposed steel to be Class 2 as defined by NAAMM:

1. Exposed surfaces retain mill marks and moderate irregularities not visible by naked eye at 30 feet.
2. Exposed welds are ground with uniform sized cove.
3. Minor distortions are permitted.
4. Exposed joints have a maximum gap of 1/16 inch.
5. Welds: Conform to NOMMA indicated in Article 2.09 below.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 60 00, Product Storage and Handling Requirements, and following:

1. Ship components in largest possible sections to minimize field welding.
2. After delivery, store carefully to prevent damage. Store in warm, dry location, on blocks above snow or mud, inside building where possible.
3. Handling: Protect from abuse. Bent, scratched, or damaged items shall be rejected.

1.7 PROJECT SITE CONDITIONS

A. Field Measurements: Field verify dimensions. If schedule does not allow verification by Fabricator, Contractor shall verify and adjust Shop Drawings to reflect field dimensions.

1.8 WARRANTY

A. Provide warranties in accordance with Section 01 77 00, Closeout Submittals and following:

1. Specified Product Warranty (sliding mezzanine gate): Manufacturer's standard 25-year warranty that materials shall be free from defects in manufacturing.

PART 2 - PRODUCTS

2.1 PERFORMANCE

A. Regulatory Requirements:

1. Stairways, Handrails and Guards: Comply with IBC including seismic.

2. Seismic: Stair systems shall be capable of withstanding the effects of earthquake motions determined in accordance with IBC.
 3. Accessibility: Comply with 2010 Standards for Accessible Design (ADA), ICC/ANSI A117.1, and IBC. In areas required to be accessible, floor or ground openings shall be limited to 1/2 inch in width.
 4. Comply with requirements of OSHA/WISHA.
- B. Delegated Design: Engage a qualified professional engineer licensed in State of Washington to design stairs, railings, and attachment to structure, to meet criteria indicated.
1. Design Loads: See Structural Drawings and Structural General Notes.
 2. Design Requirements - General: Stair and railing assemblies shall be capable of withstanding the effects of gravity loads, design loads, and seismic effects indicated.
 - a. Design stairs to be self-supporting between landings.
 - b. Design to load supporting structure without inducing torsion.
 - c. Transfer loads into structural elements.
- C. Structural Performance Requirements: Comply with IBC.
1. Stair Assembly (framing, treads and landings): Shall support the following:
 - a. Uniform Load: Minimum 100 pounds per square foot.
 - b. Concentrated Load: 300 pounds applied on an area of 4 square inches.
 - c. Stair Framing shall be capable of withstanding the stresses resulting from railing loads in addition to the loads specified.
 - d. Deflection of Treads, Landings and Framing Members: Shall not exceed $L/360$ of span, or 1/4 inch, whichever is less.
 2. Handrails and Railings: Railings, including attachment to building construction, shall withstand the following loads without damage or permanent set:
 - a. Handrails and Top Rails of Guards:
 - 1) Uniform Load: Minimum 50 pounds per foot applied in any direction.
 - 2) Concentrated Load: Minimum 200 pounds per foot applied in any direction.
 - b. Guard Infill: Minimum concentrated load of 50 pounds applied horizontally on an area of one square foot.
 3. Loads above need not be assumed to act concurrently.
- D. Exterior Railings: Allow for thermal movement; maximum temperature range of 120 deg. F ambient, and 180 deg. F material surfaces.

2.2 MANUFACTURERS AND PRODUCTS

- A. Manufacturers/Products:
1. American Stair Corporation
 2. Pacific Stair Corporation
 3. Duvinage /Worthington (formerly Sharon Stair)
 4. Or accepted.
- B. Products: Basis of Design: Pacific Stair, prefabricated/pre-engineered systems indicated.
1. Subject to compliance with requirements, systems by other manufacturers listed accepted for review. Submit substitution requests in conformance with Section 01 62 00, Substitutions and Product Options.

2.3 CONCRETE-FILLED STAIRS AND STEEL TUBE RAILINGS

- A. Stairs: Pacific Stair "S100 Series Concrete Filled Stair System".
1. Drawing Designation: "Pre-Engineered Metal Stair".

2. Description: Straight run stairs and landings. Structural member sizes indicated are minimum; thickness shall be as determined by engineering calculations to suit span and stair width and to comply with performance requirements. Refer to Drawings.
 3. Stringer: 10-inch steel plate, 1/4-inch-thick unless thicker required by engineering calculations.
 4. Treads/Risers: Concrete-filled metal pan and closed riser, 14-gauge smooth steel sheet welded to stringer. ADA compliant 1/2-inch slope at riser.
 5. Nosings (including at landings): Manufacturer's standard, ADA-compliant; if no standard, see Section 05 50 00, Metal Fabrications.
 6. See Drawings for configurations.
- B. Landings: See Drawings for landings at floors and intermediate landings.
1. Bottom Landing: Steel angle, channel or other reinforcing and bracing as determined by engineering calculations, anchored to concrete slab.
- C. Guardrail: Pacific Stair "R400 Series Picket Rail".
1. Vertical Posts and Top Cap: 1 1/2-inch x 1 1/2-inch square tube, 0.120 inch thick.
 2. Picket Material: 1/2" square bar.
 3. Handrail: 1 1/2-inch diameter pipe (1.66 inch outside diameter).
 4. Shop-primed for field-applied finish coating.
 5. Guardrail Mounting: Side mounted to plate stringer.
- D. Handrails and Brackets:
1. Handrails: Manufacturer's standard 1 1/4-inch diameter (1.66 inch outside diameter) seamless steel pipe.
 2. Handrail Brackets: Manufacturer's standard.
 3. Handrails and brackets shall conform to requirements of IBC and ADA.
 4. Finish: Shop-primed for field-applied finish coating.

2.4 MATERIALS

- A. Steel:
1. Steel Shapes, Plates and Bars: ASTM A36.
 2. Steel Tubing (structural): ASTM A500, Grade B HSS.
 3. Steel Tubing (railing): ASTM A513, 80,000 psi.
 4. Steel Pipe (railings): ASTM A53, Grade B Schedule 40, 1 1/4 inch and 1 1/2 inch diameter.
 5. Steel Sheet:
 - a. Structural Use: ASTM A1011 (hot rolled).
 - b. Non-Structural Use: ASTM A786, ASTM A1008.
- B. Welding Rods: In accordance with AWS code and AWS filler metal specifications to suit materials being welded. See also, Section 05 05 23, Welding.
- C. Concrete (fill at treads and landings): See Section 03 30 00, Cast-in-Place Concrete.
1. Non-slip-Aggregate Concrete Finish: Factory-packaged abrasive aggregate made from fused, aluminum-oxide grits or crushed emery; rustproof and non-glazing; unaffected by freezing, moisture, or cleaning materials.
- D. Grout: Refer to Structural General Notes. Factory-packaged, non-staining, non-metallic, non-corrosive grout complying with ASTM C1107, specifically recommended by manufacturer

for interior and exterior applications.

2.5 ACCESSORIES

- A. Fasteners: Type and size as determined by engineering calculations to suit Project conditions. Provide concealed fasteners, unless unavoidable or standard for railings indicated. Fastener material shall be compatible with substrate.
- B. Post-Installed Anchors: Type and size as determined by engineering calculations to suit Project conditions. Anchors shall have ICC-ES Report acceptable to code official.
- C. Accessories for Handrails: Connectors, flanges, radius ells, fittings, and accessories as specified, detailed or required for complete installation. Material and finish shall match rail.
- D. Miscellaneous Items: As detailed or required for complete installation.
 - 1. Provide other items indicated or required to complete the work.
 - 2. Include brackets, plates, sleeves, braces, connectors, flanges, leveling bolts, and the like to facilitate accurate attachment, plumbing and alignment.
- E. Isolation Materials: Provide materials as required by substrate and conditions, to prevent corrosion by galvanic action and other forms of corrosion caused by direct contact with incompatible materials.

2.6 FABRICATION

- A. Construct all-welded structural quality assemblies indicated, complying with AWS.
- B. General:
 - 1. Fabricate pre-engineered stair systems to meet structural performance requirements referenced standards, and requirements of SBC, AHJ, ADA, and OSHA/WISHA.
 - 2. Fit and shop-assemble in largest practical sections, for delivery to site.
 - 3. Form steel to accurate sizes and shapes, with clean lines and angles.
 - 4. Join components by welding unless indicated otherwise.
 - 5. Exposed Mechanical Fastenings: Locate unobtrusively consistent with design of component.
 - 6. Fabricate treads with code-compliant profiles and nosings, and with steel carrier at each end, for stringer connections.
 - 7. Fabricate grating platforms and landings with nosing matching that on grating treads. Provide toe plates at open-sided edges of grating platform unless indicated otherwise. Secure grating to platform frame with welds.
 - 8. Fabricate pre-engineered guardrails and handrails to meet structural performance requirements and requirements of AHJ.
 - a. Spacing between vertical posts as indicated on Drawings; maximum 48 inches.
 - 9. Drill and tap holes prior to galvanizing and or finish coating.
 - 10. Complete the assembly, including welding of units, and drilling and tapping of holes, before start of hot-dip galvanizing.
- C. Welding: Comply with AWS welding standards.
 - 1. Weld stringers, risers, reinforcement, treads, railings and the like to form integral units.
 - 2. Wire brush completed welds.
 - 3. Make exposed butt joints tight, flush, and hairline. Ease exposed edges to small uniform radius.
 - 4. Exposed Joint Finishes: Conform to NOMMA Guidelines: Finish No. 3, partially dressed with splatter removed.

D. Supply components required for anchorage. Fabricate anchors and related components of same material and finish as fabrication, except where indicated otherwise. Galvanize exterior anchorage where indicated.

1. Accurately form components required for anchorage of stairs to structure.

2.7 GALVANIZING

A. Shop-Galvanizing (where indicated): Zinc-coated (galvanized) ferrous metal shall be hot dip galvanized after fabrication and grinding, in accordance with ASTM A123.

1. Following are required coating weights per square foot of actual surfaces:
 - a. Steel 3/16 inch and Less: 2.0 oz. average; and 1.8 oz. minimum.
 - b. Steel 1/4 inch and Heavier: 2.3 oz. average; and 2.0 oz. minimum.
2. Galvanize bolts and similar threaded fasteners, in accordance with ASTM A153.
3. Touch-up for Damaged Galvanized Surfaces: ASTM A780, Tnemec "Series 394 PerimePrime", 2.5 mils dry thickness, or accepted.

2.8 FINISHES

A. Comply with NAAMM Manual.

B. Shop-Applied and Field-Applied Finishes:

1. Substrate Preparation: Completely remove oil, grease, dirt, mill scale, rust, corrosion, oxides, paint or other foreign matter from steel surface in accordance with SSPC SP2.
2. Shop-Applied Primer: Apply immediately after fabrication and cleaning, spray apply one coat primer to dry film thickness not less than 1.0 mil.
 - a. Exterior Stair Systems: Apply primer specified in Section 09 91 00.
 - b. Do not prime surfaces in direct contact with concrete or to be field welded.
3. Field-Applied Finish Coating:
 - a. Stair Systems: As specified in Section 09 91 00.

C. Do not coat stainless steel or galvanized materials indicated to remain a galvanized finish.

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 PREPARATION

- A. Coordinate structural connections as required. Supply items required to be cast into concrete and placed in partitions with setting templates, to appropriate Section.
- B. Insulate dissimilar metals, one from the other. Protect metal surfaces where contacting cured concrete and other cementitious materials.

3.3 INSTALLATION

- A. General: Install in accordance with manufacturer's instructions, provisions of the Contract Documents including structural performance requirements, and requirements of AHJ.
 1. Erect assemblies square, plumb, true to line, and level, in location and elevation indicated on Drawings.
 2. Joints shall be butted tight, with hairline neatly fitted joints, and intersections
 3. Conceal bolts and fasteners whenever possible.

4. Field Welding: Perform where approved by Owner.
 - a. Welds shall be ground smooth and flush.
 - b. Permanently bolt and weld steel construction to match shop bolting and welding.
 5. Do not weld, cut, or abrade surface of railing components that have been coated or finished after fabrication and that are intended to be field connection by mechanical means without further cutting or fitting.
 - B. Stairs: Set stair units in position true to line, plumb, level, accurately fitted, and secure with neatly fitted joints and intersections.
 1. Provide anchors, plates, and angles required for connecting stairs to structure.
 2. Permanently anchor construction.
 3. Do not cut or alter structural components without written authorization.
 4. Install and securely anchor precast concrete treads and wood treads.
 - C. Guardrails and Handrails: Set railings in location, alignment and elevation measured from established lines and levels and free of rack.
 1. Secure railing systems to stringer and other structural members as indicated.
 2. Handrails: Install handrails on specified brackets. Provide clearances complying with IBC and AHJ.
 - a. Return ends of handrails where indicated.
 3. Allow for expansion and contraction at exterior stair and railings.
 - D. Leave assemblies securely rigid and free from defects and distortions.
 - E. Erection Tolerances:
 1. Maximum Variation from Plumb: 1/4 inch per story.
 2. Maximum Offset from True Alignment: 1/4 inch.
 3. Maximum Out-of-Position: 1/4 inch.
 4. Maximum Differential of True Elevation: 1/2 inch per floor, non-cumulative.
 - F. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
 - G. Do not install damaged components. Replace damaged components unable to be repaired to satisfaction of Owner.
- 3.4 ADJUSTING AND CLEANING
- A. Reposition any misaligned units.
 - B. Touch up damaged finished work with materials and methods recommended by finish coating manufacturer.
 - C. Clean exposed surfaces in accordance with manufacturer's recommendations.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel pipe handrails at stairs.
2. Handrail components.

1.2 RELATED SECTIONS:

- A. Section 050513 - Shop Applied Coatings Section 050523 - Welding
- B. Section 055000 - Metal Fabrications

1.3 REFERENCES

- A. Reference Standards: Applicable provisions of the most recent adopted editions of the following standards shall apply to the work of this Section:
- B. American National Standards Institute (ANSI): ICC/ANSI A117.1 - Accessible and Useable Building Facilities.
- C. AISC
 1. Manual of Steel Construction
- D. ASTM International: Standards indicated herein
- E. Architectural Metal Products Division of National Association of Architectural Metal Manufacturers (NAAMM): Metal Finishes Manual for Architectural and Metal Products.
- F. NAAMM-AMP 555: Code of Standard Practice for Architectural Metal Industry
- G. The Society for Protective Coatings (SSPC): Volume 1, Good Painting Practice, and Volume 2, Systems and Specifications.
- H. Research Council on Structural Connections (RCSC): Specifications for Structural Joints Using ASTM A325 and ASTM A490 Bolts.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Conform to Section 013000 for coordination with work of other Sections.

1.5 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Include manufacturer's publications, specifications, instructions, performance criteria, and limitations. Show conformance with specifications.
- C. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 1. Prepare placing plan locating structural connectors.
 2. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate weld length.
- D. Certification: Submit certification letter attesting that specified shop finish preparation, procedures, and products, including galvanized plating and SSPC procedures have been followed.
- E. Samples:
 1. Wall bracket.
 2. Steel pipe handrail, 6 inch length.

1.6 QUALITY ASSURANCE

- A. Supply setting templates for items cast into concrete and embedded in masonry.
- B. Fabricator and Installer: Company specializing in work of this Section with minimum 5 years documented experience performing commercial quality work of comparable scope.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 016000, Product Storage and Handling Requirements, and following:
 - 1. Pack components to prevent bending, twisting, scratching of finished surfaces and other damage during shipment.
 - 2. Store inside building or in protected area on blocks away from dirt and moisture.

PART 2 - PRODUCTS

2.1 METAL RAILINGS

- A. Steel Pipe: ASTM A53, Type E or Type S, Grade A or Grade B, standard weight, Schedule 40.

2.2 HANDRAIL BRACKETS

- A. Steel Wall Brackets for Steel Pipe and Round Hardwood Handrails: Stamp formed 3/16 inch steel, 3 inch centerline of railing to wall, one 7/16 inch diameter fastener hole, round top suitable for joining pipe rail, able to accept welded or machine screw connection.
 - 1. R&B Wagner 3426
 - 2. Sharpe Products 7300
 - 3. Julius Blum 626

2.3 PIPE AND TUBE HANDRAIL AND RAILING SYSTEM COMPONENTS

- A. Inside Radius Ells: Seamless steel with radius ell wall return fittings at railing ends and railing corners.
- B. Flanges: 10 gauge steel.
- C. Connectors: Coped, drive-on type, welded.
- D. Wedge-lock Welding Connectors: Types to suit conditions and as recommended by manufacturer.
- E. Other Components: Fabricate of steel to match pipe material, including railings, inserts, and sleeves as necessary to suit installation.

2.4 ACCESSORIES

- A. Expandable Grout for Pipe Rails: Conforming to ASTM C827.
- B. Fasteners and Anchors: Stainless steel designed for intended use and function, and as instructed by manufacturer.
 - 1. Wood Framing and Backing: Steel: Hex head lag screws.
- C. Connections: Weld steel to steel including railing and bracket connections, unless otherwise indicated.
- D. Auto-Body Joint Fillers: Bondo, or other accepted auto-body filler as needed to make welded and other permanent connections smooth and uniform after grinding smooth for materials to be primed and painted.
- E. Miscellaneous Items: Provide all other steel and iron items indicated or required to complete the work.

2.5 FABRICATION

- A. Fit and shop assemble components in largest practical size for delivery to site.
- B. Provide anchors, plates, and other components needed to make secure, structural connections.
- C. Provide spigots, sleeves and other components to accommodate site assembly and installation.
- D. Fabricate components of same material and finish as fabrications, except where otherwise specified. Fit with matching pipe fittings, pipe ells, end plugs, and radiused returns.
- E. Construct welded structural steel assemblies:
 - 1. Conform to NOMMA, Guideline 1: Joint Finishes, Finish No. 2 and provisions of Section 055000.
 - 2. Continuously seal joined pieces by continuous welds or intermittent welds and filler.
 - 3. Grind exposed joints flush and smooth with adjacent finish surfaces.
 - 4. Butt-weld pipe members together. For long runs (40 feet maximum), fabricate with smaller diameter slip joint inserts, to accommodate movement.
- F. Make exposed joints butt tight, flush and hairline.
- G. Ease exposed edges with small uniform radius.
- H. Drill and tap holes before applying shop primer coating. Countersink and drill at unobtrusive locations.

2.6 FINISHES

- A. Surface Preparation and Shop Primer: Conform to provisions of Section 055000.
 - 1. Exterior: SSPC-SP-6, Commercial Blast Cleaning.
- B. Bolts and Other Threaded Fasteners at Exterior Assemblies: Galvanized. Conform to provisions of Section 055000.
- C. Steel Sections, Steel Pipe and Accessories:
 - 1. Shop Applied Coating Finish: Specified Section 050513 for installation.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect surrounding areas and surfaces to preclude damage during work of this Section.
- B. Supply items required to be cast into concrete, embedded in masonry, and placed in partitions with setting templates, to appropriate Section.
- C. Separate dissimilar metals using isolation tape or coatings acceptable to Owner. Do not use bituminous coatings.
- D. Protect metal surfaces where contacting cured concrete and other cementitious materials.

3.2 INSTALLATION

- A. Wall Mounted Handrails: Install in accordance with manufacturer's instructions.
- B. Include accessory items indicated or as required to complete work of this Sections.
- C. Erect assemblies plumb, true to line, and secure. Use specified expandable grout. Perform welding where applicable.
- D. Install wall mounted handrails on specified brackets.
- E. Space brackets maximum 4 foot on center, except as otherwise shown.
 - 1. Return ends of wall handrails to wall.

2. Mount brackets to maintain clearances from handrail to wall.
 3. Make provisions for expansion and contraction.
- F. Separate dissimilar metals using isolation tape or coatings acceptable to Owner. Do not use bituminous coatings.
- G. Leave assemblies securely anchored, rigid, and free from defects.
- 3.3 ADJUSTING
- A. Field touch up damaged finish coatings under work of Section 050513 following delivery to Project Site.
- 3.4 CLEANING
- A. Leave installation area clean and free from debris resulting from work of this Section.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Miscellaneous rough carpentry including but not limited to;
 - a. Plywood sheathing for patching/infill,
 - b. Blocking and backing,
 - c. Other miscellaneous rough carpentry incidental to the work of this contract.
2. Fasteners and other accessories.

1.2 RELATED SECTIONS

A. Section 070150 - Preparation for Re-Roofing

1.3 REFERENCES

A. Reference Standards: Most current edition at date of Bid.

B. Western Wood Product Association (WWPA):

1. Western Lumber Product Use Manual
2. Western Lumber Grading Rules

C. Pacific Lumber Inspection Bureau (WCLB):

1. Standard No. 17 Grading Rules for West Coast Lumber

D. The Engineered Wood Association (APA and APA EWS):

1. Product Guide - Performance Rated Panels
2. PS 1-95 - Construction and Industrial Plywood (With Typical APA Trademarks)
3. PS 2 - Performance Standard for Wood Structural Panels.

E. American Society for Testing and Materials (ASTM):

1. ASTM A123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
2. ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
3. ASTM D1761 - Standard Test Methods for Mechanical Fasteners in Wood and Wood-Based Materials
4. ASTM D5456 – Standard Specification for Evaluation of Structural Composite Lumber Products
5. ASTM F1667 – Standard Specification for Driven Fasteners: Nails, Spikes, and Staples

F. Underwriters Laboratories (UL)

1.4 COORDINATION

A. Coordinate with other Sections for backing support of wall-supported items at stud-framed walls.

1.5 QUALITY ASSURANCE

A. Evidence of Grade: Conform to IBC 2303 and DOC PS 20.

1. Rough Lumber: Stamp each piece of lumber and plywood with grademark and trademark of Association having jurisdiction.
2. In Lieu of Grade Stamping Exposed to View Lumber: Certify by manufacturer that products meet or exceed specified requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store wood materials minimum six (6") inches above ground on framework or blocking away from dirt and moisture, well ventilated and covered with waterproof covering.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

A. Framing Lumber:

- 1. Species: Douglas Fir-Larch, or Hem-Fir.
- 2. Grade: WWPA No.1 and better.
- 3. Moisture Content: S-DRY, 15 percent maximum moisture content.
- 4. Wall sheathing 7/16" OSB

2.2 WOOD PANEL PRODUCTS

- A. Roof Sheathing: 7/16 inch OSB,

2.3 FASTENERS

- A. Fastener Types, Sizes, Spacing, and Quantities: Provide fasteners and connectors including nails, spikes, screws, clips, bolts and anchors required for installation of carpentry and millwork, conforming to IBC Table 2304.9.1, and APA recommendations
- B. Nails, Spikes, Staples and Other Driven Fasteners: Conform to ASTM F1667 and IBC Section 2303.6.
- C. Bolts and Lag Bolts: Provide steel plate washers.

2.4 ACCESSORIES

- A. Construction Adhesives: Solvent based, conforming to APA Specification AFG-01.
- B. Pressure Treated Items: Preservative pressure treat wood members contacting concrete, masonry and at exterior conditions. Treat cut ends per manufacturer's recommendations.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section before beginning.

3.2 FRAMING

- A. Field coordinate and layout work prior to beginning installation. Cut, fit and install rough carpentry construction at locations indicated in drawings and as required to complete work of contract. Set materials level, plumb, aligned and in correct position in accordance with best practices of trade.
- B. Temporary Bracing: Make provisions for erection loads, sufficient to maintain structure safe, plumb and in true alignment until completion of erection and installation of permanent bracing and framing.
- C. Sub-fascia: Field cut to dimension required. Flush with cut ends of rafters.
- D. Blocking: Install at locations required by work of this contract and as indicated in drawings.

3.3 FASTENERS

- A. Provide nails, spikes, screws and bolts as necessary for secure and rigid permanent connections. Conform to IBC Table 2304.9.1-Fastening Schedule, APA recommendations, and provisions of Contract Documents.
- B. Drive nails perpendicular to grain of wood in lieu of toe-nailing, where feasible.

3.4 FIELD QUALITY CONTROL

- A. Conform to testing requirements in the General Requirements and Owner requirements for testing moisture content of lumber and for shear wall nailing.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes exterior synthetic (poly-ash) trim as indicated.

1.2 REFERENCES

- A. ASTM C 1185 – Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.
- B. ASTM D 570 – Standard Test Method for Water Absorption of Plastics.
- C. ASTM D 1761 – Standard Test Methods for Mechanical Fasteners in Wood.
- D. ASTM D 6341 – Standard Test Method for Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber Shapes Between -30 and 140°F (-34.4 and 60°C).
- E. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- F. AWPA E1 – Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.
- G. AWPA E10 – Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including installation instructions.
- B. Samples: Submit manufacturer's sample of exterior synthetic trim, minimum 1 inch by 4 inches by 8 inches long.
- C. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- D. Warranty Documentation: Submit manufacturer's standard warranty.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle materials in accordance with manufacturer's instructions.
- B. Keep materials in protective covering until installation.
- C. Store materials in clean, dry area.
- D. Store exterior synthetic trim on flat, level surface.
- E. Keep exterior synthetic trim covered and free of dirt and debris.
- F. Protect materials and finish during storage, handling, and installation to prevent damage.

1.5 WARRANTY:

- A. Warranty Period for Exterior Synthetic Trim: 20-year limited warranty.
 - 1. No decay due to rot.
 - 2. No excess swelling from moisture.
 - 3. Resist termite damage.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Boral Composites Inc., 200 Mansell Court East, Suite 305, Roswell, Georgia 30076. Toll Free 888-926-7259. www.BoralTruExterior.com. info@TruExterior.com.
- B. Or approved equal.

2.2 EXTERIOR SYNTHETIC TRIM

- A. Basis of Design: Boral TruExterior® Trim Exterior Synthetic (Poly-ash) Trim, or approved equal.
- B. Composition:
 - 1. Post-Industrial Recycled Content: Minimum 70 percent, by weight.
 - 2. Post-Consumer Recycled Content: Minimum 2 percent, by weight.
 - 3. Pigments and dyes.
- C. Physical Properties:
 - 1. Density, ASTM C 1185: 40 to 50 pcf.
 - 2. Water Absorption, ASTM D 570: Less than 1.5 percent.
 - 3. Fungi Rot, AWPA E10: a. White Rot: Negligible loss. b. Brown Rot: Negligible loss.
 - 4. Termite Resistance, AWPA E1: Greater than 9.0, with 10 being impervious.
- D. Mechanical Properties:
 - 1. Flexural Strength, ASTM C 1185: Greater than 1,600 psi.
 - 2. Nail Withdrawal, ASTM D 1761: Greater than 40 lbf/in.
- E. Thermal Properties:
 - 1. Coefficient of Linear Expansion, ASTM D 6341, Typical: 1.40E-05 in/in/degree F, tested at minus 30 to 140 degrees F.
 - 2. Flame Spread, ASTM E 84: Between 25 and 29.
 - 3. Smoke Developed, ASTM E 84: Less than 450.
- F. Trim Sizes:
 - 1. 5/4" x various widths: 3-1/2", 5-1/2", 7-1/4", 9-1/4" & 11-1/4" noted per Drawings.
 - 2. Manufacturing Tolerances:
 - a. Width: Plus or minus 1/16 inch.
 - b. Thickness: Plus or minus 1/16 inch.
 - c. Length: Plus 2 inches, minus 0 inch.
 - d. Edge Cut: Plus or minus 2 degrees.
- G. Exposed Texture: Smooth.

2.3 FINISHES

- A. Primer:
 - 1. Acrylic based.
 - 2. Low VOC.
 - 3. Factory applied on all sides prime for field-applied paint finish per Section 099100.

4. Color: Specified 099100.

2.4 FASTENERS

- A. Minimum 16 gage fasteners with head and finish suitable for the environment and application. Fasteners should be installed with adequate penetration to hold solid substrate.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive exterior synthetic trim.
- B. Notify Owner of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install exterior synthetic trim in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Do not install exterior synthetic trim in structural or load-bearing applications.
- C. Install exterior synthetic trim plumb, level, and square.
- D. Install exterior synthetic trim with flush, tight joints.
- E. Install Fasteners:
 1. Maximum of 24 inches on center.
 2. Within 2 inches of end of boards.
- F. Fill nail and screw holes with acrylic caulk, wood filler, or auto body filler.
- G. Repair minor damages to exterior synthetic trim in accordance with manufacturer's instructions and as approved by Owner.
- H. Remove and replace damaged exterior synthetic trim that cannot be successfully repaired as determined by Owner.
- I. Painting
 1. Apply top coat to exterior synthetic trim over factory-applied primer.
 - a. Within 150 days of installing trim.
 - b. As specified in Section 099100.

3.3 PROTECTION

- A. Protect installed exterior synthetic trim to ensure that, except for normal weathering, trim will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Complete removal of existing roof shingles in preparation for new roof shingles including but not limited to the following;
 - 1. Disposal of roofing materials,
 - 2. Carpentry repair required to repair existing roof decking and roof framing damaged or removed during removal of the existing roof,
 - 3. Remediation of fungal contamination and water-damaged materials within attic spaces,
 - 4. Preparation of surfaces to receive new materials,
 - 5. Existing roof sheathing shall be protected from water during the entire roof removal and reinstallation process.

1.2 RELATED SECTIONS:

- A. Section 024100 - Selective Demolition
- B. Section 061000 - Rough Carpentry
- C. Section 112428 – Fall Protection Systems

1.3 QUALITY ASSURANCE

- A. Materials Removal Firm Qualifications: Company specializing in performing the work of this section with minimum three (3) years of documented experience.

1.4 PRE-INSTALLATION MEETING

- A. Convene a minimum of one week before starting work of this section.

1.5 PROJECT CONDITIONS

- A. Schedule work to coincide with commencement of installation of new roofing system.
- B. Remove only existing roofing materials that can be replaced with new materials the same week.
- C. Coordinate the work with other affected mechanical and electrical work associated with roof penetrations

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not remove existing roofing when weather conditions threaten the integrity of the building contents or intended continued occupancy.
- B. Maintain continuous temporary protection prior to and during installation of new roofing system.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Temporary Protection: Reinforced Sheet polyethylene; provide weights to retain sheeting in position.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that existing roof surface is clear and ready for work of this section.

3.2 MATERIAL REMOVAL

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Remove only existing roofing materials that can be replaced with new materials the same day.
- C. Remove existing shingle roofing, underlayment, drip edge flashings, flashings around roof penetrations, vent hoods, downspouts, and gutters.
- D. Protect roof deck, plumbing vents, exhaust vents, and all adjacent building elements from damage or marring during demolition work. Make sure that no debris enters plumbing or exhaust vents.

3.3 INSTALLATION

- A. Confirm proper substrate and structural requirements for fall arrest anchors as specified in Section 112428 Fall Protection Systems.

3.4 TEMPORARY PROTECTION

- A. Roof decking shall not be allowed to become wet during asphalt shingle roofing system installation.
- B. Provide temporary protective sheeting over uncovered deck surfaces.
- C. Do not permit traffic over unprotected or repaired deck surface.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Composite sheet membrane system as required for a continuous barrier to resist air and water infiltration through differential air pressure into building wall enclosure at sheathing, fenestrations, penetrations and other openings.
- B. Section Includes:
 - 1. Air and Water Barrier System,
 - 2. Accessories as required for installation of continuous barrier,
 - 3. Flexible Flashing,
 - 4. Flexible Sill Flashing,
 - 5. Flashing Panels.

1.2 RELATED SECTIONS

- A. Section 079200 - Joint Sealants

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting
 - 2. ASTM D5034 - Standard Test Method for Breaking Strength and Elongation of Textile Fabrics Grab Test
 - 3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
 - 4. ASTM E96 / E96M - Standard Test Methods for Water Vapor Transmission of Materials
 - 5. ASTM E398 - Standard Test Method for Water Vapor Transmission Rate of Sheet Materials Using Dynamic Relative Humidity Measurement

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 - 1. Product Data: Manufacturer's literature for each item specified.
 - 2. Warranty: Manufacturer's ten (10) Year Limited Product and Labor Sample Warranty form.
- C. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Manufacturer's Product Warranty.

1.5 WARRANTY

- A. Provide Manufacturer's ten (10) Year Limited Product and Labor Sample Warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design and Inspections: Products and systems by DuPont. Contact: Jared Walker, Phone: (253) 606-8155, Jwalker@orepac.com

2.2 REGULATORY REQUIREMENTS

- A. IBC 2015, including Section 1404.2 and 2510.6.
- B. ICC ES AC38 Acceptance Criteria for Water-Resistive Barriers.

2.3 AIR AND WATER BARRIER SYSTEM

- A. Basis of Design: Dupont Tyvek "DrainWrap," spun-bonded polyolefin, non-woven, non-perforated, weather barrier and related assembly components or approved equal.
 - 1. Air Penetration Resistance: 0.004 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
 - 2. Water Vapor Transmission: 50 perms, when tested in accordance with ASTM E96, Method B.
 - 3. Water Penetration Resistance: 210 cm when tested in accordance with AATCC Test Method 127.
 - 4. Basis Weight: 2.1 oz./yd², when tested in accordance with TAPPI Test Method T-410.
 - 5. Air Resistance: >300 seconds, when tested in accordance with TAPPI Test Method T-460.
 - 6. Tensile Strength: 30/30 lbs./in., when tested in accordance with ASTM D882, Method A.
 - 7. Tear Resistance: 7/9 lbs., when tested in accordance with ASTM D1117.
 - 8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 5, Smoke Developed: 25.
 - 9. Drainage Efficiency: >98%, when tested in accordance with ASTM E2273

2.4 ACCESSORIES

- A. Seam Tape
 - 1. Basis of Design: Three (3") inch wide, DuPont™ Tyvek® Tape for commercial applications or approved equal.
- B. Fasteners
 - 1. Basis of Design: Tyvek® Wrap Caps for use with wood construction, as distributed by DuPont: #4 nails with large one (1")-inch plastic cap fasteners, or one (1")-inch plastic cap staples with leg length sufficient to achieve a minimum penetration of 5/8-inch into the wood stud or approved equal.
- C. Sealants
 - 1. Basis of Design: DOWSIL 758, as distributed by DOW: silicone weather barrier sealant or approved equal.
- D. Primers
 - 1. Basis of Design: DuPont™ Adhesive/Primer, as distributed by DuPont: synthetic rubber-based spray applied primer for self-adhered flashing products or approved equal.
- E. Flexible Flashing
 - 1. Basis of Design: DuPont™ Flashing Tape, as distributed by DuPont: straight flashing membrane materials for flashing windows and doors and sealing penetrations or approved equal.

F. Flexible Sill Flashing

1. Basis of Design: DuPont™ FlexWrap™ NF, as distributed by DuPont: flexible membrane flashing materials for window openings and penetrations or approved equal.

G. Flashing Panels

1. Basis of Design: Manufactured by QuickFlash, Inc. Size and type to suit application and conditions in field or approved equal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section before beginning.
- B. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 INSTALLATION OF WEATHER RESISTANT BARRIER

- A. Conform to manufacturer's instructions for air barrier installation and provisions of Contract Documents.
- B. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations for air barrier installation.
- C. Install weather barrier prior to installation of windows and doors.
- D. Start weather barrier installation at a building corner, leaving twelve (12") inches of weather barrier extended beyond corner to overlap.
- E. Window and Door Openings: Extend weather barrier completely over openings.
- F. Overlap weather barrier:
 1. Exterior corners: minimum twelve (12") inches.
 2. Seams: minimum six (6") inches.
- G. Weather Barrier Attachment:
 1. Attach weather barrier to exterior sheathing. Secure using weather barrier manufacturer's recommended fasteners and spacing.

3.3 SEALING

- A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.
- B. Seal any tears or cuts as recommended by weather barrier manufacturer.

3.4 OPENING PREPARATION

- A. Cut weather barrier in an "I-cut" pattern. A modified "I-cut" is also acceptable.
 1. Cut weather barrier horizontally along the bottom and top of the window opening.
 2. From the top center of the window opening, cut weather barrier vertically down to the sill.
 3. Fold side and bottom weather barrier flaps into window opening and fasten.
- B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose eight (8") inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

- C. Cut six (6") inch wide flexible sill flashing a minimum of twelve (12") inches longer than width of sill rough opening.
- D. Cover horizontal sill by aligning flexible sill flashing edge with inside edge of sill. Adhere to rough opening across sill and up jambs a minimum of six (6") inches. Secure flashing tightly into corners by working in along the sill before adhering up the jambs.
- E. Fan flexible sill flashing at bottom corners onto face of wall. Firmly press in place. Mechanically fasten fanned edges.
- F. On exterior, apply continuous bead of sealant to wall or backside of window mounting flange across jambs and head. Do not apply sealant across sill.
- G. Install window according to manufacturer's instructions.
- H. Apply four (4") inch wide strips of flexible flashing at jambs overlapping entire mounting flange. Extend jamb flashing one (1") inch above top of window flange and below bottom edge of sill flashing.
- I. Apply four (4") inch wide strip of flexible flashing as head flashing overlapping the mounting flange. Head flashing should extend beyond outside edges of both jamb flashings.
- J. Apply four (4") inch wide strip of flexible flashing to adhere metal head flashing to sheathing.
- K. Tape head flap in accordance with manufacturer recommendations.
- L. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C 1193.

3.5 FIELD QUALITY CONTROL

- A. Notify manufacturer's designated representative to periodically observe weather barrier assembly installation as required to obtain manufacturer's ten (10) Year Limited Product and Labor Warranty.

3.6 PROTECTION

- A. Protect installed weather barrier from damage.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes:

1. Complete roofing installation including fiberglass reinforced asphalt shingles, felt underlayment, self-adhered underlayment, fasteners, flashings, sealant and accessories.

1.2 RELATED SECTIONS.

- A. Section 076200 - Sheet Metal, Flashing, and Trim
- B. Section 077220 - Roof Accessories
- C. Section 112428 - Fall Protection Systems

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. ARMA - Asphalt Roofing Manufacturers Association Manual
- C. American Society of Civil Engineers (ASCE):
 1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures
- D. American Society for Testing and Materials (ASTM):
 1. ASTM B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products
 2. ASTM D3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules
 3. ASTM D3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles
 4. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos Free
 5. ASTM D4601 - Standard Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing
 6. ASTM D7158 - Standard Test Method for Wind Resistance of Asphalt Shingles Uplift Force/Uplift Resistance Method
 7. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings
- E. NCRA Roofing and Waterproofing Manual
- F. Underwriters Laboratories (UL)

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 1. Product Data: Submit manufacturer's product data for each material and product used.
 2. Manufacturer's Instructions: Installation instructions and preparation requirements.
 3. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish for the following:
 - a. Fiberglass reinforced asphalt shingles: full size shingle strip
 4. Certificates of Compliance: Provide from a qualified independent testing agency, indicating that shingles made in normal production meet or exceed the following:

- a. ASTM E108/UL 790 Class A Fire Resistance.
 - b. ASTM D3161/UL 997 Type I Wind Resistance.
 - c. ASTM D3462.
5. Warranties: Sample copy of warranties.
- C. Closeout Submittals - Reference Section 017700, submit following items:
1. Manufacturer's Product Warranty.

1.5 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide American-made products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.6 WARRANTY

- A. Provide manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
1. Standard Product Warranty: Manufacturer's warranty against manufacturing defects.
 - a. 50-years from date of Substantial Completion.
 2. Standard Product Warranty - Algae: Manufacturer's warranty, agreeing to repair or replace shingles that fail to resist discoloration or staining due to algae growth.
 - a. 20- years from date of Substantial Completion.
 3. Standard Product Warranty - Wind: Manufacturer's warranty, agreeing to repair or replace shingles with damage caused by winds up to 110 mph.
 - a. 10- years from date of Substantial Completion.
 4. Special Project Warranty: Watertight and weatherproof warranty signed by installer covering work of this Section.
 - a. 2-years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Asphalt Shingles: laminated multi-ply construction, glass fiber reinforced, mineral granule surfaced, and self-sealing.
1. Basis of Design: Timberline HDZ Shingles, GAF
 2. Color: TBD.
 3. Or approved equal.
- B. Flashing:
1. Metal flashing and trim: Comply with requirements in Section 076200 Sheet Metal Flashing and Trim.
- C. Underlayment:
1. Basis of Design: TigerPaw, GAF
- D. Self-Adhering Underlayment:
1. Basis of Design: WeatherWatch, GAF
- E. High-Temp Self-Adhered Membrane:
1. Basis of Design: StormGuard, GAF

F. Accessories:

1. Fasteners: hot dip galvanized roofing nails or aluminum 10-12 gauge barbed shank; 3/8" head, sharp pointed conventional, of sufficient length to penetrate through wood sheathing. NO staples allowed.
2. Bituminous Plastic Cement: fibrated asphalt plastic cement/mastic and caulking/sealant for all metal work, roof edges and elsewhere as recommended by roofing manufacturer or required to provide watertight installation.
3. Fall Arrest Anchors: As specified in Section 112428 Fall Protection Systems

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate and surface conditions are in accordance with asphalt shingle manufacturer recommended tolerances prior to installation of asphalt shingle and accessories.

3.2 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install all flashings, materials, and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

3.3 UNDERLAYMENT INSTALLATION

- A. Self-Adhering Underlayment: Apply self-adhering underlayment according to underlayment manufacturer's written instructions and in compliance with local building code. Install continuous strip at roof deck perimeters and valleys, including along eaves, rakes, and sidewalls.
- B. Underlayment: Apply over self-adhering underlayment applied at gutter and under self-adhering underlayment at eaves. Lap and fasten per manufacturer requirements.

3.4 FLASHING INSTALLATION

- A. Fabricate and install metal drip edge flashing in accordance with Section 076200 Sheet Metal Flashing and Trim.

3.5 PROTECTION

- A. Stage work progress so that traffic is minimized over completed roofing.
- B. Protect installed products until completion of project.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fiber cement lap siding
2. Fiber cement shingle siding
3. Fiber cement board and batten siding
4. Fiber cement vented soffit panels
5. Fiber cement window & door trim
6. Fiber cement trim
7. Fiber cement fascia
8. PVC mounting block
9. Aluminum Trim

1.2 RELATED SECTIONS:

- A. Section 076200 - Sheet Metal, Flashing and Trim
- B. Section 079200 - Joint Sealants
- C. Section 099100 - Painting

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
- C. American Society for Testing and Materials (ASTM):
 1. ASTM E72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
 2. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
 3. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials
 4. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C
 5. ASTM C1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards
 6. ASTM C1186 - Standard Specification for Flat, Non-Asbestos, Fiber-Cement Sheets

1.4 SYSTEM DESCRIPTION

- A. Design Requirements: Design and install siding system to withstand minimum wind pressures in accordance with applicable building codes and ASCE 7.

1.5 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 1. Product Data: Manufacturer's data sheets on each product to be used, including:
 - a. Manufacturer's requirements for related materials to be installed by others.

- b. Preparation instructions and recommendations.
 - c. Storage and handling requirements and recommendations.
 - d. Installation methods, including nail patterns.
 2. Test Report: Applicable model code authority evaluation report (e.g. ICC-ES).
 3. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
 4. Submittals for Review:
 - a. Product Data: Indicate siding profiles, sizes, fastening methods, surface texture and finish.
 - b. Manufacturer's installation instructions.
 - c. Samples:
 - i 4 x 6 inch siding samples
 - ii 3 inch long trim samples
 - d. Warranty: Sample warranty form
- C. Quality Control Submittals:
 1. Certificates of Compliance: Certification from an independent testing laboratory that siding system meets fire hazard classification requirements.
- D. Closeout Submittals - Reference Section 017700, submit following items:
 1. Manufacturer's Product Warranty.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum three (3) years documented experience in work of this Section.
- B. Obtain all siding materials from a single source manufacturer.
- C. Mockup:
 1. Size: Minimum 4 x 8 feet.
 2. Show: Weather resistant barrier, siding, trim, flashings and joint sealers. Include one (1) window, and one (1) external corner.
 3. Location to be coordinated with Owner.
 4. Approved mockup may remain as part of the Work.
- D. Pre-Installation Conference:
 1. Convene at site two (2) weeks prior to beginning work of this Section.
 2. Attendance: Owner, Contractor, siding system installer and related trades.
 3. Review and discuss: Contract Documents, siding system manufacturer's literature, moisture barrier requirements, project conditions, scheduling and other matters affecting installation.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Store products under a roof or separate waterproof covering and keep dry prior to installing, elevated above grade, on a flat, smooth and level surface. Protect edges and corners from chipping.
- B. Protect siding from damage by other trades.

1.8 WARRANTY

- A. Provide manufacturer's non-pro-rated thirty (30) year warranty providing coverage against hail and termite damage and defects in materials and workmanship.

- B. Provide installer's two (2) year warranty providing coverage against defects in installation.
This is an extension of the Contractor's standard one (1) year warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Products and systems by James Hardie Commercial; Contact: Dave Hughes;
Phone: (253) 315-5317; Web: www.jameshardie.com
- B. Or approved equal.

2.2 MATERIALS

A. Fiber Cement Lap Siding System:

1. Meet ASTM C1186, Grade A, Type II
2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
3. Size: 7-1/4" planks with 6" exposure
4. Thickness: 5/16"
5. Surface texture: Smooth
6. Fire hazard classification: Maximum flame spread/smoke developed rating of 0/5, tested to ASTM E84
7. Combustibility; Noncombustible, tested to ASTM E136
8. Finish: Factory prime painted, for field-applied paint finish
9. Color: Specified 099100

B. Fiber Cement Shingle Siding System:

1. Meet ASTM C1186, Grade A, Type II
2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
3. Size: 4' lengths by 16" high shingle panels
4. Profile: Straight edge
5. Thickness: 1/4"
6. Fire hazard classification: Maximum flame spread/smoke developed rating of 0/5, tested to ASTM E84
7. Combustibility; Noncombustible, tested to ASTM E136
8. Finish: Factory prime painted, for field-applied paint finish
9. Color: Specified 099100

C. Fiber Cement Board and Batten Siding:

1. Meet ASTM C1186, Grade A, Type II
2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
3. Panel size: 4' x 8' panels
4. Panel thickness: 5/16"
5. Panel surface texture: Smooth
6. Batten Size: 3/4" thick by 2.5" wide

7. Batten Length: 12' nominal
 8. Fire hazard classification: Maximum flame spread/smoke developed rating of 0/5, tested to ASTM E84
 9. Combustibility; Noncombustible, tested to ASTM E136
 10. Finish: Factory prime painted, for field-applied paint finish
 11. Color: Specified 099100
- D. Vented Fiber Cement Soffit Panels:
1. Meet ASTM C1186, Grade A, Type II
 2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
 3. Size: 24" x 8'
 4. Thickness: 1/4"
 5. Surface texture: Smooth vented
 6. Fire hazard classification: Maximum flame spread/smoke developed rating of 0/5, tested to ASTM E84
 7. Noncombustible, tested to ASTM E136
 8. Finish: Factory prime painted, for field-applied paint finish
 9. Color: Specified 099100
- E. Fiber Cement Window & Door Trim:
1. Meet ASTM C1186, Grade A, Type II
 2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
 3. Length: 12' nominal 4. Size: 1" x 3-1/2"
 4. Surface texture: Smooth
 5. Finish: Factory prime painted, for field-applied paint finish
 6. Color: Specified 099100
- F. Fiber Cement Trim:
1. Meet ASTM C1186, Grade A, Type II
 2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
 3. Length: 12' nominal
 4. Sizes: 1" x various widths: 3-1/2", 5-1/2", 7-1/4", 9-1/4", & 11-1/4", noted per architectural drawings.
 5. Surface texture: Smooth
 6. Finish: Factory prime painted, for field-applied paint finish
 7. Color: Specified 099100
- G. Fiber Cement Fascia Board:
1. Meet ASTM C1186, Grade A, Type II
 2. Formulated from Portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile
 3. Length: 12' nominal 4. Size: 1" x 5-1/2"
 5. Surface texture: Smooth

6. Finish: Factory prime painted, for field-applied paint finish
7. Color: Specified 099100

H. Aluminum Trim:

1. Extruded Aluminum Trim, Shape per drawings: EasyTrim or equal

2.3 ACCESSORIES

A. PVC Mounting Block:

1. Manufacturer:
 - a. Basis of Design: Sturdi Mount; Tel: 800-521-8486; Email: wayne_sanderson@tapcoint.com; Web: www.sturdimount.com
 - b. Or approved equal.
2. Universal Mount:
 - a. Material: PVC
 - b. Application: Dryer vents
 - c. Size: 8-5/16" by 11-1/4"
 - d. Color: Primed
3. Split Mount:
 - a. Material: PVC
 - b. Application: Hose bibs, gas lines, HVAC drip lines
 - c. Size: 6" by 8-1/2"
 - d. Color: Primed
4. Receptacle Mount:
 - a. Material: PVC
 - b. Application: Receptacle outlet
 - c. Size: 6" by 8-1/2"
 - d. Color: Primed
5. Oversized Mount:
 - a. Material: PVC
 - b. Application: Exterior wall mounted lights
 - c. Size: 8 1/4" by 15-1/4"
 - d. Color: Primed
6. Parts and Installation Products: As required for a complete installation.
 - a. ABS plastic flange
 - b. Blank panels for custom openings
 - c. Stainless steel staples
 - d. Roofing nails, 2-1/2" long
 - e. Brad nails, 2" long
 - f. Caulk/Sealant
 - g. Trim coil

B. Fasteners: Stainless steel, T or pan head type as recommended by panel manufacturer, of equal or greater holding power than required by manufacturer's code compliance reports; length as required to penetrate minimum 1-1/4 inch (32 mm); sized and nailing pattern per manufacturer's printed data.

C. Sheet Metal Flashings and Trim: Specified in Section 076200.

D. Edge Sealer/Primer: Type recommended by siding manufacturer.

E. Joint Sealers: Specified in Section 079200.

F. Field Finish Paint: Specified 099100.

PART 3 EXECUTION

3.1 INSPECTION

- A. Examine substrate and clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Wood framing and blocking shall be installed as required by manufacturer, as detailed and complying with local building codes. Minimum 1½-inch face and straight, true, of uniform dimensions and properly aligned to receive nailing.
- C. Verify that weather barrier has been installed over substrate completely and correctly.
- D. Do not begin until unacceptable conditions have been corrected. Correct conditions detrimental to timely and proper completion of work.
- E. If substrate preparation is the responsibility of another installer, notify Owner of unsatisfactory preparation before proceeding.
- F. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the Owner.

3.2 PREPARATION

- A. Coordinate installation of sheet metal flashing indicated in drawings and specified 076200:
 - 1. Include miscellaneous flashings needed for completion of a weathertight envelope and incidental to the work of this Contract.

3.3 TOLERANCES

- A. Maximum Variation from Plumb and Level: 1/4 inch per ten (10') feet.
- B. Maximum Offset From Joint Alignment: 1/16 inch.

3.4 INSTALLATION

- A. Install fiber cement siding system in accordance with manufacturer's instructions.
 - 1. Read warranty and comply with all terms necessary to maintain warranty coverage.
 - 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
 - 3. Use trim details indicated on drawings.
 - 4. Seal/prime all cut edges before installing.
 - 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Prior to installation of siding and trim, install water resistive barrier and flashings as required by code to provide a weather resistant substrate.
- C. Fasten siding through sheathing into studs or into the wood sheathing as permitted by the manufacturer's installation instructions.
- D. Fasten siding system at maximum spacing per manufacturer's code compliance reports.
- E. Provide minimum six (6") inch clearance between siding system and finished grade.
- F. Provide minimum two (2") inch clearance between siding system and other solid surfaces.
- G. Leave 1/4" minimum gap between horizontal drainage flashings and bottom of siding above. Do not seal this space.
- H. Locate splices at least twelve (12") inches away from window and door openings.

- I. Allow minimum vertical clearance between edge of siding system and adjacent materials in accordance with manufacturer's instructions.
- J. Cut panels to fit around penetrations with maximum 1/4 inch gap. Smooth and seal cut edges.
- K. Lap siding to be installed with a 6" typical reveal, per manufacturer's recommendations. Blind nailing (fastening each piece such that the lap above it covers the fastener) is to be done according to manufacturer's recommendations.
 - 1. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses. Follow manufacturer's installation instructions for treatment of butt joints.
- L. Apply joint sealer between panel system and adjacent surfaces as specified in Section 079200 Joint Sealants except at horizontal drainage flashings. Do not seal lap joints or vertical joints of lap siding. Paint all exposed cut edges.
- M. Trim boards shall be nailed into solid wood backing only, finish nail in a pattern approved by manufacturer. Verify proper backing is provided. Fasten trim at maximum twenty-four (24") inches on center.

3.5 CLEANING AND PROTECTION

- A. Protect installed products until completion of project.
- B. At completion of work, remove debris caused by siding installation from project site.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes:

1. Flashings, fascias, trim, drip edges, and the like as required for a weather-tight installation.
2. Gutters and downspouts.
3. Gutter debris protection.
4. Metal roof panel patch.

1.2 RELATED SECTIONS:

- A. Section 066500 – Exterior Synthetic Trim
- B. Section 072500 – Weather Resistant Barrier
- C. Section 073100 – Asphalt Shingles
- D. Section 074646 – Fiber Cement Siding and Trim
- E. Section 079200 - Joint Sealants

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA):
 1. Architectural Sheet Metal Manual
- C. American Society for Testing and Materials (ASTM):
 1. ASTM A240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
 2. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
 3. ASTM B32 - Standard Specification for Solder Metal

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 1. Product Data: Manufacturers' product data for each product supplied.
 2. Shop Drawings: Describe general construction, configurations, material profile, jointing pattern, jointing details, fastening methods and installation details.
 3. Samples:
 - a. Material samples for downspouts and gutter debris protection.
 - b. Color samples for pre-finished sheet metal.

1.5 QUALITY ASSURANCE

- A. Fabricator/Installer Qualifications:
 1. Able to document minimum ten (10) years continuous experience in commercial quality projects of similar type and scope.

2. Employ qualified journeymen sheet metal workers with apprentices under direction of qualified journeymen, conforming to trade regulations.
- B. Testing:
1. Demonstrate for the Owner, by hose or standing water, that the gutters are completely watertight.
 2. Prove flow in conductors.
- 1.6 DELIVERY, STORAGE AND HANDLING
- A. Comply with the following:
1. Acceptance at site:
 - a. Verify undamaged condition.
 2. Protect from damage at all times:
 - a. Stack preformed material to prevent twisting, bending or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- 1.7 WARRANTY
- A. Contractor Warranty: Warranty work of this Section to be waterproof and weather-tight against ordinary wear and usage for two (2) years from date of Substantial Completion, including material and labor. This is an extension of the standard one (1)-year warranty.

PART 2 PRODUCTS

2.1 GENERAL

- A. Sheet metal, not otherwise specified, to be minimum gauges per SMACNA for comparable construction. Use heavier gauges where required by conditions of installation.
- B. Materials shall be best quality, thickness not less than that noted below.

2.2 MATERIALS

- A. Threshold Pan
1. Fabricate from stainless steel, ASTM A240, Type 304, dead soft fully annealed, 0.018 inch thick, smooth surface, Number 4 finish.
- B. Flashings and Fascias
1. Fabricate from prefinished G90 galvanized sheet steel, 24 gauge unless noted otherwise below, Kynar 500 (PVDF) finish. Color as selected by Owner from standard color chart.
 2. Fascia color, gauge, and profile to match existing.
 3. Clips and cleats: 20 gauge minimum.
- C. Gutter
1. Fabricate from coil aluminum, .027 gauge, Kynar 500 (PVDF) finish. Color as selected by Owner from standard color chart.
- D. Downspout
1. 3" diameter schedule 40 PVC pipe and drainage fittings.
 - a. Provide transition fitting for connection to underground storm drain system.
 - b. Provide PVC primer and cement for cementing fittings water-tight.
- E. Gutter Guard: Amerimax metal lock in gutter guard.

1. Color: White
- F. Fastenings:
 1. Fasteners: Nails shall be hot-dip galvanized or stainless steel. Bolts and nuts, power driven fasteners, screws, washers, etc., shall be hot-dip galvanized or stainless steel. Screws shall be a high-dome, neoprene gasketed, hex head type, or incorporate a washer with a laminated neoprene gasket.
 2. Silicone rubber washers.
 3. Powder/power driven fasteners are not permitted.
- G. Miscellaneous Materials: Provide other incidental and accessory materials, methods, tools and equipment. Include materials of sheet metal, flashing and trim required.
- H. Solder (as applicable): Conform to ASTM B32, commercial quality, type suited to material to be soldered.
- I. Sealant: Specified 079200.

2.3 FABRICATION

- A. Conform to SMACNA and as detailed. Conform to following general requirements:
 1. Form sections true to shape, accurate in size, square and free from distortion or defects.
 2. Fabricate cleats and starter strips same material as sheet, in widths required by SMACNA, inter- lockable with sheet.
 3. Form pieces in longest practical lengths.
 4. Provide expansion joints at minimum forty (40') foot intervals or as required by SMACNA or as indicated.
 5. Hem exposed edges on underside one-half (1/2") inch; fabricate separate corner pieces.
 6. Fabricate vertical faces with bottom edge formed outward one-quarter (1/4") inch and hemmed to form drip.
 7. Cap neat ends as required or indicated.
- B. Threshold pan
 1. Fabricate shape and dimensions as detailed. Form end dams each side and solder to prevent water migration.
- C. Flashings
 1. Fabricate shape and dimensions as detailed. Self-supporting flashing
 2. Provide folded end dams at ends of horizontal flashing.
 3. Provide a minimum six (6") inch end lap and seal with two (2) continuous beads of sealant.
- D. Gutter
 1. Gutters: Site rolled. Provide continuous five (5") inch wide (seamless) "K" style gutters. Attach with concealed hangers at twenty-four (24") inches o.c.
- E. Downspout
 1. Rectangular, two by three (2" x 3") inches, locations as indicated on drawings.
- F. Accessories: Furnish and install as indicated required by conditions of installation. Items of same materials as items to which applied.

PART 3 EXECUTION

3.1 EXAMINATION

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

3.2 INSTALLATION

- A. Follow manufacturer's directions and SMACNA.
- B. Execute by skilled mechanics according to best methods known to trade.
- C. Line, moldings and edges to be sharp and true. Reinforce as required for stiffness.
- D. Allow for expansion and contraction.
- E. Neatly form and finish joints and seams:
 - 1. Surfaces to be free from waves and buckles.
 - 2. Laps, where allowed, six (6") inches weather-wise or flow-wise minimum.
- F. Corners shop formed and soldered, extending at least one (1') foot each side of corner.
- G. Use concealed fastenings wherever possible.
- H. Make Exterior Work Weather-tight: Follow standard SMACNA construction manual, whether item indicated or not. Block ends of flashings at openings to prevent water migration.
- I. Sealant: Install where indicated and where required to make weather-tight.
- J. Electrolytic Protection: Separate dissimilar materials with flexible flashing as specified in Section 072500 Weather Resistant Barrier.
- K. General flashings, counter-flashings and the like: Install to detail in accordance with SMACNA, and as required for watertight installations.
- L. Seal metal flashing at tops with flexible flashing.
- M. At horizontal terminations for flashing, turn up ends a minimum of two (2") inches, cut and make careful folds to form a pan and seal with sealant.
- N. Shingle end dams with adjacent flashings or weather resistant materials.
- O. Seal penetrations through flashing with sealant.
- P. Sweat Soldering:
 - 1. Pre-tin edges of sheet metal to a width of 1-1/2" inches before beginning soldering.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Roof Hatch
 - 2. Static Roof Vent
 - 3. Vent Stack Flashing

1.2 RELATED SECTIONS

- A. Section 073100 - Asphalt Shingles

1.3 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 - 1. Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.
 - a. Hatch Units: Show types, elevations, thickness of metals, and full size profiles.
 - b. Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.
 - c. General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit.
 - 2. Product Data: Manufacturer's catalog data, standard details, and installation instructions.
 - 3. Manufacturer's Instructions: Installation instructions, fastening, and special conditions.
- C. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Manufacturers Product Warranty.

1.4 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5 WARRANTY

- A. Roof Hatch: Provide manufacturer's standard 5 year Warranty.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Roof Hatch:
 - 1. Basis of Design: Babcock-Davis or approved equal.
 - 2. Roof Hatch Type and Size: Personnel II Single-leaf metal lid for ladder, ship stair, or alternating tread stair access, 36 by 36 inches.
 - 3. Loads: Minimum 40-lbf/sq. ft. external live load with a maximum deflection of 1/150 of the span and 20-lbf/sq. ft. internal uplift load.
 - 4. Hatch Material:
 - a. Cover: 0.0907 inch aluminum cover.
 - b. Cover Insulation: 1 inch polystyrene.

5. Curb: 0.0907 inch aluminum with a double wall curb/liner with integral railing ready EZ tabbed counter-flash. Mounting flange continuous around base of frame.
 - a. Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.
 - b. Curb Insulation: 1 inch Polyisocyanurate
 6. Finish: TGIC Polyester powder coat paint
 7. Color: As selected by Owner from manufacturer's full range
 8. Hardware: Zinc plated steel.
 - a. Hinge Assembly: Pintle hinge with stainless steel hinge pin.
 - b. Spring: Gas spring with integrated damper.
 - c. Hold Open Device: Automatic zinc plated steel hold open arm with red vinyl grip handle.
 - d. Latch: Zinc plated steel spring-type slam latch with inside and outside operating turn handles and padlock hasp provisions.
 - e. Pull Handle: Interior pull down handle, powder coated safety yellow.
 - f. Gasket: Extruded EPDM adhesive back seal, continuous around cover.
- B. Static Roof Vents:
1. Basis of Design: FAMCO FA50 Plastic Roof Vent.
 2. Net free area: 50 sq. in.
 3. Color: Black.
- C. Vent Stack Flashing:
1. Basis of Design: Thaler Metal Industries Ltd. or approved equal.
 2. Material: Stainless steel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine site conditions under which work of this Section will be performed.
1. Identify conditions detrimental to providing proper quality and timely completions of work.
 2. Do not proceed with installation until detrimental conditions have been corrected.

3.2 INSTALLATION

- A. Comply with accessory manufacturers' instructions requirements and recommendations. Coordinate installation with roofing system to ensure weathertight performance. Anchor securely to structure to withstand inward and outward loads.
- B. Isolate dissimilar metals to prevent galvanic corrosion.
- C. Test and operate units; clean, lubricate and adjust moving parts.

3.3 ADJUSTING

- A. Adjust movable parts for smooth operation.
- B. Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.

3.4 CLEANING

- A. Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. General sealant work required for weather-tight and air-tight installation of work of this Contract.

1.2 RELATED SECTIONS:

- A. Section 072500 - Weather Resistant Barrier
- B. Section 074646 - Fiber Cement Siding and Trim
- C. Section 076200 - Sheet Metal, Flashing and Trim
- D. Section 081613 - Fiberglass Doors
- E. Section 085313 - Vinyl Windows

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM C661 - Test Method for Indentation hardness of Elastomeric-Type Sealants by Means of a Durometer
 - 2. ASTM C719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)
 - 3. ASTM C834 - Specification for Latex Sealing Compounds
 - 4. ASTM C920 - Specification for Elastomeric Joint Sealants
 - 5. ASTM C1193 - Standard Guide for Use of Joint Sealants
 - 6. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants
 - 7. ASTM D2240 - Standard Test Method for Rubber Property—Durometer Hardness
 - 8. ASTM D5893 - Standard Specification for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Pavements
- C. Sealant, Waterproofing & Restoration Institute (SWRI)

1.4 SYSTEM DESCRIPTION

- A. Definition:
 - 1. Sealant systems installed with pressure gun.
 - a. Include sealing of vertical and horizontal joints as required to make air and water tight.
 - 2. Regardless of terminology used on Drawings, where "caulking" or "sealant" called for, use specified sealant continuously, entire area and assembly.

1.5 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 - 1. Product Data:

- a. Indicate sealant chemical characteristics, performance criteria, limitations and color availability.
 - b. Include printed statement of VOC content for applicable products.
 2. Samples: Color and type of sealant proposed on work. Obtain acceptance from Owner before proceeding.
 - a. Include sealant installation in mock-ups.
 3. Provide certification from sealant manufacturers that their products are suitable for the project use intended and comply with specification requirements.
- C. Closeout Submittals - Reference Section 017700, submit following items:
1. Manufacturer's Product Warranty
 2. Applicator's Workmanship Warranty

1.6 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.
- B. Installer Qualifications:
1. Applicator shall have at least three (3) years' experience in installing materials of types specified and shall have successfully completed at least three (3) projects of similar scope and complexity.
 2. Applicator shall designate a single individual as project foreman who shall be on site at all times during installation.
- C. Single Source Responsibility for Joint Sealant Materials:
1. Obtain joint sealants from a single manufacturer for each different product required to ensure compatibility.
 2. Manufacturer shall instruct applicator in procedures for intersecting sealants.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when temperature or weather conditions deviate from manufacturer's recommendations. Comply with manufacturer's requirements for temperatures, relative humidity and substrate moisture content during application and curing of materials.
- B. Ensure proper ventilation in areas to receive solvent and moisture cured materials.
- C. Comply with manufacturer's MSDS Sheets for use and handling of products.

1.8 SEQUENCING AND SCHEDULING

- A. Do not install work of this Section until work of other trades having an effect on this Section of work has been completed.
- B. Schedule applications of waterproofing, water repellents and preservative finishes after sealant installation unless sealant manufacturer approves otherwise in writing. Ensure that installed sealant is allowed to cure sufficiently prior to subsequent applications.

1.9 WARRANTY

- A. Provide warranties against adhesive and cohesive failure of the sealant and against infiltration of water and air through the sealed joint for a period of five (5) years from date of completion.

1. Manufacturer's standard warranty covering sealant materials.
2. Applicator's standard warranty covering workmanship.

PART 2 PRODUCTS

2.1 MATERIALS

A. General:

1. Color: White, or as selected by Owner from samples of manufacturer's standard color range.
2. Compatibility:
 - a. Provide joint sealants, joint fillers and accessory joint materials that are compatible with one another and with joint substrates under project conditions.
 - b. Install joint sealants, joint fillers and related joint materials that are non-staining to visible joint surfaces and surrounding substrate surfaces.
3. Primers: As required and recommended by the sealant manufacturer for surface conditions encountered.

2.2 SILICONE JOINT SEALANT

- A. As manufactured by: Dow Corning Corp, Sika Corporation, Tremco Incorporated or approved equal.
- B. Single Component, Non-sag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50, for Use NT.

2.3 POLYURETHANE JOINT SEALANT

- A. As manufactured by Dow Corporation, Sika Corporation, Tremco Incorporated or approved equal.
- B. Single Component polyurethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, for Use NT

2.4 NON-SKINNING BUTYL SEALANT

- A. As manufactured by Dow Corporation, Sika Corporation, Tremco Incorporated or approved equal.
- B. Single Component non-skinning, non-drying, synthetic, butyl elastomer sealant

2.5 JOINT SEALANT BACKING

- A. Joint-Sealant Backing: ASTM C1330, polyethylene foam rod, closed or open cell to suit job conditions and approved in writing by joint sealant manufacturer; non-staining; compatible with joint substrates, sealants, primers and other joint fillers; and accepted for applications indicated by sealant manufacturer based on field experience and laboratory testing.
 1. Diameter twenty-five (25%) percent greater than width of joint where it is to be installed.
 2. Polystyrene foam not acceptable.
- B. Bond-Breaker Tape: Polyolefin tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Non-staining, non-absorbent material compatible with joint sealants and surfaces adjacent to joints.
- D. Other Materials: Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor and approved by the sealant manufacturer as compatible, subject to review of the Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Applicator shall examine the areas and conditions under which work of this Section will be performed.
 - 1. Verify conformance with manufacturer's requirements.
 - 2. Report unsatisfactory conditions in writing to the Owner.
 - 3. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Protection: Completely protect surfaces adjacent to joints. Apply masking around joints to protect adjacent surfaces from defacement and staining during sealing operations.

3.3 INSTALLATION, APPLICATION, PERFORMANCE

- A. Install in accordance with manufacturer's directions for conditions of installation.
- B. Apply sealants before application of water repellents or other coatings at surfaces to ensure sealant adhesion.
- C. Keep sealants back from adjacent faces of surfaces.
- D. Backing for surfaces:
 - 1. Apply foam rod back-up material allowing proper space for sealant per the sealant manufacturer's data guide.
 - a. Where more than 3/4" wide pack with foam backer rod material to within 1/2" of surface.
 - b. Where less than 1/2" wide install foam rod backer rod material to within 1/4" of surface.

2. Where less than 1/2" deep, apply bond breaker tape to bottom of joints to prevent adhesion of sealant to bottom of joint.
 3. Provide backing materials in as long lengths as practicable; install with proper tool. Force backing into joint to proper depth for sealant.
- E. Sealing: Recess joints as indicated, minimum recess equal to joint width.
1. Apply sealant in accordance with manufacturer's directions and the following:
 - a. Use sealant dispensing equipment to push sealant bead into opening. Fill joint opening to full and proper configuration. Apply in continuous operation, ensure sealant fills entire joint and firmly contacts all surfaces.
 - b. Install sealant vertically or horizontally as necessary to allow moisture to drain.
 2. Examine installation carefully. Repair any areas where sealant is not properly adhered due to bubbles, foreign matter or other defects.
 3. Seal joints before final coat of finish is applied to adjacent surfaces.

3.4 CURING

- A. General: Prior to painting or coating, allow sealant joints to cure as directed by sealant manufacturer, minimum seven (7) days.
- B. Environmental Conditions: Ambient temperatures and humidity affect the cure rate and time required for joint to be "tack-free". Notify Owner if cure times exceed the minimums listed.

3.5 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
 1. Extent of Testing: Test completed and cured joints as follows:
 - a. Perform ten (10) tests for the first one thousand (1,000') feet of joint length for each type of elastomeric sealant and joint substrate.
 - b. Perform one (1) test for each one thousand (1,000') feet of joint length thereafter or one test per each floor per elevation.
 2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C1193 or Method A, Tail Procedure, in ASTM C1521.
 - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; do this by extending cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
 3. Inspect joints for complete fill, for absence of voids and for joint configuration complying with specified requirements. Record results in a field-adhesion-test log.
 4. Inspect tested joints and report on whether the sealants:
 - a. Filled joint cavities and are free of voids.
 - b. Dimensions and configurations comply with specified requirements.
 - c. In joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
 5. Field-Adhesion-Test Log: Record test results. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration and sealant dimensions.

- 6. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
- B. Evaluation of Field Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.6 CLEANING, INSPECTION AND PROTECTION

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials accepted in writing by manufacturers of joint sealants and of products in which joints occur.
- B. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.7 SCHEDULE

JOINT SEALANT	APPLICATION
Silicone Joint Sealant	Joints between window frames and adjacent construction Joints between door frames and adjacent construction Air sealing of air and water barrier system and adjacent construction Penetrations and end dam sealing in sheet metal flashings
Polyurethane Joint Sealant	Exterior locations requiring painted finish over sealant Other exterior joints for which no other sealant is indicated.
Non-skinning Butyl Sealant	Lap joints in sheet metal flashings Bedding door thresholds

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Fiberglass doors

1.2 RELATED SECTIONS

- A. Section 079200 - Joint Sealants
- B. Section 087100 - Door Hardware
- C. Section 099100 - Painting

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 331 - Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
- C. Environmental Protection Agency and Department of Energy:
 - 1. Energy Star Program Requirements Product Specification for Residential Windows, Doors, and Skylights
- D. CFR 1201 Part 2 – Safety Standard for Architectural Glazing Materials
- E. NFPA 252 – Standard Methods of Fire Tests of Door Assemblies
- F. Underwriters Laboratories (UL):
 - 1. UL 10B – Standard for Fire Testing Door Assemblies
 - 2. UL 10C – Standard for Positive Pressure Fire Tests of Door Assemblies

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 - 1. Product Data: Submit door manufacturer's current product literature, including installation instructions.
 - 2. Samples: Submit full-size or partial full-size verification sample of door illustrating glazing system, quality of construction, texture and color of finish.
- C. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Manufacturer's Product Warranty

1.5 QUALITY ASSURANCE

- A. Mockup:
 - 1. Provide sample unit of representative product size and using manufacturer's approved installation methods to determine acceptability of door installation methods.
 - 2. Approved mockup shall represent minimum quality required for the work.
 - 3. Approved mockup shall remain in place.
- B. Quality Assurance Submittals:
 - 1. Provide documentation for specified performance as required.

2. Manufacturer's installation instructions.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver materials to site undamaged with labels clearly identifying manufacturer, product name and installation instructions
- B. Storage: Store materials in an upright position, off ground, under cover and protected from weather, direct sunlight, and construction activities.
- C. Handling: protect materials and finish during handling and installation to prevent damage.

1.7 WARRANTY

- A. Manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Basis of Design: Therma-Tru Corp. Fiberglass Entry Doors or approved equal.

2.2 MATERIALS

- A. Door: Smooth Star series, Style per drawings. Swing to match existing conditions.
- B. Frame: Composite, paintable. 5-1/2". Factory primed and doors pre-hung for specified hinges. Include Therma-Tru integral door gaskets.
- C. Threshold: Therma-Tru adjustable composite threshold to match door swing.
- D. Sweep: Therma-Tru Door bottom Sweep.
- E. Additional Hardware: Specified in Section 087100 Door Hardware

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive doors. Notify Owner in writing of any unacceptable conditions that would adversely affect installation or subsequent performance of the product. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install doors in accordance with manufacturer's written instructions and best practice.
- B. Seal door frame to air and water barrier system per details. Sealant specified in Section 079200 Joint Sealants.

3.3 FINISHING

- A. Paint specified 099100.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products prior to Substantial Completion in accordance with specifications.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Operable vinyl windows
 2. Fixed vinyl windows

1.2 RELATED REQUIREMENTS

- A. Section 079200 - Joint Sealants

1.3 REFERENCE STANDARDS

- A. Reference Standards: Most current edition at date of Bid or as noted below.
- B. AAMA/WDMA/CSA 101/I.S.2/A440-11 – NAFS 11 - North American Fenestration Standard/Specification for windows, doors, and skylights.
- C. American Society for Testing and Materials (ASTM):
1. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
 2. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference
 3. ASTM E774 – Sealed Insulating Glass Units.

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
1. Product Data: Submit manufacturer's product data for each material and product used.
 2. Shop Drawings: Include window schedule, elevations, sections, details. Include head, sill and jamb conditions, operable parts, direction/handing and special mullion reinforcement details.
 3. Samples: Submit selection samples for verification, include the following:
 - a. Exterior Color: Minimum one by four (1"x4") inch color chips on fiberglass substrate: White
 - b. Glass, showing specified tint color.
- C. Quality Assurance/Control Submittals:
1. Qualifications: Proof of Manufacturer's qualifications.
 2. U-Factor charts required for NFRC and AAMA labeling requirements.
 3. Test reports verifying AAMA/WDMA/CSA 101/I.S.2/A440 performance grade.
- D. Closeout Submittals - Reference Section 017700, submit following items:
1. Temporary window labels and legend to identify windows that labels were applied to.
 2. Owner's Manual/Maintenance Instructions.
 3. Special Warranties.

1.5 QUALITY ASSURANCE

- A. Overall Standards: Comply with ANSI/AAMA/NWDA 101/I.S.2, except where noted herein.

- B. Manufacturer Qualifications:
 - 1. Minimum ten (10) years' experience in producing vinyl windows.
 - 2. Member AAMA & NFRC.
- C. Installer Qualifications: Company specializing in performing the work of this section and approved by manufacturer.
- D. Certifications for Insulated Glass Units:
 - 1. Insulated glass units are certified to ASTM E2188/E2190 per the Associated Laboratories Incorporated (ALI) guidelines.
- E. AAMA: Windows shall be Gold Label certified with label attached to frame per AAMA requirements.
- F. NFRC: Windows shall be NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent AAMA frame label.
- G. Source Limitations: Obtain vinyl windows through one source from a single manufacturer.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with Manufacturer's/Dealer's ordering instructions and lead time requirements to avoid construction delays.
- B. Delivery: Deliver materials in Manufacturer's standard packaging for protection of product.
- C. Storage & Protection: Store products away from exposure to environmental conditions that may be harmful to materials.
- D. Store materials off ground in an upright position. Provide cover from weather and construction activity.
- E. Jig, brace and box the window frame assemblies for handling on site to minimize flexing of members or joints.
- F. Follow Manufacturer's instructions on label applied to units.

1.7 FIELD CONDITIONS

- A. Field Measurements: Verify window openings by field measurements before fabrication and indicate measurements on Shop Drawings. Confirm flashing dimensions.
- B. Coordinate work with trades of other specification sections.

1.8 WARRANTY

- A. Commercial Warranty:
 - 1. Ten (10) Year Manufacturer's Warranty. This is an extension of the Contractor's standard one (1) year warranty.
 - 2. Guarantee windows against defects in materials and workmanship including costs for replacement parts and labor.

1.9 PERFORMANCE REQUIREMENTS

- A. Provide factory fabricated window assemblies that conform to the configurations shown on the Drawings and to the requirements of this section and have been tested by a qualified independent third-party testing agency per AAMA/WDMA/CSA 101/I.S.2/A440 testing requirements and found to meet or exceed the minimum Performance Grade specified on the Drawings.

- B. Design Pressure: Testing performed per AAMA/WDMA/CSA 101/I.S.2/A440 shall be based on a design pressure of 15 psf.
- C. Structural Performance: Window assembly shall comply with AAMA/WDMA/CSA 101/I.S.2/A440 uniform load test requirements at the design pressure provided above.
- D. Thermal Movement: Design sections to permit movement caused by thermal expansion and contraction of plastic to suit glass, infill and perimeter opening construction.
- E. Thermal Performance:
 - 1. U-values shall be determined per NFRC 100. Window units shall be labeled and certified by the manufacturer to meet u-values noted on Drawings.
 - 2. SHGC shall be determined per NFRC 200. Window units shall be labeled and certified by the manufacturer to meet SHGC values noted on Drawings.
- F. Air Leakage, Window assembly shall comply with AAMA/WDMA/CSA 101/I.S.2/A440 air leakage resistance test requirements for performance grade specified on Drawings.
- G. Forced Entry Resistance: Conform to ASTM F588 requirements for performance level 10. Comply with CAWM 301-90.
- H. System Internal Drainage: Drain water entering assembly, condensation occurring in glazing channels, or migrating moisture occurring within system, to the exterior by a weep drainage network.
- I. Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with inside pane of glass and heel bead of glazing compound.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Windows shall be ENERGY STAR qualified products that meet or exceed the ENERGY STAR performance rating.

2.2 MANUFACTURERS

- A. Basis of Design: Products by Milgard Manufacturing; Phone: (800) 645-4273; E-mail: mgallant@milgard.com; Website: <http://www.milgard.com/>.
- B. Window Series: Tuscany.
- C. Or approved equal.

2.3 MATERIALS

- A. Frame, sash, mullions, and snap-in glazing bead members: Integral color PVC compound containing impact-resistant solid plasticizer, titanium dioxide UV inhibitor, and surface and color stabilizers.
- B. 1-3/8" nail fin setback
- C. Frame: Minimum 2-7/8" deep, multi-chambered vinyl profile.
- D. Weatherstripping: Fin seal polypropylene pile.

2.4 GLAZING

- A. Insulated Glass Units: ASTM E 774, Class A
 - 1. Clear low-emissivity coated glass exterior pane (with Low-E coating on the number 2 surface) and clear uncoated glass interior pane

2. Overall thickness: 3/4"
3. Glass thickness: per manufacturer's specifications
4. Spacer Type: Warm edge stainless steel spacer
5. Gas Filled: Argon

2.5 HARDWARE

- A. General: Provide manufacturer's standard hardware designed to smoothly operate, tightly close, and securely lock vinyl windows, and sized to accommodate sash or ventilator weight and dimensions
- B. Sash lock: SmartTouch direct action locking mechanism
- C. Window opening control device as required per IBC 1015.8

2.6 ACCESSORIES

- A. Insect Screens:
 1. Frame: Cambered formed aluminum with rigid plastic corner keys
 2. Screen Cloth: Charcoal colored fiberglass mesh

2.7 FABRICATION

- A. Fabricate frames and sash with mitered and fusion welded corners and joints.
- B. Trim and finish corners and welds to match adjacent surfaces.
- C. Provide concealed metal reinforcements in sash frame for attachment of lock mechanism.
- D. Factory interior glaze with snap-on mitered PVC glazing stops matching bevels on the sash and frame. Insulated glass units shall be re-glazeable without dismantling sash framing.
 1. Note: Field glazing is required for large window units (over 40 sq. ft.)

2.8 FINISHES

- A. Frame and Sash Color:
 1. Exterior: White
 2. Interior: White
- B. Hardware: White
- C. Screen Frame Color:
 1. Matched to exterior frame color

2.9 SOURCE QUALITY CONTROL:

- A. Inspect windows in accordance with Manufacturer's Quality Control Program as required by AAMA Gold Label Certification.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine openings in which windows will be installed.
 1. Verify that framing complies with AAMA 2400 (Mounting Flange Installation) & AAMA 2410 (Flush Fin Installation).
 2. Verify that fasteners in framed walls are fully driven and will not interfere with window installation.

- B. Coordinate with responsible entity to correct unsatisfactory conditions.
- C. Commencement of construction or installation means acceptance of existing conditions by Contractor as suitable for construction or installation.

3.2 INSTALLATION

- A. Comply with Drawings, Shop Drawings and manufacturer's written instructions for installing windows, hardware, accessories and other components.
- B. Install windows in framed walls in accordance with details and AAMA 2400 ("Mounting Flange Installation") and or AAMA 2410 ("Flush Fin Installation"). Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Seal window to air and water barrier system per details. Sealant specified in Section 079200 Joint Sealants.
- D. Do not remove temporary labels.
- E. Install Insect Screens on operable sash.

3.3 FIELD QUALITY CONTROL

- A. Test installed windows for compliance with performance requirements for water penetration, in accordance with ASTM E1105 using uniform pressure
 - 1. If any window fails, test additional windows at Contractor's expense.
- B. Replace or repair windows or window installations that have failed field testing and retest until performance is satisfactory.

3.4 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust hardware for smooth operation and secure weathertight closure.
- B. Remove protective material from pre-finished surfaces.
- C. Clean factory-glazed glass immediately after installing and/or testing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels and clean surfaces.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded or damaged during construction period.
- E. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to exterior concrete surfaces during construction for presence of dirt, scum, alkaline deposits, stains or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.
- F. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.
- G. Lubricate operable portions as necessary after cleaning.
- H. After testing is complete, remove temporary labels and retain for Closeout Submittals.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Provide complete door hardware and suitable fastenings for the project in accordance with Drawings, Specifications, and Schedules.
- B. Furnishing items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function.
- C. Furnishing items not specifically mentioned, but necessary to complete work. These are to match quality and finish of the items specified.
- D. Coordinate keying with Owner. Unit doors to be supplied with four (4) keys each door.
- E. Quantities: Those listed in any instance are for subcontractor's convenience only and are not guaranteed.

1.2 RELATED SECTIONS

- A. Section 081613 - Fiberglass Doors

1.3 REFERENCE STANDARDS

- A. 36 CFR 1191 - Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities
- B. American National Standards Institute / Builders Manufacturers Association (ANSI / BHMA):
 - 1. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities
 - 2. BHMA A156.1 - American National Standard for Butts and Hinges
 - 3. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches
 - 4. BHMA A156.4 - American National Standard for Door Controls - Closers
 - 5. BHMA A156.6 - American National Standard for Architectural Door Trim
 - 6. BHMA A156.7 - American National Standard for Template Hinge Dimensions
 - 7. BHMA A156.8 - American National Standard for Door Controls - Overhead Stops and Holders
 - 8. BHMA A156.13 - American National Standard for Mortise Locks & Latches
 - 9. BHMA A156.17 - American National Standard for Self Closing Hinges & Pivots;
 - 10. BHMA A156.18 - American National Standard for Materials and Finishes
 - 11. BHMA A156.22 - American National Standard for Door Gasketing and Edge Seal Systems
- C. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames
- D. NFPA 80 - Standard for Fire Doors and Other Opening Protectives
- E. Underwriters Laboratory Inc (UL):
 - 1. Building Materials Directory

1.4 COORDINATION

- A. Coordinate the manufacture, fabrication, and installation of products.
- B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
- C. Convey Owner's keying requirements to manufactures during the course of the Work.
- D. Pre-installation Meeting: Convene a pre-installation meeting one (1) week prior to commencing work of this section; require attendance by all affected installers.

1.5 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 - 1. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.
 - 2. Hardware Schedule
 - 3. Keying Schedule: Submit for approval of Owner.
 - 4. Manufacturer's Installation Instructions: Indicate special procedures, and/or conditions requiring special attention.
 - 5. Maintenance Data: Include data on operating hardware, lubrication requirements and inspection procedures related to preventative maintenance.
 - 6. Submit manufacturer's parts lists, templates and special tools.
- C. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Manufacturer's Product Warranty
 - 2. Operation and Maintenance shall be included in Project Operation and Maintenance Manuals.
 - 3. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three (3) years of documented experience.
- B. Hardware Supplier Qualifications: Company specializing in supplying commercial door hardware approved by manufacturer.
 - 1. Supplier to maintain stock and parts inventory of all standard items for future service by the Owner.
 - 2. Authorized representatives for door closers and locksets are to inspect and adjust their hardware.
 - 3. To be factory direct authorized distributor – not a broker.
- C. To be staffed with a certified Architectural Hardware Consultant (AHC) and locksmiths available at all reasonable times during construction to meet with Owner, and Contractor for hardware or keying problems.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

- B. Storage of hardware shall be protected, under lock and key, and storage kept dry for protection of the hardware.

1.8 WARRANTY

- A. Provide twenty-five (25) year warranty against ordinary wear and usage for door closers from date of substantial completion.

PART 2 PRODUCTS

2.1 DOOR HARDWARE – GENERAL

- A. Provide all hardware specified or required to make doors fully functional, compliant with applicable codes and secure to the extent indicated.
- B. Provide all items of a single type of the same model by the same manufacturer.
- C. Provide products that comply with the following:
 - 1. Applicable provisions of Federal, State and local codes.
 - 2. ADA Standards for Accessible Design.
 - 3. ANSI/ICC A117.1, American National Standard for Accessible and Usable Buildings and Facilities.
 - 4. Applicable provisions of NFPA 101, Life Safety Code.
- D. Finishes: All door hardware the same finish unless otherwise indicated.
 - 1. Primary Finish: Satin chrome plated over nickel on brass or bronze, 626 (approx. US26D).
 - 2. Finish Definitions: BHMA A156.18.
 - 3. Exceptions:
 - a. Where base metal is specified to be different, provide finish that is an appearance equivalent according to BHMA A156.18.

2.2 HINGES AND PIVOTS

- A. Hinges, Pivots and Butts: Provide hinges on every swinging door.
 - 1. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
 - 2. Provide ball bearing hinges for in-swinging doors.
 - 3. Provide hinges in the quantities indicated.
 - 4. Provide non-removable pins on exterior out-swinging doors.
 - 5. Provide hinges in the quantities indicated.
- B. Butt Hinges: Comply with BHMA A156.1 and A156.7; standard weight, unless otherwise indicated.
 - 1. Provide hinge width required to clear surrounding trim.
- C. Quantity of Hinges Per Door:
 - 1. Three (3) hinges per leaf to 7 feet, 6-inch height. Add one for each additional 30 inches in height or any fraction.
- D. Approved manufacturers:
 - 1. Ives: www.ives.allegion.com
 - 2. Therma-Tru: www.thermatru.com

3. Hager Companies: www.hagerco.com
4. Bommer Industries, Inc.: www.bommer.com

2.3 LOCKS

- A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
 1. Hardware Sets indicate locking functions required for each door.
 2. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
 3. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.
- B. Lock Cylinders: Manufacturer's full size interchangeable core (FSIC) six (6) pin cylinder.
 1. Provide cams and/or tailpieces as required for locking devices required.
- C. Keying: Grand master keyed per Owners approval.

2.4 CYLINDRICAL LOCKSETS

- A. Locking Functions: As defined in BHMA A156.2, and as selected by Owner.
- B. Approved manufacturers:
 1. Schlage: www.schlage.com

2.5 STOPS AND HOLDERS

- A. Stops/Holders: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
 1. Provide wall mounted stops and floor mounted stops where wall mounted is impractical. Where no stop can be installed provide closer with cushion type arm. Anvils to be sufficient length to permit closers to be mounted on the pull side of the door.
 2. If wall stops are not practical, due to configuration of room or furnishings, provide overhead stop.
 3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.
- B. Approved Manufacturers:
 1. Ives: www.ives.allegion.com
 2. Glynn-Johnson: www.glynn-johnson.com.
 3. Trimco: www.trimcobbw.com

2.6 GASKETING, DOOR BOTTOMS, AND THRESHOLDS

- A. Gaskets: Comply with BHMA A156.22
 1. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
 - a. Where exterior door is also required to have fire or smoke rating, provide gaskets functioning as both smoke and weather seals.
- B. Sweeps:
 1. Specified in 081613

C. Thresholds:

1. Specified in 081613
2. Provide threshold elevator at exterior doors as needed.
3. Use Pemko 183_SN for gaps over ¼” between threshold and Fiber Cement trim board or concrete slab.

D. Silencers:

1. Quantity: Furnish three (3) for each single door frame.

E. Approved manufacturers:

1. Therma-Tru: www.thermatru.com

2.7 DOOR KNOCKERS & VIEWERS

A. Door Knocker with viewer: Comply with BHMA A156.16

1. On each exterior unit entry door, provide door knocker with viewer, unless otherwise indicated.

2.8 PROTECTION PLATES

A. Provide on push side of Doors

B. Approved manufacturers:

1. Ives: www.ives.allegion.com
2. Hager Companies: www.hagerco.com.
3. Trimco: www.trimcobbw.com

2.9 KEYING REQUIREMENTS

A. Key Management System: For each keyed lock on project, provide one set of consecutively numbered duplicated key tags with hanging hole and snap catch.

B. All keyed cylinders shall be subject to the existing Schlage Grand Masterkey system, coordinate with Owner.

C. Furnish cylinders with construction cores. Following construction supply permanent keyed cores.

D. Key Quantities

1. Four (4) Master Keys.
2. Four (4) Control Keys.
3. Four (4) Change Keys for each lock at unit doors.
4. Four (4) Keys per keyed alike group.
5. Six (6) Extra Cores set of three (3). Two (2) Cores keyed alike.

PART 3 EXECUTION

3.1 EXAMINATION

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

B. In the event of any discrepancies between job site conditions and the drawings, stop work immediately. Immediately call the Owner and report the nature, extent and impact of the

- discrepancy. Do not proceed with any and all work relating to the discrepancy until a resolution has been attained.
- C. Commencement of construction or installation means acceptance of existing conditions by contractor as suitable for construction or installation.
 - D. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the Owner.
 - E. Verify that doors and frames are ready to receive work, and dimensions are as instructed by the manufacturer.

3.2 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Use templates provided by hardware item manufacturer.
- C. Mounting heights for hardware from finished floor to center line of hardware item: As listed in Schedule, unless otherwise noted:
 - 1. For fiberglass or composite doors: Comply with DHI "Recommended Locations for Architectural Hardware for Wood Flush Doors."

3.3 ADJUSTING

- A. Hardware damaged by improper installation or adjustment methods to be repaired or replaced to the Owner's satisfaction.
- B. Adjust hardware for smooth operation.
- C. Replace units which cannot be adjusted to operate freely and smoothly.

3.4 SCHEDULE

DOORS: See Scope for details

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Gypsum wallboard

1.2 RELATED SECTIONS

- A. Section 099100 - Painting

1.3 REFERENCE STANDARDS

- A. Reference Standards: Most current edition at date of Bid.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM C475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board
 - 2. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board
 - 3. ASTM C1396 - Standard Specification for Gypsum Board
 - 4. ASTM E72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
 - 5. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
- C. Gypsum Association (GA):
 - 1. GA-216 - Application and Finishing of Gypsum Board
 - 2. GA-600 - Fire Resistance Design Manual
- D. Underwriters Laboratories (UL):
 - 1. Fire Resistance Directory

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
 - 1. Product Data: Provide manufacturer's product data for each proposed product sufficient to show compliance with each product specified.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum three (3) years of documented experience.

PART 2 PRODUCTS

2.1 GYPSUM BOARD MATERIALS

- A. Manufacturers:
 - 1. CertainTeed Corporation,
 - 2. Georgia-Pacific Gypsum,
 - 3. National Gypsum Company,
 - 4. USG Corporation or approved equal.

- B. Interior Gypsum Wallboard (GWB): Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place
 - 1. Application: replace/repair interior window wrap
 - 2. Thickness: 1/2" or to match existing adjacent surfaces
 - 3. Edges: Tapered
 - 4. Finish: Paint per Section 099100 Painting
- C. Exterior Gypsum Sheathing Board: Gypsum sheathing board complying with ASTM C1177 consisting of noncombustible gypsum core incorporating glass mats on each side imbedded with a water-resistant material, mold and mildew resistant per ASTM D3273; sizes to minimize joints in place
 - 1. Application: new exterior sheathing
 - 2. Thickness: 5/8"
 - 3. Edges: Square

2.2 ACCESSORIES

- A. Nails and screws of type and size to suit application, to rigidly secure materials in place.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. In the event of any discrepancies between job site conditions and the drawings, stop work immediately. Immediately contact the Owner and report the nature, extent and impact of the discrepancy. Do not proceed with any and all work relating to the discrepancy until a resolution has been attained.
- C. If substrate preparation is the responsibility of another installer, notify Owner of unsatisfactory preparation before proceeding.
- D. Commencement of construction or installation means acceptance of existing conditions by Contractor as suitable for construction or installation.
- E. Any work which is not acceptable due to a discrepancy which has not been called to the attention of the Owner shall be repaired or replaced to conform to the original intent of the drawings at no additional cost to the Owner.

3.2 GYPSUM BOARD INSTALLATION

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

3.3 INSTALLATION OF TRIM AND ACCESSORIES

- A. Corner Beads: Install at external corners, using longest practical lengths.

3.4 JOINT TREATMENT

- A. Finish gypsum board in accordance with levels defined in ASTM C840.
- B. Tape, fill and sand exposed joints, edges and corners to produce smooth surface ready to receive finishes.
- C. Feather coats of joint compound so that camber is maximum 1/32".

- D. Walls, sills, and ceilings to receive paint finish or wall coverings to match existing, unless otherwise indicated.

3.5 TOLERANCES

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

3.6 CLEANING AND PROTECTION

- A. Clean soiled surfaces with cleaning solution.
- B. Touch-up, repair or replace damaged products / materials / connections before Substantial Completion.
- C. Protect installed products until completion of project.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Surface preparation.
 - 2. Field applied paints and coatings.

1.2 RELATED SECTIONS:

- A. Section 062013 – Exterior Finish Carpentry
- B. Section 074646 – Fiber Cement Siding and Trim
- C. Section 081613 – Fiberglass Doors
- D. Section 092100 – Gypsum Wallboard

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM D523 - Standard Test Method for Specular Gloss.
 - 2. ASTM D5324 - Standard Guide for Testing Water-Borne Architectural Coatings.
- B. The Master Painters Institute (MPI):
 - 1. MPI Approved Product List.
 - 2. MPI Architectural Painting Specification Manual.
- C. United States Environmental Protection Agency (EPA):
 - 1. EPA 40 CFR Part 59 - National Volatile Organic Compound Emission Standards for Consumer and Commercial Products

1.4 COORDINATION

- A. Pre-Installation Conference:
 - 1. Attendance: Contractor, painting subcontractor, Owner and others as requested to attend.
 - 2. Meeting Time: Minimum two (2) weeks before beginning work of this Section and work of related Sections affecting work of this Section and as necessary to meet Project Schedule.
 - 3. Location: Project Site.

1.5 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
- C. Product Data: Manufacturer's Product Data Sheets for each product.
- D. Product/Label Analysis for paint products:
 - 1. Pigment and vehicle percentages by weight.
 - 2. Pigment composition analysis, including fillers in percent by weight.
 - 3. Vehicle composition analysis, including resins, solvents and additives by weight.
- E. Material Data Safety Sheets (MSDS):
 - 1. Solvents, driers, additives and fillers.
 - 2. Volatile organic compounds (VOC) emissions in grams per liter.

- F. Chip Color Samples: Manufacturer's complete selection.
- G. Paint Drawdown Color Samples: Size not less than 8 by 10 (8"x10") inch draw-down for each color selected for final acceptance prior to beginning work.
 - 1. Label back of each drawdown with manufacturer, product, color name and number, and gloss level.
 - 2. Furnish additional samples as required for acceptance of colors, finishes and textures.
 - 3. Retain approved samples for reference.
- H. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Maintenance Data: Product data sheets, manufacturer's application instructions, MSDS, product color name and number, cleaning instructions and spot repair and repaint instructions.
 - 2. Invoices and other data as necessary to verify quantities of each paint product suitable for coverage in conformance to manufacturer's instructions.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Minimum one (1) gallon of each paint and coating type and color.
- B. Identify each container as to manufacturer, product, color name, and number with minimum five (5") inch press type. Tape over with clear tape.
- C. Include manufacturer's instructions and MSDS for each product submitted
- D. Turn over to Owner prior to project completion. Obtain signed receipt.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Manufacturer: Employ full time, locally available architectural product representative, technical field representative, testing equipment and services as necessary to perform inspections and to determine compliance with manufacturer's instructions and provisions of Contract Documents.
- B. Applicator Qualifications:
 - 1. Able to document minimum ten (10) years continuous experience in commercial quality projects of similar type and scope.
 - 2. Employ qualified journeymen painters with apprentices under direction of qualified journeymen, conforming to trade regulations.
- C. Field Samples:
 - 1. Minimum three (3), ten (10) square foot area field sample for each accepted color and substrate type. Provide as a step-down field sample, showing each step of system, including surface preparation.
 - 2. Locate as accepted by Owner.
 - 3. Protect and retain accepted field samples as standard of quality for work of this Section.
 - 4. Accepted field samples may be incorporated into finished work.
- D. Work of this Section to be performed by or under direct supervision of one (1) installer.
- E. A pre-application meeting per General Requirements is required between all parties including painting Sub-contractor, Contractor, paint manufacturer's representative and Owner before work of these sections begin.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Conform to manufacturer's instructions.
- B. Deliver in unopened, sealed containers, bearing manufacturer's original labels with manufacturer's brand name, product name and number, color designation, surface preparation, mixing and reducing instructions, coverage, drying time, clean-up instructions, MSDS and VOC content. Include invoice statements showing quantities of each paint product. Submit to Owner upon request as a means to verify quantities suitable for coverage.
- C. Store and utilize paint in original containers bearing manufacturer's label for ease of identification. Do not put paint in containers bearing labels for other products.
- D. Store at ambient temperature between 45 degrees F and 90 degrees F. Store and mix material outside building.
- E. Take special safety precautions against hazards from toxic and flammable materials.
- F. Place paint and solvent contaminated cloths and materials, subject to spontaneous combustion, in containers and remove from job site each day.

1.9 FIELD CONDITIONS

- A. Environmental Requirements: Do not apply paints and coatings at surface and air temperatures below 50 degrees F, except as specified by this Section or as instructed or approved by manufacturer.
- B. Weather: Do not apply exterior coatings when precipitation is predicted or appears imminent.
- C. Ventilation: Maintain continuous air exchange ventilation. Move moisture, odors and fumes from painting to outside of building.
- D. Illumination: Maintain lighting level of 50 foot candles measured at mid height at substrate surfaces.

1.10 WARRANTY

- A. Manufacturer: Five (5) year materials warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Benjamin Moore products.
- B. Subject to compliance with requirements in this section, provide products of one of the following paint manufacturers:
 - 1. Benjamin Moore
 - 2. Kelly-Moore
 - 3. Miller Paint Company
 - 4. Rodda Paint
 - 5. Cloverdale
 - 6. Sherwin-Williams

2.2 PERFORMANCE CRITERIA

- A. Single Source Responsibility: Supply primers, intermediate and finish coats for each paint and coating system from a single manufacturer, except as otherwise specified.

- B. Surface Preparation: Conform to MPI Architectural Painting Specifications Manual, SSPC, manufacturer’s instructions and provisions of this Section for work as needed to prepare substrates to be free of conditions that may impair adhesion and uniformity.
 - 1. Remove bond breakers, dust, foreign matter and surface irregularities.
 - 2. Prepare to prevent bleed-through of substrate material.
- C. Paint System Application: Conform to MPI Architectural Painting Specifications Manual and manufacturer’s instructions.
 - 1. Paint Grade: Conform to Premium Grade, except as otherwise specified.
 - a. Minimum one (1) primer coat and two (2) finish coats, except as otherwise specified.
 - b. Additional coats as necessary to cover with no holidays or other surface imperfections.
 - 2. Dry film thickness (DFT) and wet film thickness (WFT), as instructed by manufacturer.

2.3 MATERIALS

- A. Painting and Coating Schedule: Refer to Schedule at end of this Section for products specified for specific finishes.
- B. Surfaces Not Scheduled for Paints and Coatings: Where unscheduled surfaces are discovered following Bid, assume premium commercial quality paint or coating, meeting or exceeding Approved Product List, and as instructed by manufacturer’s technical representative. Submit to Owner for acceptance prior to beginning work.
- C. Coatings: Ready mixed, except catalyzed coatings. Process pigments to consistency for uniform and homogeneous coatings, good flow and brushing qualities, drying or curing free of streaks and sags.

2.4 GLOSS AND SHEEN LEVELS

- A. Conform to Gloss and Sheen Levels as tested in accordance with ASTM D523, regardless of that stated by manufacturer product data and shown on paint containers.

GLOSS AND SHEEN LEVELS		GLOSS @ 60 DEGREES	SHEEN @ 85 DEGREES
Gloss Level 1	Matt or Flat	Maximum 5 Units	Maximum 10 Units
Gloss Level 2	Low Sheen	Maximum 10 Units	10 to 35 Units
Gloss Level 3	Eggshell	10 to 25 Units	10 to 35 Units
Gloss Level 4	Satin	20 to 35 Units	Minimum 35 Units
Gloss Level 5	Semi-Gloss	35 to 70 Units	(N/A)
Gloss Level 6	Gloss	70 to 85 Units	(N/A)
Gloss Level 7	High Gloss	More than 85 Units	(N/A)

2.5 FINISHES AND COLORS

- A. Field Painting Product Systems and Gloss Levels: As Schedules this Section.
- B. Paint and Stain Colors: Match paint colors at existing building from paint drawdown, as accepted by Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions ready to receive work of this Section before beginning work.
- B. Arrange for adequate lighting, temporary heat, and ventilation.

- C. Maximum Moisture Content of Substrates: Conform to manufacturer's instructions and guidelines. Perform tests using commercial quality electronic moisture meter. Where exceeding following values, promptly notify Owner and obtain direction before beginning work.

- 1. Exterior Wood: Fifteen (15%) percent.

3.2 MATERIALS TO BE FINISHED

- A. Prepare and finish surfaces of materials, except as specifically excluded or otherwise specified.
- B. Field paint exposed-to-view surfaces, whether or not indicated to receive coatings, except where specifically excluded by Contract Documents.

3.3 MATERIALS NOT TO BE FINISHED

- A. Metals: Brass, bronze, copper, stainless steel, pre-finished metal and plated metals other than galvanized metal, except as specifically indicated.
- B. Plastic laminate, melamine and other finished plastic surfacing.
- C. Roofing, masonry, stone and concrete, except as otherwise indicated.
- D. Glass and clear plastic, except as otherwise indicated.
- E. Substrates with specified factory-applied colored finishes and normally unfinished substrates:
 - 1. Includes: Door hardware, electrical switch plates, fabrics, tackboards, porcelain enameled metal fabrications and lighting fixtures.
 - 2. Exception: Wire mold and other normally prefinished items mounted on surfaces receiving coatings: Paint out to match and blend with field surface.
- F. Inaccessible materials permanently enclosed behind building construction and structural components.

3.4 SURFACE PREPARATION PROCEDURES

- A. Conform to:
 - 1. MPI Architectural Painting Specification Manual, Surface Preparation.
 - 2. SSPC- Surface Preparation Procedures.
 - 3. Manufacturer's instructions.
 - 4. Contract Document provisions.
- B. Mildew removal:
 - 1. Do not use bleach to remove mold from carbon-based materials. These include paper, cellulous, wood, sucrose (sugar), gypsum board and materials that are considered food for mold.
 - 2. Contact Owner for remediation method for mold contamination of carbon-based materials.
 - 3. Proceed with methods to remove stains as specified for non-carbon based materials.
- C. Wood Products Receiving Opaque Finishes:
 - 1. Clean to remove dirt, bond breakers and all material that is not suitable for paint adhesion to substrate. Remove and replace rotten, cracked, delaminated or water damaged wood prior to applying prime coat.
 - 2. Scape and sand smooth all knots and pitch streaks prior to applying prime coat.
 - 3. Remove loose and peeling paint. Sand surface smooth.

4. Sand hard glossy surfaces to create profile to promote adhesion of paint coating.
 5. Wipe off dust and minor grit prior to applying prime coat.
 6. Fill nail holes and fine cracks after primer has dried.
 7. Sand smooth and level with surface, ready for finish coat.
 8. Seal joints between wood surfaces specified - 079200.
 9. Maintain surface condition for subsequent finish coats.
- D. Back Priming Wood:
1. Prior to installation, back prime concealed faces of panels, moldings, siding and other thin wood, plywood and panel material subject to warping and bowing.
 2. Apply two (2) coats of sealer, primer or suitable finish system to balance finish on exposed face.
- E. Surfaces Not Specified by MPI, SSPC, or manufacturer's Instructions: Verify with Owner for surface preparation procedures.

3.5 RECOATING SURFACE PREPARATION

- A. Prepare existing coated substrates as needed to make suitable for work of this Section. Proceed as for new work following initial preparation conforming to Architectural Painting Specification Manual, Surface Preparation, manufacturer's instructions and Contract Document provisions.
- B. Wood, Prior to Recoating:
1. Remove and clean existing deteriorated painted surface down to sound substrate, suitable for new coatings.
 2. Sand thick and sharp edges to make feather-edge transitions needed to prevent telegraphing through finished paint surface.
 3. Fill and patch checks, blemishes and deteriorated surfaces.

3.6 PROTECTION

- A. Take measures to protect surfaces not receiving work of this Section including protection from overspray, adjacent surfaces and downwind surfaces.
1. Provide drop cloths, shields and protective equipment.
 2. Repair or replace damaged surfaces caused by failure to provide suitable protection.
- B. Remove or mask electrical outlets and switch plates, mechanical diffusers, escutcheons, registers, surface hardware, fittings, fastenings and other items not receiving coating system.
- C. Correct minor defects and clean substrate surfaces included under work of this Section.
- D. Remove coatings that exhibit surface defects or unsuitable surface adhesion.

3.7 APPLICATION

- A. Conform to manufacturer's instructions, Architectural Painting Specification Manual and provisions of Contract Documents.
- B. Conform to Premium Grade, including application of two (2) finish coats over prepared and primed substrates.
- C. Apply as many additional coats for complete coverage and for acceptable finished appearance, free of holidays and color irregularities.

- D. Back-roll, back-brush and perform other work as necessary to lay down gypsum board fuzz, push spray-applied coatings into surfaces, and to even out and make for smooth, uniform coated surfaces.
- E. Apply primer and each finish coat in slightly different hue as means to verify multiple coat coverage.
- F. Conform to manufacturer's instructions for wet film and dry film thickness of coatings.
 - 1. Verify wet film thickness (WFT) by use of wet film gage during application.
 - 2. Test dry film thickness (DFT) using Tooke or other accepted measuring device.

3.8 PATCHING

- A. Repair surfaces damaged during construction activities. Spot repair and refinish as necessary for finished appearance prior to Substantial Completion and Owner occupancy.

3.9 REPLACEMENT OF HARDWARE AND MISCELLANEOUS ITEMS

- A. Reinstall items previously removed for painting.
- B. Manufacturer's Field Services: Conduct field services by manufacturer's local senior technical field representative.
 - 1. Attend Pre-application meeting, view mockups, make intermittent site visits, make final site visit at project completion.
 - 2. Verify conformance to manufacturer's instructions and provisions of Contract Documents for products and procedures.
 - 3. Provide technical assistance to help achieve high quality results.
 - a. Verify mil thickness with wet film gauge, in selected locations.
 - b. Test surfaces with Tooke or approved dry film gauge, for total DFT in selected areas.
 - 4. Promptly notify Owner of suspected non-conforming work and other irregularities.

3.10 ADJUSTING

- A. Take measures as necessary and as directed by Owner to repair, prepare and recoat systems not conforming to Contract Document provisions.

3.11 CLEANING

- A. As Work proceeds, promptly remove spilled and splattered paint and coating products so as not to damage surfaces.
- B. Maintain premises free from unnecessary accumulation of tools, equipment, surplus materials and debris.
- C. At conclusion of work, thoroughly clean paint and coatings from surfaces not designated to be painted.
 - 1. Do not scratch or damage surfaces.
 - 2. Verify chemical compatibility of cleaners to materials to be cleaned.
- D. Leave premises neat and clean; free from debris and residue from work of this Section.
- E. Do not dump paint, stains, chemicals and clean/wash painting equipment anywhere in the landscaping around the building, site or property, including the adjoining property.

3.12 EXTERIOR PAINTING AND COATING SCHEDULE

- A. Exterior Primer for Wood Trim:

1. Alkyd-Oil Wood Primer:
 - a. Benjamin Moore, Fresh Start Premium Exterior Primer, Exterior Wood Primer (094), one (1) coat.
- B. Exterior Finish for Fiber Cement Siding:
 1. Exterior Two (2)-Coat Acrylic Low Luster/Eggshell Finish (Gloss Level 2):
 - a. Benjamin Moore, Regal Select Exterior High Build, Low Lustre (401), two (2) coats
 - b. Color: TBD
- C. Exterior Finish for Wood Trim:
 1. Exterior Two (2)-Coat Acrylic Low Luster/Eggshell Finish (Gloss Level 2):
 - a. Benjamin Moore, Regal Select Exterior High Build, Low Lustre (401), two (2) coats
 - b. Color: Match adjacent wall color
- D. Exterior Finish for Fiberglass Doors:
 1. Exterior Two (2)-Coat Acrylic Semi-Gloss/Soft Gloss (Gloss Level 5):
 - a. Benjamin Moore, Regal Select Exterior High Build, Soft Gloss (403), two (2) coats
 - b. Color 4: TBD

3.13 INTERIOR PAINTING AND COATING SCHEDULE

- A. Interior Gypsum Board Primer:
 1. Acrylic Primer/Sealer:
 - a. Benjamin Moore, Sure Seal Multi-Purpose Latex Primer Sealer (027).
- B. Interior Finish Coating: Gypsum Board and Wood:
 1. Two (2)-Coat Acrylic Finish:
 - a. Benjamin Moore Regal Select Waterborne Interior.
 - i Walls: Eggshell.
 - ii Trim: Semi-Gloss.
 - iii Doors: Semi-Gloss.
 - b. Color: Match existing

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Rooftop fall arrest anchors.

1.2 RELATED SECTIONS

- A. Section 070150 – Preparation for Re-Roofing
- B. Section 073100 – Asphalt Shingles

1.3 REFERENCES

- A. Reference Standards: Most current edition at date of Bid.
- B. American National Standards Institute (ANSI): Z359 – Safety Requirements for Personal Fall Arrest Systems.
- C. American Society for Testing and Materials (ASTM):
 - 1. ASTM A123 - Standard Specification for Zinc (Hot-Dipped) Galvanized Coatings on Iron and Steel Products.
 - 2. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 3. ASTM A1011 - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.

1.4 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 - 1. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
 - 2. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
 - a. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the state of Washington.
 - 3. Manufacturer Instructions: Installation Instructions, special procedures, and conditions requiring special attention.
 - 4. Certification: Written statement signed by manufacturer's authorized representative.
Certify:
 - a. System: Engineered and designed to accommodate roof deck, roofing type, structural requirements, and watertight seal at roofing system.
 - b. Installer: Certified as authorized by manufacturer.
- C. Closeout Submittals - Reference Section 017700, submit following items:
 - 1. Maintenance and Operating Data: Include manufacturer's maintenance procedures, safety inspection logbook for yearly inspections and User Guide, including instructions on how safely to use system.
 - 2. Submit 2 copies of reduced plastic laminated drawing of roof plan, for posting near roof access point, showing anchor locations and details.

3. Demonstration and Training: Conduct minimum 1 hour training course by manufacturer's personnel for Owner and Owner's personnel using manufacturer's User Guide with instructions on how safely to use system.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Company specializing in work of this Section with minimum 5 years' documented experience.
2. Employing complete engineering and technical personnel needed to engineer, design, and perform work of this Section.

B. Installer Qualifications:

1. Manufacturer or certified by manufacturer as qualified to perform work of this Section.
2. Able to document minimum 3 years' experience in successful installations of manufacturer's fall arrest and fall restraint systems.

C. Mock-Ups:

1. Install fall arrest anchor system on roof system where directed by Owner.
2. Do not install fall arrest systems until acceptance by Owner.
3. Incorporate accepted mock-up into work. Label and identify as standard of quality for this Section.

PART 2 PRODUCTS

2.1 MATERIALS

A. Fall Arrest Anchor:

1. Basis of design: Ridge-It Anchor 00500, Guardian Fall Protection.
2. Or approved equal.

2.2 REGULATORY REQUIREMENTS

A. Conform to following:

1. Washington State Department of Labor and Industries WISHA Chapter 296-155-24510, Fall Restraint, Fall Arrest Systems.
2. OSHA - Occupational and Safety Health Administration Standards, including OSHA, 29 CFR 1926 Subpart M, Fall Protection.

2.3 PERFORMANCE AND DESIGN CRITERIA

A. Conform to WISHA for fall arrest and fall restraint systems.

B. Permit free movement of persons over entire roof.

C. Pullout Force: Design fall arrest anchors and connections to resist 5,000 pound pullout force without damage to roof construction, except 3,600 pounds pullout force for engineered systems conforming to OSHA/WISHA regulations.

1. Include reinforcement as required to prevent damage to roof deck.
2. Include attachments to supporting structural framing as required to transfer pullout force into roof structural framing.

D. Owner has opted to purchase full body harnesses, energy absorbing lanyards, self-retracting lifelines, and vertical lifeline separately from work of this Section.

2.4 FASTENERS

- A. Exposed Fasteners: As designed by manufacturer to accommodate deck type, structural framing, and design loads.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify conditions as satisfactory to receive work of this Section before beginning.
- B. Field-verify suitable substrate and structural conditions prior to installation.
- C. Verify layout of roof fall arrest anchors and structural connections suitable for work of this Section.

3.2 INSTALLATION

- A. Conform to manufacturer's instructions and provisions of Contract Documents.
- B. Lay out fall arrest system according to Owner accepted shop drawings.
- C. Install fall arrest anchors to structural framing and construction designed to transfer and accept imposed loads generated by fall restraint and fall arrest system.
- D. Install true, level, tightly fit, and flush with adjacent surfaces.
- E. Locate additional anchors as necessary for building maintenance.
- F. Do not make connections that impose loads on roof deck incompatible with engineered calculations accepted by Owner.
- G. Make installations watertight.
- H. Isolate dissimilar metals to prevent galvanic action.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Horizontal louver blinds at windows,
 2. Operating hardware.

1.2 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures
- B. Submit:
1. Product Data:
 - a. Description and specifications for components, features and assembly.
 - b. Opening size limitations, method of attachment and operation specific to work of this Section.
 - c. Backing requirements and method of attachment.
 2. Manufacturer's Instructions:
 - a. Installation requirements, tolerances and clearances required for installation.
 - b. Installation for different openings and mounting substrates.
 3. Samples:
 - a. One (1) sixteen (16") inch wide fully functional vertical headrail.
 - b. Manufacturer's complete color selection on actual material.
 - c. Manufacturer's color selection for exposed metal components.

1.3 QUALITY ASSURANCE

- A. Installer:
1. Specializing in fabricating and installing work of this Section.
 2. Able to document minimum three (3) years' experience for projects of equivalent or greater scope and quality.
 3. Authorized as qualified to perform work of this Section by manufacturer.
- B. Field Verify: Opening sizes, method of attachment, operation, and interface with adjacent construction, tolerances, and clearances required for installation prior to fabrication.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's protective packaging with manufacturer's product identification clearly labeled.
- B. Store materials in dry area maintained at building's operating temperature and humidity.

1.5 PROJECT CONDITIONS

- A. Building: Fully enclosed, with wet and dust-creating work complete and dry, environmental controls in place, maintaining temperatures between 60 and 90 degrees F, and relative humidity maintained at maximum eight (80%) percent.

1.6 WARRANTY

- A. Manufacturer:
1. Standard Lifetime Warranty for headrail including operating components.
 2. Standard three (3) year Warranty for fabrics.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Horizontal louver blinds:
 - 1. Hunter Douglas
 - 2. Levolor Contract
 - 3. Or accepted equal

2.2 HORIZONTAL LOUVER BLINDS

- A. Blinds: Horizontal slat louvers hung from full-width headrail; manual control of raising and lowering by cordless lift spring motor; blade angle adjustable by control wand; complying with WCMA A100.1.
- B. Slats: Crowned PVC 24.5-25mm wide x .38-.42 mm thick. Meets requirement of NFPA 701 test method 1
 - 1. Color: White
- C. Slat Support: Braided polyester cord in ladder configuration with two rungs per ladder.
- D. Head Rail: Pre-finished, formed aluminum or steel box with end caps; internally fitted with hardware, pulleys and bearings for operation; same depth as width of slats.
- E. Control Wand: Extruded hollow plastic; hexagonal shape.
- F. Headrail Attachment: Wall brackets.
- G. Accessory Hardware: Type recommended by blind manufacturer.

2.3 FABRICATION

- A. Fabricate blinds to fill each opening completely from jamb to jamb and from head to sill.
- B. Determine sizes by field measurement.
- C. Locate blind divisions at mullions and perimeter framed openings.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Conform to manufacturer's installation instructions and provisions of Contract Documents.
- B. Install with sufficient brackets to prevent deflection of headrail.
- C. Located and adjust to be plumb, level.
- D. Allow for necessary clearances for operating hardware.

3.2 ADJUSTING

- A. Adjust blinds for smooth operation.
- B. Replace defective and damaged units.

3.3 CLEANING

- A. Vacuum blinds to remove dust. Remove soiling and staining using a mild detergent in conformance to manufacturer's instructions.
- B. Leave installation area clean and free of debris and residue resulting from this Section.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Removal of existing hose bibbs and preparation for installation of frost resistant hose bibbs at locations indicated on drawings.
2. Installation of frost resistant hose bibbs at existing location indicated on drawings.
3. Salvage and reinstallation of existing pipe fitting associated with hot water heater system.
4. Extension of existing plumbing pipe penetrations as necessary.

1.2 RELATED SECTIONS:

A. Section 024100 – Selective Demolition

1.3 REFERENCES

A. Reference Standards: Most current edition at date of Bid.

B. American National Standards Institute, Inc (ANSI):

1. B1.1 – Unified Screw Threads
2. B2.1 – Pipe Threads (Except Dry Seal)
3. B16.1 – Cast-Iron Pipe Flanges & Flanged Fittings, 125, and 250 psi
4. B16.3 – Malleable Iron Threaded Fittings, Class 150 and 300 pound
5. B16.5 – Steel Pipe Flanges, Flanged Valves and Fittings Including Ratings for Class 150
6. B16.18 – Cast Bronze Solder Joint Fitting
7. B16.22 – Wrought Copper and Bronze Solder Joint Pressure Fittings
8. B18.2.1 – Square Hex Bolts, Screws, Including Askey

C. American Society for Testing and Materials (ASTM):

1. ASTM A53 – Pipe, Steel, Black and Hot-Sipped, Zinc-coated, Welded, and Seamless
2. ASTM A120 – Pipe, Steel, Black and Hot-Sipped, Zinc-coated, Welded, and Seamless, for Ordinary Uses
3. ASTM A126 – Gray Iron Castings for Valves, Flanges, and Pipe Fittings
4. ASTM A181 – Forgings, Carbon Steel for General Purpose Piping
5. ASTM A307 – Carbon Steel Externally-threaded Standard Fasteners
6. ASTM B32 – Solder Metal
7. ASTM B61 – Seam of Valve Bronze Casting
8. ASTM B62 – Composition Bronze or Ounce-metal Castings
9. ASTM B88 – Seamless Copper Water Tube

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.

B. Basis: International Building Code, Uniform Plumbing Code, International Mechanical Code.

C. Standards: Ratings per Hydraulic Institute.

1.5 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 - 1. Product Data: Manufacturer's data sheets on each product to be used:
 - a. Frost Resistant Hose Bibbs
 - b. Pipe and Fittings
 - c. Accessories

PART 2 PRODUCTS

2.1 GENERAL

- A. Comply with "Quality Assurance" provisions, Specifications, and Manufacturer's Data. Where these may be in conflict, the more stringent requirements govern.
- B. Pressure Ratings: Provide all components with minimum pressure rating of 150 psig working pressure.

2.2 HOSE BIBBS

- A. Prier Freezeless Wall Hydrant P-264, Anti-siphon freeze proof wall hydrant, with vacuum breaker, key operated with key lock.
- B. Wall thickness: coordinate with field conditions and procure as required.
- C. Inlet option: EP inlet, Union elbow with ¾" male pipe thread.

2.3 PIPING

- A. Match existing and provide as necessary to provide serviceable fittings for connection and to extend piping to the location of the hose bibb.

PART 3 EXECUTION

3.1 GENERAL

- A. Verify installation conditions as satisfactory to receive work of this section. Do not install until unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions as satisfactory.
- B. Existing conditions and connecting water supply piping are not shown, remove existing hose bibbs as indicated. Cap in place.
- C. Install hose bibb at location indicated. Provide, install, and place hose bibb into permanent operation.
- D. Provide operation and maintenance information.

3.2 PREPARATION

- A. Field measurements: Field verify location of new and existing work prior to commencing work of this Section.
- B. Protect surrounding areas and surfaces to preclude damage from work of this Section.

3.3 DEMOLITION

- A. Reference Section 024100 Selective Demolition.

- B. Coordinate construction sequence with Owner prior to beginning demolition. Review demolition, installation, and operation procedures with Owner prior to beginning work. Communicate any service outage and collaborate with Owner to plan the installation with a minimum disruption to the occupant's activities.
- C. Remove hose bibbs at locations indicated on Drawings. Cap piping in place where indicated. Prepare piping for installation of new hose bibb where new hose bibb is called for. Leave substrate suitable for installation of new finishes.
- D. Dispose of materials removed during demolition in an approved manner.

3.4 INSTALLATION

- A. Flush all piping after fabrication and prior to connecting into existing systems and pressure testing.
- B. Screens: remove strainer screens during flushing except those protecting control equipment. Clean the screens protecting control equipment during flushing and after flushing is completed.
- C. Water flushing: Flush piping systems by circulating water through a 100-mesh screen at 7.5 feet per second for a minimum of one (1) hour.

3.5 PRESSURE TESTING

- A. Pressure test piping and new fixtures and repair any leaks disclosed by the testing.
- B. Rectify all defects disclosed by the tests without additional cost to the Owner. Perform test in the presence of the Owner. Furnish memo to the Owner on letterhead indicating that the testing has been successfully completed.
- C. Test piping systems after the lines have been cleaned and flushed, and before any insulation has been applied.
- D. Test pressures: Test piping system at pressure of one and one-half times the design working pressure of at 50 psig, whichever is greater
- E. Hydrostatically test all liquid piping using water not exceeding 100° F.
- F. Test Procedure:
 - 1. Before tests, remove or valve off from the system all gauges, traps, and other apparatus which may be damaged by the test procedure.
 - 2. Subject the system to a calibrated test pressure for a sufficient length of time to enable an inspection to be made at all joints and connections.
 - 3. Rectify all defects which develop during testing and retest the piping systems until they show no defect or weakness and are tight.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Outlet, junction, and pull boxes and associated appurtenances required to enclose devices, permit pulling conductors, and for wire splices and branches.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.

B. Codes and Standards:

1. NEMA 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
2. NFPA 70, National Electrical Code (NEC).
3. UL 514A, Metallic Outlet Boxes.

1.3 SUBMITTALS

A. Submit in accordance with Section 013300 Submittal Procedures

B. Submit:

1. Product Data: Submit manufacturer's technical product data for each type of outlet box and appurtenance.

PART 2 PRODUCTS

2.1 OUTLET BOXES FOR EXTERIOR WIRING

A. General: Weather resistant and rain tight, with appropriate covers, gaskets, and screws.

B. Above Grade: Outlet and junction boxes cast or malleable iron or cast of corrosion resistant alloy compatible with raceway to which they are connected. Pull boxes fabricated of hot dipped galvanized heavy gage steel. Boxes with gasketed covers.

C. Below Grade: Where exposed to earth, boxes (handholes) constructed of precast concrete with size, configuration, cover, grates and reinforcing as required by particular installation. Utility Vault Co. or approved.

2.2 OUTLET BOXES CONTAINING MULTIPLE DEVICES

A. Outlet Boxes Containing Emergency and Normal Devices: Permitted only with steel barriers manufactured especially for purpose of dividing outlet box into 2 completely separate compartments.

B. Outlet Boxes Containing Multiple Devices and Wiring Rated over 150 Volts to Ground and Over 300 Volts between Conductors: Permitted only with steel barrier manufactured especially for purpose of dividing outlet box into separate compartments for each device having exposed live parts.

PART 3 EXECUTION

3.1 INSPECTION

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

3.2 PREPARATION

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

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

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

3.4 COORDINATION OF OUTLET BOX LOCATIONS

- A. Locate as shown on the Drawings and as required to facilitate pulling. Limit number of bends per NEC.
- B. Electrical box locations shown on the Drawings are approximate unless dimensioned. Verify location of floor boxes and outlets before roughing in.
- C. Locate outlet boxes to allow access. If inaccessible, furnish, arrange, and pay for installation of access doors.
- D. Coordinate Work of this section with the Work of other sections and trades to avoid conflicts. Check and verify door swings and locations of built-in cabinets, plumbing, heating, and ventilating equipment.
- E. Install outlet boxes of sizes and at locations necessary to serve equipment furnished under this or other divisions of the specifications. Make final connections thereto. Outlet boxes required if equipment is furnished with pigtail for external connection, does not have space to accommodate branch circuit wiring, or requires wire with insulation rating different from branch circuit wiring. Review equipment Shop Drawings for required outlet locations.
- F. Where more than one outlet box is shown on the Drawings, and indicated to be at same elevation or one above the other, align them exactly on center lines horizontally or vertically. Relocate outlet boxes which are not so installed (including lighting, receptacle, power, signal, and temperature control outlets) at no additional cost to the Owner.
- G. Centered on Built-In Work: In the case of doors, cabinets, recessed or similar features, or where outlet boxes are centered between such features, such as between door jamb and cabinet, make these outlet box locations exact. Relocate outlet boxes which are not centered.
- H. Flush mount boxes with front edge of box or plaster ring even with finished surface of wall and ceiling, except those mounted above accessible ceilings and where surface mounting is permitted.
- I. Locate to maintain headroom and to present a neat appearance.
- J. Route conduit from switch and receptacle boxes in walls vertically to space above ceiling. Install junction box before horizontal run.
- K. Offset outlet boxes minimum of one stud horizontal separation between flush boxes mounted on opposite sides of acoustic rated common wall.
- L. Install outlet boxes with minimum 6 inch horizontal separation between closest edges of flush boxes mounted on opposite sides of common wall.
- M. Ceiling Locations: Locate outlet either at corner joint or in center of a panel, whichever is closer to normal spacing. Locate outlet boxes in same room in same panel locations.
- N. Conceal outlet boxes for electric water coolers behind cooler unit housing.

3.5 OUTLET BOX INSTALLATION

- A. Anchor boxes so they will not shift or rock when devices are operated (including insertion and removal of cord caps).
- B. Firmly anchor flush outlet boxes directly or with concealed bracing to studs and joists.
- C. Close unused openings.
- D. Support boxes independently of conduit except for cast outlet boxes that are connected to 2 rigid metal conduits, both supported within 12 inches of outlet box.
- E. Use multiple-gang outlet boxes where 2 or more devices are mounted together. Do not use sectional boxes.
- F. Install blank covers or plates over outlet boxes that do not contain devices.
- G. In inaccessible ceiling areas, install outlet and junction boxes within 6 inches of recessed luminaire to be accessible through luminaire ceiling openings.
- H. Install recessed outlet boxes in finished areas. Secure outlet boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness. Use stamped steel stud bridges for flush outlets in hollow stud wall and adjustable steel channel fasteners for flush ceiling outlet boxes.
- I. Install outlet boxes in walls without damaging wall insulation.
- J. Seal conduit boxes, telephone boxes, and similar items air tight with acoustical caulk where located in acoustical rated walls that are not fire rated.
- K. Install outlet boxes in masonry walls to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat openings for outlet boxes. Use outlet boxes with sufficient depth to permit conduit hubs to be located in masonry void space.
- L. Install pull boxes to be accessible after completion of building construction.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Work includes:
 - 1. Exterior wall mounted light fixtures
 - 2. Exterior ceiling mounted light fixtures

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable city, county, and state codes and ordinances.
- B. Codes and Standards: NFPA 70, National Electrical Code (NEC).
- C. Comply with NEC and NEMA for installation and construction of lighting fixtures. Lighting fixtures UL listed and labeled.

1.3 SUBMITTALS

- A. Submit in accordance with Section 013300 Submittal Procedures.
- B. Submit:
 - 1. Product Data: Submit manufacturer's technical product data and maintenance data for each type of lighting fixtures and appurtenance. Submit product data for each lamp type and each ballast type, with a matrix indicating which fixtures apply to submitted ballast and lamp type.
 - 2. Shop Drawings:
 - a. Submit dimensioned drawings of each type of lighting fixtures. Submit in booklet form with separate sheet for each fixture, assembled in luminaire "type" in alphabetical order with proposed fixture and appurtenance clearly indicated on each sheet.
 - b. Submit support and hanging details for lighting fixtures weighing more than 56 pounds and pendant hung lighting fixtures requiring support design approved by the AHJ.
 - 3. Test Reports:
 - a. Field test reports.
 - b. Submit completed copy of reports and include copy in the Operation and Maintenance Manual.

PART 2 PRODUCTS

2.1 EXTERIOR WALL MOUNTED LIGHT FIXTURE

- A. Basis of Design: Luminaire LED, Swoop 610 series
 - 1. No trim
 - 2. 15W LED; 4000K
 - 3. 120-277 volts
 - 4. Clear Prismatic Lens
 - 5. 0-10V Dimming, 10% at lowest level
 - 6. Finish: Bronze

2.2 EXTERIOR CEILING MOUNTED LIGHT FIXTURE

- A. Basis of Design: Luminaire LED, Swoop 610 series
 - 1. No trim
 - 2. 15W LED; 4000K
 - 3. 120-277 volts
 - 4. Clear Prismatic Lens
 - 5. 0-10V Dimming, 10% at lowest level
 - 6. Finish: Bronze

PART 3 EXECUTION

3.1 INSPECTION

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

3.2 PREPARATION

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

3.3 INSTALLATION, APPLICATION, ERECTION, AND PERFORMANCE

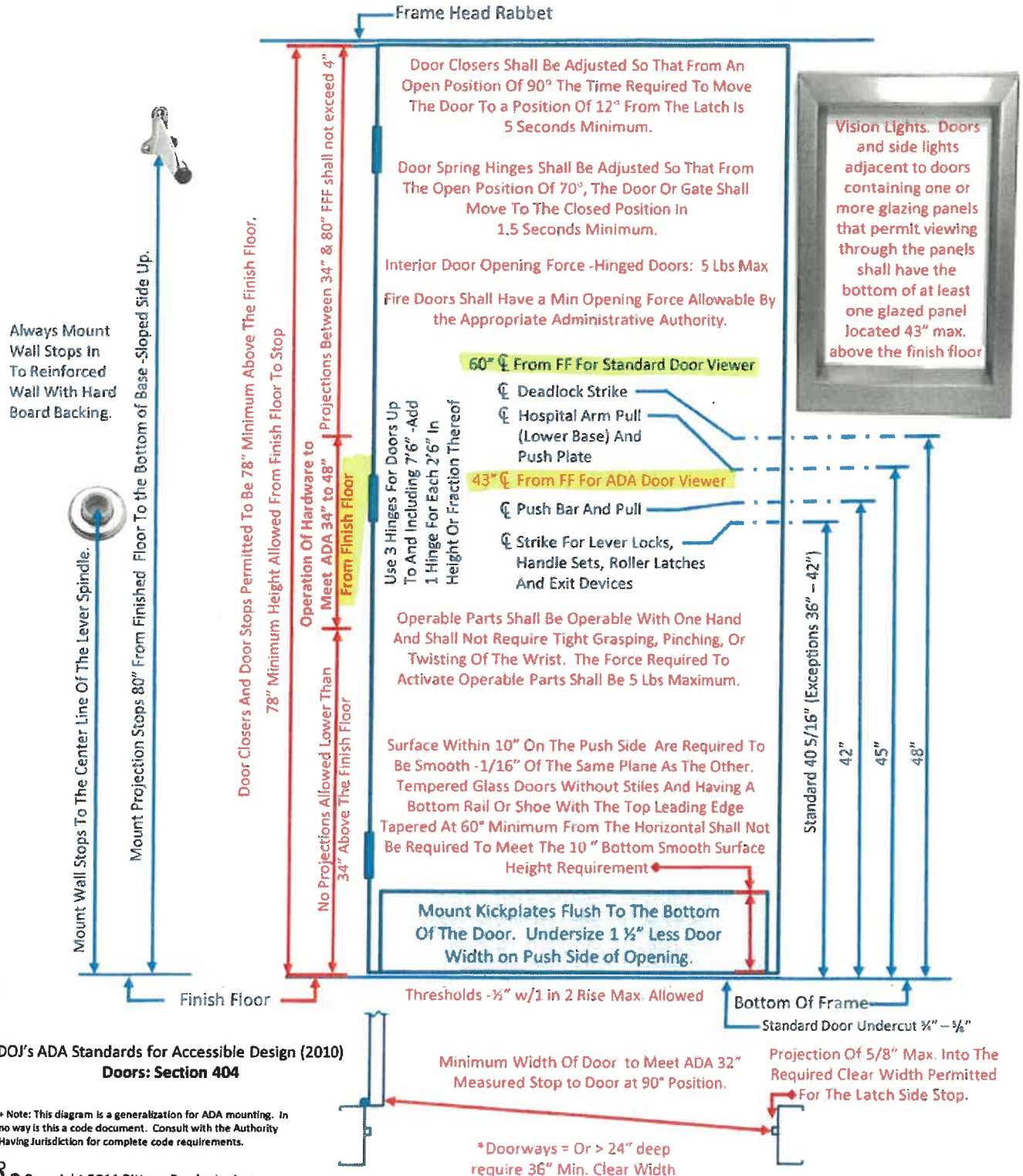
- A. General: Install, apply, erect, and perform the work in accordance with Article "Quality Assurance" provisions, specifications, and manufacturer's installation instructions and directions. Where these may be in conflict, the more stringent requirements govern.

3.4 FIELD QUALITY CONTROL

- A. Upon completion of installation of lighting fixtures and electrical circuitry, energize circuitry and demonstrate capability and compliance with requirements. Repair malfunctioning units on site, then retest to demonstrate compliance. If not possible to repair on site, remove and provide new units and retest. Include copy of test reports in the Operation and Maintenance Manual.

END OF SECTION

Typical ADA Locations And Information For Door Hardware



MIGUEL @ CADENCECONSTRUCTION.COM

253-380-6785

Snohomish, WA 98291-0188

Ph (425) 212-9299 Fx (360) 568-6385



Customer: CADENCE

Today's Date: 2/18/2022

PO: _____

DUE DATE: _____

WILL CALL

DELIVERY

246 NLM TRUE BLACK
55 RT 55 LEFT (110 TOTAL PCS)

