

**THE HOUSING AUTHORITY OF  
CLACKAMAS COUNTY**

P.O. BOX 1510; 13900 S. GAIN STREET; OREGON CITY, OREGON  
97045

**Invitation for Bids**

**MODERNIZATION OF 6606 HEMLOCK  
PROJECT #20008**

Funded by  
U.S. Department of Housing and Urban Development

Prepared by:  
The Housing Authority of Clackamas County  
P.O. Box 1510  
Oregon City, Oregon 97045  
503-650-3143

October 15, 2020

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# **1.0 Invitation for Bids**



## INVITATION FOR BIDS

The **Housing Authority of Clackamas County (HACC)** will receive bids for MODERNIZATION OF 6606 HEMLOCK, PROJECT AT PUBLIC HOUSING, a prevailing wage project, #20008 **until November 19, 2020 at 2:00 PM** at the Administration Office of the Housing Authority of Clackamas County (HACC), P.O. Box 1510, 13930 S. Gain Street, Oregon City, Oregon 97045. **The Disclosure of First-Tier Subcontract form shall be received by 4:00 PM, November 19, 2020. At 2:01 PM, November 19, 2020, all bids will be publicly opened and read aloud.**

Brief Work Description: Remodel various components at 6606 Hemlock Street located in Milwaukie Oregon. Includes concrete site work, fencing, doors, roof, windows, siding, heating systems, electrical upgrades, kitchens, bathrooms, plumbing, flooring, cabinets and painting.

A Pre-bid meeting will be held on **November 5, 2020** at 9:00 a.m. at the work site. 6606 SE Hemlock Street, Milwaukie, OR 97222. **Per County guidelines and standards social distancing and face coverings will be required while onsite.**

**Bid documents are only available electronically. You can find them on ORPIN, our website (<https://www.clackamas.us/housingauthority/bids.html>) or by contacting Josh Teigen at [joshtei@co.clackamas.or.us](mailto:joshtei@co.clackamas.or.us)**

Josh Teigen, HACC Capital Improvement Coordinator will receive all bids  
Questions: Shall be submitted in writing to HACC Attn: Josh Teigen at [joshtei@co.clackamas.or.us](mailto:joshtei@co.clackamas.or.us).  
**Questions submittal deadline shall be November 11, 2020 @ 2:00pm.**

**Due to the Coronavirus pandemic our offices are closed to the public. Due to the closure HACC will not have the public bid opening meeting at 2pm for Project # 20008 Modernization of 6606 Hemlock Project. Instead bids will be tallied at 2:01pm and the bid results will be emailed out to all parties. Bids can be dropped off in our overnight drop box at the front of our administration building located at 13930 S. Gain Street, Oregon City, OR 97045 or mailed to the same address to attention Josh Teigen.**

A certified check or bank draft, payable to Housing Authority of Clackamas County, U.S. Government bonds, or a satisfactory bid bond executed by the bidder and acceptable sureties in an amount equal to five percent of the bid shall be submitted with each bid. A separate performance and payment bond in a penal sum of 100 percent of the contract price is required from the selected Bidder prior to the execution of the contract. See HUD-Form 5369 Instructions to Bidders for details.

Attention is called to the provisions for equal employment opportunity, economic opportunities for low and very low income persons, and payment of not less than the minimum salaries and wages as set forth in the specifications on this project.

As permitted by state law and required by the U.S. Department of Housing and Urban Development:

- a. Retainage is 10 percent, not 5 percent.
- b. Interest will not accrue on retainage, and
- c. Bonds or securities may not be substituted as an alternate form of retainage.

The Housing Authority of Clackamas County reserves the right to reject any or all bids or to waive any informality in the bidding.

**All requests for substitution shall be received 5 days prior to bid due date. There will be no exceptions.**

No bid shall be withdrawn for a period of 60 days subsequent to the opening of bids without the consent of the Housing Authority of Clackamas County.

## **CONTRACTOR BIDDING REQUIREMENTS**

### **1. Submission Requirements:**

- a. To be considered responsive and responsible, each contractor shall respond to the following requirements. Responses must be specific and complete unto themselves. Any submittal that, in the opinion of HACC, does not fully and completely address these requirements will not be reviewed and bid may be considered non-responsive.

### **2. Minimum Requirements:**

- a. To be qualified to respond, contractors must not be debarred, suspended, or otherwise ineligible to contract with HACC, and must **not** be included on the General Services Administration's "List of Parties Excluded From Federal Procurement and Non-Procurement Programs" or the Department of Housing and Urban Development's "Limited Denial of Participation" list. In addition, contractors must have current and active registration in the State of Oregon Business Registry.

### **3. Similar Project Experience:**

- a. Describe your firm's relevant experience within the areas under the Scope of Work. Please describe your firm's experience as it relates to rehabilitation/modernization projects.
- b. Please describe your firm's specific experience working with Housing Authorities and/or Public Agencies. Describe in detail two public housing projects that your firm is currently working on and/or has completed in the last five years. Describe the scope of work and dollar value for each project.
- c. Please describe your firm's approach to managing multiple project work sites at any one time, and the firm's capacity to address competing project timelines.

### **4. References:**

- a. Provide (3) references, previous and/or current, including the name and title of the contact person, their mailing address, email address, phone number and fax number. If available, please provide one reference from a public housing authority or other public agency.

### **5. Firm Description:**

- a. Provide the firms history, organization and size including number of staff in each work area.
- b. Describe the overall staffing approach to be used in connection with this contract. Provide information regarding staff experience and qualifications that demonstrates the contractor's capacity to perform the required services.
- c. Provide the identity of the Project Manager that will be monitoring managing this project.
- d. Provide the firms history to complete projects on time by maintaining a weekly progress schedule and completing on budget.

### **6. Method of Award:**

- a. HACC will evaluate all bids and award a contract based on contract price and contractors ability to perform said work. The information listed above will be part of the bid evaluation and shall be part of the contractors bid. Price will not be the main factor in awarding the contract. Failure to provide the information above may render contractors bid non-responsive.
- b. HACC reserves the right to reject any and all bids of any contractor including those who have previously failed to perform properly, or to complete on time, contracts of a similar nature; who is not in a position to perform the contract, or who has neglected the payment of bills or otherwise disregarded their obligations to subcontractors, material suppliers, or employees.

**END OF SECTION - INVITATION FOR BIDS**

## **2.0 Form HUD-5369, Instructions to Bidders for Contracts, Public and Indian Housing Programs**

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

**Instructions to Bidders for Contracts  
Public and Indian Housing Programs**

# Instructions to Bidders for Contracts

## Public and Indian Housing Programs

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### 1. Bid Preparation and Submission

(a) Bidders are expected to examine the specifications, drawings, all instructions, and, if applicable, the construction site (see also the contract clause entitled **Site Investigation and Conditions Affecting the Work** of the *General Conditions of the Contract for Construction*). Failure to do so will be at the bidders' risk.

(b) All bids must be submitted on the forms provided by the Public Housing Agency/Indian Housing Authority (PHA/IHA). Bidders shall furnish all the information required by the solicitation. Bids must be signed and the bidder's name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority. (Bidders should retain a copy of their bid for their records.)

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

(d) All bid documents shall be sealed in an envelope which shall be clearly marked with the words "Bid Documents," the Invitation for Bids (IFB) number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.

(e) If this solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "No Bid" in the space provided for any item on which no price is submitted.

(f) Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.

(g) Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph or facsimile (fax) machines will not be considered.

(h) If the proposed contract is for a Mutual Help project (as described in 24 CFR Part 905, Subpart E) that involves Mutual Help contributions of work, material, or equipment, supplemental information regarding the bid advertisement is provided as an attachment to this solicitation.

### 2. Explanations and Interpretations to Prospective Bidders

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

(b) Any information obtained by, or provided to, a bidder other than by formal amendment to the solicitation shall not constitute a change to the solicitation.

### 3. Amendments to Invitations for Bids

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date on the bid form, or (3) by letter, telegram, or facsimile, if those methods are authorized in the solicitation. The PHA/IHA must receive acknowledgement by the time and at the place specified for receipt of bids. Bids which fail to acknowledge the bidder's receipt of any amendment will result in the rejection of the bid if the amendment(s) contained information which substantively changed the PHA's/IHA's requirements.

(c) Amendments will be on file in the offices of the PHA/IHA and the Architect at least 7 days before bid opening.

### 4. Responsibility of Prospective Contractor

(a) The PHA/IHA will award contracts only to responsible prospective contractors who have the ability to perform successfully under the terms and conditions of the proposed contract. In determining the responsibility of a bidder, the PHA/IHA will consider such matters as the bidder's:

- (1) Integrity;
- (2) Compliance with public policy;
- (3) Record of past performance; and
- (4) Financial and technical resources (including construction and technical equipment).

(b) Before a bid is considered for award, the bidder may be requested by the PHA/IHA to submit a statement or other documentation regarding any of the items in paragraph (a) above. Failure by the bidder to provide such additional information shall render the bidder nonresponsible and ineligible for award.

## 5. Late Submissions, Modifications, and Withdrawal of Bids

(a) Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it:

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);

(2) Was sent by mail, or if authorized by the solicitation, was sent by telegram or via facsimile, and it is determined by the PHA/IHA that the late receipt was due solely to mishandling by the PHA/IHA after receipt at the PHA/IHA; or

(3) Was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and observed holidays.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) of this provision.

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerk to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(d) The only acceptable evidence to establish the time of receipt at the PHA/IHA is the time/date stamp of PHA/IHA on the proposal wrapper or other documentary evidence of receipt maintained by the PHA/IHA.

(e) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and Failure by a bidder to acknowledge receipt of the envelope or wrapper.

(f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the PHA/IHA will be considered at any time it is received and may be accepted.

(g) Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids; provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

## 6. Bid Opening

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

## 7. Service of Protest

(a) Definitions. As used in this provision:

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

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

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

Jill Smith  
Executive Director  
13930 S. Gain Street  
Oregon City, OR 97045

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

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

## 8. Contract Award

(a) The PHA/IHA will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the PHA/IHA considering only price and any price-related factors specified in the solicitation.

(b) If the apparent low bid received in response to this solicitation exceeds the PHA's/IHA's available funding for the proposed contract work, the PHA/IHA may either accept separately priced items (see 8(e) below) or use the following procedure to determine contract award. The PHA/IHA shall apply in turn to each bid (proceeding in order from the apparent low bid to the high bid) each of the separately priced bid deductible items, if any, in their priority order set forth in this solicitation. If upon the application of the first deductible item to all initial bids, a new low bid is within the PHA's/IHA's available funding, then award shall be made to that bidder. If no bid is within the available funding amount, then the PHA/IHA shall apply the second deductible item. The PHA/IHA shall continue this process until an evaluated low bid, if any, is within the PHA's/IHA's available funding. If upon the application of all deductibles, no bid is within the PHA's/IHA's available funding, or if the solicitation does not request separately priced deductibles, the PHA/IHA shall follow its written policy and procedures in making any award under this solicitation.

(c) In the case of tie low bids, award shall be made in accordance with the PHA's/IHA's written policy and procedures.

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

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

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

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

**9. Bid Guarantee (applicable to construction and equipment contracts exceeding \$25,000)**

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

**10. Assurance of Completion**

(a) Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation. This assurance may be [Contracting Officer check applicable items] —

(1) a performance and payment bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law;

(2) separate performance and payment bonds, each for 50 percent or more of the contract price;

(3) a 20 percent cash escrow;

(4) a 25 percent irrevocable letter of credit; or,

(5) an irrevocable letter of credit for 10 percent of the total contract price with a monitoring and disbursements agreement with the IHA (applicable only to contracts awarded by an IHA under the Indian Housing Program).

(b) Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. Individual sureties will not be considered. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of companies listed in this circular is mandatory. Copies of the circular may be downloaded on the U.S. Department of Treasury website <http://www.fms.treas.gov/c570/index.html>, or ordered for a minimum fee by contacting the Government Printing Office at (202) 512-2168.

(c) Each bond shall clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond shall be on or after the execution date of the contract.

(d) Failure by the successful bidder to obtain the required assurance of completion within the time specified, or within such extended period as the PHA/IHA may grant based upon reasons determined adequate by the PHA/IHA, shall render the bidder ineligible for award. The PHA/IHA may then either award the contract to the next lowest responsible bidder or solicit new bids. The PHA/IHA may retain the ineligible bidder's bid guarantee.

**11. Preconstruction Conference (applicable to construction contracts)**

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

**12. Indian Preference Requirements (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)**

(a) HUD has determined that the contract awarded under this solicitation is subject to the requirements of section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). Section 7(b) requires that any contract or subcontract entered into for the benefit of Indians shall require that, to the greatest extent feasible

(1) Preferences and opportunities for training and employment (other than core crew positions; see paragraph (h) below) in connection with the administration of such contracts or subcontracts be given to qualified "Indians." The Act defines "Indians" to mean persons who are members of an Indian tribe and defines "Indian tribe" to mean any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and,

(2) Preference in the award of contracts or subcontracts in connection with the administration of contracts be given to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452). That Act defines "economic enterprise" to mean any Indian-owned commercial, industrial, or business activity established or organized for the purpose of profit, except that the Indian ownership must constitute not less than 51 percent of the enterprise; "Indian organization" to mean the governing body of any Indian tribe or entity established or recognized by such governing body; "Indian" to mean any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act; and Indian "tribe" to mean any Indian tribe, band, group, pueblo, or community including Native villages and Native groups (including

corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

(b) (1) The successful Contractor under this solicitation shall comply with the requirements of this provision in awarding all subcontracts under the contract and in providing training and employment opportunities.

(2) A finding by the IHA that the contractor, either (i) awarded a subcontract without using the procedure required by the IHA, (ii) falsely represented that subcontracts would be awarded to Indian enterprises or organizations; or, (iii) failed to comply with the contractor's employment and training preference bid statement shall be grounds for termination of the contract or for the assessment of penalties or other remedies.

(c) If specified elsewhere in this solicitation, the IHA may restrict the solicitation to qualified Indian-owned enterprises and Indian organizations. If two or more (or a greater number as specified elsewhere in the solicitation) qualified Indian-owned enterprises or organizations submit responsive bids, award shall be made to the qualified enterprise or organization with the lowest responsive bid. If fewer than the minimum required number of qualified Indian-owned enterprises or organizations submit responsive bids, the IHA shall reject all bids and readvertise the solicitation in accordance with paragraph (d) below.

(d) If the IHA prefers not to restrict the solicitation as described in paragraph (c) above, or if after having restricted a solicitation an insufficient number of qualified Indian enterprises or organizations submit bids, the IHA may advertise for bids from non-Indian as well as Indian-owned enterprises and Indian organizations. Award shall be made to the qualified Indian enterprise or organization with the lowest responsive bid if that bid is -

(1) Within the maximum HUD-approved budget amount established for the specific project or activity for which bids are being solicited; and

(2) No more than the percentage specified in 24 CFR 905.175(c) higher than the total bid price of the lowest responsive bid from any qualified bidder. If no responsive bid by a qualified Indian-owned economic enterprise or organization is within the stated range of the total bid price of the lowest responsive bid from any qualified enterprise, award shall be made to the bidder with the lowest bid.

(e) Bidders seeking to qualify for preference in contracting or subcontracting shall submit proof of Indian ownership with their bids. Proof of Indian ownership shall include but not be limited to:

(1) Certification by a tribe or other evidence that the bidder is an Indian. The IHA shall accept the certification of a tribe that an individual is a member.

(2) Evidence such as stock ownership, structure, management, control, financing and salary or profit sharing arrangements of the enterprise.

(f) (1) All bidders must submit with their bids a statement describing how they will provide Indian preference in the award of subcontracts. The specific requirements of that statement and the factors to be used by the IHA in determining the statement's adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement shall be rejected as nonresponsive. The IHA may require that comparable statements be provided by subcontractors to the successful Contractor, and may require the Contractor to reject any bid or proposal by a subcontractor that fails to include the statement.

(2) Bidders and prospective subcontractors shall submit a certification (supported by credible evidence) to the IHA in any instance where the bidder or subcontractor believes it is infeasible to provide Indian preference in subcontracting. The acceptance or rejection by the IHA of the certification shall be final. Rejection shall disqualify the bid from further consideration.

(g) All bidders must submit with their bids a statement detailing their employment and training opportunities and their plans to provide preference to Indians in implementing the contract; and the number or percentage of Indians anticipated to be employed and trained. Comparable statements from all proposed subcontractors must be submitted. The criteria to be used by the IHA in determining the statement(s)'s adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement(s), or that includes a statement that does not meet minimum standards required by the IHA shall be rejected as nonresponsive.

(h) Core crew employees. A core crew employee is an individual who is a bona fide employee of the contractor at the time the bid is submitted; or an individual who was not employed by the bidder at the time the bid was submitted, but who is regularly employed by the bidder in a supervisory or other key skilled position when work is available. Bidders shall submit with their bids a list of all core crew employees.

(i) Preference in contracting, subcontracting, employment, and training shall apply not only on-site, on the reservation, or within the IHA's jurisdiction, but also to contracts with firms that operate outside these areas (e.g., employment in modular or manufactured housing construction facilities).

(j) Bidders should contact the IHA to determine if any additional local preference requirements are applicable to this solicitation.

(k) The IHA [ ] does [ ] does not [Contracting Officer check applicable box] maintain lists of Indian-owned economic enterprises and Indian organizations by specialty (e.g., plumbing, electrical, foundations), which are available to bidders to assist them in meeting their responsibility to provide preference in connection with the administration of contracts and subcontracts.



**3.0 Form HUD-5369-A,  
Representations, Certifications, and  
Other Statements of Bidders, Public  
and Indian Housing Programs**

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

**Representations, Certifications,  
and Other Statements of Bidders**  
**Public and Indian Housing Programs**

# Representations, Certifications, and Other Statements of Bidders

## Public and Indian Housing Programs

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### 1. Certificate of Independent Price Determination

#### (a) The bidder certifies that--

(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a competitive proposal solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

(b) Each signature on the bid is considered to be a certification by the signatory that the signatory--

(1) Is the person in the bidder's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

\_\_\_\_\_ [insert full name of person(s) in the bidder's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the bidder deletes or modifies subparagraph (a)2 above, the bidder must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

[ ] [Contracting Officer check if following paragraph is applicable]

(d) Non-collusive affidavit. (applicable to contracts for construction and equipment exceeding \$50,000)

(1) Each bidder shall execute, in the form provided by the PHA/IHA, an affidavit to the effect that he/she has not colluded with any other person, firm or corporation in regard to any bid submitted in response to this solicitation. If the successful bidder did not submit the affidavit with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the affidavit by that date may render the bid nonresponsive. No contract award will be made without a properly executed affidavit.

(2) A fully executed "Non-collusive Affidavit" [ ] is, [ ] is not included with the bid.

### 2. Contingent Fee Representation and Agreement

(a) Definitions. As used in this provision:

"Bona fide employee" means a person, employed by a bidder and subject to the bidder's supervision and control as to time, place, and manner of performance, who neither exerts, nor proposes to exert improper influence to solicit or obtain contracts nor holds out as being able to obtain any contract(s) through improper influence.

"Improper influence" means any influence that induces or tends to induce a PHA/IHA employee or officer to give consideration or to act regarding a PHA/IHA contract on any basis other than the merits of the matter.

(b) The bidder represents and certifies as part of its bid that, except for full-time bona fide employees working solely for the bidder, the bidder:

(1) [ ] has, [ ] has not employed or retained any person or company to solicit or obtain this contract; and

(2) [ ] has, [ ] has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(c) If the answer to either (a)(1) or (a)(2) above is affirmative, the bidder shall make an immediate and full written disclosure to the PHA/IHA Contracting Officer.

(d) Any misrepresentation by the bidder shall give the PHA/IHA the right to (1) terminate the contract; (2) at its discretion, deduct from contract payments the amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

### 3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (applicable to contracts exceeding \$100,000)

(a) The definitions and prohibitions contained in Section 1352 of title 31, United States Code, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The bidder, by signing its bid, hereby certifies to the best of his or her knowledge and belief as of December 23, 1989 that:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of a contract resulting from this solicitation;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the bidder shall complete and submit, with its bid, OMB standard form LLL, "Disclosure of Lobbying Activities;" and

(3) He or she will include the language of this certification in all subcontracts at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(d) Indian tribes (except those chartered by States) and Indian organizations as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) are exempt from the requirements of this provision.

#### 4. Organizational Conflicts of Interest Certification

The bidder certifies that to the best of its knowledge and belief and except as otherwise disclosed, he or she does not have any organizational conflict of interest which is defined as a situation in which the nature of work to be performed under this proposed contract and the bidder's organizational, financial, contractual, or other interests may, without some restriction on future activities:

- (a) Result in an unfair competitive advantage to the bidder; or,
- (b) Impair the bidder's objectivity in performing the contract work.

[ ] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

#### 5. Bidder's Certification of Eligibility

(a) By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

(1) Be awarded contracts by any agency of the United States Government, HUD, or the State in which this contract is to be performed; or,

(2) Participate in HUD programs pursuant to 24 CFR Part 24.

(b) The certification in paragraph (a) above is a material representation of fact upon which reliance was placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal contract programs.

#### 6. Minimum Bid Acceptance Period

(a) "Acceptance period," as used in this provision, means the number of calendar days available to the PHA/IHA for awarding a contract from the date specified in this solicitation for receipt of bids.

(b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.

(c) The PHA/IHA requires a minimum acceptance period of [Contracting Officer insert time period] calendar days.

(d) In the space provided immediately below, bidders may specify a longer acceptance period than the PHA's/IHA's minimum requirement. The bidder allows the following acceptance period: calendar days.

(e) A bid allowing less than the PHA's/IHA's minimum acceptance period will be rejected.

(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) above or (2) any longer acceptance period stated in paragraph (d) above.

#### 7. Small, Minority, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer that it --

(a) [ ] is, [ ] is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) [ ] is, [ ] is not a women-owned business enterprise. "Women-owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) [ ] is, [ ] is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are:

(Check the block applicable to you)

- [ ] Black Americans
- [ ] Asian Pacific Americans
- [ ] Hispanic Americans
- [ ] Asian Indian Americans
- [ ] Native Americans
- [ ] Hasidic Jewish Americans

#### 8. Indian-Owned Economic Enterprise and Indian Organization Representation (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)

The bidder represents and certifies that it:

(a) [ ] is, [ ] is not an Indian-owned economic enterprise. "Economic enterprise," as used in this provision, means any commercial, industrial, or business activity established or organized for the purpose of profit, which is at least 51 percent Indian owned. "Indian," as used in this provision, means any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act.

(b) [ ] is, [ ] is not an Indian organization. "Indian organization," as used in this provision, means the governing body of any Indian tribe or entity established or recognized by such governing body. Indian "tribe" means any Indian tribe, band, group, pueblo, or

community including Native villages and Native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

**9. Certification of Eligibility Under the Davis-Bacon Act** (applicable to construction contracts exceeding \$2,000)

(a) By the submission of this bid, the bidder certifies that neither it nor any person or firm who has an interest in the bidder's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of the contract resulting from this solicitation shall be subcontracted to any person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

**10. Certification of Nonsegregated Facilities** (applicable to contracts exceeding \$10,000)

(a) The bidder's attention is called to the clause entitled **Equal Employment Opportunity** of the General Conditions of the Contract for Construction.

(b) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(c) By the submission of this bid, the bidder certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in the contract.

(d) The bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) prior to entering into subcontracts which exceed \$10,000 and are not exempt from the requirements of the Equal Employment Opportunity clause, it will:

- (1) Obtain identical certifications from the proposed subcontractors;
- (2) Retain the certifications in its files; and
- (3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

**Notice to Prospective Subcontractors of Requirement for Certifications of Nonsegregated Facilities**

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause of the prime contract. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

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

**11. Clean Air and Water Certification** (applicable to contracts exceeding \$100,000)

The bidder certifies that:

(a) Any facility to be used in the performance of this contract [ ] is, [ ] is not listed on the Environmental Protection Agency List of Violating Facilities:

(b) The bidder will immediately notify the PHA/IHA Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the bidder proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and,

(c) The bidder will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

**12. Previous Participation Certificate** (applicable to construction and equipment contracts exceeding \$50,000)

(a) The bidder shall complete and submit with his/her bid the Form HUD-2530, "Previous Participation Certificate." If the successful bidder does not submit the certificate with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the certificate by that date may render the bid nonresponsive. No contract award will be made without a properly executed certificate.

(b) A fully executed "Previous Participation Certificate" [ ] is, [ ] is not included with the bid.

**13. Bidder's Signature**

The bidder hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

\_\_\_\_\_  
(Signature and Date)

\_\_\_\_\_  
(Typed or Printed Name)

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

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Company Address)

**4.0 Form HUD-5370 General  
Conditions of the Contract for  
Construction, Public and Indian  
Housing Programs**

# General Conditions for Construction Contracts - Public Housing Programs

U.S. Department of Housing and Urban Development  
Office of Public and Indian Housing  
OMB Approval No. 2577-0157 (exp. 3/31/2020)

**Applicability. This form is applicable to any construction/development contract greater than \$150,000.**

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 2 CFR 200, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 135. The form is required for construction contracts awarded by Public Housing Agencies (PHAs).

The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, HAs would be unable to enforce their contracts.

Public reporting burden for this collection of information is estimated to average 1.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Responses to the collection of information are required to obtain a benefit or to retain a benefit.

The information requested does not lend itself to confidentiality.

HUD may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB number.

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## 1. Definitions

- (a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.
  - (b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.
  - (c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
  - (d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
  - (e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.
  - (f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
  - (g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
  - (h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.
  - (j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
  - (l) "Work" means materials, workmanship, and manufacture and fabrication of components.
- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
  - (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [ ] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
  - (c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
  - (d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
  - (e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
  - (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
  - (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
  - (h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

## 3. Architect's Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.

## 2. Contractor's Responsibility for Work



- 
- (b) The Architect shall serve as the Contracting Officer's technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the Changes clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.
- (c) The Architect's duties and responsibilities may include but shall not be limited to:
- (1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor's designated representative at the site;
  - (2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;
  - (3) Reviewing and making recommendations with respect to - (i) the Contractor's construction progress schedules; (ii) the Contractor's shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and, (iv) the Contractor's price breakdown and progress payment estimates; and,
  - (4) Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract.

#### 4. Other Contracts

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees

### Construction Requirements

#### 5. Pre-construction Conference and Notice to Proceed

- (a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.
- (b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

#### 6. Construction Progress Schedule

- (a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring labor, materials, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments or take other remedies under the contract until the Contractor submits the required schedule.
- (b) The Contractor shall enter the actual progress on the chart as required by the Contracting Officer, and immediately deliver three copies of the annotated schedule to the Contracting Officer. If the Contracting Officer determines, upon the basis of inspection conducted pursuant to the clause entitled Inspection and Acceptance of Construction, herein that the Contractor is not meeting the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the PHA. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.
- (c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the Default clause of this contract.

#### 7. Site Investigation and Conditions Affecting the Work

- (a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is

reasonably ascertainable from an inspection of the site, including all exploratory work done by the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.

- (b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

### 8. Differing Site Conditions

- (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
- (b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to the PHA within ten days after receipt of such instructions and, in any event, before proceeding with the work. An equitable adjustment in the contract price, the delivery schedule, or both shall be made under this clause and the contract modified in writing accordingly.
- (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
- (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

### 9. Specifications and Drawings for Construction

- (a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be

promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

- (b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", or "the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.
- (c) Where "as shown" "as indicated", "as detailed", or of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" that is "furnished and installed".
- (d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- (e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.
- (f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be

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required in the planning and production of the work. Such requests may be submitted as the need arises, but each such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

- (h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
- (i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

#### 10. As-Built Drawings

- (a) "As-built drawings," as used in this clause, means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract. "As-built drawings" shall be synonymous with "Record drawings."
- (b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. For this purpose, the Contractor shall record on one set of contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.
- (c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

#### 11. Material and Workmanship

- (a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
- (b) Approval of equipment and materials.
  - (1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the

machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

- (2) When required by the specifications or the Contracting Officer, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid. The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.
- (3) Certificates shall be submitted in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.
- (4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- (5) Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other contract requirements. The Contracting Officer may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples. Check tests will be made on materials delivered for use only as frequently as the Contracting Officer determines necessary to insure compliance of materials with the specifications. The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.
- (6) After approval, samples will be kept in the Project office until completion of work. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.
- (c) Requirements concerning lead-based paint. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

#### 12. Permits and Codes

- (a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any

waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

- (b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA can arrange for the issuance of all or part of these permits, fees and licenses, without cost to the Contractor, the contract amount shall be reduced accordingly.

### 13. Health, Safety, and Accident Prevention

- (a) In performing this contract, the Contractor shall:
  - (1) 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 construction safety and health standards promulgated by the Secretary of Labor by regulation;
  - (2) Protect the lives, health, and safety of other persons;
  - (3) Prevent damage to property, materials, supplies, and equipment; and,
  - (4) Avoid work interruptions.
- (b) For these purposes, the Contractor shall:
  - (1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 3701 et seq.; and
  - (2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.
- (c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.
- (d) The Contracting Officer shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under these circumstances.
- (e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

### 14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

### 15. Availability and Use of Utility Services

- (a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.
- (b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

### 16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

- (a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.
- (b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.
- (c) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
- (d) The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the project.
- (e) Any equipment temporarily removed as a result of work under this contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this contract.

- (f) New work which connects to existing work shall correspond in all respects with that to which it connects and/or be similar to existing work unless otherwise required by the specifications.
- (g) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the plans or specifications.
- (h) If the removal of the existing work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different planes or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
- (i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
- (j) The Contractor shall indemnify and save harmless the PHA from any damages on account of settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- (k) The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

#### 17. Temporary Buildings and Transportation of Materials

- (a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- (b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

#### 18. Clean Air and Water

The contractor shall comply with the Clean Air Act, as amended, 42 USC 7401 et seq., the Federal Water Pollution Control Water Act, as amended, 33 U.S.C. 1251 et seq., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

#### 19. Energy Efficiency

The Contractor shall comply with mandatory 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) for the State in which the work under the contract is performed.

#### 20. Inspection and Acceptance of Construction

- (a) Definitions. As used in this clause -
  - (1) "Acceptance" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
  - (2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
  - (3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.
- (b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- (c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or, (4) affect the continuing rights of the PHA after acceptance of the completed work under paragraph (j) below.
- (d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
- (e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The PHA may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The PHA shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

- (f) The PHA may conduct routine inspections of the construction site on a daily basis.
- (g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
- (h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
- (i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.
- (j) The Contractor shall notify the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the work will be substantially completed and ready for inspection. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the PHA's right under any warranty or guarantee.

## 21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas

occupied without proper remuneration therefore. If prior possession or use by the PHA delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

## 22. Warranty of Title

The Contractor warrants good title to all materials, supplies, and equipment incorporated in the work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

## 23. Warranty of Construction

- (a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of \_\_\_\_\_ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
- (b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
  - (1) The Contractor's failure to conform to contract requirements; or
  - (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.
- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
- (d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
  - (1) Obtain all warranties that would be given in normal commercial practice;
  - (2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
  - (3) Enforce all warranties for the benefit of the PHA.
- (g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the repair of any damage that results from any defect in PHA furnished material or design.
- (i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above relate only to the specific obligation of the Contractor to correct the work, and have no relationship to the time within which its obligation to comply with the contract 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 its obligation other than specifically to correct the work.
- (j) This warranty shall not limit the PHA's rights under the Inspection and Acceptance of Construction clause of this contract with respect to latent defects, gross mistakes or fraud.

**24. Prohibition Against Liens**

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

**Administrative Requirements**

**25. Contract Period**

this contract within 120 calendar days of the effective date of the contract, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

**26. Order of Provisions**

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

**27. Payments**

- (a) The PHA shall pay the Contractor the price as provided in this contract.
- (b) The PHA shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
- (c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a

basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be acceptable to HUD. If the contract covers more than one project, the Contractor shall furnish a separate breakdown for each. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.

- (d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved submitted not later than \_\_\_\_\_ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:
  - (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
  - (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and,
  - (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

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

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Date:

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.

- (h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.
- (i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
- (j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
- (k) The PHA shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in no wise impair the obligations of any surety or sureties under any bonds furnished under this contract.

## 28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or

responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.

- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

## 29. Changes

- (a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract including changes:
  - (1) In the specifications (including drawings and designs);
  - (2) In the method or manner of performance of the work;
  - (3) PHA-furnished facilities, equipment, materials, services, or site; or,
  - (4) Directing the acceleration in the performance of the work.
- (b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.
- (c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
- (d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:



- (1) Direct Costs. Materials (list individual items, the quantity and unit cost of each, and the aggregate cost); Transportation and delivery costs associated with materials; Labor breakdowns by hours or unit costs (identified with specific work to be performed); Construction equipment exclusively necessary for the change; Costs of preparation and/ or revision to shop drawings resulting from the change; Worker's Compensation and Public Liability Insurance; Employment taxes under FICA and FUTA; and, Bond Costs when size of change warrants revision.
- (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
- (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change. The allowability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this contract. The Contractor shall not be allowed a profit on the profit received by any subcontractor. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the work.
- (g) The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
- (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
- (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

### 30. Suspension of Work

- (a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the PHA.
- (b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified (or within a reasonable time if not specified) in this contract an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have

been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this contract.

- (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

### 31. Disputes

- (a) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (b) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
- (c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (d) The Contracting Officer shall, within 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- (e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.
- (f) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

### 32. Default

- (a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer may, by written notice to the Contractor, terminate the right to

proceed with the work (or separable part of the work) that has been delayed. In this event, the PHA may take over the work and complete it, by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the PHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the PHA in completing the work.

- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—
- (1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
  - (2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, time for completing the work shall be extended by written modification to the contract. The findings of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Disputes clause of this contract.
- (c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been for convenience of the PHA.

### 33. Liquidated Damages

- (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled Default of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of \$ 500.00 [Contracting Officer insert amount] for each day of delay. If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.
- (b) If the PHA terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final

completion of the work together with any increased costs occasioned the PHA in completing the work.

- (c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

### 34. Termination for Convenience

- (a) The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the PHA. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective.
- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor; (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

### 35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by the Contracting Officer.

### 36. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:
- (1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
  - (2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_ [Contracting Officer insert amount]

per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_ [Contracting Officer insert amount] per occurrence.
- (b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

### 37. Subcontracts

- (a) Definitions. As used in this contract -
- (1) "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime contract or a subcontract.

(2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.

- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or of the state in which the work under this contract is to be performed.
- (c) The Contractor shall be as fully responsible for the acts or omissions of its subcontractors, and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.
- (d) The Contractor shall insert appropriate clauses in all subcontracts to bind subcontractors to the terms and conditions of this contract insofar as they are applicable to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

### 38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms

The Contractor shall take the following steps to ensure that, whenever possible, subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

### 39. Equal Employment Opportunity

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

- (a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- (b) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.

- (c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
- (d) The Contractor shall, 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 race, color, religion, sex, national origin, or handicap.
- (e) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- (f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
- (g) The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. The Contractor shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (h) In the event of a determination that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts, or Federally assisted construction contracts under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.
- (i) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor. The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if 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 the litigation to protect the interests of the United States.
- (j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the Indian Preference clause of this contract.

**40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban Development Act of 1968.**

- (a) The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). 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, particularly persons who are recipients of HUD assistance for housing.
- (b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. 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 Part 135 regulations.
- (c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- (d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, 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 regulations in 24 CFR Part 135. 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 regulations in 24 CFR Part 135.
- (e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.
- (f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- (g) With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

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#### 41. Interest of Members 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 that may arise therefrom.

#### 42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

No member, officer, or employee of the PHA, no member of the governing body of the locality in which the project is situated, no member of the governing body of the locality in which the PHA was activated, and no other public official of such locality or localities 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.

#### 43. Limitations on Payments made to Influence Certain Federal Financial Transactions

- (a) The Contractor agrees to comply with Section 1352 of Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

#### 44. Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringement. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

#### 45. Examination and Retention of Contractor's Records

- (a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this contract for the purpose of making audit, examination, excerpts, and transcriptions.
- (b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding \$10,000.
- (c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the Disputes clause of this contract, (2) litigation or settlement of claims arising from the performance of this contract, or (3) costs and expenses of this contract to which the PHA, HUD, or Comptroller General or any of their duly authorized representatives has taken exception shall continue until disposition of such appeals, litigation, claims, or exceptions.

#### 46. Labor Standards - Davis-Bacon and Related Acts

If the total amount of this contract exceeds \$2,000, the Federal labor standards set forth in the clause below shall apply to the development or construction work to be performed under the contract.

- (a) Minimum Wages.
  - (1) All laborers and mechanics employed under this contract in the development or construction of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall

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be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (2) (i) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (ii) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iii) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.
- (3) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the

amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (b) Withholding of funds. HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.
- (c) Payrolls and basic records.
- (1) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the project. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

- (2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1214-0149.)
- (ii) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;
- (B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and
- (C) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.
- (iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.
- (3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to

make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

- (d) (1) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (2) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under

the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (g) Compliance with Davis-Bacon and related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (h) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (i) Certification of eligibility.
  - (1) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

- (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - (3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.
- (j) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.
    - (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.
    - (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in subparagraph (j)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions set forth in subparagraph (j)(1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in subparagraph (j)(1) of this clause.
    - (3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in subparagraph (j)(2) of this clause.
  - (k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.



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#### 47. Non-Federal Prevailing Wage Rates

- (a) Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:
  - (1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
- (b) An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or
- (c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

#### 48. Procurement of Recovered Materials.

- (a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.
- (b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

## **5.0 Form of Bid Bond**

FORM OF

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we the undersigned,

\_\_\_\_\_  
(name of Principal)

as PRINCIPAL, and

\_\_\_\_\_, as SURETY

(name of Surety)

are held and firmly bound unto **Housing Authority of Clackamas County, Oregon** hereinafter called the "LHA" in the penal sum of \$ \_\_\_\_\_

\_\_\_\_\_ Dollars, lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assign, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying bid, dated \_\_\_\_\_, for

**MODERNIZATION OF 6606 HEMLOCK # 20008**

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein after the opening of the same, or if no period be specified, within sixty (60) days after the said opening, and shall within the period specified therefor, or if no period be specified within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the LHA in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bond within the time specified, if the Principal shall pay to LHA the difference between the amount specified in said bid and the amount for which the LHA may procure the required work or supplies or both, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_. The name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In presence of:

\_\_\_\_\_  
\_\_\_\_\_  
(Individual Principal)

\_\_\_\_\_  
\_\_\_\_\_  
(Business address)

\_\_\_\_\_  
\_\_\_\_\_  
(Individual Principal)

\_\_\_\_\_  
\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
\_\_\_\_\_  
(Corporate Principal)

Attest:  
\_\_\_\_\_  
\_\_\_\_\_  
(Business address)

By \_\_\_\_\_ Affix  
Corporate Seal

Attest:  
\_\_\_\_\_  
\_\_\_\_\_  
(Corporate Surety)

\_\_\_\_\_  
\_\_\_\_\_  
(Business Address)

By \_\_\_\_\_ Affix  
Corporate Seal

(POWER-OF-ATTORNEY FOR PERSON SIGNING FOR SURETY COMPANY MUST BE ATTACHED TO BOND)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ Secretary of the corporation named as Principal in the within bond; that \_\_\_\_\_, who signed the said bond on behalf of the Principal was then \_\_\_\_\_ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested to for and in behalf of said corporation by authority of this governing body.

\_\_\_\_\_  
(Corporate Seal)

## **6.0 Form of Performance Bond**

# PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT \_\_\_\_\_  
(Name of Contractor)

as Principal, hereinafter called Contractor, and, \_\_\_\_\_  
(Insert full name and address or legal title of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto:

THE HOUSING AUTHORITY OF CLACKAMAS COUNTY  
13930 S. Gain St.  
PO Box 1510  
Oregon City, OR 97045

as Obligee, hereinafter called Owner, in the amount of \_\_\_\_\_  
(here insert the full amount of the contract price)  
Dollars(\$ \_\_\_\_\_ ),

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated \_\_\_\_\_, 20\_\_\_\_, entered into a contract with Owner for

**MODERNIZATION OF 6606 HEMLOCK # 20008**

in accordance with Drawings and Specifications prepared by

THE HOUSING AUTHORITY OF CLACKAMAS COUNTY  
13930 S. Gain St.  
PO Box 1510  
Oregon City, OR 97045

Which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, this instrument is executed in **six (6)** counterparts, each one of which shall be deemed an **original**, this the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

PERFORMANCE BOND

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or addition to the terms of the Contract or to the work, or of any extension of time therefor.

Whenever Contractor shall be, and declared by Owner to be default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- 1) Complete the Contract in accordance with its terms and conditions,;or
- 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a

succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

Signed and sealed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Principal) (Seal)

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

\_\_\_\_\_  
(Surety) (Seal)

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

The attorney-in-fact who executes this bond in behalf of the surety company must attach a copy of his power-of-attorney as evidence of his authority.

## **7.0 Form of Payment Bond**



# LABOR AND MATERIAL PAYMENT BOND

KNOWN ALL MEN BY THESE PRESENTS: that \_\_\_\_\_  
(Name of Contractor)

as Principal, hereinafter called Principal, and, \_\_\_\_\_  
(Insert full name and address or legal title of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto

THE HOUSING AUTHORITY OF CLACKAMAS COUNTY  
13930 S. Gain St.  
PO Box 1510  
Oregon City, OR 97045

as Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the amount of \_\_\_\_\_  
(Here insert a sum equal to the full contract price)

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

for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated \_\_\_\_\_, 20\_\_\_\_, entered into a contract with Owner for

**MODERNIZATION OF 6606 HEMLOCK # 20008**

in accordance with Drawings and Specifications prepared by

THE HOUSING AUTHORITY OF CLACKAMAS COUNTY  
13930 S. Gain St.  
PO Box 1510  
Oregon City, OR 97045

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, this instrument is executed in **six (6)** counterparts, each one of which shall be deemed an **original**, this the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

**LABOR AND MATERIAL PAYMENT BOND**

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal of labor, material, or both, used or reasonably required for use in the performance of the Contract, or their assignee (labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract). A claimant also includes the Commissioner of the Bureau of Labor and Industries or any other person provided a right of action on the bond under ORS 279C.

2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an

office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

b) After the expiration of one (1) year following the date on which principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof, is situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

5. Surety hereby agrees that no extension of time, or alteration or addition to the terms of the contract or to the work to be performed thereunder, or to the specifications accompanying the same, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such extension of time, alteration or addition to the terms of the contract, or to the work, or to the specifications.

6. This bond is given and received under the authority of ORS Chapter 279C, the provisions of which hereby are incorporated into this bond and made a part hereof.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Principal) (Seal)

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

\_\_\_\_\_  
(Surety) (Seal)

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

The attorney-in-fact who executes this bond in behalf of the surety company, must attach a copy of his power-of-attorney as evidence of his authority.

## **8.0 Form of Contract**

**FORM OF CONTRACT**  
**PROJECT #20008**  
**Contract #cXXX-XX**

THIS AGREEMENT made this \_\_\_ day of \_\_\_\_\_ in the year 2020 by and between **(Contractor)**, a business entity authorized to do business in the State of Oregon, hereinafter called the "Contractor," and **the Housing Authority of Clackamas County** hereinafter call the "PHA."

WITNESSETH, that the Contractor and the PHA for the consideration stated herein mutually agreed as follows:

**ARTICLE 1. Statement of Work.** The Contractor shall furnish all labor, material, equipment and services, and perform and complete all work required for **MODERNIZATION OF 6606 HEMLOCK PROJECT**, a prevailing wage project, #20008, in strict accordance with the Scope of Work referred to herein, which said Scope of Work and any Addenda are incorporated herein by reference and made a part hereof.

**ARTICLE 2. The Contract Price.** The PHA shall pay the Contractor for the performance of the Contract, in current funds, subject to additions and deductions as provided in the Scope of Work, a sum not to exceed. (\$ \_\_\_\_\_).

**ARTICLE 3. Contract Dates.** The following critical dates are hereby set for the MODERNIZATION OF 6606 HEMLOCK. Time is of the essence.

- A. START DATE: January 4, 2021**
- B. SUBSTANTIAL COMPLETION DATE: N/A**
- C. FINAL COMPLETION DATE: May 4, 2021**

**ARTICLE 4. Contract Documents.** The Contract shall consist of the following component parts:

- a. This Agreement
- b. Bid Documents
- c. HUD General Conditions
- d. Addendum(s), if any
- e. Special Conditions
- f. Scope of Work

This instrument, together with the other documents enumerated in this Article 4, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, form the Contract. In the event that any provision in any component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in this Article 4 shall govern, except as otherwise specifically stated. The various provisions in Addenda shall be construed in the order of preference of the component part of the Contract which each modifies.

**ARTICLE 5.** Responsibility for Damages/Indemnity. Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under the Contract, or from any act, omission or neglect of the Contractor, its subcontractors, employees, guests, visitors, invitees and agents.

To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by PHA) and hold harmless the PHA and its elected officials, officers, directors, agents, and employees (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses, demands and actions of any nature whatsoever which arise out of, result from or are related to: (a) any damage, injury, loss, expense, inconvenience or delay described in this Article 5; (b) any accident or occurrence which happens or is alleged to have happened in or about the project site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects; (c) any failure of the Contractor to observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract; (d) the negligent acts or omissions of the Contractor, a subcontractor or anyone directly or indirectly employed by them or any one of 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 (except to the extent otherwise void under ORS 30.140); and (e) any lien filed upon the project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Article 5.

In claims against any person or entity indemnified under this Article 5 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 this Article 5 shall not be limited 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 6.** No person shall be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases, except in cases of contracts for personal services as described in ORS 279C.100, the employee shall be paid at least time and a half pay for (1) all overtime in excess of eight hours in any one day or 40 hours in any one week if the work week is five consecutive days, Monday through Friday or (2) all overtime in excess of 10 hours in any one day or 40 hours in any one week if the work week is four consecutive days, Monday through Friday; and all work the employee performs on Saturday and on any legal holiday specified in [ORS 279C.540](#). All subject employers working under this contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126. Contractor shall comply with the prohibition set forth in ORS 652.220, compliance of which is a material element of the Contract and a failure to comply is a breach entitling PHA to terminate the Contract for cause.

**ARTICLE 7.** Under the provisions of ORS 279C.515, if the Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or

a subcontractor by any person in connection with this contract as the claim becomes due, the proper officer representing the PHA may pay such claim to the person furnishing the labor or services and charge the amount of the payment against the funds due or to become due the Contractor by reason of the contract.

If the Contractor or a first-tier subcontractor fails, neglects or refuses to pay a person that provides labor or materials in connection with the public improvement contract within 30 days after receiving payment from the contracting agency or a contractor, the Contractor or first-tier subcontractor owes the person the amount due plus interest charges that begin at the end of the 10-day period within which payment is due under ORS 279C.580 (4) and that end upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived.

If the Contractor or a subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the public contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.

**ARTICLE 8.** The Contractor agrees to pay daily, weekly, weekend and holiday overtime as required by ORS 279C.520.

**ARTICLE 9.** The Contractor agrees that all employees/workers working on this project, whether employed by the Contractor or any subcontractor, shall be given written notice of the number of hours per day and days per week they may be required to work.

**ARTICLE 10.** The Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

**ARTICLE 11.** The Contractors agrees to pay no less than the applicable state or federal prevailing wage rate, whichever is higher per ORS 279C.830(1)(b).

**ARTICLE 12.** The Contractor agrees to have a performance bond and payment bond in place before starting any work on the project per ORS 279C.380. The Contractor agrees to have filed a public works bond with the Construction Contractors Board before starting any work on the project.

**ARTICLE 13.** The Contractor agrees that every subcontract shall include a provision requiring all subcontractors to have a public works bond filed with the Construction Contractors Board before starting any work on the project per ORS 279C.830.

**ARTICLE 14.** Contractor certifies that both it and any of its subcontractors are (1) Registered to conduct business in the state of Oregon; (2) are actively licensed with the Oregon Construction

Contractors Board; (3) are bonded and insured in amounts that meet or exceed the county's minimal requirements.

**ARTICLE 15. CONTRACTOR shall:**

- (1) Make payment promptly, as due, to all persons supplying to such contractor labor or material for the prosecution of the work provided for in such contract.
- (2) Pay all contributions or amounts due the State Industrial Accident Fund from such contractor or subcontractor incurred in the performance of the contract.
- (3) Not permit any lien or claim to be filed or prosecuted against the state, county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.
- (4) Pay to the Revenue Department all sums withheld from the employees pursuant to ORS 316.167.

**ARTICLE 16.** The Contractor shall include in each subcontract those provisions required under ORS 279C.580.

**ARTICLE 17.** For demolition tasks, if any, the Contractor shall salvage or recycle construction and demolition debris, if feasible and cost-effective.

**ARTICLE 18. Tax Laws.**

18.1 The Contractor represents and warrants that, for a period of no fewer than six calendar years preceding the effective date of this Agreement, has faithfully complied with:

- a. All tax laws of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318;
- b. Any tax provisions imposed by a political subdivision of this state that applied to Contractor, to Contractor's property, operations, receipts, or income, or to Contractor's performance of or compensation for any work performed by Contractor;
- c. Any tax provisions imposed by a political subdivision of this state that applied to Contractor, or to goods, services, or property, whether tangible or intangible, provided by Contractor; and
- d. Any rules, regulations, charter provisions, or ordinances that implemented or enforced any of the foregoing tax laws or provisions.

18.2 Contractor represents and warrants that, throughout the duration of this Agreement and any extensions, comply with all tax laws of this state and all applicable tax laws of any political subdivision of this state. Any violation of this section shall constitute a material breach of this Agreement. Further, any violation of Contractor's warranty in this Agreement that Contractor has complied with the tax laws of this state and the applicable tax laws of any political subdivision of this state also shall constitute a material breach of this Agreement. Any violation shall entitle PHA to terminate this Agreement, to pursue and recover any and all damages that arise from the breach and the termination of this Agreement, and to pursue any or all of the remedies available under this Agreement, at law, or in equity, including but not limited to:

- a. Termination of this agreement, in whole or in part;
- b. Exercise of the right of setoff, and withholding of amounts otherwise due and owing to Contractor, in an amount equal to PHA's setoff right, without penalty; and
- c. Initiation of an action or proceeding for damages, specific performance, declaratory or injunctive relief. PHA shall be entitled to recover any and all damages suffered as the result of PHA's breach of this Agreement, including but not limited to direct, indirect, incidental and consequential damages, costs of cure, and costs incurred in securing replacement performance.

These remedies are cumulative to the extent the remedies are not inconsistent, and PHA may pursue any remedy or remedies singly, collectively, successively, or in any order whatsoever.

**ARTICLE 19** Liquidated damages

The Contractor acknowledges that PHA will sustain damages as a result of the Contractor's failure to substantially complete the work authorized under this Contract and in accordance with the Contract Documents. These damages may include, but are not limited to delays in completion, use of the project, and costs associated with Contract administration and use of temporary facilities.

- 10.1 Liquidated Damages shall be as follows if the actual Final Completion exceeds the required date of Final Completion:
  - 10.1.1. \$500.00 per each Calendar day after the set Final Completion date.



**ARTICLE 20. Additional Terms**

- (1) **Execution and Counterparts.** This Contract may be executed in several counterparts, each of which shall be an original, all of which shall constitute one and the same instrument.
- (2) **Integration.** The Contract Documents constitute the entire agreement between the Parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.
- (3) **Governing Law.** This Contract shall be governed and construed in accordance with the laws of the State of Oregon without regard to principles of conflicts of law. Any claim, action, or suit between County and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon.
- (4) **Debt Limitation.** This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent.
- (5) **No attorney fees.** No attorney fees shall be paid for or awarded to either party in the course of any dispute, indemnification, or other recovery. It is the intent of the parties that each shall bear the costs of its own legal counsel.
- (6) **Severability.** If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.
- (7) **No Third Party Beneficiaries.** PHA and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.
- (8) **Waiver.** The failure of PHA to enforce any provision of this Contract shall not constitute a waiver by PHA of that or any other provision.
- (9) **Merger.** This Contract constitutes the entire agreement between the parties with respect to the subject matter referenced therein. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Contract. No amendment, consent, or waiver of terms of this Contract shall bind either party unless in writing and signed by all parties. Any such amendment, consent, or waiver shall be effective only in the specific instance and for the specific purpose given. Contractor, by the signature hereto of its authorized representative, is an independent contractor, acknowledges having read and understood this contract, and contractor agrees to be bound by its terms and conditions.
- (10) **Responsibility for Taxes.** Contractor is solely responsible for payment of any federal, state, or local taxes required as a result of the Agreement or the Work including, but not limited, to payment of the corporate activity tax imposed under enrolled HB 3427 (2019 Oregon regular legislative session).

IN WITNESS WHEREOF, the parties hereto have caused this Instrument to be executed in **three** original counterparts as of the day and year first above written.

\_\_\_\_\_  
(Contractor)

\_\_\_\_\_  
(Authorized Representative's Signature / Date)

\_\_\_\_\_  
(Authorized Representative's Name / Title - Print or Type)

\_\_\_\_\_  
(Federal I.D. Number)

\_\_\_\_\_  
(Business Address - Street, City, State, Zip)

\_\_\_\_\_  
(State of Oregon CCB License Number)

**HOUSING AUTHORITY OF  
CLACKAMAS COUNTY BOARD**

Commissioner Jim Bernard, Chair  
Commissioner Sonya Fischer  
Commissioner Ken Humberston  
Commissioner Paul Savas  
Commissioner Martha Schrader  
Resident Commissioner Ann Leenstra

Signing on Behalf of the Housing Authority Board

\_\_\_\_\_  
Richard Swift, Director  
Health, Housing & Human Services Department

**HOUSING AUTHORITY OF CLACKAMAS  
COUNTY**

**CERTIFICATION**

I \_\_\_\_\_  
certify that I am the \_\_\_\_\_  
at the corporation named as Contractor herein, that \_\_\_\_\_  
who signed this Contract on behalf of the Contractor, was then \_\_\_\_\_  
of said corporation; that said Contract was duly signed for and in behalf of said corporation by  
authority of its governing body, and is within the scope of its corporate powers.

\_\_\_\_\_

\_\_\_\_\_  
(Authorized Representative's Signature / Date)

\_\_\_\_\_  
(Authorized Representative's Name / Title - Print or Type)

(Print or type the names underneath all signatures)

## **9.0 Non-Collusive Affidavit**

NON-COLLUSIVE AFFIDAVIT

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, being first duly sworn,  
deposes and says:

That he/she is \_\_\_\_\_

\_\_\_\_\_  
(individual, partner, or officer of the firm of etc.)

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

\_\_\_\_\_  
By \_\_\_\_\_

Title \_\_\_\_\_

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

\_\_\_\_\_  
My commission expires \_\_\_\_\_, 20 \_\_\_\_\_

## **10.0 Special Conditions and Wage Determination**

**PROJECT #20008 – SPECIAL CONDITIONS**

**1.1 COMMUNICATIONS**

- A. All bids, notices, demands, requests, instructions, approvals, proposals, and claims must be in writing. Oral explanations or instructions will not be binding. Only written addenda are binding. Any addenda resulting from these requests will be mailed to all listed holders of the Bid Document no later than four (4) days prior to the bid opening. The Bidder shall acknowledge the receipt of all addenda.
- B. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Contract or at such other office as Contractor may from time to time designate in writing to the Housing Authority of Clackamas County (PHA) or deposited in the United States mail in a sealed, postage-prepaid envelope, or if delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.
- C. All papers required to be delivered to the PHA shall, unless otherwise specified in writing to the Contractor, be delivered to the Housing Authority of Clackamas County, P.O. Box 1510, Oregon City, Oregon 97045 and any notice to or demand upon the PHA shall be sufficiently given if so delivered, or deposited in the United States mail in a sealed, postage prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission to said Capital Improvement Coordinator at such address, or to such other representative of the PHA or to such other address as the PHA may subsequently specify in writing to the Contractor for such purpose.
- D. Any such notice shall be deemed to have been given as of the time of actual delivery; or, in the case of mailing, when the same should have been received in due course of post; or, in the case of telegrams, at the time of actual receipt.

**1.2 REQUIRED CERTIFICATIONS**

- A. All contractors/subcontractors working on this project shall be licensed per ORS 468A.720.
- B. No bid for a construction contract shall be received or considered by the PHA unless the bidder is licensed by the Construction Contractors Board or licensed by the State Landscape Contractors Board as required by ORS 671.530.
- C. Copies of all certifications above are to be included with bid. Failure to submit the above required information could render the bid Non-Responsive.

**1.3 INDEMNIFICATION / INSURANCE REQUIREMENTS (In addition to the requirements found in the General Conditions)**

- A. Contractor shall procure and maintain 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, its agents, representatives, employees or subcontractors. With respect to General Liability and Pollution, Environmental Impairment and Lead Pollution Liability, coverage shall be maintained for a minimum of five (5) years after contract completion.

**B. Minimum Scope of Insurance**

Coverage shall be at least as broad as:

1. Insurance Services Office (ISO) Commercial General Liability coverage (occurrence Forms CG 20 10 & CG 20 37 or Form CG 32 61 10 05 or Form CG 85 22 07 04).
2. ISO Form No. CA 00 01 06 92, covering Automobile Liability, Code 1 (any auto).
3. Worker's Compensation insurance as required by State law and Employer's Liability insurance.

**C. Minimum Limits of Insurance**

Contractor shall maintain limits no less than:

1. General Liability: \$1,000,000 per occurrence 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 and property damage.
3. Employer's Liability (Workers Compensation): \$1,000,000 each accident, \$1,000,000 policy limit bodily injury by disease, \$1,000,000 each employee bodily injury by disease.

**D. Deductible and Self Insured Retentions:**

Any deductibles or self-insured retentions must be declared to and approved by the Housing Authority of Clackamas County (PHA). If possible, the Insurer shall reduce or eliminate such deductibles or self insured retentions as respects PHA, its officers, officials, employees and volunteers; or the Contractor shall provide evidence satisfactory to the Authority guaranteeing payment of losses and related investigations, claim administration and defense expenses.

**E. Other Insurance Provisions:**

1. The general liability and automobile liability are to contain, or be endorsed to contain, the following provisions:
  - a. The Housing Authority of Clackamas County (PHA), its officers, officials, employees and volunteers are to be covered as additional insureds in regard to the general liability coverage. Coverage is primary and non contributory and completed operations. With respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operation. General Liability coverage can be provided in the form of an endorsement to the Contractor's insurance, or as a separate owner's policy.
  - b. Insurance Services Office (ISO) Properties Inc. Commercial General Liability endorsement Forms **CG 20 10 and CG 20 37 or Form CG 32 61 10 05 or Form CG 85 22 07 04** titled "Additional Insured – Owners, Lessees or Contractors – Completed Operations" are required or their equivalent for maximum coverage. These two endorsements **must be submitted with each certificate of insurance submitted.**
  - c. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects PHA, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by PHA, its officers, officials, employees, agents or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
  - d. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled or materially changed, except after sixty (60) days prior written notice by certified mail, return receipt request, has been given to PHA.
  - e. 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.
  - f. Course of construction policies shall contain the following provisions:

- 1) PHA shall be named as loss payee.
  - 2) The insurer shall waive all rights of subrogation against the Authority, its officers, officials, employees and volunteers.
- F. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than B+: VI.
- G. Verification of Coverage: Contractor shall furnish PHA with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsement should be on forms provided by PHA or on other than PHA's forms, provided those endorsements conform fully to the requirements. All endorsements are to be received and approved by PHA before work commences in sufficient time to permit contractor to remedy any deficiencies. PHA reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.
- H. Subcontractors: Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor in a manner and in such time as to permit PHA to approve them before subcontractors' work begins. All coverages for subcontractors shall be subject to all of the requirements stated herein.

#### 1.4 **MINIMUM RATES OF PAY**

- A. Workers on this project shall be paid not less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and ORS 279C.840.
- B. A schedule of the minimum rates of pay applicable to this contract is attached, Wage Decision No. OR200012 , Modification 02 , dated 9/25/20.
- C. Additional Wage Classifications: Should additional wage classifications be necessary the Contractor should prepare and submit a request for additional classifications to PHA. PHA will prepare the request for additional classifications only after the contract has been executed.
- D. The Contractor agrees to pay no less than the applicable state or federal prevailing wage rate, whichever is higher per ORS 279C.830(1)(b).

#### 1.5 **RECORDKEEPING REQUIREMENTS**

- A. PHAs, tribes, TDHEs, and any other employers (e.g., contractors, subcontractors) engaged on work subject to HUD-determined wage rates must make and maintain for 3 years from the completion of the work records containing information demonstrating compliance with the prevailing wage rates determined (or adopted) by HUD and applicable to the work. 3 These records must at a minimum contain for each laborer and mechanic employed:

- 1) His or her name, address and social security number;
- 2) Correct work classification or classifications;
- 3) Hourly rate or rates of monetary wages paid;
- 4) Rate or rates of any fringe benefits provided;
- 5) Number of daily and weekly hours worked;
- 6) Gross wages earned;
- 7) Any deductions taken; and
- 8) Actual wages paid.

Such records shall be made available for inspection or transcription by authorized representatives of the PHA, tribe, TDHE and/or HUD.

#### 1.6 **PAYROLL DEDUCTIONS AND FREQUENCY OF WAGE PAYMENTS**

- A. Employers (PHAs, tribes, TDHEs, contractors and/or subcontractors) must pay to each employee subject to HUD-determined wage requirements the full amount of wages due free and clear and



without subsequent deduction (except as otherwise provided by law or regulations). These payments must be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period may not be of any duration longer than semi-monthly.

**1.7 SUBCONTRACTOR DISCLOSURE**

- A. Within two working hours after the date and time of the deadline when the bids are due to the PHA a bidder shall submit to the PHA a disclosure of the first-tier subcontractors, on the form provided, that:
  - (1) will be furnishing labor or will be furnishing labor and materials in connection with the public improvement; and
  - (2) will have a contract value that is equal to or greater than five percent of the total project bid or \$15,000, which ever is greater, or \$350,000 regardless of the percentage of the total project bid.
  
- B. The disclosure of first-tier subcontractors shall include:
  - (1) The name of each subcontractor; and
  - (2) The category of work that each subcontractor will be performing, and
  - (3) The dollar value of each subcontract
  
- C. The PHA shall consider the bid of any contractor that does not submit a subcontractor disclosure (the form MUST submitted even if there are to be no subcontractors and the word “NONE” entered on the first line of the First-Tier Subcontractor Disclosure Form) to the PHA to be a nonresponsive bid and may not award the contract to the contractor. A PHA is not required to determine the accuracy or the completeness of the subcontractor disclosure. (ORS 279 contracts over \$100,000)

**1.8 REGULATIONS AND COMPLIANCE**

- A. If this solicitation is for public work subject to ORS 279C.800 to 279C.870 or the Davis-Bacon Act (40 U.S.C. 276a), no bid will be received or considered by PHA unless the bid contains a statement by the bidder as a part of its bid that the provisions of ORS 279.350 or 40 U.S.C. 276a are to be complied with.
- B. The Contractor agrees to have a public works bond filed with the Construction Contractors Board before starting any work on the project per ORS 279C.836.
- C. The Contractor agrees that every subcontract shall include a provision requiring all subcontractors to have a public works bond filed with the Construction Contractors Board before starting any work on the project.

**1.9 LIENS**

- A. The contractor is prohibited from placing a lien on PHA’s property. This prohibition shall apply to all subcontractors.

## 2.0 CONTRACTORS BIDDING REQUIREMENTS

### 1. Submission Requirements:

- a. To be considered responsive and responsible, each contractor shall respond to the following requirements. Responses must be specific and complete unto themselves. Any submittal that, in the opinion of HACC, does not fully and completely address these requirements will not be reviewed and bid may be considered non-responsive.

### 2. Minimum Requirements:

- a. To be qualified to respond, contractors must not be debarred, suspended, or otherwise ineligible to contract with HACC, and must **not** be included on the General Services Administration's "List of Parties Excluded From Federal Procurement and Non-Procurement Programs" or the Department of Housing and Urban Development's "Limited Denial of Participation" list. In addition, contractors must have current and active registration in the State of Oregon Business Registry.

### 3. Similar Project Experience:

- a. Describe your firm's relevant experience within the areas under the Scope of Work. Please describe your firm's experience as it relates to rehabilitation/modernization projects.
- b. Please describe your firm's specific experience working with Housing Authorities and/or Public Agencies. Describe in detail two public housing projects that your firm is currently working on and/or has completed in the last five years. Describe the scope of work and dollar value for each project.
- c. Please describe your firm's approach to managing multiple project work sites at any one time, and the firm's capacity to address competing project timelines.

### 4. References:

- a. Provide (3) references, previous and/or current, including the name and title of the contact person, their mailing address, email address, phone number and fax number. If available, please provide one reference from a public housing authority or other public agency.

### 5. Firm Description:

- a. Provide the firms history, organization and size including number of staff in each work area.
- b. Describe the overall staffing approach to be used in connection with this contract. Provide information regarding staff experience and qualifications that demonstrates the contractor's capacity to perform the required services.
- c. Provide the identity of the Project Manager that will be monitoring managing this project.
- d. Provide the firms history to complete projects on time by maintaining a weekly progress schedule and completing on budget.

### 6. Method of Award:

- a. HACC will evaluate all bids and award a contract based on contract price and contractors ability to perform said work. The information listed above will be part of the bid evaluation and shall be part of the contractors bid. Price will not be the main factor in awarding the contract. Failure to provide the information above may render contractors bid non-responsive.
- b. HACC reserves the right to reject any and all bids of any contractor including those who have previously failed to perform properly, or to complete on time, contracts of a similar nature; who is not in a position to perform the contract, or who has neglected the payment of bills or otherwise disregarded their obligations to subcontractors, material suppliers, or employees.

"General Decision Number: OR20200012 09/25/2020

Superseded General Decision Number: OR20190012

State: Oregon

Construction Type: Residential

County: Clackamas County in Oregon.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	03/06/2020
2	09/25/2020

BROR0001-011 06/01/2018

	Rates	Fringes
BRICKLAYER.....	\$ 27.17	10.04
TILE FINISHER.....	\$ 18.15	9.76
TILE SETTER.....	\$ 33.00	18.33

\* CARP0001-022 07/01/2020

	Rates	Fringes
CARPENTER (INCLUDING ACCOUSTICAL CEILING INSTALLATION AND METAL STUD INSTALLATION)		
Multi Unit.....	\$ 30.74	12.58
Single Unit.....	\$ 28.30	12.58

ELEC0048-016 01/01/2020

	Rates	Fringes
ELECTRICIAN.....	\$ 30.62	15.21
-----		
ENGI0701-019 01/01/2020		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 45.90	15.35
GROUP 1A.....	\$ 48.06	15.35
GROUP 1B.....	\$ 50.22	15.35
GROUP 2.....	\$ 43.99	15.35
GROUP 3.....	\$ 42.84	15.35
GROUP 4.....	\$ 41.01	15.35
GROUP 5.....	\$ 39.77	15.35
GROUP 6.....	\$ 36.55	15.35

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: CRANE: Helicopter Operator, when used in erecting work; Whirley Operator, 90 ton and over; LATTICE BOOM CRANE: Operator 200 tons through 299 tons, and/or over 200 feet boom; HYDRAULIC CRANE: Hydraulic Crane Operator 90 tons through 199 tons with luffing or tower attachments

GROUP 1A: HYDRAULIC CRANE: Hydraulic Operator, 200 tons and over (with luffing or tower attachment); LATTICE BOOM CRANE: Operator, 200 tons through 299 tons, with over 200 feet boom;

GROUP 1B: LATTICE BOOM CRANE: Operator, 300 tons through 399 tons with over 200 feet boom; Operator 400 tons and over

GROUP 2: CRANE: Cableway Operator, 25 tons and over; HYDRAULIC CRANE: Hydraulic crane operator 90 tons through 199 tons (without luffing or tower attachment); TOWER/WHIRLEY OPERATOR: Tower Crane Operator; Whirley Operator, under 90 tons; LATTICE BOOM CRANE: 90 through 199 tons and/or 150 to 200 feet boom; EXCAVATOR: Excavator over 130,000 lbs.; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (with luffing or tower attachment); BLADE: Auto Grader;Blade Operator-Robotic; Rubber tired scraper with tandom scrapers, multi-engine

GROUP 3: HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (without luffing or tower attachment); LATTICE BOOM CRANES: Lattice Boom Crane-50 through 89 tons (and less than 150 feet boom); EXCAVATOR: excavator over 80,000 lbs. through 130,000 lbs.; Rubber Tired Scraper: with tandom scrapers; self loading, paddle wheel, auger type, finish and/or 2 or more units.

GROUP 4: CRANE: Hydraulic Crane Operator, under 50 tons; LATTICE BOOM CRANE OPERATOR: Lattice Boom Crane Operator, under 50 tons; TRACKHOE/ EXCAVATOR-ROBOTIC: up to and including 20,000 lbs. with any or all attachments; Excavator Operator over 20,000 lbs through 80,000 lbs.; BLADE: Blade operator; Tractor operator with boom attachment; DRILLING: Churm Drill and Earth Boring Machine Operator; Directional Drill Operator over 20,000 lbs pullback; CRANE: Chicago boom and similar types; Boom type lifting device, 5 ton capacity or less; HYDRAULIC HOES EXCAVATOR: Robotic Hydraulic backhoe operator, track and

wheel type up to and including 20,000 lbs. with any or all attachments; Asphalt Paver; Screed Operator; Rubber-Tired Scraper, single engine, single scraper.

GROUP 5: TRACKHOE/EXCAVATORS-HYDRAULIC: up to and including 20,000 lbs.; Boom truck operator; DRILLING: Churm Drill and Earth Boring Machine Operator; Directional Drill Operator less than 20,000 lbs pullback; HYDRAULIC HOES EXCAVATORS: Hydraulic Backhoe Operator, wheel type (Ford, John Deere, Case type); Hydraulic Backhoe Operator track type up to and including 20,000 lbs.; Concrete Pumper; Concrete Paver

GROUP 6: LOADERS: (less than 1 cu yd.); Roller (Non-Asphalt); Oiler

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens ""Blast Zone"" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

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LAB00737-011 06/01/2019

Rates Fringes

Laborers:

GROUP 1.....	\$ 30.82	14.57
GROUP 2.....	\$ 31.97	14.57
GROUP 3.....	\$ 26.72	14.57

LABORER CLASSIFICATIONS:

GROUP 1: Common or General Laborer

GROUP 2: Asphalt Raker; Grade Checker; Pipelayers

GROUP 3: Traffic Flaggers

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PAIN0055-004 07/01/2009

	Rates	Fringes
PAINTER		
BRUSH, ROLLER AND SPRAY.....	\$ 19.59	7.24

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PAIN0055-005 07/01/2019

	Rates	Fringes
HIGHWAY/PARKING LOT STRIPING:		
Painter.....	\$ 35.45	12.56

-----  
PLAS0555-003 07/01/2019

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 35.85	18.77

-----  
PLUM0290-007 04/01/2017

	Rates	Fringes
PLUMBER		
INCLUDING HVAC PIPE		
INSTALLATION.....	\$ 30.67	27.03

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SUOR2009-010 10/16/2009

	Rates	Fringes
CARPENTER (Drywall Hanging Only).....	\$ 19.31	2.30
CARPENTER (Form Work Only).....	\$ 19.50	4.95
FENCE ERECTOR (Chain Link/Cyclone Fence).....	\$ 16.30	2.22
LABORER: Mason Tender - Brick...	\$ 20.60	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 22.18	7.40
PLASTERER.....	\$ 19.91	0.00
ROOFER.....	\$ 12.00	0.00
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 25.67	0.00

TRUCK DRIVER: Dump Truck.....\$ 16.91 0.00

TRUCK DRIVER: Water Truck.....\$ 17.00 5.95

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

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

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

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

this classification and rate.

#### Survey Rate Identifiers

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

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

#### Union Average Rate Identifiers

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

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

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#### WAGE DETERMINATION APPEALS PROCESS

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

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

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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



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

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

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

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

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

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

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

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END OF GENERAL DECISION"

**11.0 Certification Form – Economic Opportunities for Low and Very Low Income Persons (Section 3)**

## SECTION 3 CLAUSE

1. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). 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, particularly persons who are recipients of HUD assistance for housing.
2. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. 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 part 135 regulations.
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.
4. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, 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 regulations in 24 CFR part 135. 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 regulations in 24 CFR part 135.
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 person other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.
6. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
7. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

HUD Section 3 Requirements (General Conditions, 15.18)

The successful Bidder will be required to comply with the provisions of section 3 of Housing and Urban Development Act of 1968 as amended (herein referred to as section 3 requirements). Such provisions require that economic opportunities generated by HUD financial assistance shall, to the greatest extent feasible, be given to low income residents of the metropolitan area in which the project is located and to businesses that provide economic opportunities for these persons.

**Contracts exceeding \$1.00 are considered “section 3 covered contracts” and are thus subject to the provisions contained in 24 CFR part 135. Bids exceeding \$1.00 must include an indication of whether or not the firm submitting the bid is a “section 3 business concern.”**

A section 3 business concern is defined by HUD regulations as a business concern:

- A. That is 51 percent or more owned by section 3 resident; or
- B. Whose permanent, full-time employees include persons, at least 30 percent of whom are currently section 3 residents or, within three years of the date of first employment with the business concern, were section 3 residents; or
- C. That provides evidence of a commitment to subcontract in excess of 25 percent of the dollar award of all subcontracts to be awarded to business concerns that meet the qualifications set forth in paragraphs (1) or (2) above.

A section 3 resident means:

- A. A public housing resident; or
- B. An individual who resides in the metropolitan area in which the section 3 covered assistance is expended, and who is a low-income person or a very low-income person. For purposes of this project residents of the Portland/Vancouver metropolitan area who are members of families meeting the following income limits are considered low or very low income persons.

HUD Annual Income Limits for the Portland-Vancouver Metropolitan Area								
	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Very Low Income	\$14,950	\$17,100	\$19,200	\$21,350	\$23,050	\$24,750	\$26,450	\$28,200
Low Income	\$23,950	\$27,350	\$30,750	\$34,150	\$36,900	\$39,600	\$42,350	\$45,150

**SECTION 3 REPORT**

Economic Opportunities for Low Income Persons

Housing Authority

Clackamas County, Oregon

Project Title: MODERNIZATION OF 6606 HEMLOCK

Project Number: #20008

**Part I: Contract/Contractor Information**  Prime Contractor  Subcontractor

**MODERNIZATION OF 6606 HEMLOCK – PROJECT #20008**  
**HOUSING AUTHORITY OF CLACKAMAS COUNTY**  
P.O BOX 1510, 13900 S. GAIN STREET, OREGON CITY, OR 97045

1. Contractor:	2. Racial/Ethnic Code:
3. Contact Person:	4. Section 3 Business Concern: <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Contract Amount: \$	6. Reporting Period:

**Part II: Employment and Training Activity**

A Total New Hires	B % of New Hires that are Section 3 Residents	C % of Total Staff Hours for Section 3 Employees and Trainees	D Number of Section 3 Employees and Trainees	E Racial/Ethnic Code(s) show Numbers for Column D				
				1	2	3	4	5

Racial/Ethnic Codes:  
1=White American 2=Black American 3=Native American 4=Hispanic American 5=Asian Pacific American  
6=Hasidic Jews (for ownership of contractor or subcontractor firms only)

**Part III: Subcontract Activity** (for subcontracts over \$1.00)

Subcontractor	Subcontract Amount

**Instructions for completing Section 3 Report:**

**Part I**

**MODERNIZATION OF 6606 HEMLOCK – PROJECT #20008**  
**HOUSING AUTHORITY OF CLACKAMAS COUNTY**  
P.O BOX 1510, 13900 S. GAIN STREET, OREGON CITY, OR 97045

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The Section 3 Report is required to be submitted by prime contractors for contracts over \$1.00 and by subcontractors for subcontracts over \$1.00. Check the appropriate box to indicate whether this report applies to prime contractor or subcontractor covered by Section 3 requirements.

1. Enter then name of the contractor (or covered subcontractor) here.
2. Enter the Racial/Ethnic Code which best applies to the contracting (or covered subcontracting) firm.
3. Enter the name of a contact person for the firm who is most familiar with information reported on this form.
4. Check whether or not the firm is a Section 3 business concern. See Instructions to Bidders for Section 3 business concern definition.
5. Enter the dollar amount of the contract (or covered subcontract.)
6. Indicate the time period covered by this report.

**Part II**

- A. Identify job categories for each trade in which new hires were employed in connection with this contract (or covered subcontract). For construction positions, list new hires identified in separate rows by trade. If applicable, report on hiring of any professionals (defined as supervisors and people who have special knowledge of an occupation such as architects, surveyors, planners and computer programmers) as additional job categories.
- B. Enter the percentage represented by Section 3 residents of all new hires that occurred in connection with this contract (or covered subcontract). New Hires include permanent, temporary and seasonal full-time positions.
- C. Enter the percentage of the total staff hours worked for Section 3 employees and trainees (including new hires) in connection with this contract (or covered subcontract). Include staff hours for part-time and full-time positions.
- D. Enter the number of Section 3 residents that were hired and trained in connection with this contract (or covered subcontract).
- E. Enter under each racial/ethnic code (1-5) the number of employees and trainees recorded in column D.

**Part III**

Enter the name of the subcontractor for all subcontracts over \$1.00 entered into by the firm identified in Part 1 in connection with the project. Indicate the dollar amount of all such subcontracts.

**CERTIFICATION: ECONOMIC OPPORTUNITIES FOR LOW AND VERY LOW INCOME PERSONS - SECTION 3 OF HUD ACT**

Contractor Name: \_\_\_\_\_  
Contractor Address: \_\_\_\_\_  
Contractor Phone: \_\_\_\_\_

Having familiarized myself with the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3), I certify:

1. That the Contractor named above is [ ], is not [ ], a Section 3 Business as defined by Section 3 of the Housing and Urban Development act of 1968, as amended, 12 U.S.C.1701u (section 3).
2. That the Contractor named above is [ ], is not [ ] a Category 1 business (51% or more owned by residents of the housing development or developments for which the section 3 covered assistance is expended, or whose full time, permanent workforce includes 30% of such residents as employees).
3. That the Contractor named above is [ ], is not [ ] a Category 2 business (51% or more owned by residents of other housing developments or developments managed by the housing authority that is expending the section 3 covered funding, or whose full-time, permanent workforce includes 30% of such residents as employees).
4. That the Contractor named above is [ ], is not [ ] a Category 3 business (HUD Youth build programs being carried out in the metropolitan area, or non-metropolitan county, in which the section 3 covered funding is expended).
5. That the Contractor named above is [ ], is not [ ] a Category 4 business (51% or more owned by section 3 residents, or whose full-time, permanent workforce includes no less than 30% section 3 residents; or that subcontract in excess of 25% of the total amount of subcontracts to category 1 or 2 businesses.
6. The Contractor will certify [ ], will not [ ] 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 the regulations of 24CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24CFR part 135.

I \_\_\_\_\_, certify that I am the \_\_\_\_\_ (corporate title) at the corporation (company) known as \_\_\_\_\_ that I have the authority to sign on the behalf of the corporation and that the statements made above are true.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed or typed name)

\_\_\_\_\_ Notary

**COMPLETE AND RETURN THIS PAGE WITH YOUR BID.**

## **12.0 Bid Form**



**BID FORM**

BIDDER \_\_\_\_\_

ADDRESS \_\_\_\_\_

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

**BID FOR: MODERNIZATION OF 6606 HEMLOCK - PROJECT # 20008**

THE HOUSING AUTHORITY OF CLACKAMAS COUNTY  
P.O. Box 1510  
13900 S. Gain Street  
Oregon City OR 97045

TO: Contracting Officer:

1. The undersigned, having familiarized (himself/herself/themselves) with the local conditions affecting the cost of the work, and with the Specifications (including the Invitation for Bids, Instruction to Bidders (form HUD-5369), this bid, the Form of Non-collusive Affidavit, the Form of Contract, and the General Conditions (form HUD-5370), the Special Conditions, the Scope of Work, the Technical Specifications, and Addenda if any thereto, as prepared by the Housing Authority of Clackamas County (HACC) and on file in the office of HACC hereby proposes to furnish all labor, materials, equipment, and services required to complete: **MODERNIZATION OF 6606 HEMLOCK PROECT #20008** all in accordance therewith, for the total sum of (\$ \_\_\_\_\_) dollars. (Total from paragraph 9 below)
2. In submitting this bid, it is understood that the right is reserved by the Housing Authority of Clackamas County, Oregon City, Oregon, to reject any and all bids. If written notice of the acceptance of this bid is mailed, telegraphed, or delivered the undersigned within sixty (60) 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 ten (10) days after the contract is presented to Contractor for signature.
3. Security in the sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_) in the form of \_\_\_\_\_ is submitted herewith in accordance with the Specifications.
4. Attached hereto is an affidavit in proof that the undersigned has not entered into any collusion with any person in respect to their proposal or any other proposal or the submitting of proposals for the contract for which this proposal is submitted.
5. The bidder represents that bidder has [ ] has not [ ] participated in a previous contract or subcontract subject to the equal opportunity clause prescribed by Executive Orders 10925, 11114 or 11246 or the Secretary of Labor; that bidder has [ ] has not [ ] filed all required compliance reports, and that representations indicating submission of required

**MODERNIZATION OF 6606 HEMLOCK – PROJECT #20008**  
**HOUSING AUTHORITY OF CLACKAMAS COUNTY**  
P.O BOX 1510, 13900 S. GAIN STREET, OREGON CITY, OR 97045

compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards. (The above representation need not be submitted in connection with contracts or subcontracts which are exempt from the clause.)

6. The bidder represents and agrees [ ] does not agree [ ] as part of this bid that the provisions of ORS 279C.800 to 279C.840 or 40 U.S.C. 276a are to be complied with. (The above representation need not be submitted in connection with contracts or subcontracts which are exempt from the clause.)
7. The bidder represents that the bidder is [ ] a “Resident Bidder” as defined in ORS279A.120.
8. Change Orders to the subsequent contract will be approved for labor rates as shown on the attached wage determination or actual wages (as verified by certified payrolls) whichever is greater and materials at contractors cost. All Change Orders will include a maximum addition of 15% for the total Overhead and Profit.
9. The contractor shall complete the following cost breakdown and insert the “Total Bid Amount” for all work in paragraph 1 above:

Lot #	Unit #	Address	Type Work	Bid Amount
1	7004	6606 SE Hemlock Street, Milwaukie, OR	Dwelling	\$
2	7004	6606 SE Hemlock Street, Milwaukie, OR	Sitework	\$
		<b>Total Bid Amount (Enter this amount at paragraph 1 above)</b>		\$

**HACC reserves the right to select any or all of the lots listed above.**

10. Contractor to complete the following:

Unit Prices – **Complete All**

- A. Painting @ \$ \_\_\_\_\_ /sq ft
- B. Drywall install, tape, mud, finish @ \$ \_\_\_\_\_ /sq ft
- C. Remove/replace damaged plywood siding @ \$ \_\_\_\_\_ /sq ft
- D. Remove and replace dry rot damaged 2x studs, plates, joists @ \$ \_\_\_\_\_ /lin.ft
- E. F. Remove and replace 1/2” damaged roof sheathing \$ \_\_\_\_\_ /sq ft.  
This is the same amount to be credited back to HACC if unused.

Addendum #1 \_\_\_\_ Addendum #2 \_\_\_\_ Addendum #3 \_\_\_\_ Addendum #4 \_\_\_\_  
Addendum #5 \_\_\_\_ Addendum # 6 \_\_\_\_ Addendum # 7 \_\_\_\_ Addendum #8 \_\_\_\_

## **CONTRACTOR BIDDING REQUIREMENTS**

### **1. Submission Requirements:**

- a. To be considered responsive and responsible, each contractor shall respond to the following requirements. Responses must be specific and complete unto themselves. Any submittal that, in the opinion of HACC, does not fully and completely address these requirements will not be reviewed and bid may be considered non-responsive.

### **2. Minimum Requirements:**

- a. To be qualified to respond, contractors must not be debarred, suspended, or otherwise ineligible to contract with HACC, and must **not** be included on the General Services Administration’s “List of Parties Excluded From Federal Procurement and Non-Procurement Programs” or the Department of Housing and Urban Development’s “Limited Denial of Participation” list. In addition, contractors must have current and active registration in the State of Oregon Business Registry.

### **3. Similar Project Experience:**

- a. Describe your firm’s relevant experience within the areas under the Scope of Work. Please describe your firm’s experience as it relates to rehabilitation/modernization projects.
- b. Please describe your firm’s specific experience working with Housing Authorities and/or Public Agencies. Describe in detail two public housing projects that your firm is currently working on and/or has completed in the last five years. Describe the scope of work and dollar value for each project.
- c. Please describe your firm’s approach to managing multiple project work sites at any one time, and the firm’s capacity to address competing project timelines.

### **4. References:**

- a. Provide (3) references, previous and/or current, including the name and title of the contact person, their mailing address, email address, phone number and fax number. If available, please provide one reference from a public housing authority or other public agency.

### **5. Firm Description:**

- a. Provide the firms history, organization and size including number of staff in each work area.
- b. Describe the overall staffing approach to be used in connection with this contract. Provide information regarding staff experience and qualifications that demonstrates the contractor’s capacity to perform the required services.
- c. Provide the identity of the Project Manager that will be monitoring managing this project.
- d. Provide the firms history to complete projects on time by maintaining a weekly progress schedule and completing on budget.

### **6. Method of Award:**

- a. HACC will evaluate all bids and award a contract based on contract price and contractors ability to perform said work. The information listed above will be part of the bid evaluation and shall be part of the contractors bid. Price will not be the main factor in awarding the contract. Failure to provide the information above may render contractors bid non-responsive.
- b. HACC reserves the right to reject any and all bids of any contractor including those who have previously failed to perform properly, or to complete on time, contracts of a similar nature; who is not in a position to perform the contract, or who has neglected the payment of bills or otherwise disregarded their obligations to subcontractors, material suppliers, or employees.

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NOTE: The penalty for making false statements is prescribed in 19 U.S.C. 1001.

Date:

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(Name of Bidder)

Official Address:

---

(By: Signature of Bidder)

---

(Title of Bidder)

---

Attest:

---

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**THE FOLLOWING SIGNED ORIGINAL DOCUMENTS SHALL BE SUBMITTED TO  
THE ADDRESS INDICATED ON THE INVITATION TO BID AS PART OF  
YOUR BID. THESE ORIGINALS SHALL BE RECEIVED BY HACC PRIOR  
TO THE POSTED CLOSING DATE AND TIME**

1. Completed form HUD-5369-A - Representations, Certifications and Other Statements of Bidders
2. Completed Bid Bond
3. Completed Non-Collusive Affidavit
4. Completed Certification: Economic Opportunities for Low and Very-low Income Persons (Section 3)
5. Completed Disclosure of First Tier Subcontractors (if any) – PRIOR TO 4PM
6. Completed and signed Bid Form.
7. Contractor Bidding Requirements
8. Copy of Current CCB License.

**FAILURE TO SUBMIT ALL OF THE ABOVE, BY THE DATE AND TIME REQUIRED, MAY  
RENDER YOUR BID NON-RESPONSIVE.**

## **13.0 Disclosure of First Tier Subcontractors**

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**

PROJECT NAME: MODERNIZATION OF 6606 HEMLOCK

PROJECT #: 20008 BID CLOSING: Date: NOVEMBER 19, 2020 Time: 2:00PM

This form must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

List below the name of each subcontractor that will be furnishing labor or materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter "NONE" if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED.)

NAME	DOLLAR VALUE	CATEGORY OF WORK
1) _____ _____	\$) _____	_____
2) _____ _____	\$) _____	_____
3) _____ _____	\$) _____	_____
4) _____ _____	\$) _____	_____
5) _____ _____	\$) _____	_____
6) _____ _____	\$) _____	_____
7) _____ _____	\$) _____	_____
8) _____ _____	\$) _____	_____

**Failure to submit this form by the disclosure deadline (see Special Conditions) will result in a nonresponsive bid. A nonresponsive bid will not be considered for award.**

**Even if you will not have any subcontractors on this job you MUST write "None" on the face of this form and submit it with your bid.**

Form submitted by: (bidder name): \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone No.: (\_\_\_\_) \_\_\_\_\_

## **14.0 Scope of Work**

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Scope of Work

LOT # 1&2 #7004 6606 SE Hemlock Street, Milwaukie, OR 97222

**The contractor shall provide all labor, materials and permits as necessary to perform the following in accordance with all specifications and drawings:**

R/R = Remove and Replace.                      R/D = Remove and Dispose

**GENERAL NOTES:**

- Any engineering including structural required to do the below said scope of work will be the contractors responsibility. Any cost associated with engineering shall be included in the contractor's original bid.
- R/D all lumber that has fire damage. Install new lumber of like kind and material.
- R/D all electrical wire, panel and electrical fixtures throughout the unit.
- Install new electrical panel, wire, outlets, switches and fixtures throughout as indicated. Contractor is responsible to make sure all new electrical meets current code. No changes orders will be approved to update electrical to meet code.
- R/D any and all remaining insulation. Install new wall, floor and ceiling insulation as required.
- R/D all layers of ceiling and wall sheetrock throughout the unit.
- R/D all ceiling heat and wiring throughout the unit.
- Prime/seal/paint all exposed wood throughout of smoke prior to sheetrock install.
- Install new wall and ceiling sheetrock, tape, texture per code throughout the unit. Prime and paint.
- R/D all drain plumbing from exterior clean out back to all fixtures and vents. Including exterior cleanout.
- R/D water main line and all (H/C) water supply lines from meter base to all fixtures.
- Install new drain/vent plumbing from fixtures to new clean out per code.
- Install new water main line and all (H/C) supply lines to all fixtures including main shutoff.

**LOT # 1**

**ATTIC:**

1. R/R fire damaged roof trusses.
2. Install new attic insulation to R-49. Provide certification.
3. Install new R5 pipe insulation at all H/C water lines in un-insulated areas.
4. Install new ductwork as required to install new HVAC system. Insulate and seal all new ductwork.

**CRAWL SPACE:**

5. R/D all garbage and debris.
6. Install new R5 pipe insulation at all H/C water lines in un-insulated areas.
7. R/D all floor insulation. Install new floor insulation. See specs.
8. R/D existing moisture barrier. Install new as required to cover all areas. Overlap and tape joints.
9. R/R ductwork as required to install new HVAC system. Insulate and seal all new ductwork.

**KITCHEN/DINING:**

10. R/D existing lower/upper cabinets, sheet rock soffits above cabinets, sink, faucet, supply lines, plumbing lines, angle stops, light fixtures and range.
11. Repair all dry rot as required prior to new cabinet install.
12. Install new ceiling mounted light fixtures and switch(s) as indicated.
13. Install new KCMA cabinet's w/laminate countertops as indicated. Caulk countertops at wall and seams.
14. Upgrade all visible sanitary sewer lines to meet current code – as required
15. Install new double bowl sink, supply lines, angle stops, drains, and faucet – make all plumbing connections.



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16. R/D existing SV and VCT flooring and base.
17. R/R all underlayment. R/R dry rot as required. Secure new underlayment to prevent squeaks.
18. Install new VCT and rubber base. Mop and wax.
19. Install new outlets, switches, and cover plates as indicated. Install new outlet for refrigerator.
20. Install new GFCI receptacles and or receptacles as require by code.
21. Install new HVAC register. Insulate and seal all ductwork. Relocate as indicated.
22. R/R range outlet. Re-wire for 4 prong outlet to breaker box. Install new 4 prong outlet and anti tip bracket.
23. R/R all light fixtures/bulbs and shades. Install new as indicated.
24. Install new exhaust hood with damper (connect to existing power) connect to new rigid sheet metal duct and vent to the exterior of the building through roof. Caulk/seal as required.
25. R/D door. Install new 3'-0" door, casing, trim, door knob, and floor door stop. Flip swing as indicated. Door shall be solid. No window. Prime and paint.
26. Install new 2'-8" door, casing, trim, door knob, and wall door stop.
27. Install new traverse rod at window(s).
28. R/D telephone jack and wire to source.

**LIVING ROOM:**

29. R/R all outlets, switches and cover plates with new.
30. R/D sections of wall as indicated.
31. Install new ceiling mounted light fixtures and switches as indicated.
32. R/D existing VCT flooring and base.
33. R/R all underlayment. R/R dry rot as required. Secure new underlayment to prevent squeaks.
34. Install new VCT and rubber base.
35. Repair, texture and paint all walls and ceiling to achieve a uniform like new finish throughout.
36. Install new HVAC register. Insulate and seal all new ductwork.
37. Install new blind(s) at window.
38. R/D existing door. Install new 3'-0" fiberglass door, casing, trim, door knob, deadbolt, and hinge door stop at front entry. Prime and paint.
39. R/R closet door, casing, trim and door knob.
40. R/R closet shelving and rod. Secure shelf and rod.
41. R/R thermostat. Relocate to new location as indicated.
42. Install new cable/TV lines/phone, boxes and cover plates as indicated. All new lines shall be run in the attic/crawl space.

**HALL:**

43. R/R all outlets, switches and cover plates with new.
44. R/R ceiling attic hatch. Trim out.
45. R/R all light fixtures/bulbs and shades with new.
46. Install new light switches as indicated.
47. R/R door bell. Install new doorbell chime and button at front door.
48. R/D existing VCT flooring and base.
49. R/R all underlayment. R/R dry rot as required. Secure new underlayment to prevent squeaks.
50. Install new VCT flooring and rubber base.
51. Repair, texture and paint all walls and ceiling to achieve uniform finish throughout.
52. R/R closet door, casing, trim, door knob, and install hinge door stop.
53. R/R closet shelving and rod. Secure shelf and rod.
54. R/R shelving and supports at linen closet.
55. R/R HVAC return grill with filter.
56. R/R smoke detector with new hard wired smoke detector/CO2 detector with 10yr lithium battery. New detectors shall be ceiling mounted. See specs.

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**BATH:**

57. R/D existing cabinet, countertop, sink, faucet, toilet, toilet tank, toilet flange, toilet supply line, tub, tub surround, mirror, medicine chest, plumbing lines, angle stops, light fixtures, ceiling/light fan fixture and fan/light switches.
58. Upgrade all visible sanitary sewer lines to meet current code – as required.
59. Install new KCMA cabinet with laminate countertop as indicated. Caulk countertop at wall and seams.
60. Install new sink, faucet, mirror, supply lines, angle stops, toilet with tank, toilet seat, toilet angle stop, toilet flange, tub, tub surround, splash enders, shower head, shower valve and 2x blocking behind tub surround (verify with HACC prior to install) – make all plumbing connections as code requires.
61. R/R all outlets, switches and cover plates with new.
62. R/R all light fixtures/bulbs and shades with new.
63. Install new high efficiency exhaust fan and condensation sensor. Modify/replace ductwork and vent cap as required to accommodate new fan and vent to the exterior of the building (through roof). New fan and light fixture shall be wired into single light switch. See specs.
64. R/D all existing SV flooring and base.
65. R/R all underlayment. R/R dry rot as required. Secure new underlayment to prevent squeaks.
66. Install new SV flooring and rubber base. Mop and wax.
67. Install new recessed mirror/medicine chest. Relocate switch and outlets as required. See specs.
68. Install new 24" towel bar.
69. Install new toilet paper holder.
70. Repair, texture and paint all walls and ceiling to achieve a uniform like new finish throughout.
71. Install new HVAC register. Insulate and seal all ductwork.
72. R/D existing door. Install new 2-8" door, casing, trim, door knob and wall door stop. Modify opening as required to accommodate new door size.

**BEDROOMS # 1, 2, & 3:**

73. R/R all outlets, switches and cover plates with new.
74. R/R all light fixtures/bulbs and shades with new. Relocate/move ceiling fixture as indicated.
75. R/R smoke detector with new hard wired smoke detector with 10yr lithium battery. New detectors shall be ceiling mounted. See specs.
76. Repair, texture and paint all walls and ceiling to achieve a uniform like new finish throughout.
77. R/D existing VCT flooring and base.
78. R/R all underlayment. R/R dry rot as required. Secure new underlayment to prevent squeaks.
79. Install new VCT flooring and rubber base.
80. Install new HVAC register. Insulate and seal all ductwork.
81. Install new traverse rod at bedroom #1. Install new blinds at Bedroom #2 & #3.
82. R/R bi-pass doors, tracks, guides and trim with new. See details.
83. R/R closet shelving and rods. Secure shelf and rod.
84. Install new cable/TV lines/phone, boxes and cover plates as indicated. All new lines shall be run in the attic/crawl space.
85. Install new door, casing, trim, door knob, and wall door stop.

**GARAGE:**

86. R/D existing electrical panel, service line, meter base and any electrical throughout.
87. Install new electrical panel, service, meter base as required by PGE and wiring as required due to fire. Install to current code.
88. R/D existing light fixture. Install three (3) new 4' fluorescent light fixtures as indicated.
89. R/R overhead door, tracks, springs and any other material associated with the overhead door system.
90. R/R all outlets, switches and cover plates with new.

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91. Install new R5 pipe insulation at all H/C water lines in un-insulated areas.
92. R/D water heater supply lines as required.
93. Install new gas water heater, exhaust, supply lines, stand and straps. Modify/install H/C supply lines as required to relocate into new position as indicated.
94. Install new steel bollard as code requires to protect new water heater. Smooth all cut edges and paint.
95. R/D any and all remaining HVAC equipment including old condensation drain pipe.
96. Install new 95% high efficiency gas furnace and ductwork. HVAC contractor shall determine the size and supply registers needed. All new supply registers shall be installed and vent from the floor. Insulate and seal all new ductwork. Condensate water shall gravity drain to the exterior of the building and be run in a way to prevent freezing. Contractor to coordinate the installation of gas line and meter with NW Natural as required.
97. Frame in door opening. Finish to match adjacent surfaces.
98. Install new wall and ceiling sheetrock in garage. Tape and texture. Prime paint.

**WINDOWS:**

99. House – R/R all windows with new. See specs.
100. House – Install new window casings, stops and stool. Caulk/seal along stool. See specs.
101. House – Install new exterior Hardi window trim. Caulk/seal and paint. See specs.

**BUILDING EXTERIOR:**

102. R/D exterior dryer vent, light fixtures, and house numbers.
103. R/D all metal siding and trim.
104. R/R all fascia and gable end 2x's.
105. Remove and protect: cable boxes and phone boxes.
106. R/R all hose bibs. Insulated as required. Relocate front hose bib as indicated. See specs.
107. Repair/replace/patch/re-nail all damage to existing siding and trim including dry rot.
108. Conceal all surface mounted cables.
109. Install new building/moisture wrap as required by siding manufacturer.
110. Install new Hardi corner and window trim boards.
111. Install new Hardi lap siding per manufactures installation recommendation and specifications.
112. Pre boar permanent penetrations to achieve clean professional finish on items such as conduit and utility boxes.
113. Caulk and seal all cut edges per manufactures installation recommendations.
114. Reinstall cable boxes, phone boxes, etc. Conceal all cables.
115. Remove and dispose of all old metal roof material, rotted/damaged sheathing, attic vent caps, jacks, boots, felt, flashing, drip edges, gutters and downspouts, all exhaust fans, all exhaust fan vents and ductwork.
116. Remove or re-nail all protruding nails, staples and sweep clean to achieve a smooth and clean roof deck.
117. R/R all fire damaged roof sheathing up to front door. Verify with HACC prior to removal.
118. Contractor shall include in their bid up to five (5) sheets of sheathing to replace as necessary. Sheathing to be verified by HACC prior to cover up. Sheets not used shall be discounted/credited back to HACC at the square ft rate on the bid form. Sheathing in excess of five (5) sheets shall be charged at the square ft rate on the bid form through a change order.
119. Contractor to verify the quantity of eave vents and provide new as required to meet current code requirements to ensure proper air flow.
120. Install new asphalt shingles, sheathing (as required), felt, flashing, drip and rake flashing, attic vent caps as code requires, gooseneck exhaust caps, jacks and boots.
121. Install new exhaust fan (using existing power) and new rigid sheet metal ductwork, insulate and seal all new ductwork. Secure/strap as required. Seal around exhaust vents/pipes.

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122. Install new gutters and downspouts. Size and style to match existing. Contractor to insure proper drainage. Contractor to install connector/boot between downspout and underground drainage pipe. Clean all debris from gutters and downspouts at end of job to allow good drainage. See sitework and specifications.
123. Contractor to protect all telephone, cable and electrical power lines that are attached to facia's, roofs and or siding. Remove and re-install as required.
124. The contractor shall at all times protect the site, landscaping and building during demolition and construction. Any damage created will be the contractor's responsibility to repair. The site shall be cleaned of all construction debris at the end of each day.
125. Install new light fixtures, doorbell button, dryer vent and house numbers.
126. Caulk all penetrations per specifications.
127. Prime and paint the entire exterior of the unit including eaves. 1 coat primer and 2 coats top coat. See specifications.
128. Paint utility boxes, electrical meter and gas meter to match existing siding color.
129. Power wash all exterior flatwork at completion of job to remove all dirt and debris.

**LOT 2 – SITEWORK**

**SITEWORK:**

130. R/D all debris from yard. This includes all cottage stones, stones, brick and wood. Regrade yard and fill in all holes as required to be level and slope away from building.
131. Treat entire yard with broad leaf control. See specifications.
132. Remove existing front handrail by cutting flush with concrete ramp. Modify existing front handrail by welding new metal plate on posts recently cut. Reinstall exiting handrail on new concrete ramp with concrete anchor bolts through new welded plates. Paint. Verify with HACC.
133. R/D concrete driveway, front ramp, rear concrete patio and rear handrails. Excavate as required to install new 4" base Compact new base to 95%.
134. R/D and cap existing downspout drains at exterior of foundation. Abandon old cast drains as code permits.
135. Modify rain drain plumbing pipe as required to drain properly prior to new concrete installation. All underground pipe shall be flush cut with new concrete.
136. R/R sewer cleanout.
137. Install new downspout drain plumbing as required by code to install two drains at the exterior of the building and two drains at the front of the building as indicated on the drawings. Drain at street as code requires.
138. Install new 4" concrete driveway as indicated. Contractor to install metal reinforcing as code requires. Install control joints and expansion joints as required. Slope to drain away from building.
139. Install new 4" concrete ramp walkway as indicated. Slope of ramp shall meet ADA requirements of 1:12 or 8.3% or less. Contractor to install metal reinforcing as code requires. Install control joints and expansion joints as required. Slope to drain away from building.
140. Install new 4" concrete patio as indicated. Install steps as required to make top finished surface flush with door threshold. Contractor to install metal reinforcing as code requires. Install control joints and expansion joints as required. Slope to drain away from building.
141. After completion of driveway, walkway and patio contractor to back fill with clean soil to prevent any undermining/abrupt edging. Power wash clean at completion.
142. R/D fence posts, small section of fence and any fence material.
143. Install new 4' high chain link fence and 4' gate as indicated on the drawings.
144. Install new 4' high chain link fence.
145. R/R mail box and post.

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NOTE: Work to take place between 8:00am – 5:00pm Monday through Friday.

**All work performed, as a result of this procurement shall be conducted in strict accordance with all applicable local, state and federal regulations.**

**Even if not specifically detailed in the Scope of Work, Drawings or Specifications all work shall be accomplished in accordance with all current City, County and State building codes/requirements.**

**The contractor shall be responsible for all permits, locates and fees necessary to perform this work.**

**The contractor and all subcontractors shall read and adhere to all specifications included as part of the Invitation to Bid.**

## **15.0 Detailed Specifications**

SECTION 01001  
GENERAL REQUIREMENTS

PART 1 GENERAL

- 1.1 Index.
- 1.2 Contract description.
- 1.3 Contractor's use of premises.
- 1.4 Work Coordination Requirements at Occupied Sites.
- 1.5 Schedule of values.
- 1.6 Applications for payment.
- 1.7 Stored Materials
- 1.8 Change procedures.
- 1.9 Coordination.
- 1.10 Field engineering.
- 1.11 Pre-construction meetings.
- 1.12 Progress meetings.
- 1.13 Cutting and patching.
- 1.14 Submittal procedures.
- 1.15 Construction progress schedules.
- 1.16 Proposed products list.
- 1.17 Product data.
- 1.18 Shop drawings.
- 1.19 Samples.
- 1.20 Manufacturer's instructions.
- 1.21 Manufacturer's certificates.
- 1.22 Quality control.
- 1.23 Tolerances.
- 1.24 References.
- 1.25 Examination.
- 1.26 Preparation.
- 1.27 Temporary electricity.
- 1.28 Temporary lighting for construction purposes.
- 1.29 Temporary heating and cooling.
- 1.30 Temporary ventilation.
- 1.31 Telephone and facsimile service.
- 1.32 Temporary water service.
- 1.33 Temporary sanitary facilities.
- 1.34 Parking.
- 1.35 Progress cleaning and waste removal.
- 1.36 Protection of installed work.
- 1.37 Protection of Existing Construction.
- 1.38 Security.
- 1.39 Removal of utilities, facilities, and controls.
- 1.40 Products.
- 1.41 Transportation, handling, storage, and protection.
- 1.42 Product options.
- 1.43 Substitutions.
- 1.44 Closeout procedures.
- 1.45 Final cleaning.
- 1.46 Testing, adjusting and balancing.
- 1.47 Protecting installed construction.
- 1.48 Project record documents.
- 1.49 Operation and maintenance instructions.
- 1.50 Spare parts and maintenance materials.
- 1.51 Warranties.

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- 1.52 Final Inspections.
- 1.53 Certificate of Substantial Completion.
- 1.54 Certificate of Final Acceptance.
- 1.55 **Questions**

1.1 CONTRACT DESCRIPTION

- A. Work of the Project includes:
- B. Building Identification:

LOTS	UNIT #	ADDRESS	ZIP
1&2	7004	6606 SE Hemlock Street, Milwaukie, OR	97222

- C. Permits:
  - 1. Contractor shall apply, pay and obtain all building, mechanical, electrical and plumbing permits and fees.
  - 2. Contractor shall submit original and legible copies of all required permits to HACC prior to commencement of work..
  - 3. HACC shall provide the required plans and specifications for the permit process.

1.2 CONTRACTOR’S USE OF PREMISES

- A. Limit use of premises to allow:
  - 1. HACC staff and tenants access at all times.
  - 2. Work by HACC, if any.

1.3 WORK COORDINATION REQUIREMENTS AT OCCUPIED SITES

- A. Maintain exits from occupied buildings free and clear at all times.
- B. Provide dust control measures to prevent dust from migrating to non-work areas.
- C. Leave site clean and broom swept, inside and outside, each day.
- D. Utilities shall remain operational and usable during construction. Usage of utilities during construction shall be reasonable. If excessive water or electric usage occurs, the Contractor shall compensate HACC for said costs. At occupied units Contractor shall make arrangements with the Tenant to use existing utilities.
- E. Buildings shall be secured whenever Contractor is not present. In particular, do not leave window and door openings unsecured.

1.4 SCHEDULE OF VALUES

- A. Submit schedule of values on form HUD-51000.
- B. Submit Schedule of Amounts for Contract Payments within 15 days after start date established in Notice to Proceed.



1.5 APPLICATION FOR PAYMENT

- A. See the General Conditions
- B. Utilize the following forms:
  - 1. Form HUD-51000 – Schedule of Amounts for Contract Payments
  - 2. Form HUD-51001 – Periodic Estimate for Partial Payment
  - 3. Form HUD-51002 – Schedule of Change Orders
  - 4. Form HUD-51003 – Schedule of Materials Stored
  - 5. Form HUD-51004 – Summary of Material Stored
  - 6. Form HUD-5372 – Construction Progress Schedule
- C. Contractor Pay Request submittal shall consist of the following documents, approved by HACC Contracting Officer. Submit as a package with no unrelated paperwork or documents:
  - 1. Invoice showing Work items (in the same order as form HUD-51000-Schedule of Values), percentage of Work in place and dollar value.
  - 2. Payroll reports from the Contractor and all Subcontractors.
  - 3. Affidavit from the Contractor that Contractor owes “X” amount of dollars to each Subcontractor or Suppliers, or that Contractor has paid “X” amount of dollars to each Subcontractor or Supplier.
  - 4. Affidavit from each Subcontractor that they owe “X” amount of dollars to each lower tier Subcontractor or Supplier and a Material Supplier’s Certificate, or that Subcontractor has paid “X” amount of dollars to each subcontractor.
  - 5. If the Contractor’s Affidavit shows that the Subcontractors have been paid, a Waiver of Lien must be signed and notarized by the Subcontractor stating that the amount was received.
  - 6. If the Contractor’s or the Subcontractor’s Affidavit shows that the suppliers have been paid, a Waiver of Lien must be signed and notarized by the supplier stating that the amount was received.
  - 7. Construction progress schedule showing amount and percentage of Work completed as of the final date of the period indicated on form HUD-51001.
  - 8. FINAL PAY REQUEST: Contractor is advised that on the final pay request there may be a longer waiting period for payment. All documents required under the contract shall be submitted before final payment will be issued.
- D. Monthly due date: In order to expedite the payment of each monthly request for payment the Contractor’s Request for Payment package (complete and correct) should be submitted on the first Working day of each month. Request for Payment received later may result in a delay of payment until the following month since HACC is permitted, by HUD, only one requisition per month. A complete and correct Request for Payment submitted no later than the first Working day of the month should be paid by the 20<sup>th</sup> day of the same month.
- E. Submit three originals of each Application for Payment.

1.6 STORED MATERIALS

- A. Refer to form HUD-5370 – General Conditions of the Contract for Construction.

1.7 CHANGE PROCEDURES

- A. All requests for clarification shall be submitted by Contractor, in writing, with a Request for Information (RFI) form. (Provided by HACC).
- B. No change to the Construction Documents shall be allowed without a HACC “Change Order Request Proposal (CORP)” prepared and submitted by the Contractor to HACC. Upon reception of said CORP, as approved, signed and dated by HACC, the Contractor shall perform the Work as modified.
- C. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation

- D. Change Order Forms: (Provided by HACC).
  - 1. HUD-51002
  - 2. HACC Change Order Request Proposal (CORP).
  - 3. Change Order Proposal Worksheet Summary.
  - 4. Change Order Proposal Worksheet Detail forms.

1.8 COORDINATION

- A. Coordinate scheduling, submittals, and Work of various sections of specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings.
- D. In finished areas, conceal pipes, ducts, and wiring within construction.

1.9 FIELD ENGINEERING

- A. Verify that field measurements are as indicated on drawings, shop drawings or as instructed by manufacturer. Confirm with HACC prior to starting the Work.

1.10 PRE-CONSTRUCTION MEETINGS

- A. HACC will schedule pre-construction meeting after Notice of Award for affected parties.
- B. When required in individual specification section, convene pre installation meeting at Project site prior to commencing work of section.

1.11 PROGRESS MEETINGS

- A. HACC shall schedule and administer meetings throughout the progress of the Work at two-week intervals.
- B. HACC shall preside at meetings, record minutes, and distribute copies within two days to those attending the meeting and to those affected by decisions made.
- C. At each Progress Meeting the contractor shall submit a revised and updated construction progress schedule. The schedule should show the original schedule as a baseline and the revised schedule adjacent for comparison.
- D. Missed Progress Meetings: Should Contractor's Project Representative not attend a scheduled Progress Meeting an amount equal to 2 hours times contractor's standard hourly billing rate for that representative shall be deducted from the total contract amount by change order.
- E. Cancelled Progress Meetings: Should Contractor cancel a scheduled Progress Meeting resulting in no Progress Meeting being held an amount equal to 2 hours times contractor's standard hourly billing rate for that representative shall be deducted from the total contract amount by change order.

1.12 CUTTING AND PATCHING

- A. Employ skilled and experienced installers to perform cutting and patching new Work; restore Work with new Products. Existing products removed shall not be reused unless specifically noted, and approved by HACC in writing.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.

- C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
  - 1. Fit several parts together, to integrate with other Work.
  - 2. Uncover Work to install or correct ill-timed Work.
  - 3. Remove and replace defective and non-conforming Work.
  - 4. Remove samples of installed Work for testing.
  - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Cut masonry and concrete materials using masonry saw or core drill. Restore Work with new Products in accordance with requirements of Contract Documents.
- E. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- F. Fit and seal Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- G. Seal all existing and new holes, cracks, gaps. Refinish surfaces to match adjacent finishes.
- H. Existing materials once removed shall not be reused.
- I. Prior to covering rough carpentry work fasten all new and existing floor, wall, and roof sheathing to comply with 2005 ORSC, Chapter 6, requirements.

#### 1.13 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- C. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.
- D. Revise and resubmit submittals as required; identify changes made since previous submittal.
- E. Contractor shall make all required submittals and receive approvals prior to commencement of on site work.
- F. It will require 10 working days after HACC receives correct submittal for HACC to review and process submittals.

#### 1.14 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate as required by the General Conditions. **Use form HUD-5372, Construction Progress Schedule.**
- B. Submit revised schedules with each Application for Payment and at each scheduled Progress Meeting identifying changes since previous version. Indicate estimated percentage of completion for each item of Work at each submission.
- C. Submit horizontal bar chart with separate line for each major section of Work or operation identifying first workday of each week. A Critical Path Method (CPM) chart format is preferred by HACC.
- D. For this project a workday is any day between Monday and Friday, between the hours of 8:00 AM to 5:00 PM. No work shall be performed outside these days and hours, including weekends and national holidays without the written and explicit authorization from HACC.

1.15 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Owner-Contractor Agreement, submit list of major Products proposed for use, with name of manufacturer, trade name, model number of each product and manufacturer’s installation guidelines.

1.16 PRODUCT DATA

- A. Product Data:
  - 1. Submitted to HACC for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as required in PROJECT RECORD DOCUMENTS.
- B. Product Data for Information:
  - 1. Submit for HACC’s benefit.
- C. Product Data for Project Close-out:
  - 1. Submit for HACC’s benefit during and after project completion.
- D. Submit number of copies which Contractor requires, plus one copy which will be retained by HACC.
- E. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer’s standard data to provide information unique to this project.

1.17 SHOP DRAWINGS

- A. Shop Drawings:
  - 1. Submitted to HACC for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as required in PROJECT RECORD DOCUMENTS.
- B. Submit number of opaque reproductions Contractor requires, plus one copy, which will be retained by HACC.

1.18 SAMPLES

- A. Samples for Review:
  - 1. Submitted to HACC for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as required in PROJECT RECORD DOCUMENTS.
- B. Samples for Information:
  - 1. Submitted for HACC’s benefit.
- C. Samples For Selection:
  - 1. Submitted to HACC for material, color, or finish selection.
  - 2. Submit samples of finishes from full range of manufacturer’s standard colors, textures, and patterns for HACC’s selection.
  - 3. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as REQUIRED IN PROJECT RECORD DOCUMENTS.

1.19 MANUFACTURER’S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, in quantities specified for Product Data.

1.20 MANUFACTURER’S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to HACC, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.21 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer’s instructions.
- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.22 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply fully with manufacturer’s tolerances.

1.23 REFERENCES

- A. Conform to reference standards by date of issue current as of date for receiving bids.
- B. When specified reference standard conflict with Contract Documents, request clarification from HACC before proceeding.

1.24 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify utility services are available, of correct characteristics, and in correct location.
- C. Prior to the application of new materials, the contractor shall notify HACC for verification of the conditions of the substrate.

1.25 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Verify that substrate complies with code requirements including the requirements of CABO, Chapter 6, and comply with manufacturer’s recommendations, prior to application
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

1.26 TEMPORARY ELECTRICITY

- A. Occupied Sites: Contractor shall provide its own electrical source. Contractor may connect to the existing power source with the permission of the occupants. Contractor is responsible for compensating occupants.
- B. Unoccupied Sites: Contractor shall transfer electrical utility into Contractor's name and pay for power used. Transfer utility back to HACC's name at the time of Substantial Completion or occupancy by HACC, whichever comes first.
- C. Provide power outlets for construction operations, connections, branch wiring, distribution boxes, and flexible power cords as required.

1.27 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain temporary lighting for construction operations.
- B. Permanent building lighting may be utilized during construction. Repair, clean, and replace lamps, lenses and fixtures at end of construction.

1.28 TEMPORARY HEATING AND COOLING

- A. Provide and maintain temporary heating for construction operations.
- B. Do not use existing or new heating and ventilation systems during construction.

1.29 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.30 TELEPHONE AND FACSIMILE SERVICE

- A. Provide, maintain and pay for 24 hour per day telephone and telephone facsimile service to field office at time of project mobilization.
- B. Allow direct contact to Contractor's Project Representative during working hours.
- C. Allow paging service to Contractor's Project Representative during all non-working hours with call back within 10 minutes for emergency use.

1.31 TEMPORARY WATER SERVICE

- A. Occupied Sites: Connect to existing water source for incidental use for construction operations with the permission of the occupants. Contractor is responsible for compensating occupants.

1.32 TEMPORARY SANITARY FACILITIES

- A. Occupied Sites:
  - 1. Provide and maintain required facilities and enclosures, but no less than one per work site. Do not use HACC facilities.
  - 2. Maintain in clean and sanitary condition.
  - 3. Coordinate location of temporary facilities with HACC.
  - 4. Lock facilities during periods of non-use.

1.33 PARKING

- A. Construction personnel parking shall be coordinated by Contractor with HACC.
- B. Parking and driving shall not occur on lawns or unpaved surfaces.
- C. No overnight storage of vehicles and materials shall occur at project site, or at public streets adjacent to project site.

1.34 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

1.35 PROTECTION OF INSTALLED WORK

- A. Protect installed Work until final acceptance by HACC. Provide special protection where specified in individual specification sections.
- B. Prohibit traffic or storage upon waterproofed or roofed surfaces.

1.36 PROTECTION OF EXISTING CONSTRUCTION

- A. Protect the existing buildings from damage including damage due to weather, vandalism, and other causes at all times. No building shall be left unprotected overnight. No building shall be left unprotected whenever Contractor is absent from the site. No building shall be left unprotected during any period when precipitation occurs.

1.37 SECURITY

- A. Provide security and facilities to protect Work and existing facilities, and HACC's operations from unauthorized entry, vandalism, or theft.

1.38 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials, prior to Substantial Completion review.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.39 PRODUCTS

- A. Products: Means **NEW** material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery/equipment used for preparation, fabrication, conveying/erection of the Work. Products may also include existing materials/components specifically identified for reuse.
- B. Do not reuse materials and equipment removed from existing premises, except as specifically identified in the Contract Documents.
- C. Provide interchangeable components of same manufacture for components being replaced.

1.40 TRANSPORTATION, HANDLING, STORAGE, AND PROTECTION

- A. Transport, handle, store, and protect Products in accordance with manufacturer's instructions.

- B. Do not store any materials, equipment, or tools outside when construction personnel are not present.
- C. Protect occupants and the public (including children) from construction operations. **Do not leave tools unattended at any time.** Provide and maintain barricades and warning signage at all times.
- D. Clean up metal scraps on a daily basis or more often if necessary to protect occupants and the public from harm.

1.41 PRODUCT OPTIONS

- A. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for manufacturers not named, 10 days prior to submitting a bid.

1.42 SUBSTITUTIONS

- A. Requests for Substitutions shall be considered only 10 days before bids are received.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents to receive approval from HACC.
- C. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.

1.43 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and **Work is complete** in accordance with Contract Documents and ready for HACC's inspection. Contractor shall pay HACC at a rate of \$80.00 per hour for each employee or consultant time when Contractor requests inspection of incomplete work.
- B. Submit final Application for Payment identifying total adjusted Contract Sum/Price, previous payments, Change Orders (credit/debit) and amount remaining due.
- C. Submit Operation and Maintenance Instructions.

1.44 FINAL CLEANING

- A. Execute final cleaning prior to final inspection. Final cleaning shall be complete so that units are ready for move-in. Final cleaning is subject to acceptance of HACC.
- B. Clean interior and exterior surfaces exposed to view. Vacuum carpeted and soft surfaces.
- C. Clean debris from site, roofs, gutters, downspouts, and drainage systems.
- D. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.45 TESTING, ADJUSTING, AND BALANCING

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

1.46 PROTECTING INSTALLED CONSTRUCTION

- A. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- B. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy



objects, by protecting with durable sheet materials.

- C. Prohibit traffic from landscaped areas.

#### 1.47 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of Contract Documents to be utilized for record documents.
- B. Record actual revisions to the Work. Record information concurrent with construction progress.
- C. Specifications: Legibly mark and record at each Product section description of actual Products installed.
- D. Record Documents, Shop Drawings, Product Data and Samples: Legibly mark each item to record actual construction.
- E. Submit documents to HACC with claim for final Application for Payment.

#### 1.48 OPERATION AND MAINTENANCE INSTRUCTIONS

- A. Submit two sets for each building prior to final inspection, bound in 8 ½ x 11-inch text pages, three D side ring white binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", Project title, building addresses, building unit #, and date.
- C. Internally subdivide binder contents with permanent page dividers, organized by trade and specification divisions, with tab titles legibly printed under reinforced laminated plastic tabs.
- D. Contents:
  - 1. Part 1: Directory, listing names, addresses, and telephone numbers of HACC, Contractor, subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and maintenance instructions and warranties arranged by division.
  - 3. Part 3: Project documents and certificates.
- E. Submit prior to final Application for Final Payment.

#### 1.49 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual specification sections.
- B. Deliver to location as directed by HACC; obtain receipt prior to final payment.

#### 1.50 WARRANTIES

- A. Provide notarized copies for each trade.
- B. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- C. All warranties shall be completely filled out with project information including address of installation, model number, color and date of installation.
- D. Submit prior to final Application for Payment.

1.51 FINAL INSPECTIONS

- A. When the Contractor notifies the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the Work will be substantially complete and ready for inspection, then the units will be scheduled for inspection. This inspection shall be attended by the Contractor's and HACC's representatives, who shall sign the "punch list" stating that they have performed the inspection and indicating the date.
- B. Punch list items are to be completed in a timely manner but shall be complete in no more than 10 consecutive calendar days after the date of the punch list inspection, by the Contractor, who shall then request, in writing, a re-inspection of the construction.

1.52 CERTIFICATE OF SUBSTANTIAL COMPLETION

- A. See attached form to be used to establish the date of substantial completion.
- B. Substantial Completion shall be achieved only after all work has been completed except final completion paperwork and minor work items that do not require the contractor to enter the building. HACC will make the determination whether a work item is minor. The Date of Substantial Completion will be documented and agreed upon by both HACC and the Contractor. Documentation shall be in the form of the attached form, Certificate of Substantial Completion.
- C. Retainage will continue to be held after the date of substantial completion until Final Acceptance is achieved.

1.53 CERTIFICATE OF FINAL ACCEPTANCE

- A. See attached form to be used to establish the date of Final Acceptance.
- B. Final Acceptance shall be achieved only after all work has been completed except warranty period work that may arise. The work includes all work under the contract, both physical work and paperwork, completed warranty documents, as-built documents, maintenance manuals, etc. The date of Final Acceptance will be documented and agreed upon by both HACC and the Contractor. This date will be used to calculate the number of contract days used to perform the contract work. Documentation shall be in the form of the attached form, Certificate of Final Acceptance.

1.54 QUESTIONS

- A. **All questions shall be submitted in writing. A written response shall be given within 48hrs of submittal.**
- B. **Questions submittal deadline shall be November 11, 2020 @ 2:00pm.**

END OF SECTION

SECTION 02221  
BUILDING DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes selective demolition of designated structures; removal of exterior slabs-on-grade, disconnecting utilities; removing designated building equipment and fixtures; removing designated partitions and components, including but not limited to roofing, siding, windows and doors as indicated on Demolition drawings.

PART 2 EXECUTION

2.1 PREPARATION

- A. Provide, erect, and maintain temporary barriers and security devices.
- B. Notify adjacent owners of work which may affect their property, potential noise, utility outage, or disruption. Coordinate with HACC.
- C. Protect existing landscaping materials and building components indicated to remain.
- D. Erect and maintain weatherproof airtight closures for exterior openings.
- E. Protect existing items indicated to remain.
- F. Mark buried utility locations if applicable.

2.2 DEMOLITION REQUIREMENTS

- A. Conduct demolition to minimize interference with adjacent properties and structures.
- B. Do not close or obstruct roadways or sidewalks without permits.

2.3 SELECTIVE DEMOLITION

- A. Demolish and remove components in orderly and careful manner.
- B. Protect existing supporting structural members and work to remain.

2.4 CLEAN UP

- A. Remove demolished materials from site as work progresses on a daily basis. Site shall be broom swept clean at end of each workday.
- B. Leave areas of work in clean condition.
- C. Do not reuse old/used materials; once removed, remove from site.

END OF SECTION

SECTION 02230  
SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes removal of surface debris, paving, curbs, designated plant life, grass, and wood deck; removal of topsoil, rough grading, and site contouring as indicated.

PART 2 PRODUCTS

2.1 SITE CLEARING

- A. Herbicide: Round up and Chaser type, approved by applicable regulatory agency.

PART 3 EXECUTION

3.1 PROTECTION

- A. Identify and protect utilities from damage.
- B. Protect trees, plant growth, and features designated to remain, as final landscaping. Identify and tag.
- C. Verify survey benchmark and intended elevations for the Work are as indicated on Drawings.

3.2 CLEARING

- A. Clear areas required for execution of Work to minimum depth of 4 inches.
- B. Remove trees and shrubs indicated. Remove stumps, main root ball and root system to 24” depth and all lawn as required.
- C. Apply herbicide to plant life to inhibit growth.

3.3 ROUGH GRADING

- A. Identify required lines, levels, contours, and datum.
- B. Identify known underground, above ground, and aerial utilities. Stake and flag locations.
- C. Notify utility company to remove and relocate utilities indicated.
- D. Excavate topsoil from areas to be further excavated, re-landscaped or re-graded.
- E. Remove excess topsoil and subsoil not being reused, from site.

3.4 CLEAN UP

- A. Remove debris, rock larger than 1 inch, unless otherwise noted, and extracted plant life from site.

END OF SECTION

**MODERNIZATION OF 6606 HEMLOCK – PROJECT #20008**  
**HOUSING AUTHORITY OF CLACKAMAS COUNTY**  
PO BOX 1510, 13900 S. GAIN STREET, OREGON CITY, OR 97045

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SECTION 02831  
CHAIN LINK FENCES AND GATES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes galvanized steel chain link fence and gates.

1.2 WARRANTY

- A. Furnish one-year warranty under provisions of Section 01001.

PART 2 PRODUCTS

2.2 COMPONENTS – **COMMERCIAL**

- A. Fabric:
1. Material: Galvanized steel, ASTM A 392, Class 2 finish.
  2. Size: 2-inch mesh, 9-gage steel.
- B. Framework: Galvanized steel, ASTM F1083.
- C. Gates: Swinging type.
- D. Framings and Fittings:
1. End and corner posts: 2 ½” O.D.
  2. Line and intermediate posts: 2” O.D.
  3. Gate posts: 2 ½” O.D.
  4. Tension wire
  5. Tie wire
  6. Post and line caps.
  7. Top rails: 1 5/8” O.D.
  8. ¾” tension bars.

PART 3 EXECUTION

3.1 EXAMINATION

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

3.2 INSTALLATION

- A. Embed end, corner and gateposts 24” minimum. Line and intermediate posts 24” minimum. 24” minimum shall be into undisturbed earth/dirt.
- B. Install items plumb and level, accurately tensioned and free from distortion or defects.

END OF SECTION

SECTION 02900  
PLANTING

PART 1

GENERAL SUMMARY

- A. Section includes preparation of soil and seed.

1.2 QUALIFICATIONS

- A. Nursery: Company specializing in growing and cultivating plant life specified in this section.
- B. Sod Producer: Company specializing in sod production and harvesting and certified by State of Oregon.
- C. Installer: Engage a single firm specializing in landscape work and having not less than 5 years previous experience in similar work, to perform the Work of this Section.

1.3 WARRANTY

- A. Furnish one year warranty under provisions of Section 01001 including coverage of plants from death or unhealthy conditions.
- B. Replacements: Plants of same size and species as specified, planted in next growing season, with new warranty beginning on date of replacement.

1.4 MAINTENANCE SERVICE

- A. Maintain (watering, weeding, grooming & mowing) seeded areas or sodded areas immediately after placement until grass is well established and exhibits vigorous growing conditions. Contractor is responsible for mowing until final written acceptance from owner is received and or seeded/sodded area have been established and mowed 5 times. (VERIFY WITH HACC).

PART 2 PRODUCTS

2.1 GRASS

- A. Seed Mixture: Suitable for Pacific N.W. and site specific conditions.

2.2 SOIL AND MODIFICATION MATERIALS

- A. Topsoil: Excavated from site and reused or imported.
- B. Fertilizer: Fifty percent of elements derived from organic sources, of type suitable for specified plant material.
- C. Lime: As needed to adjust soil pH.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify required underground utilities are in proper location.
- B. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.

- C. Scarify subsoil to depth of 3 inches.

3.2 PLACING TOPSOIL

- A. Spread topsoil to minimum depth of 6 inches. Rake smooth.
- B. Grade topsoil to eliminate rough, low or soft areas. Slope for positive drainage
- C. Place topsoil into pits and beds intended for plant root balls to minimum thickness of 6 inches.
- D. Tamp topsoil with roller prior to planting and seeding.

3.3 SEEDING

- A. Apply water with fine spray immediately after each area has been mulched.

3.4 MAINTENANCE

- A. Mow grass at regular intervals to maintain maximum height of 3 inches. Do not cut more than 1/3 of grass blade at each mowing. Contractor is responsible for mowing until final written acceptance from owner is received and or seeded/sodded area have been established and mowed 5 times. (VERIFY WITH HACC).
- B. Water to prevent grass, soil and shrubs from drying out. Contractor is responsible for watering until final written acceptance from owner is received
- C. Control growth of weeds apply weed control as required.

END OF SECTION

SECTION 02950  
LANDSCAPING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Supply and placement of topsoil, finish grading, installation of mulch and planting areas and lawn areas, fertilizer and repair of disturbed landscaping.

PART 2 PRODUCTS

2.1 FERTILIZERS

- A. Guarantee analysis of mineral or formulated products as specified.
  - 1. Comply with applicable state fertilizer laws.
  - 2. Deliver to job in original, unopened containers, each bearing manufacturer's label of content.
  - 3. Uniform composition, dry and free-flowing.
- B. Brands and Analysis:
  - 1. Webfoot Organic Deluxe 10N-10P-5K or equal.
  - 2. 10-20-20.
  - 3. Dolomite Lime, 65 mesh grind.
  - 4. Ammonium Nitrate 33.5-0-0.

2.2 TEXTURAL SOIL AMENDMENTS

- A. Smudge Compost: Digested sewage sludge and conifer sawdust compost as manufactured by North American Soils, Inc., 5303 North Columbia Blvd., Portland, Oregon, and marketed under the trade name "Garden Care", Mushroom Compost or equal.

2.3 MULCH MATERIAL

- A. Free from noxious weed seeds and all foreign materials harmful to plant life.
  - 1. Bark Mulch: Fresh Hemlock Bark, medium grade.
  - 2. Poly. Landscape Fabric: Home Depot SKU# 688711.

2.4 TOPSOIL

- A. On-site topsoil generated by required regarding of site. Furnish additional imported topsoil to match existing if on-site topsoil quantities are insufficient.

2.5 WATER

- A. Metered domestic service on site may be used by Contractor.
- B. Be responsible for conveying any application equipment required to perform the work and for maintenance until final written acceptance.

2.6 GRASS SEED

- A. Sun Mix, Pro-Time 303 or equal – Gator Perennial Ryegrass 35%, Regal Perennial Ryegrass 50%, Enjoy Chewing Fescue 15%



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- B. Shade Mix, Pro-Time 305 or equal – Enjoy Chewing Fescue 25%, Cindy Creeping Red Fescue 25%, Regal Perennial Ryegrass 50%

2.7 RETAINING STONES (FLATFACE)

- A. 16”L x 12”W x 6”H. Home Depot #344-034

PART 3 EXECUTION

3.1 GENERAL

- A. Scheduling and Coordination: Coordinate work schedule with other trades.
- B. At single-family sites: Repair existing lawns to remove all ruts, etc. and to remove all low spots, uneven areas and slope to drain lawn away from building. Prepare soil at regraded and bare areas without existing grass and reseed as specified.
- C. Repair all damaged existing plating beds and replace any plants damaged by construction. Remulch all beds.

3.2 WEED ERADICATION AND CONTROL

- A. Remove broad leaf weeds, noxious weed growth and roots by herbicide application (Johnson grass, Crabgrass, Morning Glory, Horsetail, Canadian Thistle, Nutgrass, Quackgrass, etc.)
- B. Kill achieved by working soil permissible for annual types only.
- C. Allow time for herbicides to achieve effective kill prior to cultivating.

3.3 SOIL PERPARATION/TOPSOIL DEPTH

- A. General: Remove (1 ½” and larger) stones, concrete, asphalt, or debris encountered or generated by this work from job site.
- B. Provide topsoil (imported or from on-site) where required to meet adjacent finish grades. Provide minimum 6” layer of topsoil when replacing asphalt, concrete, gravel, etc.
- C. Initial Soil Preparation – Lawn Areas:
  - 1. Rototill the following proportions of materials, evenly mixed to a 4-6 inch depth over each 1, 000 SF of area.
    - a. 10 lbs. 10-20-20.
    - b. 50 lbs. Dolomite Lime
- D. Backfill Soil Mixture – For All Tree and Shrub Plantings:
  - 1. To each cubic yard of excavated planting bed soil, thoroughly mix the following ingredients for backfill:
    - a. 1/3 cubic yard Textural Soil Amendment.
    - b. 3-lb. Webfoot Organic Deluxe 10N-10P-5K or equal.

3.4 FINISH GRADES

- A. Establish finish grades as follows:
  - 1. Grade in general accordance with existing site grades, grade to remove high spots and grade to fill low areas, slope grades away from all building structures. Provide smooth even finish grade free of irregularities. Obtain owner approval of finish grade prior to planting or seeding.
- B. Grade planting bed soil ¼” below bordering pavement or curb elevations prior to application of mulch.
- C. Grade lawn areas ¼” below adjacent curbs, walks, etc.

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3.5 PLANTING BED MULCH

- A. Mulch all shrub planting beds with a 3” minimum layer installed on landscape fabric.
- B. Apply evenly to all visible areas, within two (2) days after planting.

3.6 INSTALLATION OF SEEDED LAWN

- A. Seedbed Preparation:
  - 1. Immediately prior to seeding, bring areas to a fine finish grade, removing irregularities that impede surface drainage or cause puddling.
- B. Sowing of Seed:
  - 1. Sow grass seed mixture (Sun Mix and Shade Mix in their respective areas) at rate of 7 lbs. seed to each 1,000 SF area. Sow Super Shade Mix in Shade Mix area only at rate of 1 lb. Seed to each 1,000 SF of area. Transverse all areas a minimum of two (2) items to achieve maximum seed distribution.
  - 2. Lightly rake seed bed to cover seed evenly over all areas at a depth not to exceed ¼”.
  - 3. Irrigate immediately after raking with fine droplet without eroding surface soils. Maintain soil mixture level adequate to germinate and grow seed to a 2” stand. Apply Ammonium Nitrate fertilizer at the rate of 5 lbs. per 1, 000 SF 14 days after planting and water in.
  - 4. Apply Ammonium Nitrate fertilizer at the rate of 3 lbs. per 1, 000 SF at end of lawn maintenance period.

3.7 PRUNING OF EXISTING VEGETATION

- A. Prune and shape existing vegetation to remain, remove dead wood, crossing branches, suckers, etc. Prune existing trees to remain up to 15’ above finish grade.

3.8 REGRADE

- A. Regrade, apply topsoil, and reseed all areas disturbed by construction work and as noted on drawings.

3.9 CONTRACT PERIOD MAINTENANCE

- A. Begin immediately after planting of any type and continue until final written acceptance by Owner. Contractor is responsible for providing irrigation to all plantings and lawn until final written acceptance by Owner and or seeded/sodded area have been established and mowed 5 times. (VERIFY WITH HACC).
- A.
- B. Seeded Lawn:
  - 1. Re-seed eroded or bare areas at or before 21 days after original seeding date.
  - 2. Fertilize as specified within.
  - 3. Continue maintenance until final written acceptance by Owner. Provide full uniform weed-free stand of grass.

END OF SECTION

SECTION 03050  
BASIC CONCRETE MATERIALS AND METHODS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes base rock, formwork, reinforcement, accessories, cast-in place concrete, finishing and curing for walks, slabs, and ramps. Expansion and control joints.

1.2 SUBMITTALS

- A. Design Data: Submit mix design.

1.3 QUALITY ASSURANCE

- A. Construct and erect concrete formwork, shoring, reinforcing, alignment, tolerances and cast-in-place concrete in accordance with ACI 301.
- B. Comply with structural requirements in ACI318, Chapter 6.
- C. Construct formwork to plumb and level within ¼ inch in 10 feet.

PART 2 PRODUCTS

2.1 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615 60 ksi yield grade.
- B. Welded Steel Wire Fabric: ASTM A185 Plain type.
- C. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for support of reinforcing.
- D. Fabricate concrete reinforcing in accordance with ACI 315.

2.2 BASE AGGREGATE MATERIAL

- A. Base Aggregate: 3/4” minus crushed rock, quality and gradation shall conform to current ODOT requirements, as specified in Section 02630.10 of the 1996 “Standard Specifications for Highway Construction”. Base Aggregate shall be compacted to a minimum of 95% of the Modified Proctor (ASTM D1557-00). It shall be 4” thick at driveways and 2” thick at walkways.

2.3 CONCRETE MATERIALS

- A. Cement: ASTM C150, Normal-Type I Portland type.
- B. Fine and Coarse Aggregates: ASTM C33.
- C. Water: Clean and not detrimental to concrete.
- D. Air Entrainment Admixture: ASTM C260.
- E. Bonding Agent: Latex emulsion.
- F. Non-shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.

2.4 COMPOUNDS, HARDENERS AND SEALERS

- A. Curing Compound: ASTM C309, Type I. Spartan-Cote by Burke, Sikaguard by Sika, Master Seal by Master Builders, or equal.
- B. Sealer: polyurethane type, Son-No-Mar by Sonneborn or equal.

2.5 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ASTM C94.
- B. Maximum coarse crushed aggregate size:  $\frac{3}{4}$  inch.
- C. Slump: Foundation walls  $4'' + \frac{1}{2}'' - 1''$ , steps, ramps, aprons, and slabs  $3\frac{1}{2}'' + \frac{1}{2}'' - 1''$ .
- D. Furnish concrete of the following strength:
  - 1. **Compressive strength 3500 psi (28 day).**
  - 2. Slump 4 inches maximum.
  - 3. Minimum water/cement ratio: 0.46.
- E. Select admixture proportions at 6 pounds for each 100 pounds of cement for normal weight concrete in accordance with ACI 301, Article 3.8.
- F. Add air entraining agent to concrete mix for concrete work exposed to exterior 5 percent + or - 1 1/2%.
- G. Minimum cement content: 550 pounds per cubic yard.
- H. Water Reducing Admixture: Contractor's option, Type A or D.

2.6 CONCRETE JOINT FORMS:

- A. Expansion Joint Fillers. Asphalt saturated cane fiber,  $\frac{1}{2}$  inch thick, ASTM D 1751. Seal top flush with Chem-Calk 950, Horizontal grade polyurethane sealant, manufactured by Bostic. Field verify with HACC prior to start of work for location of joints.
- B. Install expansion joints between existing and new concrete.
- C. Install expansion, and control joints in slabs on grade to stabilize differential settlement and prevent random cracking.
- D. Install control joints in exterior concrete walks at not more than 5 feet on center, or as indicated on plans. Verify site conditions with HACC prior to start of work.
- E. Align curb and walk joints.

2.7 CONCRETE REINFORCEMENT (**Install reinforcing as required to prevent cracking/settling and to strengthen concrete.**)

- A. Reinforcing steel bars: ASTM A 615, grade 60, except Grade 40 for Number 3 bars.
- B. Weld Type Reinforcing Bars: ASTM A 706, Grade 60.
- C. Welded Wire fabric: ASTM A 185, spacing and wire size per current code.

## PART 3 EXECUTION

### 3.1 PERFORMANCE

- A. Surface Preparation:
1. Clean forms, expansion joint fillers, and embedded items.
  2. Adjust location and anchorage of formwork reinforcing support items, and reinforcing steel.
  3. Drill holes in existing concrete for grouted dowels at 3/8 inch in diameter larger than reinforcing dowels.
  4. Clean top surface and wet precast concrete hollow slabs prior to pouring topping slab.
- B. Concrete placement:
1. Comply with ACI301 and 304, placing concrete in a continuous operation within planned sections.
  2. Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping.
  3. Work concrete around reinforcement, embedded items, and forms.
  4. Notify HACC 48 hours prior to concrete placement, for compaction tests.
  5. Place concrete walks, curb ramps, and handicap ramps as detailed.  
Walks shall have no more than 5% running slope and a 2% cross slope. Handicap ramps shall have a slope not to exceed 2%..
  6. Notify HACC before pouring walks or ramps if slopes cannot be achieved.

### 3.2 FINISHING HORIZONTAL AND INCLINED CONCRETE SURFACES

- A. Floated Slab Surface:
1. Provide floated slab surface to receive a troweled, broomed, seeded, dry shake, color hardener, and washed aggregate finish, complying with ACI301, paragraph 11.7.2.
  2. Begin floating when water sheen has disappeared and surface has stiffened sufficiently to permit float finishing.
  3. Check planeness of surface with a 20-foot straightedge at two or more angles during or after the first floating.
  4. Cut high spots and fill low spots during floating to level to Class B tolerance, ¼ inch in 10 feet.
  5. Rfloat immediately to a uniform sandy texture.
  6. Slabs shall not have low spots or ponding. Slope as required to prevent ponding.
- B. Slab Finishing:
1. Provide troweled finish for interior slab surfaces left exposed for walking surface or to receive resilient or carpet floor covering, complying with ACI301, paragraph 11.3.
  2. Provide broom finish for exterior walks, curbs, aprons, stair treads, slabs, and handicap ramps complying with ACI301, paragraph 11.7.4.
  3. Provide hand tooled ‘shiners’ at expansion and control joints, and edges of walks and driveways.
  4. Provide diamond pattern mesh tactile warning finish at curb ramps, and aprons, in accordance with ADA guidelines and local City and County Standards.
  5. Slabs shall not have low spots or ponding. Slope as required to prevent ponding.
- C. Troweled Slab Finishing Procedures:
1. Provide a floated slab surface as specified above.
  2. Power trowel slab to smooth surface free of defects except minor trowel marks.
  3. Eliminate trowel marks by hand troweling slab when surface is sufficiently hard.
  4. Perform final hand troweling when trowel rings as the trowel is moved over the slab surface.
  5. Trowel to Class B tolerance, ¼ inch in 10 feet.
  6. Slabs shall not have low spots or ponding. Slope as required to prevent ponding.
- D. Broom Slab Finishing Procedures:
1. Provide a floated finish as specified above.
  2. Draw a broom or burlap belt across the surface to give the slab a course transverse scored texture.
  3. Slabs shall not have low spots or ponding. Slope as required to prevent ponding.

3.3 CURING AND HARDENING

- A. Curing Procedures:
1. Comply with recommendations in ACI308.
  2. Cover exposed surfaces and keep concrete and form surfaces wet for 48 hours minimum.
  3. Spray apply curing compound to exterior concrete surface after finishing, as soon as concrete is free of surface water, at manufacturer's recommended rate.

3.4 COMPLETION

- A. Surface Repairs for Exposed Concrete Vertical Surfaces:
1. Thoroughly clean, dampen with water and brush-coat the area to be patched with bonding agent.
  2. Fill honeycomb voids and rock pockets with patching compound.
  3. Compact in place and screed as recommended by patching compound manufacture.
  4. Finish exposed concrete surfaces to match adjoining work.
  5. Strike off excess mortar at surface.
  6. If defects in color and texture of surface cannot be required, remove and replace the concrete.
- B. Surface Repairs for Interior Floor Slabs:
1. Grind or fill interior floor surfaces until uniform and smooth.
- C. Daily Cleaning:
1. Remove concrete spills and splatters from adjacent finished surfaces.
- D. Physical Barrier Protection:
1. Barricade area containing fresh concrete slabs, stairs, ramps, and walks for 24 hours minimum.
  2. Cover fresh concrete with ½ inch thick plywood or oriented strand board for 48 hours minimum where exposed to public, pedestrian, and animal traffic.
- E. Cold Weather Protection:
1. Protect concrete from frost damage until protected by soil backfill or until cured for 28 days.
  2. Protect concrete from physical damage or reduced strength caused by air temperatures below 45 degrees F. during curing period.
  3. Comply with recommendations in ACI306R.
- F. Hot Weather Protection:
1. Protect concrete from shrinkage crack damage until protected by curing procedure.
  2. Protect concrete from physical damage or reduce strength caused by air temperatures above 75 degrees F. during curing period.
  3. Comply with recommendations in ACI305R.

END OF SECTION

SECTION 05500  
METAL FABRICATIONS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes shop fabricated tube steel.

1.2 SUBMITTALS

- A. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Steel Plate for anchoring of rail posts: ASTM A283.
- B. Steel Pipe: ASTM A53, Grade B Schedule 40. 1 ½” diameter max. for exterior, 1 ¼” for interior.
- C. Bolts, Nuts, and Washers: ASTM A325. Prime and paint to match rail paint finish.
- D. Handrail Fittings: Elbows, T-shapes, wall brackets, escutcheons; steel-welded joints and plates.
- E. Surface Mounted Bollard as code requires.

2.2 ACCESSORIES

- A. Welding Materials: AWS D1.1.
- B. Shop and Touch-Up Primer: SSPC Manual. Prep to receive rust resistant paint finish.

2.3 FABRICATION

- A. General:
1. Fit and shop assemble items in largest practical sections, for delivery to site.
  2. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
  3. Exposed Mechanical Fastenings: Flush countersunk screws or bolts, consistent with design of component.
  4. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication.
  5. Accurately form components required for anchorage of railings to each other and to building structure.

2.4 FINISHES

- A. Prepare surfaces in accordance with SSPC Manual, to receive new rust resistant paint finish.
- B. Smooth all cut edges.
- C. Prime and paint. Color: Verify with HACC.

PART 3 EXECUTION

3.1 EXAMINATION

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

3.2 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortions or defects.
- B. Confirm location of handrails and posts on site, with HACC, prior to fabrication.
- C. Provide for erection loads and provide temporary bracing to maintain indicated alignment until completion of erection and installation of permanent attachments.
- D. Obtain HACC approval prior to site cutting.
- E. Bollard. Install per local City and County codes and restrictions.

END OF SECTION



SECTION 06100  
ROUGH CARPENTRY

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes structural floor, wall, and roof framing; wall and roof sheathing; subfloor sheathing; preservative treatment; sill gaskets; blocking in wall and roof openings; wood furring; concealed wood blocking.

1.2 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
  - 1. Lumber Grading Agency: Certified by WWPA or WCLIB.
  - 2. Plywood Grading Agency: Certified by APA/EWA - APA/The Engineered Wood Association.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

- A. Lumber Grading Rules: WCLIB and WWPA.
- B. Beam Framing: DF-L species, #2 or better grade.
- C. Joist Framing: DF-L species, #2 or better grade, 19 percent maximum moisture content.
- D. Rafter Framing: DF-L species, #2 or better grade, 19 percent maximum moisture content.
- E. Non-structural Light Framing: DF-L species, stud grade, 19 percent maximum moisture content.
- F. Studding: DF-L species, stud grade, 19 percent maximum moisture content.
- G. Below Grade Wood or Exposed to Concrete Framing: Hem-Fir species, #2 grade, pressure preservative treated.
- H. Sill Plate: Pressure treated hem-fir species, #2 grade.

2.2 SHEATHING MATERIALS

- A. Plywood Roof Sheathing: APA Rated Sheathing plywood Span Rating 32/16; Exposure Durability 1.
- B. Plywood Wall Sheathing: APA Rated Sheathing Structural I, Span Rating 32/16; Exposure Durability 1.
- C. Plywood Floor Sheathing: APA Rated Sheathing Structural I, Sturd-I Floor Span Rating 48/24; Exposure Durability 1.

2.3 UNDERLAYMENT MATERIALS

- A. Plywood Underlayment: APA Rated Sheathing Structural I, Exposure Durability 1; ACX sanded, 303-0.

2.4 SHEATHING AND UNDERLAYMENT LOCATIONS

- A. Sloped Roof Sheathing: ½ inch thick plywood or match existing, 48 x 96 inch sized sheets, square edges.
- B. Above Grade Wall Sheathing: ½ inch thick plywood or match existing, 48 x 96 inch sized sheets, square edges.

- C. Below Grade or in Contact with Concrete Wall Sheathing: ½ inch thick pressure treated plywood or match existing, 48 x 96 inch sized sheets, square edges, preservative treated.
- D. Floor Sheathing: ¾ inch thick or match existing, 48 x 96 inch sized sheets, tongue and groove edges.
- E. Floor Underlayment: ½" inch thick ACX sanded plywood for all flooring/carpeting, 48 x 96 inch sized sheets.

## 2.5 ACCESSORIES

- A. Fasteners: Galvanized steel for exterior, high humidity, and treated wood locations, plain finish elsewhere.
- B. Die Stamped Connectors: Galvanized steel by Simpson or equal.
- C. Structural Framing Connectors / Joist Hangers: Galvanized steel, sized to suit framing conditions.
- D. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Powder driven fasteners not allowed.
- E. Sill Gasket on Top of Foundation Wall: Plate width, closed cell foam strip; manufactured by Sill-Sealer or equal.
- F. Subfloor Glue: APA AFG-01, water base, waterproof.
- G. Building Paper: ASTM D226 No. 15 asphalt felt/tyvek or equal..

## 2.6 WOOD TREATMENT

- A. Wood Preservative (Pressure Treatment): AWPA Treatment C2 using water borne preservative with .40 pcf retention.
- B. Wood Preservative (Surface Application): CCA type, manufactured by Koppers or equal.

## PART 3 EXECUTION

### 3.1 PERFORMANCE

- A. Preparation: Examine all substrate for compliance with requirements for tolerances and other conditions affecting the installation of finished surfaces. Do not proceed with the work until a satisfactory condition has been met.
- B. Installation of Wood Framing:
  - 1. Install studs at not more than 16 inches on center and at spacing indicated on Drawings.
  - 2. Install single bottom plates and double top plates, except where indicated otherwise.
  - 3. Single top plates may be installed at interior nonload bearing walls.
  - 4. Install double floor joists under parallel partitions.
  - 5. Overlap top plates at corners, intersections, and ends.
  - 6. Triple stud at corners and wall intersections.
  - 7. Install framing with ¼ inch maximum deviation from indicated alignment.
- C. Installation of Headers over Wall Openings:

1. Set headers on edge and support ends on jamb studs.
  2. At non-bearing walls, install double-jamb studs and headers not less than 4 inches deep for openings 3 feet and less in width, and not less than 6 inches deep for wider openings.
  3. At load-bearing walls, install double-jamb studs for openings 6 feet and less in width, and triple-jamb studs for wider openings.
  4. Install headers of depth shown on drawings
- D. Installation of Blocking:
5. Install 2-inch nominal thick blocking as indicated and as required to support bathroom accessories, cabinets, toilet compartments, and plumbing fixtures.
  6. Anchor wood blocking and bridging to substrates to support applied loads.
  7. Install 2 inch nominal thick by width of stud blocking at mid-height of single story walls over 8 feet high and at mid-height of multistory walls.
  8. Install 2 x 8 solid blocking at all hardware attachments.
- E. Installation of floor underlayment:
9. Examine subfloor for condition to accept underlayment. Replace all damaged subfloor; remove existing irregularities, nails, etc. as required. Secure with proper wood screws to prevent squeaks.
  10. Install new floor underlayment throughout all units not on slab on grade. Install level and smooth. Secure with proper wood screws to prevent squeaks.
  11. Install plywood underlayment in all areas to receive sheet vinyl flooring and carpet on wood framed floors. Secure with proper wood screws to prevent squeaks.
- F. Installation of Structural Sheathing:
1. Install sheathing to combination single and two span continuous.
  2. Place building paper between underlayment and subfloor sheathing.
  3. Secure wall sheathing with ends staggered, over firm bearing.
  4. Nail sheathing in accordance with Nailing Schedule.
- G. Nailing and Bolting:
1. Install washers under nuts and under bolt heads on wood.
  2. Soap threads of lag bolts prior to installing.
  3. Install fasteners for plates to foundation using anchor bolts at not more than 48 inches on center or power driven fasteners at not more than 32 inches on center.
  4. Drill lag bolts holes 9/16-inch diameter for 3/4-inch bolts and 1/2-inch diameter for 5/8-inch bolts.
  5. Drill machine bolt holes 1/16 inch larger than bolt diameter.
  6. Furnish bolts with treads for nuts not bearing on wood.
  7. Enlarge lag bolts to shank diameter for length of unthreaded shank.
  8. Do not drive lag screws, wood screws, and lag bolts.
  9. Predrill nail holes and screw holes when required to prevent wood splitting.
- H. Nailing Schedule:

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Joist to sill or girder	toe nail	(3)-8d
Bridging to joist	toe nail, ea end	(2)-8d
Sole plate to joist or blk'g	face nail	16d @ 16" o.c.
Top plate to stud	end nail	(2)-16d
Stud to sole plate	toe nail	(4)-8d
	end nail	(2)-16d
Double studs	face nail	16d @ 24" o.c.
Double top plates	face nail	16d @ 16" o.c.
Top plates, laps and intersections	face nail	(2)-16d
Continuous header, two pieces		16d @ 16" o.c. along ea. edge
Ceiling joists to plate	toe nail	(3)-8d
Continuous header to stud	toe nail	(4)-8d
Ceiling joists, laps over partitions	face nail	(3)-16d
Ceiling joists to parallel rafters	face nail	(3)-16d
Rafter to plate	toe nail	(3)-8d
Built-up corner studs		16d @ 24" o.c.
Plywd roof sheathing	edges	8d @ 6" o.c.
Plywd wall sheathing	intermediate	8d @ 12" o.c.
Plywd Floor	edges	10d @ 6" o.c.
	Intermediate	10d @ 12" o.c.
2x multiple joists – Stagger @ 15" o.c. w/ (2) @ ea. end or splice		
	(3) or fewer	16d nails
	(4) or more	1/2" dia M.B. w/ standard nut and washers

3.2 COMPLETION

A. Adjusting Defective Work:

1. Remove split and warped framing prior to installation of sheathing and gypsum wall panels.
2. Prior to installing sheathing and gypsum wall panels, Contractor shall notify HACC for inspection of all required blockings and to receive a written approval to proceed with the work.

END OF SECTION

SECTION 06200  
FINISH CARPENTRY

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes finish carpentry items, other than shop prefabricated casework; including:
1. Interior wood trim
  2. Closet shelving
  3. Closet rods
  4. Window stools/sills
  5. Interior casing
  6. Extension jambs and head.
  7. Exterior jambs, casing, barge boards and fascias.

1.2 SUBMITTALS

- A. Samples:
1. Submit one 6-inch size sample illustrating shop finish & wood grain.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Interior Wood
1. Quality standard, AWI Section 300.
  2. Specie: Hemlock
  3. Moisture Content: Kiln dried to average 19 percent moisture content.
- B. Closet Shelving:
1. Type: ¾" X 12", particle board, factory painted white.
  2. Closet shelf cleat strips, 1 x 4 softwood lumber S4S, sand smooth exposed edges, painted white.
  3. Shelf and Closet Rod support brackets, Stanley (or equal). Rigid triangle design, factory painted white. 24" maximum on center spacing.
  4. Shelf support brackets, Stanley (or equal). Rigid triangle design, factory painted white 24" maximum on center spacing.  
Compatible pan head screw fasteners, length as required for installation conditions.
- C. Closet Rod:
1. Wood, 1 5/16" diameter, sand smooth, sealed.
  2. Closet Rod Sockets: White plastic.
- D. Fasteners:
1. Exterior: Stainless steel or galvanized finish nails.
  2. Interior: Cadmium plated steel nails, FS FF-N-105.

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- E. Window Stools/Sills:
  - 1. 3/4" Oak
  - 2. Radius corners and edges.
  
- F. Casing:
  - 1. 3/8" x 2-1/4" wide sanitary casing, clear to receive transparent finish. Stain finish as produced by Northwest Doors, 503-692-9494, Stain #5. (or approved equal. Submit request for substitution for manufacture(s) not named 15 days prior to Bid Date)
  - 2. Meet standard for Interior Wood Trim materials.
  
- G. Exterior jambs, casing, barge boards and fascias:
  - 1. Profile and size as shown on drawings. Finger jointed not accepted.
  - 2. White Spruce, B grade or better, dry, 19% maximum moisture content.
  - 3. Concealed hot dipped galvanized fasteners appropriate for application.

## 2.2 ACCESSORIES

- A. Fasteners: Compatible pan head screws length as required for installation; Hot dipped galvanized steel for exterior, high humidity and treated wood locations, plain finish elsewhere.
  
- B. Contact Adhesives: Water Base type.
  
- C. Wall Adhesive: Cartridge type, compatible with wall substrate, capable of achieving durable bond.

## PART 3 EXECUTION

### 3.1 EXAMINATION

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

### 3.2 PREPARATION

- A. Prime paint surfaces of items or assemblies in contact with cementitious materials, before installation.

### 3.3 INSTALLATION

- A. Installation Requirements:
  - 1. Install wood trim plumb, level, true, and straight.
  - 2. Cut trim to fit, scribe where necessary.
  - 3. Set exposed nails, countersink screws, and drill and plug openings at lag and machine bolts, except where indicated otherwise on Drawings.
  - 4. Provide flat washers at nuts and bolt heads bearing on wood.
  
- B. Installation of Interior Wood:
  - 1. Install with a minimum of joints possible.
  - 2. Miter or shiplap trim at corners.
  - 3. Nail wood trim at 12 inches on center, staggered.
  - 4. Set exposed fasteners and **fill all holes and mitered corners with color matching putty.**
  - 5. Install interior plywood access panels where indicated on Drawings.
  
- C. Installation of Closet Shelving:
  - 1. Install closet cleat strips at three sides, fasten securely to wall framing.
  - 2. Top of closet shelves to be installed at 68" above finished floor (A.F.F.).
  - 3. Install closet cleat strip behind shelf brackets. Attach securely to wall framing.
  - 4. Fasten closet shelving to wood cleat strips with concealed fasteners.

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- D. Installation of Closet Rod:
  - 1. Install closet rod to rod sockets at each end. Mount rod sockets to wood cleat strips.
  - 2. Fasten closet rod to support brackets with pan head stainless steel screw long enough to penetrate approximately ¼” into closet rod.
  
- E. Installation of Window Stools/Sills:
  - 1. Verify existing conditions prior to manufacture.
  - 2. Provide anchoring devices for installation
  - 3. Align work plumb and level.
  - 4. Maximum gap at edges, 1/8 inch.
  - 5. Seal edges with sealant
  - 6. Protect work until final acceptance.
  - 7. Caulk window between window frame and stool/sill.
  
- F. Installation of Casing:
  - 1. Align work plumb and level, with tight joints.
  - 2. Rigidly anchor to substrate to prevent misalignment. Concealed fasteners, countersink and fill at fasteners. **Fill all holes to match finished color.**

3.4 COMPLETION

- A. Adjusting Defective Work:
  - 1. Replace or patch and refinish wood improperly installed and wood which does not meet the AWI quality standards specified.
  - 2. Sand field cut edges, ends and corners prior to field finishing.
  
- B. Final Cleaning: Clean all exposed surfaces of dirt, dust & debris.

END OF SECTION

SECTION 07210  
BUILDING INSULATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes batt thermal insulation and vapor retarder in exterior wall and floor construction and loose thermal fill insulation in ceiling spaces.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data including thermal performance of materials.

PART 2 PRODUCTS

- A. Batt Insulation: ASTM C665, preformed glass or mineral fiber batt, conforming to the following:
1. **Thermal Resistance: R-15 at exterior walls, R-30 at floors and R-49 at attics, or as indicated on Drawings. Provide Certification.**
  2. Batt Size: As required to fit framing.
  3. Facing: Faced on one side with Kraft paper.
  4. Flame/Smoke Properties: Class A, 25 or less for insulation; Class C, 225 or less for facing.
- B. Fiber Fill Insulation: ASTM C764, glass fiber or cellulose type, bulk for pneumatic placement. New insulation shall match existing.
- C. Ventilation Baffles: Formed plastic, plywood or moisture resistant cardboard used with fiber fill insulation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate and adjacent materials are dry and ready to receive insulation.

3.2 PERFORMANCE

- A. Installation of Kraft Faces Insulation at Walls:
1. Install insulation between framing members with vapor barrier on the inside face.
  2. Install insulation in enclosed exterior wall spaces separating heated from unheated space.
  3. Staple flanges to wood framing members at 12 inches on center over entire length.
  4. Tape joints, ruptures and terminal edges of vapor barrier faces with insulation type to form a completely sealed vapor barrier.
  5. Install sill insulation between new door and window frames, and concrete, masonry, and exterior wall framing.
  6. Install between piping and exterior surfaces.
  7. Install new insulation in all areas exposed due to the extents of the work of this project, where existing insulation has been disturbed or removed or is not present, to provide a fully insulated building. Do not reuse insulation that has been moved during construction.
  8. Install insulation on outside of piping where water lines occur in exterior walls exposed due to the extents of the work of this project.



- B. Installation of Kraft Face Insulation in Floor Spaces:
1. Install insulation between floor joists to reach specified R-value. Existing in place insulation can be reused. Do not reuse insulation that has been removed during construction or is wet or damaged.
  2. Vapor Barrier shall be installed to the inside face of floor.
  3. Install new insulation in all areas indicated on Drawings.
  4. Use nylon mesh suspension system to support insulation.
- C. Insulation of Fiber Fill at Attic Spaces:
1. Install insulation and ventilation baffles in accordance with manufacturer's recommendations in a uniform layer over entire attic space to reach specified R-value.
  2. Install after all ceiling work had been completed.
  3. Install ventilation baffles at each rafter space, with vent holes, to insure air movement. As required.
  4. Do not reuse insulation that has been removed during construction or was wet.
- D. Insulating Foam:
1. Use spray type insulating foam to fill gaps, open joints, cracks and holes.
- E. Installation of Vapor Barrier:
1. Install new vapor barrier at all exposed areas of walls and floor insulation, inside face.
- F. Moisture Barrier:
1. Remove all torn, damaged moisture barrier from crawl space and reline/install with new 6mil "Visquine" moisture barrier. Overlap joints 24", minimum and tape.

### 3.3 COMPLETION

- A. Adjusting Defective Work:
1. Cover openings in insulation vapor barriers with insulation tape.
  2. Remove and replace wet mineral blanket insulation.
  3. Fill openings in exterior framing spaces exposed due to the extents of the work of this project.
- B. Cleaning:
1. Remove excess insulation materials from crawl space and site.

END OF SECTION

SECTION 07310  
ASPHALT SHINGLES - REVISED

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes new granular surfaced asphalt shingle roofing, underlayment, eave, valley, and ridge protection, and metal flashings, vent caps, roof jacks, gutters.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating material characteristics, limitations, and color range.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Do not install eave protection and shingles when ambient air temperatures are below 45 degrees F. or humidity is above 90%.

1.4 WARRANTY

- A. Furnish manufacturer's **Limited Lifetime** warranty for asphalt shingles.

PART 2 PRODUCTS

2.1 ASPHALT SHINGLES

- A. Manufacturers:
1. PABCO Roofing Products: Premier (With algae Blocker/Scotch guard). Color: Verify with HACC.
  2. IKO Roofing: Cambridge (With algae Blocker/Scotch guard): Color: Verify with HACC.
  3. MALARKEY Roofing: Highlander (With algae Blocker/Scotch guard). Color: Verify with HACC.
  4. CERTAINTEED Roofing: Landmark (With algae Blocker/Scotch guard): Color: Verify with HACC.
  5. Or approved equal. (Submit request for substitution for manufacturer(s) not named 10 days prior to bid date)
- B. Asphalt Ridge and Hip Shingles: Same construction and manufacturer as field shingles. Factory precut units.

2.2 COMPONENTS

- A. Felt Underlayment: **1 layer**, No. 30lb un-perforated asphalt saturated felts as recommended for use in waterproofing and in construction of shingle roofs.
- B. Titanium UDL 30 underlayment. (Or approved equal) Install per manufactures installation instructions. Shall be install with manufactures required nails. **Staples are not acceptable.**
- C. At Valley: Extend underlayment across valley. Center full width of underlayment on valley. 12 inch minimum end laps. No fasteners within 6 inches of valley centerline.
- C. Plastic Roof Vents: Install as per manufacturer's instructions and as per current code requirements.

2.3 ACCESSORIES

- A. Nails: Standard round wire roofing type, hot dipped zinc coated steel; of sufficient length to penetrate ½” into wood substrate. Thru roof sheathing is not allowed. **Staples are not acceptable.**
- B. Staples: To tack #30lb asphalt felt only.

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- C. Plastic Roof Vents: Formed with vent openings not permitting direct water or weather entry 50 square inches of free air flow. FAMCO: Model # FA 50, AWARD METALS: Model Nifty Fifty, NORWESCO: Model AF-50. Color: Black
- D. Flashing Materials:
  - 1. Sheet Flashings: ASTM A653/A653M, G90 (Z275); 26 gauge thick pre coated galvanized steel; pre coating of PVC, Color: match roofing color.
  - 2. Drip Edge and Gable End Flashing: SMACNA design, figure 4-22C, made of 26 gauge, pre painted galvanized steel 1"x3" L. Color match roofing color.
  - 3. Valley Flashing: 24" wide and crimped to guide water. Color: match roofing/vent color.
- E. Bituminous Paint: Acid and alkali resistant type; black color.
- F. Vent Pipe Flashing: Galvanized steel/neoprene, self-sealing, with flashing flange, sized for vent size.
- G. Electric Mast Pipe Flashing: "Deck-Mate" Manufactured by Portals Plus, Inc.
- H. Wood Fascia and Rake Boards: White Spruce. Select grade, dry, 19% max. moisture content.
- I. Roof Sheeting: Exterior plywood roof sheeting rated for existing spans. 1/2" thickness Joints shall occur directly above roof structural framing members.
- J. Framing: Hem-Fir No.2 and better, dry, 19% max. moisture content.
- K. Roof Exhaust Vent Cap: Plastic, Goose Neck type, roof top vent with damper. LAMBRO size as required by code for bathroom and kitchen exhaust fan sizes. Color Black. (Or approved equal).
- L. Sheet Metal Ductwork: Rigid galvanized 30 gauge steel with fittings and connectors.
- M. Duct Insulation: Flexible pre-manufactured R-10 value fiberglass air duct batt insulation.
- N. Duct Sealant (Versa-Grip 181). Do not use cloth backed duct tape. It is not acceptable.
- O. Duct Fasteners: Heavy Duty nylon/neoprene perforated "plumber's tape"
- P. Gutters: size and color shall match existing.
- Q. Ventilation Baffles: Formed plastic, plywood or moisture resistant cardboard used with fiber fill insulation. Add / or extend as required to get sufficient un-interrupted air flow.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify roof penetrations and plumbing stacks are firmly in place and flash with new flashing roof jacks to deck surface.
- B. Verify roof openings are correctly framed and sheeted.
- C. Verify deck surfaces are dry, free of ridges, warps, protrusions or voids.
- D. Examine substrate for compliance with requirements for conditions affecting performance of asphalt shingles. Do not proceed with installation until unsatisfactory conditions have been corrected. **VERIFY CONDITIONS OF EXISTING SHEATHING AND NOTIFY HACC OF ANY DEFICIENCIES, INCLUDING INADEQUATE NAILING PATTERN.** At existing and new sheathing new nailing shall be done where necessary. Use nails only. **Do not use staples.**

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3.2 PREPARATION

- A. Fill knot holes and surface cracks with latex filler at areas of bonded eave protection.
- B. Remove all nails, staples and other debris that are left over from demolition of old roofing materials.
- C. Patch holes with 20 Gauge, galvanized sheet metal, fasten with roofing nails.
- D. Broom clean deck surfaces and underlayment prior to shingle installation.

3.3 INSTALLATION

- A. Remove and dispose of existing roofing materials, flashing, vent and exhaust caps. Place tarps to catch all debris during roofing removal. Keep ground free from debris at all times. Remove construction debris from site daily.
- B. Construction Time, Roofing Removal and replacement: Maximum of five consecutive working days for full completion at each location.
- C. Clean substrates of debris and remove projections. Cover knotholes or minor voids in substrate with sheet metal flashing.
- D. Protective Underlayment Installation: Comply with manufacturer’s written instructions and recommendations but not less than those recommended by ARMA’s “Residential Asphalt Roofing Manual” or the NRCA Steep Roofing Manual”.
  - 1. Completely cover the deck with one layer of #30 asphalt saturated underlayment. Use only enough staples to hold underlayment in place until covered with shingles. Use blind nailing for roof edge flashings.
  - 2. At valley: Extend #30 asphalt saturated underlayment across valley. Center full width of underlayment on valley. 12-inch minimum end laps. No fasteners within 6 inches of valley centerline.
- E. Valley Protection Installation:
  - 1. Place one layer of factory primed and painted sheet metal flashings, minimum 24 inches wide, centered over open valleys and crimped to guide water. Weather lap joints minimum 4 inches. Nail in place minimum 18 inches oc, 1 inch from edges.
- F. Metal Flashing and Accessories Installation:
  - 1. Weather lap joints minimum 4 inches and seal weather tight with sealer.
  - 2. Secure in place with nails. Conceal fastenings.
  - 3. Flash and seal work weather tight, projecting through or mounted on roofing with sealer.
  - 4. Provide step flashing, at walls, one piece for each course. Seal in place and nail with two nails. Bond overlaying shingles in asphalt plastic cement. Also install new counter flashing where step flashing cannot go under siding.
- G. Asphalt Shingles Installation:
  - 1. Place shingles in straight coursing pattern per manufacturer’s instructions.
  - 2. Project first course of shingles  $\frac{3}{4}$  inch beyond fascia boards.
  - 3. Extend shingles  $\frac{1}{2}$  inch beyond face of gable edge fascia boards.
  - 4. Cap hips and ridges with individual shingles, per manufacturer’s instructions.
  - 5. Coordinate installation of roof mounted components or work projecting through roof with weather tight placement of Counter Flashings.
  - 6. Complete installation to provide weather tight service.

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- I. Metal Gutters: Locate hangers at rafter ends and not more than 24” o.c. Slip fit joints in the direction of flow. Seal and secure with sheet metal screws. Slope gutters to drain and to prevent puddling within gutter.
  
- H. Warranty:
  - 1. Provide applicator’s written limited warranty for the water tightness of the roofing and flashing systems for not less than three years.
  - 2. Provide manufacturer’s limited lifetime shingle warranty.

END OF SECTION

SECTION 07464  
LAP SIDING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
  - 1. Lap siding.
  - 2. Related trim, flashing, accessories, and fasteners.
  - 3. Installation where shown on the drawings.

1.2 SUBMITTALS

- A. Product Data: Provide data indicating materials, component profiles, and surface texture.
- B. Submit manufacturer's written installation for all products.

1.3 WARRANTY

- A. Provide limited lifetime warranty.

1.4 QUALITY ASSURANCE

- A. Compliance: Product and installation shall meet or exceed requirements of the following:
  - 1. All applicable building codes, laws, ordinances and local requirements.
  - 2. HUD Minimum Property Standards.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials off ground, under cover. Protect from damage and deterioration.
- B. Handle materials to prevent damage to surfaces, edges and ends of siding items. Damaged materials shall not be used.
- C. Deliver in original packaging with information stating the product manufacturer, type, style, profile and color.

PART 2 PRODUCTS

2.1 SIDING

- A. Manufacturers:
  - 1. James Hardie, Inc. Division of Associated Materials Incorporated, Cuyahoga, Falls, OH
    - a. Style: HZ10 "Hardieplank" 8-1/4" factory primed.
  - 2. Or approved equal. (Submit request for substitution for manufacture(s) not named 5 days prior to bid date)

2.2 LAP SIDING ACCESSORIES

- A. Provide trim boards and accessories from same manufacturer
- B. Window & Door Trim: 4/4 or 5/4 x 3”
- C. Outside Corner Trim: 3” or 4” wide outside corner post.
- D. Inside Corner Trim: factory pre-built corners
- E. Colors:
  - 1. Window and Door Trim: factory primed
  - 2. Others: Confirm with HACC prior to start date.

2.3 OTHER SIDING ACCESSORIES

- A. Provide accessories recommended by manufacturer.
- B. Starter Strips
- C. flashing
- D. Trim and Molding
- E. Corner posts: Inside and outside.
- F. Trim coil: Vinyl or aluminum.
- G. Fasteners: Non corrosive siding nails as recommended by siding manufacturer, in sufficient length to penetrate minimum of 1 inch into substrate. Provide pre finished fasteners in color to match siding or trim where face nailing is unavoidable. Staples may not be used.
- H. Caulking

2.4 FINISH

- A. Color: manufactures primed.

2.5 SEALANTS

- A. Exposed Locations: As recommended by siding manufacturer.

2.6 AIR INFILTRATION BARRIER

- A. 30lb felt paper installed per manufacturer’s recommendations.

**PART 3 EXECUTION**

3.1 EXAMINATION

- A. Examine substrate for compliance with requirements for substrates, installation tolerances, and other conditions affecting performance of siding, see Chapter 6, CABO. Do not proceed with installation until satisfactory conditions have been corrected and verified by HACC.

3.2 INSTALLATION

- A. Comply with siding manufacturer's installation instructions and recommendations. Install trim and accessories in accordance with manufacturer's recommendations.
1. Overlap butt joints to shed water away from direction of prevailing wind. Isolate dissimilar metals.
  2. Nail horizontal panel siding at 12" max., o.c. nail to an aligned pattern. Blind nail except on over trim.
  3. Install siding aligned level, and plumb.
  4. Install metal flashings at internal and external intersections, such as corners, sills, doors, and window heads, and at a change of materials.
  5. Install corner strips, closures and trim as required for finished appearance.
  6. Install sealant to prevent weather penetration. Maintain neat appearance.
  7. Securely install or reinstall existing building equipment and accessories including cable TV and telephone lines disturbed or not by siding installation.  
Provide preformed escutcheons at all electrical, telephone, cable, plumbing and other penetrations.  
Penetrations shall be kept to a minimum. Caulk all penetrations with a paintable sealant.
  8. All utility cable(s) and line(s) shall be concealed behind siding.
- B. LAP siding must be installed directly over existing wood subsiding where allowed by siding manufacturer. Existing trims, casings and other protruding items are to be removed. Existing subsiding to be re nailed, inspected and approved by HACC, prior to installing air infiltration barrier.

3.3 AIR INFILTRATION BARRIER

- A. Apply over sheathing of all exterior walls.
- B. Apply horizontally; with upper layer lapped over lower layer not less than 4 inches.
- C. Apply one continuous piece around building corners and terminate and seal under new trim board
- D. Where joints occur, moisture barrier shall be lapped not less than 6 inches.

3.4 ADJUSTING

- A. Replace damaged siding materials with new materials complying with specified requirements.

3.5 CLEANING

- A. Clean finished surfaces as recommended by siding manufacturer, and maintain in a clean condition during construction until the date of Substantial Completion.

END OF SECTION



## INSTALLATION REQUIREMENTS - PRIMED & COLORPLUS® PRODUCTS

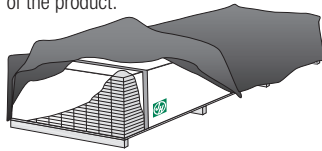
**SELECT CEDARMILL® • SMOOTH • CUSTOM COLONIAL™ SMOOTH • CUSTOM COLONIAL™ ROUGHSAWN  
CUSTOM BEADED CEDARMILL® • CUSTOM BEADED SMOOTH • STRAIGHT-EDGE SHINGLE PLANK**

**IMPORTANT: FAILURE TO INSTALL AND FINISH THIS PRODUCT IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND JAMES HARDIE WRITTEN APPLICATION INSTRUCTIONS MAY LEAD TO PERSONAL INJURY, AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES, AND VOID THE PRODUCT ONLY WARRANTY. BEFORE INSTALLATION, CONFIRM THAT YOU ARE USING THE CORRECT HARDIEZONE™ PRODUCT INSTRUCTIONS.**

**INSTALLATION OF HZ10® PRODUCTS OUTSIDE AN HZ10® LOCATION WILL VOID YOUR WARRANTY. TO DETERMINE WHICH HARDIEZONE™ APPLIES TO YOUR LOCATION, VISIT [WWW.HARDIEZONE.COM](http://WWW.HARDIEZONE.COM) OR CALL 1-866-942-7343 (866 9HARDIE)**

### STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



### CUTTING INSTRUCTIONS

#### OUTDOORS

- Position cutting station so that wind will blow dust away from user and others in working area.
- Use one of the following methods:
  - Best:
    - Score and snap
    - Shears (manual, electric or pneumatic)
  - Better:
    - Dust reducing circular saw equipped with a HardieBlade® saw blade and HEPA vacuum extraction
  - Good:
    - Dust reducing circular saw with a HardieBlade saw blade (only use for low to moderate cutting)

#### INDOORS

- Cut only using score and snap, or shears (manual, electric or pneumatic).
  - Position cutting station in well-ventilated area
- NEVER use a power saw indoors
  - NEVER use a circular saw blade that does not carry the HardieBlade saw blade trademark
  - NEVER dry sweep – Use wet suppression or HEPA Vacuum

Important Note: For maximum protection (lowest respirable dust production), James Hardie recommends always using "Best"-level cutting methods where feasible.

NIOSH-approved respirators can be used in conjunction with above cutting practices to further reduce dust exposures. Additional exposure information is available at [www.jameshardie.com](http://www.jameshardie.com) to help you determine the most appropriate cutting method for your job requirements. If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.

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### GENERAL REQUIREMENTS:

- HardiePlank® lap siding can be installed over braced wood or steel studs spaced a maximum of 24" o.c. or directly to minimum 7/16" thick OSB sheathing. Irregularities in framing and sheathing can mirror through the finished application.
- HardiePlank® lap siding can also be installed over foam insulation/sheathing up to 1" thick. When using foam insulation/sheathing, avoid over-driving nails (fasteners), which can result in dimpling of the siding due to the compressible nature of the foam insulation/sheathing. Extra caution is necessary if power-driven nails (fasteners) are used for attaching siding over foam insulation/sheathing.
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap® Weather Barrier, a non-woven non-perforated housewrap<sup>1</sup>, which complies with building code requirements.
- When installing James Hardie products all clearance details in figs. 3,4,5,6,7,8,&9 must be followed.
- Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6" in the first 10'.
- Do not use HardiePlank lap siding in fascia or trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- For larger projects, including commercial and multi-family projects, where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin "Expansion Characteristics of James Hardie® Siding Products" at [www.JamesHardie.com](http://www.JamesHardie.com).
- DO NOT use stain on James Hardie® products.

### INSTALLATION:

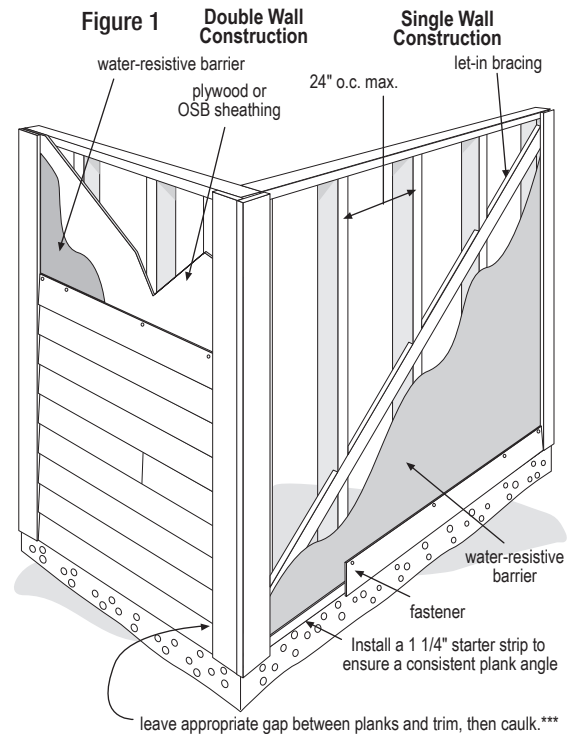
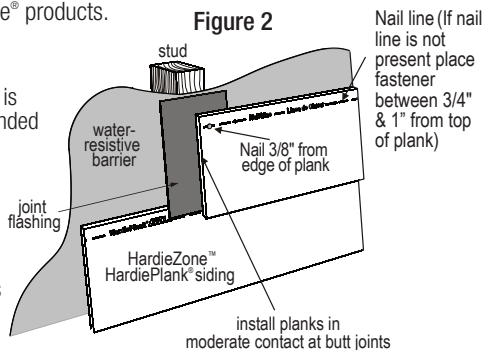
#### JOINT TREATMENT

- Joint flashing behind field butt joints is required for ColorPlus and recommended for primed products.
- DO NOT Caulk field butt joints on ColorPlus siding.\*
- It is OK to Caulk field butt joints on James Hardie primed siding products that is to be field painted.\*\*
- DO caulk where HardiePlank® meets vertical trim.

\*Note: Caulking at field butt joints is not recommended for ColorPlus for aesthetic reasons as the caulking and ColorPlus will weather differently.

\*\*Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. \*\*\*Refer to Caulking section in these instructions.

<sup>1</sup> For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or [www.hardiewrap.com](http://www.hardiewrap.com)



#### WARNING: AVOID BREATHING SILICA DUST

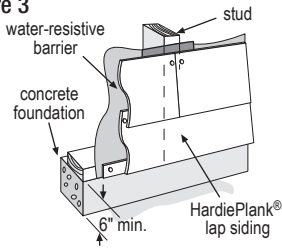
James Hardie® products contain respirable crystalline silica, which is known to the State of California to cause cancer and is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) use fiber cement shears for cutting or, where not feasible, use a HardieBlade® saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area; (4) wear a properly-fitted, NIOSH-approved dust mask or respirator (e.g. N-95) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods - never dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheet available at [www.jameshardie.com](http://www.jameshardie.com) or by calling 1-800-9HARDIE (1-800-942-7343). FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

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## CLEARANCES

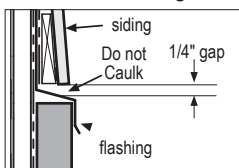
Install siding and trim products in compliance with local building code requirements for clearance between the bottom edge of the siding and the adjacent finished grade.

**Figure 3**



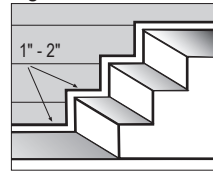
Maintain a 1/4" clearance between the bottom of James Hardie products and horizontal flashing. Do not caulk gap.

**Figure 7**



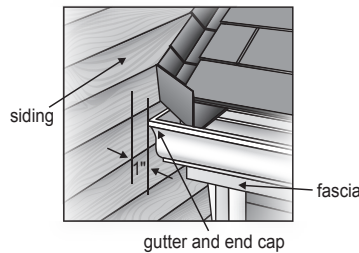
Maintain a 1" - 2" clearance between James Hardie® products and paths, steps and driveways.

**Figure 4**



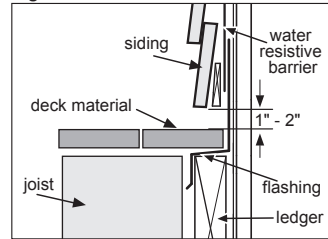
Maintain a minimum 1" gap between gutter end caps and siding & trim.

**Figure 8**



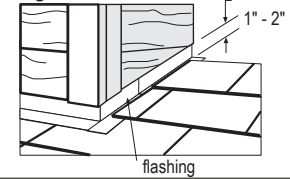
Maintain a 1" - 2" clearance between James Hardie products and decking material.

**Figure 5**

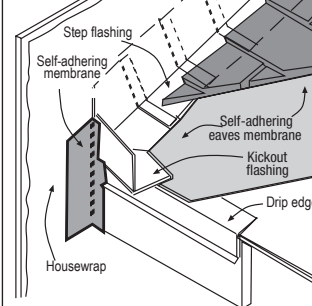


At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be installed per the roofing manufacturer's instructions. Provide a 1" - 2" clearance between the roofing and the bottom edge of the siding and trim.

**Figure 6**



**Figure 9**



## KICKOUT FLASHING

Because of the volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding.

It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout.

**Figure 15, Kickout Flashing<sup>†</sup>** To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" as required by IRC code R905.2.8.3 : "...flashing shall be a min. of 4" high and 4" wide." James Hardie recommends the kickout be angled between 100° - 110° to maximize water deflection

## FASTENER REQUIREMENTS \*\*

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. For Fastening schedule refer to ESSR-2290 at [www.jameshardie.com](http://www.jameshardie.com). **Pin-backed corners may be done for aesthetic purposes only. Pin-backs shall be done w/finish nails only, and are not a substitute for blind or face nailing.**

### BLIND NAILING

#### Nails - Wood Framing

- Siding nail (0.09" shank x 0.221" HD x 2" long)
- 11ga. roofing nail (0.121" shank x 0.371" HD x 1.25" long)

#### Screws - Steel Framing

- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4" long x 0.375" HD) Screws must penetrate 3 threads into metal framing.

#### Nails - Steel Framing

- ET & F Panelfast® nails or equivalent (0.10" shank x 0.313" HD x 1-1/2" long) Nails must penetrate minimum 1/4" into metal framing.

#### OSB minimum 7/16"

- 11ga. roofing nail (0.121" shank x 0.371" HD x 1.75" long)
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8" long x 0.375" HD).

### FACE NAILING

#### Nails - Wood Framing

- 6d (0.113" shank x 0.267" HD x 2" long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

#### Screws - Steel Framing

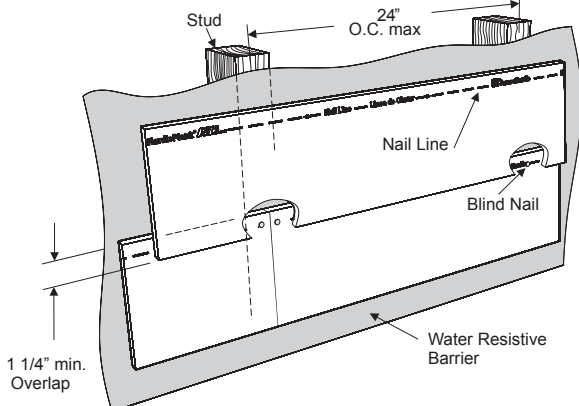
- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8" long x 0.323" HD) Screws must penetrate 3 threads into metal framing.

#### Nails - Steel Framing

- ET & F pin or equivalent (0.10" shank x 0.25" HD x 1-1/2" long) Nails must penetrate minimum 1/4" into metal framing.

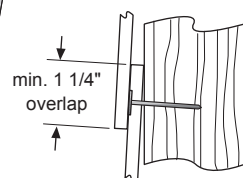
#### OSB minimum 7/16"

- Siding nail (0.09" shank x 0.221" HD x 1-1/2" long)\*

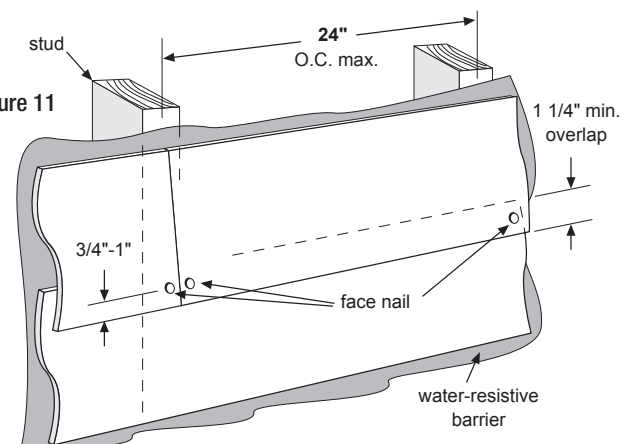


**Figure 10**

### Minimum overlap for Both Face and Blind Nailing



**Figure 11**



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

† The illustration (figure 9) and associated text was reprinted with permission of THE JOURNAL OF LIGHT CONSTRUCTION. For subscription information, visit [www.jlconline.com](http://www.jlconline.com).

\* When face nailing to OSB, planks must be no greater than 9 1/4" wide and fasteners must be 12" o.c. or less.

\*\* Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 17 - Fastening Tips for HardiePlank® Lap Siding.

## GENERAL FASTENING REQUIREMENTS

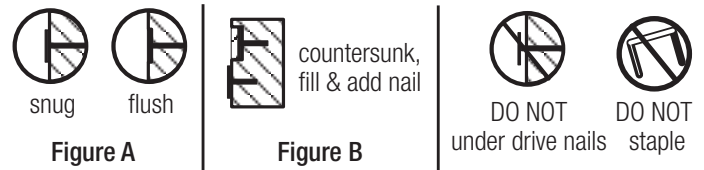
Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5.

- Consult applicable code compliance report for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (fig. A)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, fill nail hole and add a nail. (fig. B)
- For wood framing, under driven nails should be hit flush to the plank with a hammer (For steel framing, remove and replace nail).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.
- **Do not use aluminum fasteners, staples, or clipped head nails.**

## PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).



## PAINTING

DO NOT use stain on James Hardie® products. James Hardie products must be painted within 180 days for primed product and 90 days for unprimed. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

## CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions. **Note: OSI Quad as well as some other caulking manufacturers do not allow tooling.**

## COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up paint should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coat, available from your ColorPlus product dealer.

## PAINTING JAMES HARDIE® SIDING AND TRIM PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain or oil/alkyd base paints on James Hardie® products
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

## COVERAGE CHART/ESTIMATING GUIDE

Number of 12' planks, does not include waste

COVERAGE AREA LESS OPENINGS	HARDIEPLANK® LAP SIDING WIDTH										
	SQ (1 SQ = 100 sq.ft.)	(exposure)	5 1/4 4	6 1/4 5	7 1/4 6	7 1/2 6 1/4	8 6 3/4	8 1/4 7	9 1/4 8	9 1/2 8 1/4	12 10 3/4
1			25	20	17	16	15	14	13	13	9
2			50	40	33	32	30	29	25	25	19
3			75	60	50	48	44	43	38	38	28
4			100	80	67	64	59	57	50	50	37
5			125	100	83	80	74	71	63	63	47
6			150	120	100	96	89	86	75	75	56
7			175	140	117	112	104	100	88	88	65
8			200	160	133	128	119	114	100	100	74
9			225	180	150	144	133	129	113	113	84
10			250	200	167	160	148	143	125	125	93
11			275	220	183	176	163	157	138	138	102
12			300	240	200	192	178	171	150	150	112
13			325	260	217	208	193	186	163	163	121
14			350	280	233	224	207	200	175	175	130
15			375	300	250	240	222	214	188	188	140
16			400	320	267	256	237	229	200	200	149
17			425	340	283	272	252	243	213	213	158
18			450	360	300	288	267	257	225	225	167
19			475	380	317	304	281	271	238	238	177
20			500	400	333	320	296	286	250	250	186

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

RECOGNITION: In accordance with ICC-ES Legacy Report NER-405, HardiePlank® lap siding is recognized as a suitable alternate to that specified in: the BOCA National Building Code/1999, the 1997 Standard Building Code, the 1997 Uniform Building Code, the 1998 International One- and Two-Family Dwelling Code, the 2003 International Building Code, and the 2003 International Residential Code for One-and Two-Family Dwellings. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida listing FL#889, Dade County, Florida NOA No. 02-0729.02, U.S. Dept. of HUD Materials Release 1263c, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

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Additional Installation Information,  
Warranties, and Warnings are available at  
[www.jameshardie.com](http://www.jameshardie.com)



Panelfast is a registered trademark of ET&F Fastening Systems, Inc.

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SECTION 07620  
SHEET METAL FLASHING AND TRIM – REVISED

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes metal gutters, downspouts and boots, drip and rake edge flashing, valley flashing, wall and step flashing, fascia and rake wrap, roof jacks for vent pipes, exhaust ducts with caps as indicated on Drawings.

PART 2 PRODUCTS

- A. Metal Gutters: Standard continuous “K” shape, 4”x5” minimum, 26 ga. Galvanized steel, prefinished 2 coats fluoropolymer Hylar 5000 or Kynar 500. Color: White.
- B. Metal Downspouts: 2”x3” Corrugated rectangular profile, 26 ga. Galvanized steel, prefinished 2 coats fluoropolymer Hylar 5000 or Kynar 500. Color: White. Downspouts shall have a cleanout/leaf catcher screen installed.
- C. Downspout Straps: Premanufactured and preformed standard straps with diamond shape ends. 1-1/2”x 10-1/2”. Match finish and color to Downspouts. No sharp exposed edges.
- D. Downspout Boots: PVC to round boot where metal Downspout meets underground drainage system. Match sizes. Color to match Downspouts.
- E. Vinyl Fascia Fixer: Home Depot Model # T1539. Color to match gutters. Install to square up gutters.
- F. Splash Blocks: Concrete type.
- G. Drip and Rake Edge Flashings: 2”x4” ‘L’ profile, 26 ga. Galvanized steel, prefinished 2 coats fluoropolymer Hylar 5000 or Kynar 500. Color: White.
- H. Metal Fascia Wrap: Profile as required by size and shape of fascia board. 26 ga. Galvanized steel, prefinished 2 coats fluoropolymer Hylar 5000 or Kynar 500. Color: White.
- I. Roof Vent Exhaust Caps: Goose neck type roof top vent. Lambro, Model # 354 4”, Model # 356 6” and Model # 357 7”. Size as required by code for bathroom and kitchen range exhaust ducts. Prefinished. Color: Black.
- J. Roof Vent Caps: Plastic Roof Vent. FAMCO Model # FA 50, 56 Sq. In.
- K. Roof Vent Pipe Jacks: Standard galvanized steel flange with neoprene neck. Size as required by vent pipes. Prefinished. Color: Black.
- L. Roof Electric Mast Neoprene Flashing: Where mast penetrates roofing material. “Retrofit Flashing” Base Flange 14 1/2”(w) x 5” (h) as manufactured by “Portals Plus, Inc.” (630) 766-5240.
- M. Toe Kick Flashing: 26 ga. Galvanized steel, prefinished 2 coats fluoropolymer Hylar 5000 or Kynar 500. Color: White.

2.2 COMPONENTS

- A. Pre-Finished Galvanized Steel Sheet: ASTM A924/A924M, Grade A, or ASTM A653/A653M, G90 (Z275) zinc coating; 26 gage core steel, shop pre-coated with modified silicone coating; color as selected from manufacturer's standard colors.

2.3 ACCESSORIES

- A. Fasteners: Nails, standard round wire roofing type, hot dipped zinc coated steel; of sufficient length to penetrate wood substrate by at least  $\frac{3}{4}$ " or just thru plywood sheathing. **Do not use staples of any type.**
- B. Gutter and Downspout Anchorage Devices: In accordance with SMACNA requirements. At Gutter and Downspout connections use #6-3/8" Pre - Painted Zip Screws. Color: White.
- C. Gutter Supports: Spikes and ferrules, size per gutter's dimensions. Color: White.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify membrane termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Remove existing flashing, gutters, downspouts and accessories as indicated on drawings.
- B. Paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to minimum dry film thickness of 15 mil. Or separate with building paper where electrolysis may occur.

3.3 INSTALLATION

- A. Comply with manufacturer's instructions and SMACNA's "Architectural Sheet Metal Manual" (5<sup>th</sup> Edition). Allow for thermal expansion, set true to line and level as indicated. Install work with laps, joints, and seams permanently watertight and weatherproof; conceal fasteners where possible.
- B. Secure flashings, gutters and downspouts in place.
- C. Fit components tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Slope gutters  $\frac{1}{4}$  inch per foot minimum. Support gutters with spikes and ferrules 24" o.c. maximum or at each rafter end whichever is the smaller in spacing.
- E. Connect downspouts to downspout boots and storm sewer system. Use sheet metal screws at all downspout joints. Secure Downspouts to building with matching anchors at each end, joints and no less than 48" on center maximum spacing. Use unbroken lengths to minimize joints. Clean and repair underground drainage from gutters as required.
- F. Sharp Edges: Finished work shall not have protruding sharp edges.
- G. Expansion: Provide for thermal expansion of exposed sheet metal. Space movement joints at 10 feet maximum with no joints permitted within 24 inches of corner or intersection.
- H. Sealed Joints: Form non-expansion but moveable joints in metal to accommodate elastomeric sealant to comply with SMACNA standards. Fill joint with sealant and form metal to completely conceal sealant.
- I. Seams: Fabricate non-moving seams in sheet metal with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- J. Counter flashing: Coordinate installation with installation of assemblies to be protected by counter flashing. Install counter flashings in reglets or receivers. Secure in a waterproof manner by means of snap-in installation and sealant, interlocking folded seam or blind rivets and sealant. Do not use lead. Lap counter flashing joints a minimum of 2 inches and bed with sealant.

END OF SECTION

SECTION 07900  
JOINT SEALERS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes sealants and joint backing.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.
- B. Manufacturer's Instructions: Submit manufacturer's installation instructions for each type of sealant.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

PART 2 PRODUCTS

2.1 JOINT SEALERS

- A. Product Description:
1. High Performance General Purpose Exterior (Nontraffic) Sealant Polyurethane; ASTM C920, Grade NS, Class 25, single component.
    - a. Type: 1
    - b. Color: Standard colors matching finished surfaces
  2. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, single component, paintable, mildew resistant.
    - a. Type: 2
    - b. Color: Standard colors matching finished surfaces.
  3. Bathtub/Tile Sealant: White silicone; ASTM C920, single component, mildew resistant.

2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D1565, open cell PVC or D1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify substrate surfaces and joint openings are ready to receive work.
- B. Verify joint backing and release tapes are compatible with sealant.

**3.2 PREPARATION**

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with ASTM C1193.

**3.3 INSTALLATION**

- A. Perform installation in accordance with ASTM C1193.
- B. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
- C. Install bond breaker where joint backing is not used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Tool joints concave.

**3.4 SCHEDULE**

- A. Exterior Joints for Which No Other Sealant Type is Indicated: Type 1.
- B. Interior Joints for Which No Other Sealant is Indicated: Type 2.
- C. Joints Between Plumbing Fixtures and Walls and Floors, and Between Countertops and Walls: Type 3.

END OF SECTION



SECTION 08110  
FIBERGLASS DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes pre-hung, thermally insulated fiberglass doors, with factory pre finished wood frames.

1.2 SUBMITTALS

- A. Product Data Sheets: Listing manufacturer specifications for fabrication showing details of design, construction, and installation substantiating that products comply.
- B. Manufacturer's Installation Instructions: Indicate standard and special installation instructions.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with the following:
1. Standard Steel and Fiberglass Doors and Frames.
  2. DHI - Door Hardware Institute - The Installation of Residential Insulated Fiberglass Doors and Wood Frames and Builder's Hardware.
- B. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.4 WARRANTY

- A. Furnish 25 year door manufacturer warranty and related door hardware manufacturer warranty(s).

PART 2 PRODUCTS

2.1 FIBERGLASS DOORS, WOOD FRAMES AND HARDWARE

- A. Manufacturers:
1. Masonite International, Inc., (Northwest Doors, 503-692-9494)
  2. Door Type: 'Oakcraft' Fiberglass, wood grain texture finish 6 panel (Front Door).
  3. Door Type: 'Oakcraft' Fiberglass, wood grain texture finish with half window. (Rear Door).
  4. Or approved equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)

2.2 COMPONENTS

- A. Exterior Door Faces: 6 panel, fiberglass. Prime and paint white.
- B. Exterior Frames:
1. Sill: Aluminum threshold meeting requirements of Uniform Federal Accessibility Standards.
  2. Jambs and Head: Factory primed wood, kerfed to receive weather-stripping.
  3. Adjustable Security Strike Plate: Allow adjustment of door in frame up to 3/16 inch. Finish shall be bright brass.
  4. Hinges: 4" x 4" steel with tamper proof hinge pins. Finish shall be bright brass.
  5. Jamb, Head and Sill weather-stripping.
  6. Peep hole: All front entry doors shall have a peep installed. Maintenance Warehouse #MW874100.
- C. Door Core: Polyurethane.
- D. End Closure: Kiln-dried wood, machinable.
- E. Hardware

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1. Deadbolt Manufacturer: Kwickset Corporation, or equal. (Submit request for substitution for manufacturer(s) not named 15 days prior to Bid Date).
  - a. Model #: 200T.
  - b. Style: Tylo.
  - c. Finish: US3 Bright Brass.
  - d. Mounting Ht: Standard.
  
2. Keying: (Contractor is responsible for keying costs)
  - a. Provide deadbolt cylinders with master keying, using system that fits HACC keying system. Verify requirements with HACC.
  - b. Match keying and key blank type in HACC existing master key system.
  - c. Provide two (5) silver keys to HACC at conclusion of project.
  
3. Butt Hinge Manufacturer: Emtek Hardware, or equal. (Chown Hardware 503-243-6500) (Submit request for substitution for manufacturer(s) not named 15 days prior to Bid Date).
  - a. Model #: 14575.
  - b. Size: 4-1/2" x 4-1/2".
  - c. Style: Full mortise, with non-removable pin.
  - d. Finish: US3 Bright Brass.
  - e. Quantity: Three per Door.
  - f. Mounting Ht: Match mounting heights as published by Steel Door Institute

### 2.3 FABRICATION

- A. Fabricate doors and frames with hardware reinforcement in place.
- B. Fabricate doors to receive specified hardware without field modifications.
- C. Configure exterior frames and doors with profile to receive recessed weather-stripping.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify opening sizes and tolerances are acceptable.
- B. Examine area receiving doorframe system to identify conditions that adversely affect installation.
- C. Do not begin installation until adverse conditions have been remedied.

### 3.2 INSTALLATION

- A. Install doors and frames in accordance with SDI-100 and DHI.
- B. Wet trades work must be thoroughly dry and complete prior to installation.
- C. Coordinate installation of doors and frames with installation of hardware.
- D. Install doors plumb and level. When open doors shall stay in place and not rotate by gravity.
- E. Adjust door for smooth and balanced door movement for perimeter seal and for hardware operation.
- F. Touch up factory-finished doors as required.
- G. Tolerances:
  1. Maximum Diagonal Distortion: **1/16 inch** measured with straight edge, corner to corner.
  2. Maximum Gap Between Door and Frame: **1/8 inch.**

END OF SECTION

SECTION 08210  
WOOD DOORS

PART 1 GENERAL SUMMARY

- A. Section includes pre-hung, pre finished hollow core wood doors and solid core louvered doors.

1.2 SUBMITTALS

- A. Manufacturer's Installation Instructions: Indicate standard and special installation instructions.

1.3 QUALITY ASSURANCE

- A. Perform work in accordance with the following:
  - 1. NWWDA I.S.1.

1.4 WARRANTY

- A. Provide manufacturer's or shop warranty for minimum period of one year to cover de-lamination, warping and telegraphing core construction.

PART 2 PRODUCTS

2.1 WOOD DOORS

- A. Manufacturers:
  - 1. Northwest Doors, 503-692-9494

2.2 COMPONENTS

- A. Hollow Core Wood Doors (Hemlock):
  - 1. Thickness: 1-3/8 inch.
  - 2. Stiles: Laminated 3/4" to 1-3/8" finger jointed softwood.
  - 3. Rails: 2-7/8" clear or finger jointed softwood
  - 4. Lock Blocks: 2-7/8" x 18" particle board.
  - 5. Face: 1/8" min. birch veneer.
  - 6. Core Construction: 5" honeycomb.
  - 7. Size: As indicated.
  - 8. Finish: (NW Door) Stain #5.
  - 9. Tracks – Maintenance Warehouse #905580 Slide
- B. Wood Frames:
  - 1. Jambes & Head Frames: Prehung, solid Hemlock wood frames.
  - 2. Trim: Interior 3/8"x 2-1/4" wide sanitary casings.
  - 3. Hardware and Accessories: Swinging door hinges: Fabricator's standard 3-1/2" by 3-1/2" round mortise type hinges with removable pin, bright brass. Provide three hinges per 1-3/8" door unit.
  - 4. Other hardware as schedules.
  - 5. Finish: (NW Door) Stain #5.

2.3 FABRICATION

- A. Fabricate door units in shop in accordance with review shop drawings for sizes and locations indicated. Machine doors for hardware using templates furnished by hardware manufacturer, as applicable.

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- B. Swinging Doors:
  - 1. Door: Bore for latch set. Backset in accordance with requirements of Finish Hardware Section: Mortise and Hinges.
  - 2. Frame: Bore for latch set strike and full mortise hinges.
  - 3. Assemble units complete with doors, frame, and specified trim; use spacers, fasteners, and bracing as required for shipping. Weather-strip exterior door units; pack or install thresholds with door units.
  - 4. Tolerances: 1/8" maximum gap between door and frame. At head and jambs.

**PART 3 EXECUTION**

**3.1 INSTALLATION**

- A. Install doors in accordance with reviewed shop drawings and manufacturer's product data. Maintain uniform height to top of trim for all doors; align with window head as applicable. Shim full at fasteners to rough opening. Install plumb and level. Install with 3/8" clearance at bottom of door to finished flooring.
- B. Swinging Interior Doors: Set leaf portion in opening; level and plumb; fasten through trim to rough opening with properly sized nails as follows:
  - 1. Hinge Jamb Portion: One nail at each hinge, one base and two other equally spaced.
  - 2. Strike Jamb: One nail at strike plate and three others, equally spaced.
  - 3. Align and plumb door strike jamb and level head to maintain same space as hinge jamb.
  - 4. Shim full; space at each hinge and door strike.
  - 5. Set second part of split frame tight to wall; provide same number nails in second part split frame.
  - 6. Nail through stop at each hinge, door strike, and at approximately same height as top and bottom hinges in door strike jamb to jacks.
  - 7. Subsurface set all nails.
  - 8. Tolerances: Maintain a maximum of 1/8" gap between door and frame. At head and jambs.
- C. Locksets or latch sets: Specified in Finish Hardware section.
- D. Replace or re-hang doors which bind or sag, and doors with improper machining or cutouts visible in finished work.
- E. Clean soil, smudge marks, and handling defects from doors. Replace doors from which marks cannot be removed.
- F. Adjust components for smooth and quiet operation.
- G. Doors, frames, and trim finish: Factory applied clear finish. Pre-finish doors and frames in accordance with AWI 7<sup>th</sup> Edition, Section 1500 Custom.
- H. Tolerances:
  - 1. Maximum Diagonal Distortion: 1/4" measured with straight edge, corner to corner.
  - 2. Maximum gap between door and frame, 1/8" at head and jambs.

END OF SECTION

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SECTION 08360  
OVERHEAD DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes manual overhead sectional doors of steel panels of stile and rail design.

1.2 SUBMITTALS

- A. Shop Drawings: Indicate opening dimensions and tolerances, component construction, connections and details, anchorage methods and spacing, hardware and locations, shop finish and installation details.
- B. Product Data: Submit data on door system's performance under wind load and thermal resistance rating.
- C. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data.

PART 2 PRODUCTS

2.1 SECTIONAL OVERHEAD DOORS

- A. Manufacturer:
1. Overhead Door Company of Portland, Wayne Dalton - Thermogard #9600, white raised panel. Galvanized steel sheet metal finish on both inside and outside faces of the door.

2.2 COMPONENTS

- A. Insulated Steel Framed Doors with Raised Steel Panels:
1. Face Panels: 1-7/8" thick, 24 gage hot-dipped galvanized steel, both inside and outside faces of the door, ASTM A446, Grade A with ASTM A525, with 2 coat baked on polyester finish.
  2. Door Jamb: Rolled galvanized steel channel with galvanized steel mounting brackets.
  3. Door Hardware: Manufacturer's standard galvanized steel hardware with counterweight, inside mounted spring activated latch bar with interior only lever latch handle (locate at one side of door), galvanized steel hinges, and galvanized ball bearing roller brackets and tracks. Fixed galvanized steel door handle (1), inside at waist height on side of pull rope. Handles shall NOT have a key lock.
  4. Insulation: Polyuretane rigid insulation.
  5. Weather-stripping: Manufacturer's standard weather-strip package including flexible bottom seal.
  6. Steel Door Finish: Manufacturer's standard 2-coat baked on polyester finish.
  7. Color: White.
- B. Head and Jambs Frame:
1. B grade or better, dry, 19% maximum moisture content, White Spruce.
  2. Exposed surfaces shall be smooth finish.
  3. Finger jointed lumber is not acceptable.
  4. Preprime and Prepaint prior to installation.
  5. 2x6 at 2x4 stud frame and 2x8 at 2x6 stud frame.
  6. Concealed hot dipped galvanized fasteners appropriate for application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify wall openings are ready to receive work and opening dimensions and tolerances are within limits.

3.2 PREPARATION

- A. Prepare door-opening components to permit installation of door unit and preserve continuity of wall air barrier and vapor retarder seal.

3.3 INSTALLATION

- A. Installation of Overhead Door Assemblies:
  - 1. Install track and anchor to doorjamb and roof or ceiling support with adjustable brackets.
  - 2. Anchor vertical track assembly to framing at not less than 24 inches on center.
  - 3. Hang horizontal track from structural overhead framing with angle or channel hangers, welded and bolt-fastened in place.
  - 4. Install bracing and framing members as required for rigid installation of track and door operating equipment.
  - 5. Install door rollers in track and set counterbalance.
  - 6. Install weather-stripping at door jambs and head

3.4 COMPLETION

- A. Adjusting Defective Work:
  - 1. Adjust and lubricate operating hardware.
  - 2. Adjust counterbalance assembly as required for smooth door operation.
  - 3. Adjust door weather-stripping for tight closure when door is closed.
  
- B. Final Cleaning: Clean door face prior to Substantial Completion.

END OF SECTION

SECTION 08560  
VINYL WINDOWS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes factory fabricated tubular extruded plastic windows with fixed and operating sash, glass, and framed insect screens.

1.2 SYSTEM DESCRIPTION

- A. Performance Requirements For Windows: Meet performance criteria for ASTM D4099 Grade 40 and AAMA 101-93
- B. System Design: Performance to provide for expansion and contraction within system components caused by temperature cycling. Design and size members to withstand loads caused by pressure and suction of wind in accordance with applicable code.
- C. Air Infiltration: Limit air leakage through assembly to 0.3 cfm/min/sq ft of wall area, measured at reference differential pressure across assembly of 1.57 psf as measured in accordance with ASTM E283.
- D. Water Leakage: None, when measured in accordance with ASTM E331.
- E. System Internal Drainage: Drain water entering framing system, condensation occurring in glazing channels, or migrating moisture occurring within system to exterior.
- F. Thermal Movement: Design sections to permit thermal expansion and contraction of plastic as compared to glass, infill, and perimeter opening construction.

1.3 DELIVERY, STORAGE AND PROTECTION

- A. Deliver, store, handle, and protect products at site to insure protection of windows. Replace all damaged units prior to final acceptance.
- B. Protect finished surfaces with wrapping or strippable coating. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.
- C. Jig, brace, and box the window frame assemblies for transport to minimize flexing of members or joints.

1.4 WARRANTY

- A. Correct Defective Work: Include coverage of degradation of color finish.
  - 1. Warranty period: Ten (10) years from date of substantial completion.
- B. Provide manufacturer's limited lifetime warranty for insulated glass units from seal failure, interpane dusting or misting, and replacement of same.

PART 2 PRODUCTS

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2.1 TUBULAR PLASTIC WINDOWS AND SLIDING DOORS

- A. Manufacturers: (No Substitutions)
  - 1. Milgard Windows
    - a. Style: Tuscany Series LO-E.
  - 2. Or approved equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)

2.2 COMPONENTS

- A. Extruded PVC: AAMA 303 hollow, multi-chambered sections of extruded polyvinyl chloride (PVC), with integral ultra-violet degradation resistance.
- B. Glass and Glazing Materials:
  - 1. Insulating Glass: SIGMA sealed double pane float glass with clear outer pane; total thickness 1 inch.
  - 2. Tempered glass in locations indicated on drawings and as code requires.
  - 3. **Minimum U value = 0.30 or better**
  - 4. Bathroom window shall have privacy glass.
- C. Hardware: Manufacturer's standard window and door hardware based on following requirements.
  - 1. Horizontal Sliding Sash: Nylon rollers in steel bracket, screw adjustable, limit stops in head and sill track.
  - 2. Single Hung Sash: Metal and nylon spiral friction slide cylinder, each sash, each jamb.
  - 3. Sash lock: Milgard SmartTouch Lock equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- D. Insect Screens: Rolled aluminum frame of rectangular sections fit with adjustable hardware, with ASTM D3656, Class 2, 18 by 14 mesh set into frame and secured. Fit frames with adjustable roller hardware, woven nylon mesh, 14/18 mesh size, and gray color.
- E. Weather Stripping: Flexible plastic, configured for flexible fit.
- F. Waterproofing Joint Tape: 6" wide self adhesive rubberized tape at window and door Rough Opening, use Moistop Flashing. Finish with Moistop E-Z-Seal, Manufactured by Fortifiber.

2.3 FABRICATION

- A. Fabricate framing, mullions and sash members with fusion welded corners and joints, in rigid jig. Supplement frame sections with internal reinforcement where required for structural rigidity.
- B. Form snap in glass stops, closure molds, weather stops, and flashings of extruded PVC for tight fit into window frame section. Form weather stop flange to perimeter of unit.
- C. Fit insect screen frames with four spring loaded pin retainers.
- D. Weather-strip operable units.



2.4 SHOP FINISHING

- A. Exterior Surfaces: Manufacturer's standard white.
- B. Interior Surfaces: Manufacturer's standard white.
- C. Screens: White frames with light screening.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify rough openings are correctly sized and located.

3.2 PREPARATION

- A. Prepare opening to permit correct installation of frame and achieve continuity of air and vapor barrier seal.

3.3 INSTALLATION

- A. Install window frames, glazing, and hardware in accordance with manufacturer's instructions.
- B. Flash the rough opening with 6" Moistop Flashing, apply sealant to flange of window and set in rough opening. Apply Moistop E-Z Seal over flange, start from sill, then jambs and finish with head.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- D. Coordinate attachment and seal of air and vapor barrier materials. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- E. Coordinate installation of perimeter sealants and backing materials with Section 07900.

3.4 ERECTION TOLERANCES

- F. Maximum variation from level or plumb: 0.06 inches every 3 ft. non-cumulative or 0.5 inches per 100 ft., whichever is less.

3.5 ADJUSTING

- A. Adjust frames and hardware as required for smooth operation and secure weather tight closure.

3.6 CLEANING

- A. Remove protective material from pre-filled surfaces.
- B. Wash surfaces by method recommended and acceptable to sealant and window manufacturer; rinse and wipe surfaces clean.
- C. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.

END OF SECTION

SECTION 08710  
DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes accessible hardware for wood and metal doors

1.2 SUBMITTALS

- A. Product Samples:
1. Provide product samples only upon request, prior to approval of the hardware schedule and delivery of hardware.
  2. Submit one sample of each exposed hardware unit, finished as required and tagged with full description for coordination with the hardware schedule.
  3. Samples will be returned to the supplier or, when deemed acceptable and remain undamaged through submittal, review, and field comparison procedures may, after final check of operation, be used in the work.
- B. Keying Schedule: Match existing keying schedule with HACC. A Locksmith designated by HACC will do the keying. **Contractor to pay the Locksmith's fees.**
- C. Installation Instructions: Submit installation instruction for each type of hardware.

1.3 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the following requirements:
1. ANSI/BHMA A156 series.
  2. NFPA 80 - Fire Doors and Windows.
  3. NFPA 101 - Life Safety Code.
- B. Coordination:
1. Coordinate work of this section with other directly affected sections requiring integral reinforcement for door hardware.
  2. Do not install surface mounted hardware until finishes have been applied and cured.
- C. Manufacturer: Obtain each type of hardware from only one manufacturer, except as indicated otherwise in hardware schedule.
- D. Supplier: Company specializing in supplying door hardware with minimum three years documented experience.

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1.5 DELIVERY, STORAGE, AND DELIVERY

A. Packing and Shipping:

1. Tag each item or package separately, with identification related to the final hardware schedule.
2. Deliver individually packaged hardware items at the times and to the shop or site for installation.
3. Place sets of 3 change keys in lockbox, and hand over 2 change keys at the conclusion of the project to HACC representative, tag keys, and plainly mark keys with change number or symbol and door designation.
4. Control the handling and installation of hardware items, which are not immediately replaceable, so that the completion of work will not be delayed by hardware, losses, both before and after installation.

PART 2 PRODUCTS

2.1 MANUFACTURER (No Substitutions)

A. Passage Sets:

1. Manufacturer: Kwikset Corporation.
2. Model No. 200 T
3. Style: Tylo
4. Strike: Full lip strike
5. Latch: 2 3/8" Steel
6. Finish: US3 Bright Brass

B. Privacy Sets.

1. Manufacturer: Kwikset Corporation.
2. Model No.: 300 T
3. Style: Tylo
4. Strike: Full lip strike
5. Latch: 2 3/8" Steel
6. Finish: US3 Bright Brass

C. Deadbolt: (At exterior doors use with Passage set)

1. Manufacturer: Kwikset Corporation.
2. Model No.: 660
3. Style: Single Cylinder Deadbolt
4. Finish: US3 Bright Brass.

D. Wall Stops:

1. Manufacturer:
  - a. Maintenance Warehouse
  - b. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
2. Model No.: 407B3
3. Style: Wall Mounted.(See Detail 3/A-4)
4. Finish/Color: Brass/Grey Rubber

E. Floor Stops:

1. Manufacturer:
  - a. Ives

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- b. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
  - 2. Model No.: 61
  - 3. Style: Floor Mounted
  - 4. Finish US3 Bright Brass
- F. Hinge Pin/Stop
- 1. Manufacturer:
    - a. Ives
    - b. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
  - 2. Model No.: 807535 Maintenance Warehouse
  - 3. Style: Hinge Mounted
  - 4. Finish US3 Bright Brass
- G. Finger Pulls
- 1. Manufacturer: (No Substitution)
    - a. Ives
  - 2. Solid Brass, 2-1/8" bore flush pull, concealed fasteners, Model #226
- H. Hinges:
- 1. Manufacturer: Stanley. (No Substitution)
    - a. Interior: 3 1/2" Model RD758 or equal.
    - b. Exterior: 4" Model: RD741.

#### 2.4 MANUFACTURED UNITS

- A. Hand of door: Provide each item of hardware for proper installation and operation of the door swing as indicated on floor plan Drawings, including left, right and reverse bevel
- B. Butts:
  - 1. Provide butts with non-removable pins at out-swinging doors with locks.
  - 2. Provide full mortise butts in exact width required to clear projection of trim.
  - 3. Provide butts with flat tips and retainer device to prevent rising during use.
  - 4. Provide full mortise butts 4-1/2 by 4-1/2 inches unless otherwise noted or required by fire rating.
- C. Passage Lock Sets:
  - 1. Provide locks and latches with 2-3/8 inch backset, except where indicated otherwise in hardware schedule.
  - 2. Provide locks and latches with curved lip strikes in matching metal and finish.

#### 2.5 HARDWARE ACCESSORIES

- A. Fasteners:
  - 1. Provide flat-head screws in finish to match adjacent hardware as required for each hardware item.
  - 2. Where available, provide concealed fasteners for hardware units, which are exposed when the door is closed.
  - 3. Provide fasteners, which are compatible with both the unit fastened and the substrate.
  - 4. Avoid use of through bolts where the bolt head or nut on the opposite face is exposed.
  - 5. Where it is not possible to adequately reinforce the door, use machine screws or set bolts with flush heads.
- B. Keying:
  - 1. Provide locks and cylinders with master keying, using system that fits HACC keying system. Verify requirements with HACC.
  - 2. Match keying and key blank type in HACC existing master key system.

3. Provide 5 nickel silver keys at conclusion of project.

## 2.6 FABRICATION

- A. Hardware Mounting Heights:
  1. For steel doors and frames, match-mounting heights published by Steel Door Institute.
  2. Where hardware mounting heights are not indicated in other Sections of this specification, use the following heights as a guide:
    3. Top hinge: 5” header rabbet to top of hinge.
    4. Bottom hinge: 10” finish floor of bottom of hinge.
    5. Center hinge: Equal distance between top and bottom hinges.
    6. Lockset/latch set: 40” finish floor to center of cylinder.
    7. Deadbolt/dead latch: 48” finish floor to center of cylinder.
    8. Door viewers: 1 @ standard height.
    9. Other hardware: Heights as recommended by manufacturers for accessible installation.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify doors and frames are ready to receive work and dimensions are as indicated

### 3.2 PERFORMANCE

- A. Installation of Recessed Door Hardware:
  1. Install recessed hardware and then remove and store recessed hardware in a secure place during application of door and frame finish.
  2. After completion of the door and frame finish, reinstall recessed hardware.
- B. Installation of Surface Mounted Door Hardware:
  1. Anchor kick plates with oval-head full-thread screws, spaced uniformly at a maximum of 5 inches on center at kick plate perimeter.
  2. Anchor thresholds with a positive anchoring devise or expansion shield and anchor bolts.
  3. Set thresholds in mastic caulk.
- C. Installation Location:
  1. Install new doorstops at each new door.

### 3.3 COMPLETION

- A. Installation Location:
  1. Check and adjust operating hardware and each door operation to ensure smooth operation.
  2. Lubricate moving parts with type of lubrication recommended by manufacturer.
  3. Use graphite or WD 40 if no other lubrication is recommended.
  4. Replace hardware, which cannot be adjusted and lubricated to operate correctly.
- B. Contract Closeout Adjustments: Where hardware installation is made more than one month prior to occupancy of a space or area, return the work not more than 7 days prior to occupancy, and make a final check and adjustment of door hardware.

END OF SECTION

SECTION 09260  
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL SUMMARY

- A. Section includes gypsum board with joint treatment and texturing.

1.2 SITE VISIT

- A. Visit sites prior to submitting a bid. Become familiar with local conditions affecting the work.
- B. Prior to start of work Contractor shall notify HACC for inspection of all required blockings, and to receive a written approval to conceal the rough carpentry work.

1.3 SUBMITTALS

- A. Product Data: Submit data on gypsum board and accessories.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the work of this section with a minimum of three years documented experience.

PART 2 PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES

- A. Manufacturers:
  - 1. National Gypsum Co.
  - 2. United States Gypsum Co.
  - 3. Gold Bond Building Products.
  - 4. Or Equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)

2.2 COMPONENTS

- A. Gypsum Board Types: Maximum available length in place; ends square cut, tapered or square edges; unless noted otherwise as follows:
  - 1. Standard Type: ASTM C36 ½” thick, unless noted otherwise.
  - 2. Fire Rated Type: ASTM C36 5/8” thick, unless noted otherwise; fire resistive, UL or WH rated.
  - 3. Moisture Resistant Type: ASTM C630 ½” thick, unless noted otherwise.
  - 4. ½” and 5/8” thick, U.S. Gypsum, “Abuse Resistant”.

2.3 ACCESSORIES

- A. Corner Beads: Metal, concealed type, CB-118 x 118 or CB-114 x 114.
- B. Edge Trim: Metal, ¼ round, concealed type.
- C. Joint Materials: GA-201 and GA-216, open mesh fiberglass reinforcing tape, joint compound, adhesive, and water.
- D. Fasteners: ASTM C1002 Type S12 hardened screws. Nails are not permitted.
- E. Adhesive: GA-216.
- F. Textured Finish Materials: Latex based texturing material.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify site conditions are ready to receive work and opening dimensions are as indicated on shop drawings or as instructed by manufacturer.
- B. Provide new blocking to receive new work.
- C. At all areas where existing gypsum board is damaged or missing, provide new gypsum board to match thickness of existing adjacent gypsum board.

#### 3.2 GYPSUM BOARD PREPARATION AND INSTALLATION

- A. After the preparation work is completed, Contractor shall notify HACC that the ceiling and wall framing and insulation are ready to receive the gypsum board. Upon verification, HACC shall give a written approval for the Contractor to proceed with the Work.
- B. Install gypsum board in accordance with manufacturer's instructions for screw application, and Chapter 6 of the 2005 Oregon Residential specialty Code.
- C. Application Temperature Limitations: Maintain room temperature of not less than 50 degrees F and not more than 95 degrees F for a period of not less than 48 hours before mixing, or application and continuing unit applied material are thoroughly dry.
- D. Ventilation: Adequate and continuous ventilation shall be provided in the working area during the installation and drying or curing period.
- E. Erect single layer gypsum board perpendicular to framing with all ends and edges occurring over firm bearing.
- F. Erect single layer fire rated gypsum board with edges and ends occurring over firm bearing.
- G. Apply first to ceilings and then to walls.
- H. Provide blocking at joints and edges as needed.
- I. Gypsum board joints shall be located so that no joint will align with the edge of an opening unless joints are to be installed at these locations.
- J. Joints on opposite sides of a partition shall not occur on the same stud.
- K. Use screws when fastening gypsum board. Space screw in accordance with code requirements by no less than 3/8 inch from panel edges and 4 to 6 inches on center at ceiling panel edges and 6 to 8 inches on center at wall panel edges, and 8 to 10 inches on center at interior supports. Nails are not permitted.
- L. Minimum screw lengths: At 1/2 inch thick gypsum board use 1-1/8 inch minimum screw length. At 5/8 inch thick gypsum board use 1-1/4 inch minimum screw length.
- M. Treat edges and holes in moisture resistant gypsum board with sealant.
- N. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.

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- O. Floating Interior Angles: Use the floating angle method of application.
  - 1. Ceiling-Wall Intersections: The first fastener into each ceiling-framing member shall be located not more than 12 inches out from intersection for screw application.
  - 2. The gypsum boards on the wall shall be applied to provide firm support for the floated edges of the gypsum board on the ceiling. The uppermost fastener onto each stud shall be located not more than 12 inches down from the ceiling for screw application.
- P. Internal Corners of Walls: The overlapping gypsum board shall be applied so as to bring the back of the underlying gypsum board into firm contact with the face of the framing member behind it.
- Q. Floating Interior Angles shall not be used where fire ratings are required.

3.3 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats on to adjoining surfaces so that camber is maximum 1/32 inch.
- C. Tape metal corner bead with mud to gypsum board.

3.4 TEXTURE FINISH

- A. Spray apply finish texture coating in accordance with manufacturer's instructions. Final texture shall be a light "orange peel" wall and ceiling texture at areas of new gypsum board. At patches match existing adjacent texture. Walls and ceilings shall have a like new uniform finish throughout. Patching shall not be visible.

3.5 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.
- B. Finishes in accordance with GA-214-96 Level 3.
- C. Finish description:
  - 1. Level 3: All joints and interior angles shall have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. (GA-214-96)

END OF SECTION



SECTION 09650  
RESILIENT FLOORING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes resilient Vinyl Sheet flooring, Vinyl Composition Tile and Rubber Base.

1.2 SYSTEM DESCRIPTION

- A. Resilient Flooring: Conform to applicable code for flame/smoke rating requirements in accordance with ASTM E84.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data.
- B. Samples: One sample for Sheet Vinyl, Vinyl Composition Tile and Rubber Base.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit maintenance instruction and data.

1.5 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

PART 2 PRODUCTS

2.1 MANUFACTURERS (No Substitutions)

- A. Sheet Vinyl:
  - 1. Armstrong World Industries Inc., Connection CORLON # 88705 – Color: DEVON BEIGE.
  - 2. Sealer: Johnson over and under sealer (Contract Furnishing Mart 503-656-5277)
  - 3. Polish: Armstrong Excelon Floor Polish (Contract Furnishing Mart 503-656-5277)
- B. Vinyl Composition Tile:
  - 1. Armstrong World Industries Inc., Imperial Texture, Standard Excelon, 12" x 12" x 1/8", # 51858.
  - 2. Color: Sandrift White.
  - 3. Sealer: Johnson over and under sealer (Contract Furnishing Mart 503-656-5277)
  - 4. Polish: Armstrong Excelon Floor Polish (Contract Furnishing Mart 503-656-5277)
- C. Rubber Base:
  - 1. Roppe Flooring Products.
  - 2. 4" Rubber Base with toe.
  - 3. Color: No. 125 "Fig"
  - 4. Thickness: 0.125"

- D. Stair Treads, Risers, Stringers and Landings Manufacturer: (No Exception)
  - 1. BurkeMercer Flooring Products.
  - 2. Radial Rubber Tread and corresponding Risers, Tile, Skirting, Nosing, Stringers and Landing Tiles.
  - 3. Nosing Style: Adjustable Nose. 1 ½” horizontal return, 1 ¾” vertical return, full width of stair tread and in one piece. (At landings confirm width with HACC). Thickness 0.125”, smooth pattern.
    - 1. Stair Risers: Height and length in one piece. Thickness 0.125”, smooth pattern.
    - 2. Stringers: Height and length in one piece in maximum available length. Thickness 0.125”, smooth pattern.
    - 3. Color: verify with HACC.

## 2.2 ACCESSORIES

- A. **Underlayments: ½” ACX sanded plywood in Kitchen and Bathrooms.**
- B. Subfloor Filler: Type recommended by floor material manufacturer.
- C. Primers and Adhesives: Waterproof, types recommended by floor material manufacturer.

## PART 3 EXECUTION

### 3.1 EXAMINATION AND PREPARATION

- A. Remove existing floor mounted refrigerator, range (Disconnect non-tilt chain or sleeve), water heater and water closet, and temporarily store in a safe location until the resilient floor is installed.
- B. Install substrate that is a type as recommended by floor material manufacturer and as required by Chapter 5, of the 2005 Oregon Residential Specialty Code. Subfloors/Underlayments shall be dry, clean, smooth, free from paint and varnish, existing adhesive residue, wax, oil and other foreign matter. Fill and sand smooth all joints, holes, and chips.
- C. After the substrate and preparation work is completed, Contractor shall notify HACC that the finish floor is ready for installation. Upon verification, HACC shall issue a written approval for the Contractor to proceed with the work.
- D. Maintain temperature at a minimum of 65 degree F for 48 hours prior to installation, during installation, and 48 hours after installation. Maintain a minimum temperature of 60 degrees F thereafter. Condition flooring materials and adhesives to room temperature prior to starting installation. Protect all materials from the direct flow of heat.
- E. Fill minor low spots and other defects with sub-floor filler and sand smooth.
- F. Apply primer to surfaces.
- G. Fill substrate low areas with leveling compounds and underlayments as required to obtain level float finish within ¼ inch in 10 feet and sand smooth.

3.2 INSTALLATION

- A. Install using the Securabond Installation System with S-599 Adhesive in the field area and S-761 Adhesive under all seams., and S-580 in flash cove areas. Install according to the floor material manufacturer's instructions.
- B. Install sheet flooring parallel to length of room. Provide minimum of 1/3 full roll width. Double cut sheet and butt joints hairline.
- C. Terminate flooring at centerline of door openings where adjacent floor finish is dissimilar. Install edge strips where dissimilar floor finishes meet.
- D. Recess Scribe flooring to appurtenances to produce tight joints. **Keep number of joints to a minimum.** Verify and confirm number and location of seams prior to installation of floor finishes with HACC.
- E. Fit joints tightly.
- F. Adhere base tight to wall and floor surfaces.
- G. Fit joints tight and vertical. Miter internal corners. At external corners, V-cut back of base strip to 2/3 of its thickness and fold.
- H. Reinstall refrigerator, range (Reattach non-tilt chain or sleeve), water heater and water closet.
- I. Tile and sheet vinyl shall receive the sealer and two coats of floor polish to protect floor. Types and brand listed above.

3.3 CLEANING

- A. Remove excess adhesive from surfaces without damage.
- B. Do not wash the floor for at least five days after installation. After five days, damp mop with a very neutral detergent solution.

END OF SECTION

SECTION 09900  
PAINTS AND COATINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints and other coatings.

1.2 SUBMITTALS

- A. Product Data: Submit data on finishing products.
- B. Samples: Submit two paper chip samples, illustrating color for each surface finishing product scheduled.

1.3 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.4 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

PART 2 PRODUCTS

2.1 PAINTS AND COATINGS

- A. Manufacturers:
  - 1. Rodda Paint

2.2 COMPONENTS

- A. Coatings: Ready mixed except field catalyzed coatings of good flow and brushing properties, capable of drying or curing free of streaks or sags.
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve finishes specified.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions are ready to receive Work.
- B. Measure moisture content of porous surfaces using electronic moisture meter. Do not apply finishes unless moisture content is less than 15 percent.

3.2 PREPARATION

- A. Correct minor defects and clean surfaces affecting work of this section.

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- B. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or applying finishes.
- C. Gypsum Board Surfaces: Patch/Fill minor defects with filler compound. Texture and prime defects after repair.
- D. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- E. Uncoated Steel and Iron Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint after repairs.
- F. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Clean surfaces with solvent. Prime bare steel surfaces.
- G. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.
- H. Exterior Wood Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior paintable caulking compound after prime coat has been applied.

### 3.3 APPLICATION

- A. Sand wood and metal surfaces lightly between coats to achieve required finish.
- B. Where clear finishes are required, tint fillers to match wood.
- C. Prime concealed surfaces of interior and exterior woodwork with primer paint.
- D. Prime concealed surfaces of interior wood surfaces scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with thinner.
- E. Finishing Mechanical And Electrical Equipment:
  - 1. Paint shop primed equipment.
  - 2. Remove unfinished louvers, grilles, covers, and access panels and paint separately. Paint dampers exposed behind louvers, grilles, convector and baseboard cabinets to match face panels.
  - 3. Prime and paint insulated and exposed pipes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are prefinished.
  - 4. Paint interior surfaces of air ducts and convector and baseboard heating cabinets visible through grilles and louvers with one coat of flat black paint to visible surfaces.
  - 5. Paint exposed conduit and electrical equipment occurring in finished areas.
  - 6. Paint both sides and edges of plywood backboards.
  - 7. Paint all exterior, wall mounted electrical service panels, meter housings, telephone and cable entrance boxes, and conduit.
  - 8. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
- F. The number of coats and the film thickness required are the same regardless of the application method. Do not apply succeeding coats until previous coat has cured.
- G. Apply additional coats if undercoats, stains, or other conditions show through final coat of paint until paint film is of uniform finish, color and appearance.

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- H. Paint surfaces behind moveable equipment and furniture the same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only.
- I. Where mold and mildew is visible on existing interior walls and ceilings to be painted, wash with bleach and water solution. Scrub area of mildew with a solution of 1 cup of bleach to one gallon of water. Allow area to dry for two hours minimum prior to painting.

3.4 CLEANING

- A. As work proceeds, promptly remove finishes where spilled, splashed, or spattered.
- B. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint material from the site.
- C. Provide “WET PAINT” signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
- D. Provide labeled touch-up paint, label all leftover paint, and store as directed by HACC.
  - 1. At completion of construction activities of other trades, touch up and restore damaged or defaced painting surfaces.
- E. Dispose of all paint materials off site. Do not pour down drains, catch basins or in landscaping.

3.5 SCHEDULE - INTERIOR SURFACES

- A. Wood Casing Trim - Transparent:
  - 1. Factory pre-finished as by Northwest Door Company., satin finish #5 or approved equal.
- B. Steel – (bollard):
  - 1. One coat of galvanize primer.
  - 2. Two coats of exterior trim paint.

3.6 SCHEDULE - COLORS

- A. Exterior (Wood/Hardi Siding):
  - 1. Body of house: Rodda Paint Exterior Cover Coat XL Satin Finish. – **One coat primer and two (2) coats top coat.**  
Color: VERIFY WITH HACC.
  - 2. Trim, exterior doors, Gutters and Down spouts: Rodda Paint Exterior Cover Coat XL Satin Finish – White.
- B. Interior:
  - 1. Walls & Ceilings: (Rodda Paint Lasyn Interior Eggshell #OC06F2381 Ant. White)
  - 2. Misc. items: Match color of surface immediately adjacent to item.

END OF SECTION

SECTION 10005  
MISCELLANEOUS SPECIALTIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes mailboxes and house numbers.

1.2 SUBMITTALS

- A. Product Data:  
1. Submit data on each Product.  
2. Submit samples of tub surround for color selection.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Mailboxes: Comply with current requirements of U.S. Postal Service for materials, products, and installation.

1. Pedestal Mounted Box:

- a. Size: Standard Size – Maintenance Warehouse #816961  
b. Manufacturer: Solar Group Inc.  
c. Color: Factory painted White  
d. Mounting Post: 4x4 pressure treated wood set in concrete.  
e. Mounting Ht.: Mount at 42” above adjacent grade to bottom of box. Per manufacturer’s specifications.  
f. Provide 3” High, black stick-on house numbers, both sides. Verify w/HACC.

- B. House Numbers:

1. Size: 4 inches high.  
2. Type: Die Cast Numbers  
3. Color: Black  
4. Fasteners: Black wood screws. Caulking shall not be used to secure numbers.

PART 3 EXECUTION

3.1 INSTALLATION

- A. House Numbers:  
1. Install plumb and level.  
2. Install where readily visible from the street, and in accordance with local requirements.

3.2 COMPLETION

- A. Clean all exposed surfaces.

END OF SECTION

SECTION 10800  
TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes toilet and bath accessories.

1.2 SUBMITTALS

- A. Product Data: Submit data on accessories describing size, finish, details of function, attachment methods.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Toilet Paper Holder:
1. Type: Chrome, Surface Mounted.
  2. Manufacturer: Maintenance Warehouse, Model # 818550
  3. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- B. Towel Bar
1. Size: 24 inch, ¾ inch square,
  2. Type: Square chrome, exterior screw mount.
  3. Manufacturer: Maintenance Warehouse Model #818325 – 801B
  4. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- C. Shower Rod:
1. Size: 1 inch round, .049” x 6’.
  2. Type: Polished aluminum.
  3. Manufacturer: Maintenance Warehouse, Model # 822530
  4. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- D. Shower Rod Bracket:
1. Type: Chrome, concealed shower rod flange.
  2. Manufacturer: Maintenance Warehouse, Model #822750.
  3. Or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- E. Medicine Cabinets:
1. Recessed, 14x24 white baked enamel rust resistant steel box, with 16x26 Chrome framed 3/16 plate glass mirror, and adjustable shelves. Maintenance Warehouse, Mod # 404304.
  2. Or approved equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date)
- F. Mirror:
1. Type: Surface mounted concealed fasteners, Stanley ‘Fixed Mount Mirror Mounting Clips’ Mod. # MA26705, stainless steel, anchor to studs or blocking. 3/16 plate glass mirror, with polished edges.
  2. Size: 36” x 36”, or as noted on drawings.



PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify surfaces and internal wall blocking are ready to receive work.

3.2 INSTALLATION

- A. Install plumb and level, securely and rigidly anchored to substrate.

3.3 COMPLETION

- 1. Adjust and clean all accessories.

END OF SECTION

SECTION 11450  
RESIDENTIAL EQUIPMENT

PART 1 GENERAL SUMMARY

- A. Section includes range hood bathroom fan and Kitchen Fan (Where applicable).

1.2 SUBMITTALS

- A. Product Data: Submit data and operating instructions on equipment.

1.3 WARRANTY

- A. Provide and submit manufacturer's standard equipment warranty. Fill out warranty cards with site location, model numbers and other pertinent information.
- B. Submit copies of warranty to HACC.

PART 2 PRODUCTS (No Substitutions)

2.1 MATERIALS

- A. Range Hood:
1. Size: 30-inch wide, 190 cfm.
  2. Manufacturer:
    - a. Broan, Two-Speed 7" Round, Model # 423001.
  3. Color: White
  4. Ductwork:
    - a. 7" round, rigid galvanized 30 gage steel ductwork, fittings and connectors. New ductwork shall have a damper installed Flexible ducts are not acceptable.
    - b. Insulate with mesh reinforced duct insulation in attic space. Use aluminum duct tape. Cloth duct tape not acceptable.
  5. Roof Cap:
    - a. Broan, goose neck type 7" Round roof top vent, Model # 634. Pre-finished galvanized steel sheet: G90 zinc coating; 26 gage minimum steel, shop coated with modified silicone or acrylic coating.
    - b. Color to black.
    - c. Heavy duty insect screen
    - d. Flashing flanges
    - e. Inlet to match vent size of hood vent.
- B. Bathroom Fan:
1. Size: Capable of producing a change of air in the bathroom space every 10 minutes.
  2. **Manufacturer:**
    - a. **Panasonic Model # FV-0511VKSL2 – 50, 80, 110 CFM (Energy Efficient) Fan.**
    - b. **Panasonic Condensation Sensor Module Model # FV-CSVK1. Color: White**
  3. Ductwork:
    - a. Rigid galvanized 30 gage steel ductwork, fittings and connectors. Flexible ducts are not acceptable.
    - b. Mesh reinforced foil faced duct insulation: Wrap vent ducts occurring within attic space.

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- 4. Roof Cap:
  - a. Goose neck type roof top vent.
  - b. Pre-finished galvanized steel sheet: G90 zinc coating; 26 gage minimum steel, shop coated with modified silicone or acrylic coating.
  - c. Color to match roof color.
  - d. Heavy duty screen
  - e. Flashing flanges
  - f. Inlet to match vent size.

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify openings and utility services are ready to receive work and opening dimensions are as instructed by manufacturer.

**3.2 INSTALLATION**

- A. Set and adjust unit's level and plumb.
- B. Connect to utilities and make units operational.
- C. Activate units to confirm correct operation.
- D. Range Hood:
  - 1. Install hoods securely to wall cabinets according to manufacturer's recommendations.
  - 2. Conceal ductwork in cabinet above range hood with plywood enclosure. Match cabinet color and finish. Conceal fasteners. Seal duct work joints with versa grip 181 sealant.
- E. Bathroom Fan:
  - 1. Install fan securely to building structure.
  - 2. Ductwork to be concealed. Extend to exterior. Modify/replace ductwork and vent cap as required to accommodate new fan.
  - 3. Insulate ductwork in unheated spaces. Tie in place with heat and sun resistant nylon cable ties at 12" o.c. maximum, seal duct work joints with versa grip 181 sealant.
  - 4. Seal opening around fan.
  - 5. Finish flange shall cover drywall edges completely.

**COMPLETION**

- F. Clean all exposed surfaces
- G. Do not use fans during construction. Protect from dust.

END OF SECTION

SECTION 12355  
RESIDENTIAL CASEWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes pre finished plywood cabinets, plastic laminate, and related hardware, units and counter tops.

1.2 SUBMITTALS

- A. Shop Drawings: Indicate casework locations, scale plans, elevations, cabinet dimensions, clearances required, location and number of shelves, swing of doors, location of hardware, countertops and backsplashes.
- B. Product Data: Submit data on component profiles, sizes, assembly methods, and schedule of finishes.
- C. Samples: Submit one of each hardware component, one base cabinet, and one wall cabinet if required by Owner.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with KCMA (Kitchen Cabinet Manufacturers Association) –ADA HUD Severe Use. Each cabinet to bear the seal of KCMA-HUD Severe Use.
- B. Manufacturer Qualifications: KCMA certified manufacturer of ADA HUD Severe Use Cabinets. All casework shall be of a single manufacturer. All countertops shall be of a single manufacturer.
- C. Installer Qualifications: Company specializing in performing the work of this section with a minimum three years documented experience.

1.4 SITE VISIT

- A. Visit sites prior to submitting a bid. Become familiar with local conditions affecting the work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Pre finished Plywood Cabinets:
  - 1. Thomasville Cabinets.
  - 2. Kitchen Kompact 503-352-1971
  - 3. Nomarco Construction, 503-981-4365
  - 4. A-1 Quality Construction 503-522-4234
  - 5. Or approved equal. (Submit request for substitution for manufacturer(s) not named 15 days prior to bid date)

2.2 MATERIALS

- A. Pre-Finished Plywood Cabinets
  - 1. Face Frames or Stiles:
    - a. Full face frame of solid, beveled maple hardwood ¾ inch nominal thickness, kiln dried, suitable for natural finish.
    - b. Frames shall be free of knots and selected for uniform appearance.
    - c. All frame members shall be mortised and tenoned or back screwed with joints glued and stapled.

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2. End Panels:
  - a. ½ inch hardwood exterior grade 5 ply (minimum) plywood. Dado to receive back, shelves, bottoms, and wall tops.
  - b. All end panels shall be let into face frame rails.
  - c. Exposed end panels shall be a minimum of 2-2 grade, maple hardwood.
  - d. End panels not exposed shall be a minimum of A-D grade with "A" side to the inside of cabinet.
3. Shelves:
  - a. ½ inch minimum exterior grade hardwood plywood with hardwood banded exposed edges. Sanded and filled prior to finishing.
  - b. One full depth shelf at each base cabinet dadoed and glued.
  - c. No shelf at sink base cabinet.
  - d. Full depth shelves at wall cabinets adjustable height in 1 inch increments.
  - e. Two shelves at 30 inch high and greater wall cabinets.
  - f. One shelf at wall cabinets less than 30 inches high.
  - g. Shelf brackets shall be heavy duty plastic or metal and shall restrain shelf top to prevent shelf from tipping.
4. Tops and Bottoms
  - a. ½ inch thick exterior grade hardwood plywood.
  - b. Bottoms supported by ¾ inch pressure treated lumber and braces on 24 inch maximum centers running from front to back of cabinet.
5. Backs:
  - a. Full backs of ¼ inch thick hardwood exterior grade plywood attached to a ¾ inch x 3 ½ inch (minimum solid wood hanging rails mortised to receive back and bottom.
6. Doors:
  - a. Overlay type, ¾ inch thick, maple 7 ply exterior "A" grade plywood.
  - b. Edges shaped to form continuous lip, which will permit opening of doors with the fingertip.
  - c. Edges filled and sanded smooth prior to finishing.
7. Door Hinges:
  - a. Heavy-duty Self-Closing Overlay Hinge, Liberty Hardware # H0103BCAB0
  - b. Finish: Antique Brass.
8. Installation Hangers and Cleats:
  - a. ¾ inch thick minimum S4S kiln dried solid lumber.
  - b. Two minimum per wall cabinet.
  - c. Two plus one for each drawer at base cabinets.
  - d. Cabinets shall have wood corner braces.
9. Toe Kick:
  - a. ¾ inch minimum pressure treated solid lumber.
  - b. ¼ inch plywood to cover toe space after installation.
  - c. Finish shall match cabinets.
10. Drawers:
  - a. Fronts same material as doors.
  - b. Four sided drawer box construction.
  - c. Exposed drawer front secured to four sided drawer box with concealed fasteners.
  - d. Sides, backs and sub-front shall be ¾ inch solid lumber "C" grade.
  - e. Drawer back dovetailed to drawer sides or dadoed and glued into drawer sides.
  - f. Drawer sub-front dovetailed to drawer sides.
  - g. Drawer front glued and attached to sub-front by four screws.
  - h. ¼ inch plywood drawer bottom dadoed and glued to back, sides, and sub-front.
  - i. No drawer pull hardware.
  - j. Drawer slides KV 1284 or equal, load rating class 100 lbs, side mounting single channel.

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- 11 Plastic Laminate Countertops: (No Substitution)
  - a. Continuous Countertops and Splash: Fully post formed type of high pressure plastic laminate (HGP). **Laminate to ¾ inch thick plywood underlayment, set on 4 inch high backsplash.**
  - b. Meet the requirements of ANSI/NEMA-LD3-1995.
  - c. Manufacturer: Wilsonart International, Inc. 2400 Wilson Place, Temple, TX 76503-6110, 1-800-433-3222. (No Exceptions.)
  - d. Color: ‘Natural Nebula’ #4633-60.
  
- 12 Other Shelves:
  - a. Shelves: ¾ inch thick, white ‘Melamine’ laminated material shelves with bull nose finish at exposed edge. Size as indicated on drawings or directed by HACC.
  - b. Hardware: Knap & Vogt Steel Standard, 5/8” wide, adjustable 1” centers, anachrome finish. Length as indicated on drawings.
  - c. Brackets: Knap & Vogt steel brackets, adjustable on 1” centers, anachrome finish. Size per width of shelves.
  - d. Fixed Shelf Bracket: Sterling Hardware 12”x9”, Model # 0049-12WT.

### 2.3 FACTORY FINISHING

- A. Pre finished Plywood Cabinets:
  1. Honey Colored.
  2. Sand work smooth and set exposed nails and screws.
  3. Apply wood filler in exposed nail and screw indentation.
  4. On items to receive transparent finished, use wood filler, which matches surrounding surfaces and of types recommended for applied finishes.
  5. Finish work in accordance with KCMA HUD-Severe Use Standards, with no less than one coat of clear sealer and 2 coats clear urethane satin varnish, lightly sanded between coats.

### 2.4 FABRICATION

- A. Pre finished Plywood Cabinets:
  1. Shop-assemble casework for delivery to site in units easily handled and to permit passage through building opening.
  2. When necessary to cut on site provide materials with ample allowance for cutting. Provide trim for scribing and site cutting. Provide fillers between cabinets to match face frame material and finish.
  3. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Seal cut edges.
  
- B. Plastic Laminate Countertops
  1. Shop-assemble casework for delivery to site in units easily handled and to permit passage through building opening.
  2. Cap exposed plastic laminate finish edges with material of same finish and pattern.
  3. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
  4. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline and flush with adjacent; secure with concealed fasteners.
  5. Where countertop ends abut vertical surface, provide 4-inch high end splashes with plastic laminate material of same finish and pattern.
  6. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Seal cut edges.

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify adequacy of backing and location of mechanical and electrical outlets.

**3.2 PREPARATION**

- A. Install supplementary support framing.

**3.3 INSTALLATION**

- A. Set and secure casework in place rigid, plumb, and level.
- B. Provide cutouts for plumbing fixtures, appliances, and other fixtures and fittings.
- C. Use fixture attachments at concealed locations for wall mounted components.
- D. Use concealed joint fasteners to align and secure adjoining cabinet units and counter tops.
- E. Carefully scribe casework against other building materials, leaving gaps of 1/32 inch maximum. Use filler strips not additional overlay trim for this purpose.
- F. Secure cabinet and counter bases to floor using appropriate anchorage.
- G. Adjust moving or operating parts to function smoothly and correctly.
- H. Install backsplashes and end splashes.

**3.4 COMPLETION**

- A. Adjusting Defective work:
  - 1. Adjust operating hardware for smooth and quiet operation.
  - 2. Repair or replace (at Owner's option) damaged or defective work.
  - 3. Touch up finish where marred or damaged.
  - 4. Adjust concealed hinges to center cabinet doors in cabinet openings.
- B. Final Cleaning: Clean exposed and semi-exposed surfaces ready for use.

**END OF SECTION**

SECTION 12492  
BLINDS AND SHADES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes vertical blinds and operating hardware.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating physical and dimensional characteristics, and operating features.

PART 2 PRODUCTS

2.1 VERTICAL BLINDS (No Substitutions)

- A. Manufacturers:  
1. Commercial Drapery center opening, and side opening.  
1-800-452-5072

2.2 MATERIALS

- A. Blinds: Vertical slat hung from full-width head rail: Manual wand control, single draw operation. Field verify if wand control is at Left, Right or Middle. Confirm with HACC prior to fabrication.
- B. Slats:  
1. PVC Vinyl - Flat  
2. Width: 3-4 inch  
3. Color: Off-White finish
- C. Headrail: Medium Wall Aluminum Ribbed Flat Top Headrail System 1 3/4" wide x 1 1/4" high. Self-aligning Reduction gear end control. Color: Off-White
- D. Conform to NFD 701: Fire/Flame Resistance.
- E. Traverse rods. Size as required. Strings or cords shall be removed. Color – White.

2.3 FABRICATION

- A. Fabricate blinds to fit within openings with uniform edge clearance to cover window frames completely.
- B. At openings requiring multiple blind units, provide separate blind assemblies with space of 1/4" between assemblies, occurring at window mullion centers.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify openings are ready to receive the Work.
- B. Install new window blinds at all windows in units to be remodeled, unless noted otherwise.

3.2 INSTALLATION

- A. Install blinds/curtains in accordance with manufacturer's instructions.



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- B. Trim wands not to drag on window sill.
- C. Secure in place with concealed fasteners.
- D. Adjust blinds for smooth operation.
- E. Remove, clean, and reinstall all existing blinds specified to remain in place.

END OF SECTION

SECTION 15010  
BASIC MECHANICAL REQUIREMENTS

PART 1 GENERAL

1.1 OTHER REQUIREMENTS

- A. The Bidding, General and Supplementary Conditions and Division One of this project manual and specific sections as noted apply to the work specified in Mechanical Division 15 which encompasses Sections 15010 through 15996. This Section 15010 applies to all sections of Mechanical Division 15.

1.2 SCOPE

- A. It is the intent of these specifications and the accompanying drawings to describe complete and functional mechanical systems.
- B. Furnish and install all material, labor and equipment in accordance with these documents.
- C. Include all incidental items and work not specifically shown or specified but required by good practice in a complete system.
- D. The drawings and specifications are complementary. What is called for in one shall be called for in both.
- E. The drawings are diagrammatic but should be followed as closely as possible. Where required by job site conditions, relocate and provide fittings, etc., as required.

1.3 DEFINITIONS

- A. Or equal: Requires approval prior to bid date. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
- B. Indicated:
  - 1. The term “indicated” is a cross reference to details, notes, or schedules on the drawings, other paragraphs or schedules in the specifications, and similar means of recording requirements in the contract documents.
  - 2. Where terms such as “shown”, “noted”, “scheduled”, and “specified” are used instead of “indicated”, it is for the purpose of helping the reader locate the cross reference, and no limitation of location is intended except as specifically noted.
- C. Directed, Requested, Etc.: Where not otherwise explained, terms such as “directed”, “requested”, “authorized”, “selected”, “approved”, “required”, “accepted”, and “permitted” mean “directed by the HACC”, “requested by the HACC”, etc. However, no such implied meaning will be interpreted to extend to HACC’s responsibility into the Contractor’s area of construction supervision.
- D. Site or Project site: the space available to the contractor for the performance of the work, either exclusively or in conjunction with others performing the work as part of the project. The extent of the project site is shown on the drawings and is not identical with the description of the land upon which the project is to be built.
- E. Approved:
  - 1. Where used in conjunction with the HACC’s response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the meaning of the term “approved” will be held to the limitations of the HACC’s responsibilities and duties as specified in the General and supplementary conditions.
  - 2. In no case will “approval” by the be interpreted as a release of the Contractor from responsibilities to fulfill requirements of the Contract Documents.

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- F. Provide: The term “provide” means to furnish and install, complete and ready for the intended use.

1.4 STANDARDS AND CODES

- A. Provide all equipment and material and perform all work in accordance with the latest applicable local, state and federal codes and regulations.
- B. For work on this project, comply with appropriate standards published by the following:
1. American Gas Association.
  2. Air Movement and Control Association.
  3. American National Standards.
  4. Air-conditioning and Refrigeration Institute.
  5. American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc.
  6. American society of Mechanical Engineers.
  7. American Society for Testing and Materials.
  8. National electrical Manufacturers Association.
  9. National fire Protection Association.
  10. Sheet Metal and Air Conditioning Contractors’ National Association.
  11. Underwriters’ Laboratories.
  12. Americans with Disabilities Act (ADA).
  13. 28 CFR Part 36 ADA Standards.
  14. Uniform Federal Accessibility Standards (UFAS)

1.5 APPROVAL OF EQUIPMENT AND MATERIALS

- A. Manufacturer’s trade names, catalog numbers and material specifications used in this specification are intended to establish the quality of equipment or materials expected. Materials and manufacturers not listed require approval prior to the bid date.
- B. Approval of substitute equipment or materials will be based upon performance, quality and other factors deemed important by the HACC. The Contractor will be responsible for making any changes in other work required as a result of the substitution.

1.6 SUBMITTALS

- A. Transmit five sets of submittals to the Architect for review. The submittals shall be bound in three-ring binders, have major topic tabs and an index. In order to expedite approval of certain items, it is not necessary to transmit complete submittals initially. The initial transmittal will include the binder, expected tabs and an index indicating which items are included, the date each is transmitted, and which items are yet to be transmitted. Future transmittals shall include a revised index. Submittal items larger than 8 ½” x 11” shall be reproducible tracing.
- B. Furnish performance data and technical information on all materials and equipment to be used on the project.
- C. Include shop drawings with the submittals where necessary to determine clearance, where the contractor proposes alternate equipment or material arrangements, and when requested by the HACC.
- D. Items transmitted for approval must be received in the HACC’s office within 45 days of contract award. All material and equipment must be approved HACC prior to installation.
- E. Review of submittals for shop drawings by HACC does not relieve the Contractor from the requirements of the Contract Documents unless specific approval has been requested for a given deviation.

1.7 QUALITY ASSUARANCE

- A. Maintain the highest standards of workmanship throughout the project.
- B. Use the latest editions of applicable and specifically referenced standards.
- C. Inspect all material and equipment upon arrival at the site and return any which is not in new condition.

## PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

### 3.1 COORDINATION

- A. Cooperate with other trades to assure that construction proceeds in an orderly and timely manner.
- B. Study the architectural, structural, electrical, landscape, shop and any specialty drawings and specifications to determine required coordination.
- C. Prepare detailed shop drawings where necessary to assure proper fit and necessary clearance.

### 3.2 PERMITS, FEES AND INSPECTIONS

- A. Obtain all required permits.
- B. Schedule any required inspections.

### 3.3 MATERIALS AND WORKMANSHIP

- A. Furnish all materials and equipment in new condition, free from defects and of size, make, type and quality specified. Installation shall be in a neat and workmanlike manner.
- B. When two or more items of the same kind, type or class are required, use items of a single manufacturer.

### 3.4 MEASUREMENTS

- A. Take all measurements from reference datums established by the general contractor.
- B. Establish all inverts, slopes and manhole elevations by approved instruments.
- C. Provide a means of allowing HACC to check that slopes and elevations are in accordance with drawings and specifications.

### 3.5 DELIVERY, HANDLING AND STORAGE

- A. Receive all material and equipment at the job site or shop.
- B. Use proper and sufficient equipment to handle all products employed in the project.
- C. Where storage of materials or equipment is necessary, it shall be a clean and weatherproof area. Seal any openings and cover the product to assure that there will be no corrosion or foreign matter introduced. Assure that it will be in new condition when placed in service.

### 3.6 EQUIPMENT INSTALLATION

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- A. Install all equipment in strict accordance with the manufacturer's instructions unless otherwise indicated.
- B. Where the installation shown or specified is contrary to the manufacturer's instructions, advise HACC in writing of the differences before proceeding with the installation.
- C. Provide supports for all apparatus as specified, detailed and as required by the manufacturers of specific equipment. Anchor all roof- and floor-mounted equipment, with size and spacing of anchor bolts as recommended by the respective equipment manufacturer. Provide earthquake restraints on all suspended equipment, ductwork and piping in accordance with Zone 3 seismic requirements.
- D. Maintain a copy of the manufacturer's installation instructions at the job site for all equipment.
- E. All ductwork installed shall have a maximum leakage of 75 CFM total @ 50 Pa.
- F. The envelope tightness of structure shall be 7.0 ACH @ 50 Pa.

### 3.7 PROTECTION

- A. Protect all work, material and equipment from loss or damage until the project is accepted by the HACC.
- B. As the work progresses, keep all equipment covered and cap all ducts and piping, which may temporarily be left unconnected.
- C. Notify all other trades of any required precautions necessary to protect the work.

### 3.8 ACCESSIBILITY

- A. Provide convenient access by location or access panel to all valve, thermometers, gauges, fittings, clean-outs, etc. and equipment requiring periodic adjustment, reading or service.

### 3.9 ELECTRICAL WORK

- A. Materials and work to be provided as part of this division are:
  - 1. Automatic temperature control wiring.
  - 2. Equipment control wiring.
  - 3. Interlock wiring.
- B. Wherever possible, provide all interconnect wiring within or on a piece of equipment with the equipment unless shown or specified otherwise. An electrician licensed to perform this type of work shall perform all field wiring.

### 3.10 RELATED WORK

- A. The following work and materials are specified elsewhere:
  - 1. Pipe chases, equipment pads and foundations, trenches, painting, air louvers, louvered penthouse and access panels except as otherwise specified in this division.
  - 2. Framed openings, wood grounds and nailing strips, masonry, concrete and other architectural and structural elements.
- B. The following work and materials are specified in electrical Division 16:
  - 1. Power wiring.
  - 2. Disconnect switches.
  - 3. Installation of disconnect switches.

### 3.11 CLEANING

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- A. Maintain premises and public properties free from accumulations of waste, debris and rubbish during construction.
- B. Remove all grilles and diffusers and clean ductwork of debris and dust accumulation prior to starting fan systems.
- C. Clean all mechanical equipment and plumbing fixtures of dust, grease, iron cuttings, unnecessary stamps or shipping labels, etc.
- D. Touch up factory-painted surfaces, as necessary, with paint of matching color.

**3.12 RECORD DRAWINGS**

- A. Maintain one set of drawings at the job site for the purpose of recording work of the mechanical contract, as actually installed.
- B. Upon request, the Architect will make the original tracings available to the mechanical contractor for printing the sepia. The Contractor shall pay the reproduction costs.
- C. Record all piping and ductwork by dimensions, below grade, above floor, etc. Show location of all access panels, cleanouts, rough-in for future, etc.
- D. Make record drawings available to the Architect for review or printing during construction. The Architect will pay any printing costs.
- E. Deliver record drawings to the Architect promptly upon completion of the project.

**3.13 OPERATION AND MAINTENANCE MANUALS**

- A. Submit five copies of the Operation and Maintenance Manuals to HACC for approval before project completion. Bind the instruction books with three-ring 1 ½" x 11" side binders with plastic covers. Include an index and tabs for major systems and equipment. Operation and Maintenance Manuals shall include the following:
- B. Directories:
  - 1. Supplier Directory: Alphabetical list of principal subcontractors and suppliers of equipment giving names, addresses and telephone numbers.
  - 2. Equipment Directory: List of equipment installed such as fans, air supply units, pumps, heating and cooling equipment, plumbing fixtures, etc., giving drawing reference numbers, location, area served, manufacturer with model number and supplier.
  - 3. Valve Tag Directory.
- C. Manufacturer's Literature:
  - 1. Show name, address and phone number of the nearest service facility authorized by the manufacturer.
  - 2. Include illustrations, diagrams, instructions for installation, startup, operation, inspections, maintenance, parts lists, data sheets and other necessary materials.
  - 3. Include complete electrical, schematic and connection diagrams for each equipment item.
  - 4. Include the name, address and phone number of contractor(s) who furnished and who installed equipment and systems.
  - 5. Where the literature covers more than one model, check off neatly in ink correct model number and data for the model number.
  - 6. In those instances where the equipment, its mode of control, or both, is job assembled for special functions, then provide written operating and maintenance instructions prepared by the assembler on 8 ½" x 11" sheets.
- D. Maintenance Instructions:

1. Where instructions for maintenance are not included in the manufacturer's literature, provide supplemental data to enable proper maintenance of the equipment installed.
2. Include specific lubrication methods and recommended frequencies along with procedures and precautions for inspection and routine service.

E. Copy of Written Guarantee. Provide copy for each individual residence.

F. Recommended Spare Parts Stock.

#### 3.14 CUTTING AND PATCHING

- A. Cutwork as required for installation and patch to match original conditions as directed and approved by Architect. Do not cut structural portion without Architect's approval.
- B. When masonry construction must be penetrated, provide a steel pipe sleeve in opening and grout in place in a neat manner. Leave grout surface to match existing finish.
- C. Prior to cutting any existing work, locate all concealed utilities to eliminate any possible service interruption or damage.

#### 3.15 CONNECTION TO EXISTING SERVICES

- A. Arrange time of connection with HACC. Hold duration of service outage as short as possible.

END OF SECTION

SECTION 15060  
PIPE AND PIPE FITTINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Work included:
- Providing of all required pipe and pipe fittings.
  - Replacing all non code complying drain and vent pipes in attic, crawl spaces, kitchen, bath and laundry.

1.2 RELATED WORK

- A. Basic Mechanical Requirements, Section 15010.
- B. Plumbing, Section 15400.
- C. Plumbing, Fixtures and Trim, Section 15440.
- D. Testing, Section 15996.

1.3 OPERATION AND MAINTENANCE DATA

- A. Submit certificates of inspections and tests to HACC.

1.4 QUALITY ASSURANCE

- A. Piping material and installation to meet requirements of the local plumbing, fire and building codes and serving utility requirements.
- B. Pipe Cleaning: Should any pipe be plugged or should foaming of water systems occur, the piping shall be disconnected, cleaned and reconnected without additional cost to the HACC.
- C. Damage to the building or systems resulting from failure to properly clean the system shall be corrected without additional expense to the HACC.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Sanitary Sewer Piping:
1. Cast Iron Pipe:
    - a. Pipe: Service weight cast iron pipe conforming to ASTM A74.
    - b. Fittings: Service weight cast iron conforming to ASTM A74.
    - c. No hub piping system will conform to the Cast Iron Soil Pipe Institute Standard Specification 301.
  2. PVC Pipe:
    - a. Pipe, Schedule 40, ASTM 266-85A.
    - b. Fittings, ASTM D2661-85A.
    - c. Solvent Cement, ASTM D2235-81.
- B. Domestic Water Piping:
1. Pipe: Hard drawn copper type “M” above grade and hard drawn copper type “L” below grade.
  2. Fittings: Wrought copper solder type.



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3. Solder: /Brazing Alloy:
  - a. Above ground:
    - 1) 2-inch and smaller – Lead free 95-5, tin silver and flux.
    - 2) 2-1/2-inch and larger – Lead free brazing alloy and flux.
  - b. Below ground – Lead free brazing alloy and flux.
  
- C. Gas Piping:
  1. Black Steel Pipe (Schedule 40).
    - a. Pipe: Schedule 40 black steel pipe conforming to STM A120 or A53.
    - b. Fittings: 150 psi screwed malleable iron for 2-1/2” and smaller, Schedule 40 weld fitting conforming to ASTM A234 for 3” and larger.

### PART 3 EXECUTION

#### 3.1 PREPARATION – MEASUREMENTS, LINES AND LEVELS

- A. Check dimensions at the building site and establish lines and levels for the work specified in this Division.
- B. Establish all slopes and elevations by instrument, working from an established datum point. Provide elevation markers and lines for the Architect’s use to determine that slopes and elevations are in accordance with Drawings and Specifications.
- C. Use established grid and area lines for locating trenches in relation to building and boundaries.

#### 3.2 PIPING INSTALLATION

- A. Install unions in all non-flanged piping connections to apparatus and adjacent to all screwed control valves, traps, and appurtenances requiring removal for servicing, so located that piping may be disconnected without disturbing the general system.
- B. Install all piping as to vent and drain.
- C. Support all piping independently at apparatus so that its’ weight shall not be carried by the equipment.
- D. Dielectric Fittings: Provide dielectric couplings, unions or flanges between dissimilar metals. Additionally, provide dielectric couplings as required to isolate cathodically protected piping and equipment. Fittings shall be suitable for the pressure and temperature to be encountered.
- E. Screwed Joints: Ream pipe ends. Apply dope or tape to male threads only. Brass joints shall be made with Teflon tape only. Make up fittings with not over two threads showing beyond the fitting end. Make junctions of galvanized pipe to cast iron with tapped spigots or half couplings screwed to the end of galvanized pipe to form a spigot end.
- F. Do not use Flux for copper-to-copper joints. Use Flux for joining copper to brass or bronze. In those cases where flux is used, exercise particular care in applying the flux to avoid leaving any excess inside the completed joints.
- G. Solder Type Joints: Braze with Fox-copper rod on wrought copper fittings, or silver brazing alloy with the flux recommended for that particular alloy on all fittings. Where silver brazing alloy is used, clean the copper tubing and fittings thoroughly with steel wool before applying the flux. Remove all burrs from copper tubing, ream to full bore, and be true and round for all joints. Apply heat uniformly to secure penetration of the rod. Leave full head around the entire circumference of the joint to show proper penetration and sealing. Under no circumstances will the softer solders be allowed, nor will Fox-copper be used on cast fittings.

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- H. Welded Joints: By certified welders in accordance with practices of American Welding society and ASME codes. Use factory-made fittings only, except as approved otherwise for each specific instance.
- I. Provide nailing protection plates where pipes run through framing.

3.3 SPECIALITIES INSTALLATION

- A. Install all piping specialties where shown on the drawings and in accordance with manufacturer's recommendations.

END OF SECTION

SECTION 15100  
VALVES, COCKS AND FAUCETS

PART 1 GENERAL

1.1 SUMMARY

- A. Work included: Providing of all required valves, cocks and faucets.

1.2 RELATED WORK

- A. Basic Mechanical Requirements, Section 15010.
- B. Mechanical Identification, Section 15190.
- C. Plumbing Section, 15400.
- D. Plumbing Fixtures and Trim, Section 15440.
- E. Plumbing Equipment, Section 15450.

1.3 SUBMITTALS

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include manufacturer's catalog or technical data showing performance, dimensions, materials of construction and recommended methods of installation.

1.4 OPERATION AND MAINTENANCE DATA

- A. Provide O&M data in accordance with Section 15010.
- B. O&M data shall include:
  - 1. Manufacturer's literature.
  - 2. Maintenance instructions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Gate valves, Globe Valves, Butterfly Valves, Ball Valves, Horizontal Swing Check Valves and Drain Valves: Stockham, Nibco, Milwaukee or equal. Stockham used as basis of selection.
- B.

2.2 DESCRIPTION

- A. Gate Valves:
  - 1. Bronze gate valve: Screwed bronze gate with solid wedge, union bonnet, inside screw and traveling stem. Provide valve with lever handles at washer connections.
- B. Ball Valves: Ball valves for water service shall be Figure S-216 BR-R-T with locking stop.
- C. **Hose Bib:** Frost proof with vacuum breaker, lever handle, Woodford, #17P-12-MH or equal.
- D. **Washer Box:** Single lever controls hot and cold water valves. IPS Corp. Dual Drain Box, Model # W2800, PC#85630.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide valves at connections to equipment, where shown on the drawings or as required.
- B. Install all valves with stem horizontal or above, accessible and same size as connected piping.
- C. Provide separate support for valves where necessary.
- D. Where valves installed are not line size, provide concentric reducers from line size to valve size.
- E. Install swing check valves in horizontal lines only.
- F. Install hose bibs at locations shown on drawings.

END OF SECTION

SECTION 15140  
ANCHORS, HANGERS AND SUPPORTS

PART 1 GENERAL

1.1 SUMMARY

- A. Work included: Providing of all required hangers and supports for piping, ductwork and equipment.

1.2 RELATED WORK

- A. Basic Mechanical Requirements, Section 15010.
- B. Pipe and Pipe Fittings, Section 15060.
- C. Plumbing Fixtures and Trim, Section 15440.
- D. Plumbing Equipment, Section 15450.
- E. Ductwork, Section 15891.

1.3 SUBMITTALS

1.4

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include:
  - 1. Manufacturer's technical literature for all products used.
  - 2. Indicate service for each type of hanger.
  - 3. Submit literature or describe duct supporting method.

PART 2 PRODUCTS

2.1 DESCRIPTION

2.2

- A. Structural Attachments: Provide all necessary supports as required. Hangers shall not be suspended from other piping, equipment, etc.
- B. Miscellaneous items such as straps, hanger rod, turnbuckles, etc. shall be standard figure numbers of the same manufacturer as the attachments.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide hangers and supports in accordance with the instructions furnished by the manufacturers of these devices.
- B. For horizontal pipe lines install pipe hanger with maximum hanger spacing and maximum hanger rods as recommended in Table 9 of the 1988 edition of the ASHRAE Guide and Data book, Equipment Chapter 33: Where concentrated loads of valves, fittings, etc. occur, closer spacing will be necessary and shall be based on the weight to be supported and the maximum recommended loads for the hanger components. Cast iron soil pipe shall be supported at every point.
- C. Provide additional structural blocking where required to support piping or ductwork.
- D. Provide hangers and support devices in accordance with the equipment manufacturer's instructions for all equipment.
- E. Support ductwork as required by the UMC, CABO and as per SMACNA recommendations.
- F. Hangers for copper pipe shall be wrapped in 15lb. felt.

END OF SECTION

SECTION 15250  
MECHANICAL INSULATION

PART 1 GENERAL

1.1 SUMMARY

- A. Work included: Providing of all required insulation for piping and ductwork.

1.2 RELATED WORK

- A. Basic Mechanical Requirements, Section 15010.
- B. Pipe and Pipe Fittings, Section 15060.
- C. Plumbing, Section 15400.
- D. Ductwork, Section 15891.

1.3 SUBMITTALS

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include:
  - 1. Data to show compliance with flame and smoke rating.
  - 2. Manufacturer's catalog or technical data showing performance, dimensions, materials of construction, and recommended methods of installation.

1.4 QUALITY ASSURANCE

- A. Insulation materials and accessories such as adhesives, cements, etc. shall have composite fire and smoke hazard ratings as tested by procedures indicated in NFPA 255 and U.L. 723, not to exceed a flame spread index of 25 and a smoke developed index of 50.
- B. Products or their shipping cartons shall have identification of the flame spread and smoke developed index.

1.5 CODES

- A. Comply with Chapter 13, 1998 Oregon Structural Specialty Code.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Owens-Corning, Certain-teed, Armstrong, Manville, NOMACO, IMCOA, or equal.

2.2 DESCRIPTION

- A. Water Pipe Insulation:
  - 1. Flexible, preformed, self-seating elastomeric pipe insulation. Armstrong Armaflex 2000, NOMACO, IMCOA or equal.
- B. Duct Insulation:
  - 1. Insulate interior ductwork with 1-1/2" R-8, one pound density glass fiber blanket with FSK (foil-skrim-kraft) jacket. Use wire and duct adhesive as required on fittings. Manville 'Microlite' or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)

- C. Duct Sealant
  - 1. Hardcast Carlisle: Versa-Grip 181 duct sealant. (1-800-527-7092)

**PART 3 EXECUTION**

**3.1 INSTALLATION**

- A. Piping:
  - 1. Provide min. 1” pipe insulation on all new and existing Cold Water, Hot Water piping. Seal all insulation to maintain a vapor barrier.
  - 2. Insulate fittings on piping utilizing preformed pipe covering.
  - 3. Insulate all valve bodies, fittings, unions and flanges.
- B. Ductwork:
  - 1. Insulate all supply and return ductwork routed in unheated spaces.
  - 2. Exterior insulation is not required on internally insulated ductwork. Lap exterior insulation 6” past interior insulation and seal with 2” wide vapor proof pressure sensitive tape. Install welding on ducts over 24” wide, spacing max. 18” in each direction.
  - 3. All duct work joints to be sealed with Versa-Grip sealant.
- C. Venting:
  - 1. Insulate all dryer vents, bathroom exhaust vents and kitchen range hood vents with 1” insulation.

END OF SECTION

SECTION 15400  
PLUMBING

PART 1 GENERAL

1.1 SUMMARY

- A. Work included: Providing of all required plumbing systems' piping and utility connections for all relocated and new plumbing fixtures and services specified or shown on the drawings.

1.2 RELATED WORK

- A. Apply and pay for all required permit (s).
- B. Provide copies of all required permit (s) to HACC prior to start of work.
- C. Provide copies of all inspection report (s) to HACC during and at conclusion of the work.

1.3 QUALITY ASSURANCE

- A. Plumbing material and installation shall meet the requirements of the latest applicable local plumbing, fire and building codes and serving utility's guidelines.

1.4 EXISTING CONDITIONS

- A. Contractor shall verify all existing conditions prior to bidding work. Additions to contract price will not be allowed for correction of observable conditions.
- B. Contractor to upgrade all visible plumbing lines to current code if required by building inspector at no additional cost to HACC.

PART 2 PRODUCTS

- A. Domestic Hot, Cold, Water Systems: Type "M" hard drawn copper tubing for plumbing service above ground. Type "L" for underground.
- B. Solder: Lead free brazing alloy.
- C. Waste and Vent Systems: Cast iron pipes and fittings shall conform to ASTM A74. PVC pipes and fittings shall conform to ASTM 266-85A and ASTM D2661-85A above or below grade.
- D. Natural Gas Piping: Black steel pipe inside building construction, black steel pipe painted with rust inhibiting paint outside building construction
- E. Cross-Linked Polyethylene (PEX) Tubing: PEX tubing and all associated accessories for a complete water distribution system shall be manufactured in accordance with ASTM F876, ASTM F877 and CAN/CSA-B137.5.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Domestic Water Systems:
  - 1. Install water distribution system for new or relocated fixtures, sized per the Uniform Plumbing Code.
  - 2. Remove existing water lines discarded or not used with new plumbing.

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3. Install proper hangers as required on all new and existing lines to insulate from vibrations, and shock.
4. Install new flexible self sealing, elastomeric thermal insulation on all hot lines, and all other lines, hot and cold, that may be exposed to freezing.
5. Water piping shall not be run in attic spaces without the written permission from HACC.
6. Run piping parallel to building lines.
7. Flush piping system of all construction dirt.
8. Test piping system per Plumbing Inspector's instructions and provide a copy of the test result to HACC.

**B. Waste and Vent Systems:**

1. Install waste, vent-piping system for new and existing fixtures, sized per the Uniform Plumbing Code.
2. Remove all existing above grade waste and vent piping not used with new plumbing. Existing piping shall not be relocated and reused.
3. Correct all visible leaks and replace all damaged waste piping.
4. Grade horizontal waste runs ¼ inch per foot minimum.
5. Make all changes in direction with appropriate fitting.
6. Collect vents together in attic space and extend through roof for minimum penetrations.
7. Flash all vents through the roof with new flashings at existing openings if possible.
8. Install proper hangers as required on all new and existing lines.
9. Verify exact location of all fixtures from architectural drawings.
10. Test piping system per Plumbing Inspector's instructions and provide a copy of the test results to HACC.
11. Remove all existing waste and vent piping that are not being used.

**C. Natural Gas System:**

1. Install natural gas piping sized in conformance with the Uniform Mechanical Code.
2. Provide branch shut-off valves.
3. Test piping system per Plumbing Inspector's instructions and provide a copy of the test results to HACC.

END OF SECTION



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SECTION 15440  
PLUMBING FIXTURES AND TRIM

PART 1 GENERAL

1.1 SUMMARY

- A. Work included: Providing of all required plumbing fixtures, fixture trim, clean-outs and appurtenances as shown or required.
  - 1. Water Closet
  - 2. Lavatory
  - 3. Double Bowl Sink
  - 4. Tub/Shower Surround
  - 5. Shower Surround
  - 6. Washer Box
  - 7. Floor Drain
  - 8. Supplies

1.2 RELATED WORK

- A. Fluid Applied/Membrane Flooring, Section 09670
- B. Miscellaneous Specialties, Section 10005
- C. Basic Mechanical Requirements, Section 15010.
- D. Floor, Wall and Ceiling Plates, Section 15053.
- E. Pipe, Pipe fittings and Specialties, Section 15060.
- F. Valves, Cocks and Faucets, Section 15100.
- G. Anchors, Hangers and Supports, Section 15140.
- H. Plumbing, Section 15400.
- I. Testing, Section 15996.

1.3 SUBMITTALS

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include manufacturer's catalog literature for all products used.

1.4 OPERATION AND MAINTENANCE DATA

- A. Provide O&M data in accordance with Section 15010.
- B. O&M data shall include:
  - 1. Manufacturer's literature.
  - 2. Maintenance instructions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Vitreous China, Porcelain Steel or Cast Iron Plumbing Fixtures: American Standard, or equal.
- B. Tub/Shower Surround: Sterling or equal.
- C. Fiberglass Plumbing fixtures: Sterling.
- D. Fixture Trim: Moen.
- E. Washer Boxes: IPS.
- F. Supplies and Stops: Fluidmaster.
- G. Stainless Steel Sinks: Elkay.
- H. Floor Drains: Jay R. Smith, Zurn.

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2.2 DESCRIPTION

- A. Water Closet:
  - 1. American Standard Cadet 3 Flowise Elongated Toilet. Home Depot SKU# 207179, white, Vitreous china, low consumption 1.28 gpf.
  - 2. Bemis - #500EC
  
- B. Lavatory:
  - 1. Glacier Bay: Home Depot SKU#462071 4” center, or equal, 20” x 17” lavatory with front overflow.
  - 2. Moen #L4621 faucet with 0.5 gpm spray outlet. With chrome lever handle.
  - 3. Pop up drain.
  
- C. Double Bowl Sink:
  - 1. 22”x33”, 8” deep, 19 gauge. Stainless steel, three hole punch with Chrome plated brass drains. KOHLER #K-3346-3-NA
  - 2. Moen #7425 chrome faucet, lever handle, vandal resistant, 2 gpm flow restricting aerator.
  - 3. Dearborn stainless steel body and basket strainer assembly #14. Consolidated Supplies (503) 620-7050 .
  
- D. Tub/Surround:
  - 1. Sterling Tub and surround #71374100, left of right hand (verify) or equal. Color: White
  - 2. Moen model # TL170 valve, metal construction, chrome plated finish, pressure balancing design with integral check stops, ½” cc connections, adjustable limit stop, With chrome lever handle.
  - 3. Chrome tub spout; compression type, with lift up shower diverter, Quicklift 61 series, or equal.
  - 4. Shower head, arm, and flange: Chrome, fixed mount, nonmetallic spray face, nonmetallic shell flow of 1.75 gpm at 60 psi, Moen model #6307, or equal.
  - 5. Splash Enders: Maintenance Warehouse #405220 11”x7”. White.
  
- E. Washer Box:
  - 1. IPS, Model # 85630, Single Push/Pull lever for both hot and cold valves, or equal.
  - 2. Oatley #38535
  
- F. Braided Supply Lines:
  - 1. Toilet – FluidMaster NO BURST #B1T20 20” (or equal)
  - 2. Sink – FluidMaster NO BURST #B1F20 20” (or equal)

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with specified requirements, material, and manufacturer’s recommendations.
- B. Tub Surround /Shower Surround
  - 1. Install surround with adhesive & screws as approved by fabricator. Install directly to substrate with no face attachments.
  - 2. Caulk all joints between panels & walls with white silicone sealant.

END OF SECTION

SECTION 15450  
PLUMBING EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Work included: Providing and installing domestic water heaters.
- B. Relocating existing water heaters as required by new construction.

1.2 RELATED SECTIONS

- A. Basic Mechanical Requirements, Section 15010.
- B. Floor, Wall and Ceiling Plates, Section 15053.
- C. Pipe, Pipe Fittings and Specialties, Section 15060.
- D. Valves, Cocks and Faucets, Section 15100
- E. Plumbing, Section 15400.
- F. Plumbing Fixtures and Trim, Section 15440.
- G. Testing, Section 15996.

1.3 SUBMITTALS

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include:
  - 1. Manufacturer's catalog or technical data showing performance, dimensions, materials of construction, and recommended methods of installation.

1.4 OPERATION AND MAINTENANCE DATA

- A. Provide O&M data in accordance with Section 15010.
- B. O&M data shall include:
  - 1. Manufacturer's literature.
  - 2. Maintenance instructions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Bradford-White (GAS), Model # RG250T6N

2.2 DESCRIPTION

A. Natural Gas Water Heater:

1. Gas pressure regulator and automatic gas shut-off device. AGA and CSA certified.
2. Glass lined tank with min. 2-year warranty, 150 psi working pressure rating.
3. Adjustable limit control.
4. Equip heater with magnesium anodes.
5. Baked enamel jacket, 1-inch glass foam insulation to comply with applicable energy codes.
6. ASME rated temperature and pressure relief valve and drain valve.
7. Bradford White energy rating of .61 or better, 50 gallon, 40,000-btu/hr natural gas input.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install new water heater where shown and make all required piping connections. Remove and reinstall existing water heater where shown on the drawings. Tie new water heaters to existing ducts or install new ductwork and vents where indicated on drawings.
- B. In all locations other than garages; Provide galvanized metal drain pan for water heaters. Pipe relief valves and drain pan to outside.
- C. At existing water heaters to remain in place, bring all piping and vents to current code.
- D. Install seismic restraints as required by code on all water heaters.
- E. Comply with applicable codes. Provide prefabricated, prepainted, steel base for garage installation to raise water heater and or pan.
- F. Install bollard next to water heater per code for garage installations.

END OF SECTON

SECTION 15830  
GAS FIRED FURNACE SYSTEM - REVISED

PART 1 GENERAL

1.1 SUMMARY

- A. New System: Provide complete gas fired furnace and air distribution system at the location shown on the drawings.

1.2 SUBMITTALS

1. Manufacturer's technical literature for all products used.

1.3 WARRANTY

- A. New Furnace: Provide Owner with a certificate showing a lifetime warranty on the heat exchanger and a 5-year parts and labor warranty.

1.4 QUALITY ASSURANCE

- A. Comply with the 2005 Edition, Oregon Dwelling Specialty Code for One and Two Family Dwellings, Part V-Mechanical including Chapter 14 – Mechanical.
- B. Installation shall be completed by a qualified Heating and Air Conditioning Contractor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Furnace: "Lennox Furnaces" or approved equal. (Submit request for substitution for manufacture(s) not named 10 days prior to bid date.)
- B. Furnace: "Carrier Furnaces". Contractor may substitute "Lennox" furnace with "Carrier" furnace. Substitution shall be an exact equal.

2.2 DESCRIPTION

- A. New GAS Furnace: "Lennox ML195E Energy Star 95%, efficiency. Or approved equal. (Submit request for substitution for manufacture(s) not named 10 days prior to bid date.)
- B. New GAS Furnace: "Carrier #59SC5B Energy Star 95%, efficiency. Or approved equal. (Submit request for substitution for manufacture(s) not named 10 days prior to bid date.)
- C. Sizing: Size new furnace to provide 35 BTU per square foot of heated floor area. Fan to supply 0.75 cfm per square foot of heated floor area. Verify size required before bidding.
- D. Description:
1. Provide AGA and serving utility approved burners and aluminized steel heat exchanger in formed, factory enameled steel casing with 1" minimum non-organic insulation, forward curved, centrifugal type air conditions duty fan with multi-speed, ball bearing fan duty motor with overload protection.
  2. Provide casing with duct connections and access panels to all parts requiring service.
  3. Provide automatic gas valve, bonnet switch, high limit switch, main gas cocks, electronic ignition assembly, draft and code vent.
- E. Thermostat: White-Rodgers 1E30-910-color Beige, or equal, mounted a maximum of 48" above the floor. Install new thermostats at all new and relocated furnaces. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
- F. Filters: New return grill shall be installed at existing location. New return grill shall be type to accommodate/hold 1" disposable type filters.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install new furnace according to manufacturer's recommendations for equipment installation, connections, and start up. Locate so as to provide clearance to all access panels and filters in the general locations shown on the drawings.
- B. Remove existing furnace and provide new as shown on the drawings. Provide new metal plenums with rigid insulation, platforms, ductwork, connections, etc. as required to return the system to full operating order.
- C. Provide and install manufacturer's recommended filter in the furnace/plenum prior to final completion. Filter shall be accessed from the air return grill.
- D. Install a class B gas vent at each furnace according to Code.
- E. Install all field wiring as required to make systems operable. Install all gas connections required. Wiring and gas lines shall be located away from traffic, and solidly secured and protected.
- F. Do not install furnaces until ducts have been professionally cleaned, interior painting has been completed, and floor covering installed.
- G. Balance the air distribution system to provide appropriate air supply to all rooms served. Adjust and calibrate all and part of the controls and devices of this system to provide proper operation.
- H. Prior to final completion and after all other work has been completed, the Contractor shall start up and operate all systems to verify to the Owner the satisfactory operation of the furnace and air supply system and all controls.
- I. Remove and dispose of all unused equipment, ductwork, insulation, piping, etc. from the attic, crawl space, interior and exterior of the building.
- J. At completion all exterior penetrations (roof/siding) for venting shall be trimmed and sealed properly to achieve a water tight seal.
- K. Condensate Water Drain: Drain shall be run in a way to gravity drain to the exterior of the building.

END OF SECTION

SECTION 15891  
SHEET METAL DUCTWORK & DISTRIBUTION DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Work includes:
  - 1. Providing ductwork for new heating systems.
  - 2. Ductwork modifications complete cleaning and new grills at existing systems.
  - 3. Ductwork for dryer vents in all units showing washer-dryer installation.
  - 4. Range hood vents in all units

1.2 RELATED SECTIONS

- A. Asphalt Shingles and Roofing Materials, Section 07311.
- B. Basic Mechanical Requirements, Section 15010.
- C. Anchors, Hangers and Supports, Section 15140.
- D. Mechanical Insulation, Section 15250.
- E. Gas Fired Furnace Systems, Section 15830.

1.3 SUBMITTALS

- A. Provide submittals in accordance with Section 15010.
- B. Submittals shall include Shop Drawings of any proposed new grilles or diffusers, and 1-line drawings of proposed register locations and duct sizes.

PART 2 PRODUCTS

2.1 DESCRIPTION

- A. Ductwork for heating system supply, return and exhaust air systems shall be constructed of galvanized sheet metal. Minimum gauge and reinforcing will be in accordance with Chapter 1 of the 1988 Edition of the ASHRAE Handbook and Chapter 10 of the Oregon State Mechanical Code. **Flexible ductboard or corrugated ducts not allowed.**
- B. Provide galvanized sheet metal ductwork or heating system supply, return and exhaust air systems as required by new wall locations shown on the drawings. Provide minimum gauge and reinforcing in accordance with Chapter 1 of the 1988 Edition of the ASHRAE Handbook.
- C. Provide 26 ga. rigid ductwork as required for range hood vents. Provide metal exterior vent caps as required by location (wall or roof). **Flexible, ductboard, or corrugated ductwork is not allowed.** Seal all duct joints with, Hardcast Carlisle, Versa-Grip 181 sealant.
  - 1. Exhaust Vent Cap:
    - a. For wall mounting
    - b. Manufacturers: Maintenance Warehouse, Dundas Jafine Model # LPVB4Z or equal.  
(Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)

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- D. Provide **4” Rigid Sheet Metal** pipe for drier vent ducts. Provide caulk at all interior and exterior walls. Verify with HACC prior to installation.
1. Dryer Vent Cap:
    - a. For wall mounting.
    - b. Manufactures: Maintenance Warehouse, Mfg # SVHAW4 – Part#197145 or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
- E. Distribution devices: Provide all new registers and grilles in all units to provide supply with a minimum of one register in each habitable room. Provide new return air grilles in all units. Conform to Oregon State Mechanical Code.
1. Floor Register: All steel, wide-angle style grille w/wheel operated volume damper sized for cfm supplied. Hart & Cooley, Airmate, or equal. Color to be selected by HACC.
  2. Ceiling Registers: All steel, 2,3,4 way defection as required by location, damper, size for 400 fpm face velocity, white, Hart & Cooley 680, Airmate, or equal. (Submit request for substitution for manufacture(s) not named 15 days prior to bid date.)
  3. Ceiling/Wall Return Air Grilles: Sized for cfm supplied, Hart & Cooley 650, Airmate or equal. Color to be selected by HACC.

### PART 3 EXECUTION

#### 3.1 INSTALLATION

- A. Construct and assemble all ductwork and duct systems in accordance with latest edition of the “HVAC Duct Construction Standard” published by SMACNA, Chapter One “Duct Construction” of the 1988 ASHRAE Handbook and the appropriate chapters of the latest edition of the Uniform Mechanical Code. Maximum leakage shall be 75 CFM total @ 50 Pa or less.
- B. Determine volume of air to be supplied by existing furnace. Size ductwork as required to distribute supplied air.
- C. All joints in the air distribution system shall be sealed airtight with Versa-Grip 181 sealant as specified above provide hangers and supports as specified.
- D. Provide insulation as specified.
- E. Make cutouts and locate registers in approved locations. Install as required to adequately distribute supplied air proportionally to rooms supplied.
- F. Clean all existing ductwork and grills prior to installation of furnaces.

END OF SECTION



SECTION 16010  
GENERAL PROVISIONS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The General and supplemental Conditions apply to this Division, including but not limited to:
  - 1. Drawings and Specifications.
  - 2. Public ordinances, permits.
  - 3. Payments and fees required by governing authorities for work included in this Division.
  - 4. Change orders.
  - 5. Division 1, General Requirements apply to this Division.

1.2 SITE VISITATION

- A. The contractor shall visit the site(s) prior to bidding to familiarize himself with existing conditions and all other factors, which may affect the execution of the work. Drawings are for reference only and should not be bid off of.

1.3 CODES, ORDINANCES AND REGULATIONS

- A. The completed installation shall conform to all applicable Federal, State and Local Codes, Ordinances and Regulations.
- B. Obtain all necessary permits and inspections required by the governing authorities having jurisdiction over this work including but not limited to electrical and fire alarm permits.
- C. Furnish to the HACC a certificate of approval from the inspection authority at the completion of the work, prior to the application for final payment.
- D. If contractor is required to bring panel/circuit up to code to pass final inspection contractor shall do so. Contractor shall include these costs in their original bid. Change orders will not be issued for this.
- E. If contractor is required to install new GFCI outlets in the building and or regular outlets to bring up to code contractor shall do so. This cost shall be included in the original bid. Change orders will not be issued for this.
- F. If codes/regulations change, contractor shall notify HACC of the change prior to bid date of the change and its affect.

1.4 SCOPE OF WORK

- A. The work covered by this Specification shall include furnishing all labor; materials, equipment and services to construct and install the complete design build electrical system as shown on the Drawings and specified herein. Verify all conditions on the job site and lay out work accordingly.
- B. The work shall include, but is not necessarily limited to, the following systems:
  - 1. Primary and Secondary service and distribution systems, including motor base and disconnect as indicated on drawings.
  - 2. Complete lighting and power systems.
  - 3. Grounding continuity.
  - 4. Connection of electrical equipment furnished under other Divisions of work.
  - 5. Telephone systems, includes but not limited to patch panel, wiring and devices.
  - 6. Cable systems, includes but not limited to patch panel, wiring and devices.
  - 7. Smoke detection/alarm systems as indicated on drawings.
  - 8. Contractor will coordinate with the serving utilities and provide all requirements.
  - 9. Coordinate with mechanical drawings and provide connections for equipment specified. Verify all connections with mechanical contractor prior to installation of equipment and make required modifications.

1.5 WARRANTY

- A. Provide a written one-year warranty covering the work done under this Division as required by the General Conditions.
- B. Systems and Apparatus:
  - 1. Free of defects of material and workmanship and in accord with the Contract Documents.
  - 2. Built and installed to deliver its full rated capacity at the efficiency for which it was designed.

1.6 SUBMITTALS

- A. Refer to Section 01001.

PART 2 PRODUCTS

2.1 APPROVAL AND SUBSTITUTIONS

- A. Submit in accordance with Section 01001.
- B. Submit for the HACC's approval, manufacturer's detailed specifications and data sheets for all proposed substitutions. Submittals shall consist of a single sheet, or sheets, if required, for each piece of equipment and shall give the specific data needed for consideration of approval. All pertinent data listed in the Specifications and in Schedules shall be furnished, including all special features. See that all submittals are in proper order, and that all equipment will fit in the space provided.
- C. HACC reserves the right to require the submission of an actual sample before the acceptance of any product as an equal to that specified.

2.2 MATERIAL APPROVALS AND SHOP DRAWINGS

- A. Submit information in accordance with Section 01001.

PART 3 EXECUTION

3.1 OPERATION AND MAINTENANCE DATA

- A. The Contractor shall provide operating instructions and maintenance data, for all equipment and materials called for under this Division. Refer to Section 01001.

3.2 PROTECTION OF WORK

- A. Protect all electrical work and equipment installed under this Division against damage by other trades, weather conditions or any other causes. Equipment found damaged or in other than new condition will be rejected as defective.
- B. Panels, light fixtures and all electrical equipment shall be kept covered or closed to exclude dust, dirt and splashes of plaster, cement or paint and shall be free of all such contamination before acceptance. Enclosures and trims shall be in new condition, free of rust, scratches and other finish defects. Properly refinish in a manner acceptable to the Architect, if damaged.

3.3 MAINTENANCE OF SERVICE

- A. Electrical service shall be maintained to all functioning portions of the building throughout construction, except as noted below, during all normal working hours of the building occupants. Outages to occupied areas shall be kept to a minimum and be prearranged with the Architect or Owner's Representative. The Contractor will be liable for any damages resulting from unscheduled outages or for those not confined to the pre-arranged times.
- B. Include all costs for temporary facilities, overtime labor and necessary provisions to maintain electrical services in the initial bid proposal. Temporary wiring and facilities, if used, shall be removed and the site left clean before final acceptance.

END OF SECTION

SECTION 16040  
IDENTIFICATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Clearly and properly identify the complete electrical system to indicate the loads served or the function of each item of equipment connected under this work.

PART 2 PRODUCTS

2.1 LABELS

- A. Panels: Typed or pre-printed white permanent materials labels with adhesive backing, Specified Products, Inc. or equal.

PART 3 EXECUTION

3.1 BRANCH CIRCUIT PANELBOARDS

- A. Indicate panel number with laminated plastic labels. Indicate voltage phase and feeder source, feeder wire size, and feeder breaker or fuse size with white permanent labels on the inside of the panel door.
- B. Provide typewritten panel directories with protective, clear transparent covers, accurately accounting for every breaker installed, including spares. Schedules shall use the actual room designations assigned by name or number near completion of the work and not the space designation of the Construction Drawings.

END OF SECTION

SECTION 16050  
BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Conditions of the Contract and Section 16010 apply to this Section.

1.2 COORDINATION OF WORK

- A. Conduct work in a manner to cooperate with all other trades for proper installation of all items of equipment. Consult the Drawings of all other trades or crafts to avoid conflict with cabinets, counters, equipment, structural members, etc. In general, the architectural drawings govern but conflicts shall be resolved with the Architect prior to rough in.
- B. Verify the physical dimension of each item of electrical equipment to fit the available space. Coordination of the equipment to fit into the available space and the access routes through the construction shall be the Contractor's responsibility.
- C. Coordinate all aspects of the electrical, telephone and other utility services with the appropriate serving utility. No additional compensation will be allowed the Contractor for connection fees or additional work or equipment not covered in the Drawings or Specifications, which are a result of policies of the serving utility.
- D. Coordinate underground work with other contractors working on the site. Particular coordination shall be performed with contractors installing storm sewer, sanitary sewer, water and irrigation lines, to avoid conflicts. Common trenches may be used with other trades, providing clearances required by codes and ordinances are maintained.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Electrical products installed in this project shall be listed by a recognized testing laboratory or approved in writing by the local inspection authority as required by governing codes and ordinances.
- B. Materials shall be new, of the best quality and American made. The materials shall be manufactured in accordance with NEMA, ANSI, UL or other applicable standards.

PART 3 EXECUTION

3.1 INSTALLATION

- A. **PROVIDE A COMPLETE PROPERLY OPERATING SYSTEM FOR EACH ITEM OF EQUIPMENT CALLED FOR UNDER THIS WORK.** Installation shall be in accordance with the equipment manufacturer's instructions, the best industry practices and the contract documents. Where a conflict in these guides appear, HACC shall be requested to provide proper clarification before work is roughed in and HACC's decision will be final. Work installed without such clarification shall be removed and corrected by the Contractor at no cost to the HACC.
- B. Make installation in a neat, finished and safe manner, according to the latest published NECA Standard of Installation under competent supervision.

3.2 NOISE CONTROL

- A. Outlet boxes at opposite sides of partitions shall not be placed back-to-back nor straight through boxes to be employed, except where specifically permitted on the Drawings by note, to minimize transmission of noise between occupied spaces.

3.3 EQUIPMENT CONNECTIONS

- A. Provide complete electrical connections for all items of equipment requiring such connections, including incidental wiring, materials, devices and labor necessary for a finished working installation.
- B. Verify the location and method for connecting to each item of equipment prior to roughing-in. Check the voltage and phase of each item of equipment before connecting.
- C. Control devices and wiring relating to the HVAC systems will be furnished and installed under Division 15 except for provisions or items specifically shown on the Electrical Drawings or specified herein.
- D. Furnish all code required disconnects under this work, whether specifically shown or not.

3.4 EQUIPMENT SUPPORT

- A. Anchor and brace to the building structural elements in accordance with all codes and regulations regarding seismic zone 3.
- B. Each fastening device and support for electrical equipment, fixtures, panels, outlets, and cabinets shall be capable of supporting not less than four times the ultimate weight of the object or objects fastened or suspended from the building structure.
- C. Support all junction boxes, pull boxes or other conduit terminating housings located above the suspended ceiling from the floor above, roof or penthouse floor structure to prevent sagging or swaying.

3.5 ALIGNMENT

- A. Install panels, cabinets and equipment level and plumb, parallel with structural building lines. Switchgear panels and all electrical enclosures shall fit neatly without gaps, openings or distortions. Properly and neatly close all unused openings with approved devices.
- B. Fit surface panels, devices and outlets with neat, appropriate trim, plates or covers, without over-hanging edges, protruding corners or raw edges, to leave a finished appearance.

3.6 CUTTING AND PATCHING

- A. Include cutting, patching and restoration of finishes necessary for this work. Surfaces damaged by this work and spaces around conduits passing through floors and walls shall be neatly patched and finished to match the adjacent construction, including painting or other finishes. Clean up and remove all dirt and debris. This work shall all be performed to the satisfaction of the Architect.

END OF SECTION

SECTION 16120  
CONDUCTORS AND CONNECTORS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Conditions of the Contract and Sections 16010 and 16050 apply to this Section.
- B. Work Included:
  - 1. Deliver conductors to the job site in cartons, protective covers or on reels.
  - 2. Provide conductors as required by new plans and fixtures to provide a complete job.

PART 2 PRODUCTS

2.1 CONDUCTORS

- A. Type: No. 14 AWG minimum size unless otherwise required by code.
- B. Materials: Copper
- C. Insulation: THHN, THWN, unless otherwise required by code.

2.2 CONNECTORS

- A. Splices and Terminations shall utilize wing nut connectors, splices for no. 8 and larger shall be made with pressure type connectors.

PART 3 EXECUTION

3.1 CONDUCTORS

- A. Lighting and power plans are diagrammatic. Contractor shall verify exact locations shown.
- B. Mains and feeders shall be run their entire length without joints or splices.

END OF SECTION

SECTION 16130  
BOXES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Wall and ceiling outlet boxes.
- B. Pull and junction boxes.

1.2 RELATED SECTIONS

- A. Section 16140 – Wiring Devices.

1.3 REFERENCES

- A. NECA – Standard of Installation.
- B. NEMA OS 1 – Sheet-steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
- C. NEMA OS2 – Nonmetallic Outlet Boxes, Device Boxes, Covers and Box Supports.
- D. NEMA 250 – Enclosures for Electrical Equipment.
- E. NFPA 70 – National Electrical Code.
- F. CABO – One and Two Family Dwelling Code with Oregon Amendments (current edition).

1.3 SUBMITTALS FOR CLOSEOUT:

- A. Record actual locations and mounting heights of outlet and junction boxes on project record documents.

1.4 Regulatory Requirements:

- A. Work shall conform to all applicable codes, ordinances and regulations.
  - 1. Obtain all necessary permits and inspections required by the governing authorities having jurisdiction over the work including, but not limited to electrical and fire alarm permits.

PART 2 PRODUCTS

2.1 OUTLET BOXES

- A. Plastic/PVC Outlet Boxes: NEMA OS 1.
  - 1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported.
  - 2. Flush and Concealed Outlet Boxes: With screw ears, knockout plugs, mounting holes, fixture studs if required.

2.2 JUNCTION BOXES

- A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.
  - 1. Type 4 at exterior locations.
- B. Nonmetallic Outlet Boxes: NEMA OS 2.



**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Verify location of outlets in kitchens, bathrooms prior to rough-in.

**3.2 INSTALLATION**

- A. Install boxes in accordance with NECA “Standard of Installation.”
- B. Install in locations as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.
- C. Set wall mounted boxes at elevations to accommodate mounting heights where indicated or specified.
- D. Electrical boxes are shown on Drawings in approximate locations unless dimensioned. Adjust box location if required to accommodate intended purpose.
- E. Orient boxes to accommodate wiring devices as specified in Section 16140.
- F. Install junction boxes above accessible ceilings and in unfinished areas only.
- G. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
- H. Install boxes to preserve fire resistance rating of partitions and other elements.
- I. Coordinate mounting heights and locations of outlets mounted above counters, backsplashes, other fixtures and equipment.
- J. Locate outlet boxes to allow luminaires positioned as shown in the drawings.
- K. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
- L. Use flush mounting outlet box in finished areas.
- M. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- N. Use stamped steel bridges to fasten flush mounting outlet box between studs.
- O. Install flush mounting box without damaging wall and ceiling insulation or reducing its effectiveness.
- P. Use adjustable steel channel fasteners for hung ceiling outlet box.
- Q. Use cast outlet box in exterior locations exposed to weather and wet locations.

**3.3 ADJUSTING**

- A. Adjust flush mounting outlets to make front flush with finished wall material.

**3.4 CLEANING**

- A. Clean interior of boxes to remove dust, debris, and other material.
- B. Clean exposed surfaces and restore finish.

**END OF SECTION**

SECTION 16140  
WIRING DEVICES

PART 1 - GENERAL

- 1.1 SECTION INCLUDES
- A. Wall switches
  - B. Receptacles
  - C. Telephone receptacles
  - D. Television jacks
  - E. Device plates.
  - F. Doorbell Button and Doorbell Annunciator
- 1.2 RELATED SECTIONS
- A. Section 16130 – Boxes
  - B. Section 16780 – Television Systems
  - C. Section 16790 – Telephone Systems
- 1.3 REFERENCES
- A. NECA – Standard of Installation
  - B. NEMA WD 1 – General Requirements for Wiring Devices
  - C. NEMA WD 6 – Wiring Device – Dimensional Requirements
  - D. NFPA 70 – National Electrical Code
  - E. CABO – One and Two Family Dwelling Code with Oregon Amendments (current edition)
- 1.4 SUBMITTALS FOR REVIEW
- A. Product Data: Provide manufacturer’s catalog information showing dimension, colors, and configurations.
- 1.5 QUALIFICATIONS
- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum of three years documented experience.
- 1.6 Regulatory Requirements:
- A. Work shall conform to all applicable codes, ordinances and regulations.
    - 1. Obtain all necessary permits and inspections required by the governing authorities having jurisdiction over the work including, but not limited to electrical and fire alarm permits.

PART 2 – PRODUCT: (Submit request for substitution for manufacturer(s) not named, 15 days prior to bid date.)

2.1 WALL SWITCHES

- A. Single Pole Switch: NEMA WD 1 General Duty, AC only general-use silent snap switch. Body and Handle: Ivory plastic with toggle handle.
  - 1. Leviton Mfg. Co., Inc., Model #1451-2I, Ivory.
  - 2. Pass & Seymour, Model #660-IG, Ivory.
- B. Three Way Switch: NEMA WD 1 General Duty, AC only general-use silent snap switch. Body and Handle: Ivory plastic with toggle handle.
  - 1. Leviton Mfg. Co., Inc., Model #1453-2-I 15 amp. 120V., Ivory.

2.2 RECEPTACLES

- A. Single Convenience Receptacles: NEMA WD 1, Tamper Proof General Duty general use receptacle, 15A, 125V.
  - 1. Leviton Mfg. Co., Inc., Model #T5320-I, Ivory.
  - 2. Pass & Seymour, Model #3232-I, Ivory.
  
- B. GFCI Receptacle – Tamper Proof Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements. Commercial grade duplex receptacle with LED indicator light, 15A, 125V.
  - 1. Pass & Seymour, Model #1595-I, Ivory.
  
- C. Kitchen Range Receptacle – 50A, 125/250V, flush mount 3 pole 4 wire Grounding (4 prong)
  - 1. Leviton Mfg. Co., Inc., Model #279, Black.
  - 2. Pass & Seymour, Model #3894, Black.
  
- D. Clothes Dryer Receptacle – 30A, 125/250V, flush mount 3 pole 4 wire Grounding (4 prong) black.
  - 1. Leviton Mfg. Co., Inc., Model #278
  - 2. Pass & Seymour, Model #3864, Black.
  
- E. Cable Television Receptacle: 75-ohm flush mount, Ivory.
  - 1. Leviton Mfg. Co., Inc., Model # 80718-I, Ivory, flush mount single F-connector.
  
- F. Wall hanging Telephone Wall Jack – Quick connect jack with plastic wallplate, 6 position, 4-conductor wall phone jack.
  - 1. Leviton Mfg. Co., Inc., Model #40253-I, Ivory.
  
- G. Telephone and Data Standard Wall Jack – Flush mount, 6 position, 4-conductor modular dual wall jack, one phone and one data. Identify which lines are phone and which are data.
  - 1. Leviton Mfg. Co., Inc., Model #40249-I, Ivory.
  
- H. Doorbell Button & Doorbell Annunciator:**
  - 1. Nutone Model# BK110NBWH, or equal.**

2.3 WALL PLATES

- A. Decorative Cover Plate: Ivory, smooth nylon.
- B. Weatherproof Cover Plate: As code requires.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of existing conditions prior to beginning work.
- B. Verify that outlet boxes are installed at proper height.
- C. Verify that wall openings are neatly cut and will be completely covered by wall plates.

2.2 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean debris from outlet boxes.

### 3.2 INSTALLATION

- A. Install in accordance with NECA “Standard of Installation.”
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Install receptacles with grounding pole on top.
- E. Connect wiring device grounding terminal to branch circuit equipment grounding conductor.
- F. Install decorative plates on switch, receptacle, and blank outlets in all area.
- G. Connect wiring devices by wrapping conductor around screw terminal.
- H. All sheet rock and texture shall have a smooth finish aournd switch and cover plates.
- I. All cable and TV lines shall have a box installed and anchored/secured.

### 3.3 FIELD QUALITY CONTROL

- A. Inspect each wiring device with circuit energized and verify proper operation.
- B. Operate each wall switch with circuit energized and verify proper operation.
- C. Verify that each receptacle device is energized.
- D. Test each receptacle for proper polarity.
- E. Test each GFCI receptacle device for proper operation.
- F. Verify that each telephone jack is properly connected and circuit is operational
- G. Verify that each television jack is properly connected and circuit is operational.

### 3.4 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

### 3.5 CLEANING

- A. Clean installed work.
- B. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

SECTION 16500  
LIGHTING FIXTURES AND LAMPS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Conditions of the Contract and Sections 16010 and 16050 applies to work in this Section.
- B. Work Included:
  - 1. Provide all lighting outlets indicated on the drawings with a fixture of type designated and appropriate for the location. Outlet symbols on the Drawings without a type designation shall have a fixture the same as those used in similar or like conditions.
  - 2. Where a fixture type designation has been omitted and cannot be determined by the Contractor, request a clarification from the Architect and provide a suitable fixture type as directed at no additional cost.
  - 3. Coordinate installation of lighting fixtures with the ceiling installation and all other trades to provide a total system that is neat and orderly in appearance.

1.2 SUBMITTALS

- A. Product Data.

PART 2 PRODUCTS (No Substitutions)

2.1 MATERIALS

- A. Recessed fixtures shall have trims, which fit neatly and tightly to the surfaces in which they are installed without leaks or gaps.
- B. Fixtures installed under canopies, roof or open porches, and similar damp or wet locations shall be UL listed and labeled as suitable for damp or wet locations.

2.2 INCANDESCENT FIXTURES

- A. Fixture dimensions shall be proper for the various wattages noted on the plans and as recommended by the fixture manufacturer or as specified.

2.3 LAMPS

- A. Lamp each fixture with the suitable lamp catalogued for the specific fixture type and as indicated as manufactured by General Electric, Osram/Sylvania, Philips.

2.4 LIGHTING LUMINAIR SCHEDULE

- A. **Light Fixture:** Kitchen / Living Room / Bedroom Light/ Bathroom – Ceiling mounted with white glass dish type diffuser, Progress P4961-30, with two 60 watt LED A-19 lamps.
- B. **Light Fixture:** Bathroom Light – Wall mounted LED, VERIFY WITH HACC FOR MODEL #.
- C. **Light Fixture:** Porch Light – Wall mounted, Jelly Jar LED Wall Pack. Home Depot #1002076252 Model#DW9033BK-B.
- D. **Light Fixture:** Garage Light - Lithonia Lightingwrap 2 light flush mounted white multi-volt ballast ceiling light. Model #LB 2 32 MVOLT MVIS with 32watt T8 lamps. HOME DEPOT # 453-879
- E.

PART 3 GENERAL

3.1 INSTALLATION

- A. Determine ceiling types in each area and provide suitable mounting frames where required for recessed fixtures.
- B. Fixtures shall be left clean at the time of acceptance of the work with every lamp in operation. If fixtures are deemed dirty by HACC at completion of the project, the Contractor shall clean them at no additional cost to the HACC.
- C. Fixtures shall be aligned, leveled in straight lines, and located as shown on the architectural drawings. The final decision as to adequacy of support and alignment shall be given by HACC. The fixtures shall be supported by separate means from the building structure and not from the ceiling system, ductwork, piping or other systems.
- D. Fixtures shall be aimed or installed to provide the lighting pattern for which the fixture is designed.
- E. Remove diffuser/globe of all existing fixtures to remain for the duration of construction. Clean, revamp, and replace upon completion.

END OF SECTION

SECTION 16721  
SMOKE ALARM SYSTEMS

PART 1 GENERAL

1.1 SCOPE AND RELATED DOCUMENTS

- A. Furnish and install smoke detectors and alarms as indicated on the drawings and specified.
- B. Devices shown on the drawings indicate a minimum coverage. The Contractor shall verify with the Fire Marshal having jurisdiction to provide additional detectors as required.

1.2 QUALITY ASSURANCE

- A. Each and all items of the Smoke Alarm system shall be listed as a product of a SINGLE fire alarm system manufacturer under the appropriate category by the Underwriters' Laboratories, Inc. (UL), and shall bear the "UL" label.
- B. The complete installation shall conform to the applicable documents of NFPA-72 and local Code requirements.

1.3 SUBMITTALS

- A. Product Data.
- B. Operation and Maintenance Data.

PART 2 PRODUCTS

- A. Kidde AC/DC CO/Smoke Alarm – Talking. Maintenance Warehouse Model #126726 with 10yr lithium backup battery, or equal.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide and install the system in accordance with the plans and specifications, all applicable codes and the manufacturer's recommendations. All wiring shall be installed in strict compliance with all the provisions of NEC Article 760 and local governing body having jurisdiction.
- B. Interconnect smoke detectors in each unit so that operation of any detector will cause the alarm in all smoke detectors within the unit to sound. Per NFPA 72, 2-2.2.1.
- C. Install carbon monoxide detector according to manufacturer's recommendations.
- D. Provide and install all necessary AC power supply overcurrent devices, wiring, device boxes, and all interconnecting signal wiring for a complete and functional installation. All new wiring to be concealed within building wall and joist spaces.
- E. Smoke/CO Alarm shall be installed per manufactures instructions at locations indicated on the drawings. Alarm shall be hard wired into existing system and must talk to other units. Modify/install new wiring as required.

3.2 WARRANTY

- A. The contractor shall warrant the completed smoke alarm system wiring and equipment to be free from inherent mechanical and electrical defects for a period of one (1) year from the date of the completed and certified test or from the date of first beneficial use.

END OF SECTION

SECTION 16780  
TELEVISION SYSTEMS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Conditions of the Contract and Sections 16010 and 16050 apply to this Section.
- B. Work Included:
  - 1. Furnish and install a complete cable television system as specified herein and as shown on the drawings. All system components shall be of one system manufacturer. Provide a complete and operational system, including but not limited to outlets, plates, cable, terminal cabinets, and all associated material and labor.

1.2 SUBMITTALS

- A. Product Data.

PART 2 PRODUCTS

2.1 OUTLET BOXES

- A. Boxes for room outlets shall be 4-11/16” x 2-1/8” deep with single gang plaster cover.
- B. Provide a metal 4”x4” recessed junction box for cable co. to connect service. For location verify with Cable Co. and HACC.

PART 3 EXECUTION

3.1 DEMOLITION OF EXISTING CABLES

- A. Remove and dispose of all exposed television cables, boxes and related accessories from the exterior and interior surfaces of the building.
- B. Disconnect and remove all, active and inactive, existing service cables. Verify extent of removal with Cable Co. and HACC.

3.1 CABLE TV PREWIRE

- A. Prewire building for television system, install outlets as shown on drawings and specified herein.
- B. Provide RG6 coaxial cable, pull a home run from each outlet to 4x4 ‘J’ box
- C. Use labels to identify each cable by room.
- D. Terminate each outlet with flush plate, match receptacles plates, and “F” fittings.
- E. **Exterior cable runs shall be concealed behind new siding. No exceptions. If a connection is required contractor to provide an accessible junction box for utility company/HACC to access.**

END OF SECTION



SECTION 16790  
TELEPHONE SYSTEMS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Conditions of the Contract and Sections 16010 and 16050 apply to this Section.
- B. Work Included:
  - 1. Furnish and install a complete telephone system as specified herein and as shown on the drawings. All system components shall be of one system manufacturer. Provide a complete and operational system, including but not limited to outlets, plates, wiring, terminal cabinets, and all associated material and labor.

1.2 RELATED SECTIONS

- A. Section 16140 – Wiring Devices

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. OUTLET BOXES: Metal.

PART 3 EXECUTION

3.1 TELEPHONE PREWIRE

- A. Prewire building for telephone, using CAT 5E 127 2H, (UL) as manufactured by Superior Essex, Marathon 4 PR 24 (UL) C(UL) CMR/MPR Verified telephone wire **from each** unit to telephone terminal location.
- B. Each run is to be continuous, non-broken home run to telephone terminal. Terminal shall be a 4"x4" recessed junction box. Verify with Tel.Co. and HACC.
- C. All wires are to be punched down on blocks and labeled, by apartment and room, for local telephone company connection.
- D. Install a modular wall plate at each location in apartments, locations as shown on drawings.
- E. **Exterior cable runs shall be concealed behind new siding. No exceptions. If a connection is required contractor to provide an accessible junction box for utility company/HACC to access.**

END OF SECTION

DATE:	REV.

# MODERNIZATION OF 6606 HEMLOCK

## HOUSING AUTHORITY OF CLACKAMAS COUNTY PROJECT NUMBER #20008

Funded under the Capital Fund Grant Program provided by the U.S. Department of Housing and Urban Development

Prepare by The Housing Authority of Clackamas County  
P.O. Box 1510, Oregon City, Oregon 97045  
Phone: 503-650-3143 Fax: 503-650-3168

### ABBREVIATIONS & ACRONYMS

ADA	AMERICANS WITH DISABILITIES ACT
BR	BED ROOM
BDRM	BED ROOM
BR'S	BED ROOMS
C	CABLE
CB	CABLE BOX
CATV	CABLE TELEVISION
DB	DOOR BELL
DEMO	DEMOLISH
DV	DRYER VENT
(E)	EXISTING
E.M.	ELECTRIC METER
EP	ELECTRIC PANEL
GALV	GALVANIZED
GFCI	GROUND-FAULT-CIRCUIT-INTERRUPTER
G.M.	GAS METER
HACC	HOUSING AUTHORITY OF CLACKAMAS COUNTY
HB	HOSE BIB
HUD	UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
H/C	HOT AND COLD
J	JUNCTION
KCMA	KITCHEN CABINET MANUFACTURES ASSOCIATION
LR	LIVING ROOM
MAX	MAXIMUM
N	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
R	REMOVE
REQD	REQUIRED
RPL	REPLACE
R/R	REMOVE AND REPLACE
R/D	REMOVE AND DISPOSE
SD	SMOKE DETECTOR
SPECS	SPECIFICATIONS
S.V.	SHEET VINYL
T	THERMOSTAT or TELEPHONE
TB	TELEPHONE BOX
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
WB	WASHER BOX
WH	WATER HEATER
WM	WATER METER
WJ	WITH

SHEET INDEX TABLE	
SHEET NUMBER:	SHEET TITLE:
A-0	TITLE, SYMBOLS & SHEET INDEX
A-1	FLOOR PLAN & SITE PLAN
A-2	KITCHEN ELEVATIONS
A-3	DETAILS

SITE ADDRESSES:		
SITE:	ADDRESS:	UNIT#:
1	6606 SE HEMLOCK STREET, MILWAUKIE, OR 97222	7004

NAME: MODERNIZATION OF HEMLOCK  
PROJECT#: 20008

Health, Housing & Human Services  
CLACKAMAS COUNTY  
P.O. BOX 1510, 13900 SOUTH GAIN STREET, OREGON CITY, OR 97045-0510  
TEL: 503-650-3143 FAX: 503-650-3168 TDD: 503-655-8639

Date: 10/15/20  
Drawn by: JT  
Checked by: JK  
Address: 6606 Hemlock Milwaukie, OR

Sheet Title:

COVER

SHEET:

A-0

OF

### ARCHITECTURAL SYMBOLS:

	EXISTING (E) WALL TO REMAIN
	EXISTING (E) WALL TO BE REMOVED
	NEW (N) WALL
	EXISTING TO BE REMOVED
	PROPOSED NEW WALL
	HACC PROVIDED CONTRACTOR INSTALLED
	PROPERTY LINE
	CHAIN LINK FENCE
	WOOD FENCE
	CONCRETE
	BARK DUST
	INSULATION
	NEW COMPACTED GRAVEL
	EARTH
	ASPHALTIC CONCRETE PAVING
	GRASS

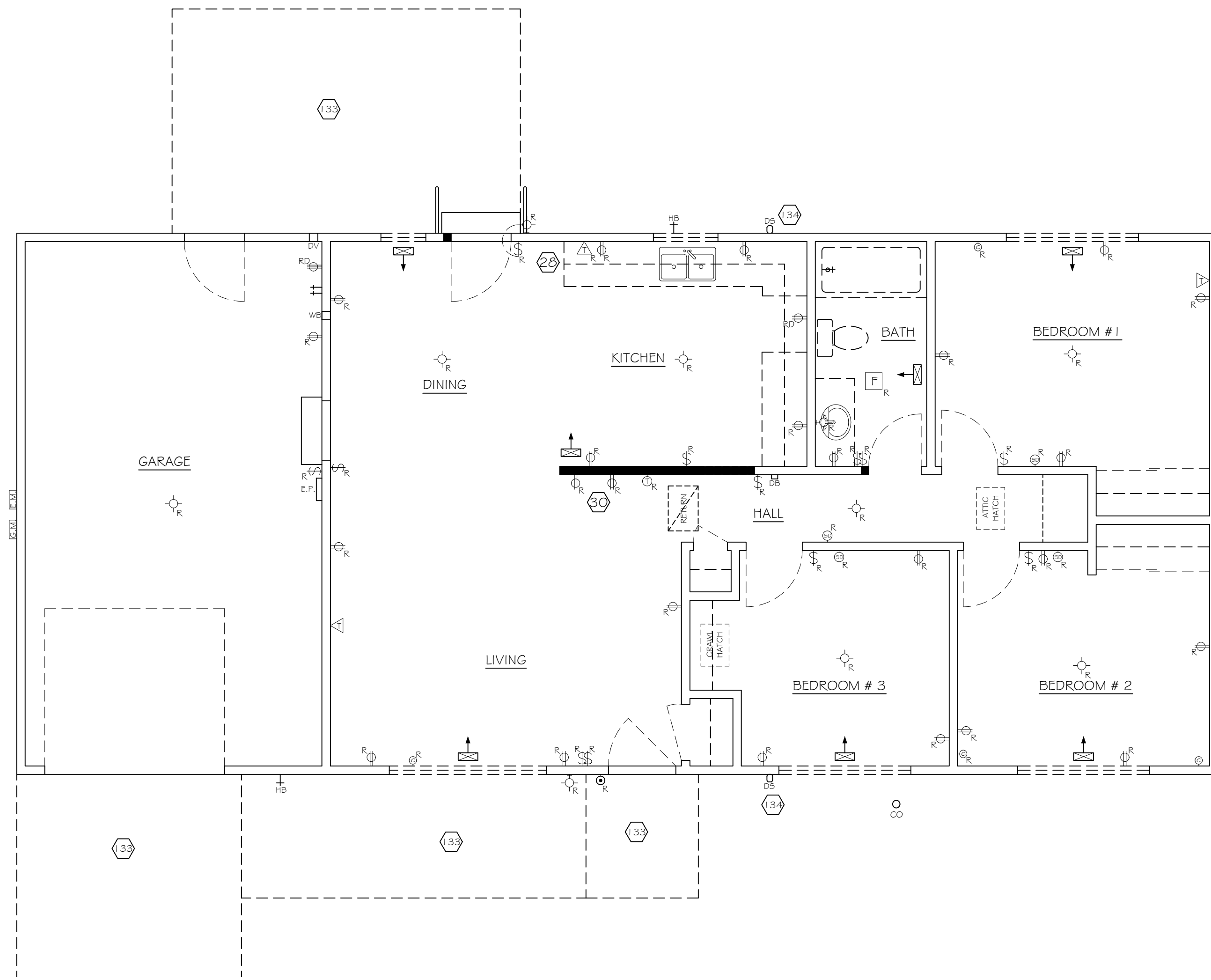
### MECHANICAL SYMBOLS:

	NEW DRYER VENT CAP.
	NEW CLOTHES WASHER BOX & VENT .
	REPLACE / RELOCATE (E) HOSE BIB WITH NEW.
	NATURAL GAS METER.
	CABLE BOX.
	TELEPHONE BOX.
	NEW SUPPLY AIR REGISTER.
	NEW RETURN AIR REGISTER WITH FILTER CEILING MOUNTED.
	REMOVE EXISTING THERMOSTAT.
	INSTALL NEW THERMOSTAT. VERIFY WITH MECHANICAL.

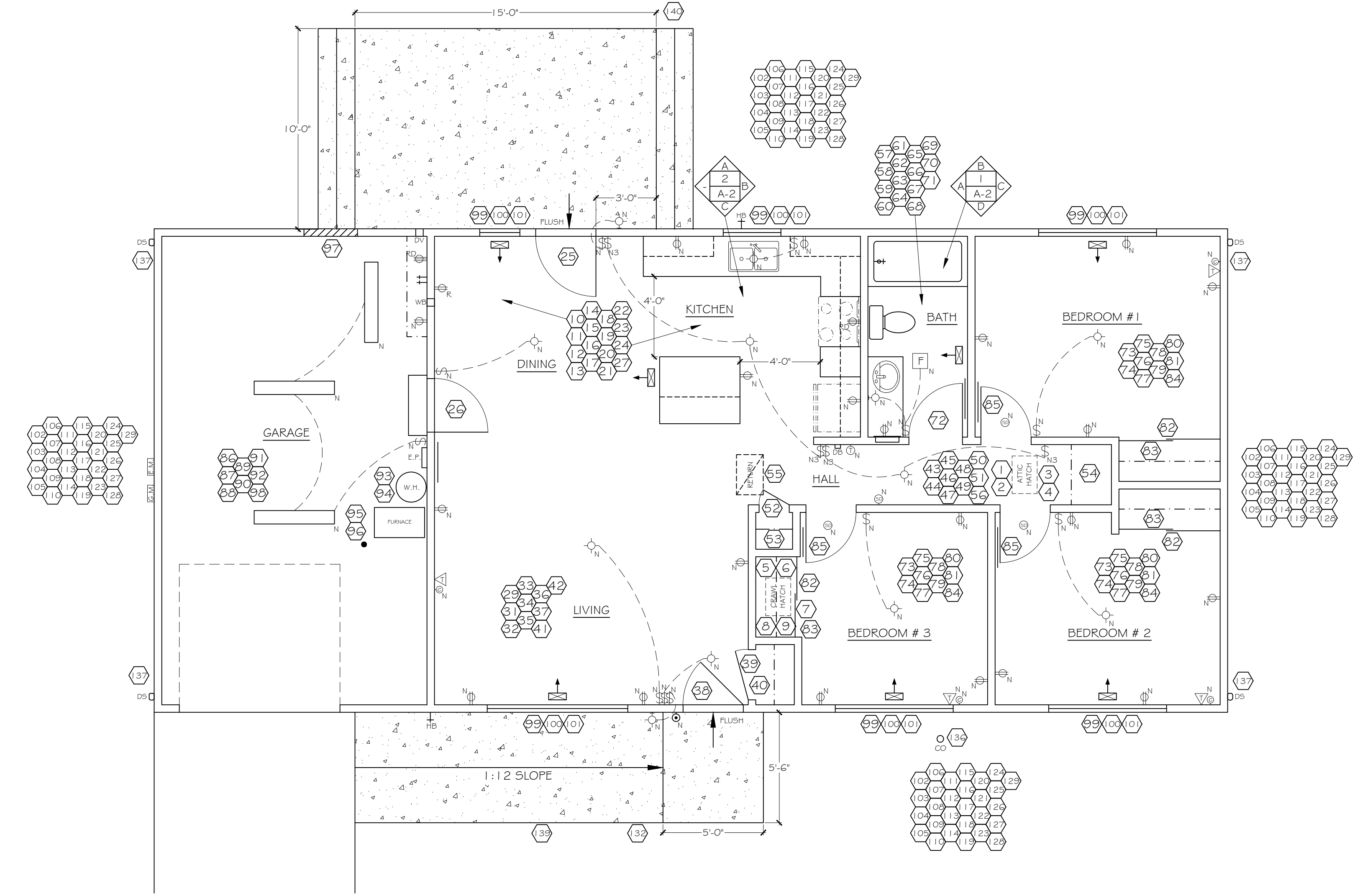
### ELECTRICAL SYMBOLS:

	REMOVE SWITCH AND COVER PLATE.
	REMOVE EXISTING SWITCH, BOX AND WIRE TO SOURCE. PATCH TO MATCH EXISTING FINISH.
	NEW SWITCH AND COVER PLATE.
	INSTALL NEW SWITCH, BOX, WIRE AND COVER PLATE.
	NEW THREE WAY SWITCH AND COVER PLATE.
	REMOVE RECEPTACLE AND COVER PLATE.
	REMOVE EXISTING RECEPTACLE, BOX AND WIRE TO SOURCE. PATCH TO MATCH EXISTING FINISH.
	NEW RECEPTACLE AND COVER COVER PLATE.
	INSTALL NEW RECEPTACLE, BOX, WIRE AND COVER.
	REMOVE EXISTING RANGE RECEPTACLE AND PROVIDE NEW 4 PRONG.
	REMOVE EXISTING CLOTHES DRYER RECEPTACLE AND PROVIDE NEW 4 PRONG.
	REMOVE LIGHT FIXTURE, BASE AND LENS.
	NEW CEILING MOUNTED LIGHT FIXTURE FIXTURE IN THE KITCHEN, LIVING ROOM, BEDROOMS AND BATHROOM.
	NEW CEILING MOUNTED FLUORESCENT LIGHT FIXTURE.
	NEW WALL MOUNTED LIGHT FIXTURE.
	EXISTING PHONE JACK TO REMAIN. REPLACE COVER WITH NEW. INSTALL NEW BOX AS REQUIRED.
	REMOVE PHONE JACK, COVER AND WIRES TO ITS SOURCE.
	INSTALL NEW TELEPHONE JACK, WIRE, BOX AND COVER.
	REMOVE EXISTING SMOKE DETECTOR & WIRES TO ITS SOURCE.
	NEW CEILING MOUNTED HARDWIRED SMOKE/CO DETECTOR. VERIFY LOCATION WITH BUILDING OFFICIALS.
	EXISTING CABLE JACK TO REMAIN. REPLACE COVER WITH NEW. INSTALL NEW BOX AS REQUIRED.
	REMOVE CABLE BOX, COVER AND WIRES TO ITS SOURCE.
	INSTALL NEW CABLE T.V. RECEPTACLE, WIRE, BOX AND COVER.
	REMOVE EXISTING LIGHT/FAN/HEATER COMBO.
	NEW SILENT EXHAUST FAN.
	REMOVE EXISTING DOOR BELL BUTTON.
	INSTALL NEW DOOR BELL BUTTON.
	NEW DOORBELL CHIME.
	EXISTING ELECTRIC METER TO REMAIN. REPLACE / RELOCATE MODIFY IF REQUIRED BY UTILITY COMPANY #/OR BUILDING OFFICIAL / CODE
	EXISTING ELECTRIC PANEL TO REMAIN. REPLACE / RELOCATE MODIFY IF REQUIRED BY UTILITY COMPANY #/OR BUILDING OFFICIAL / CODE

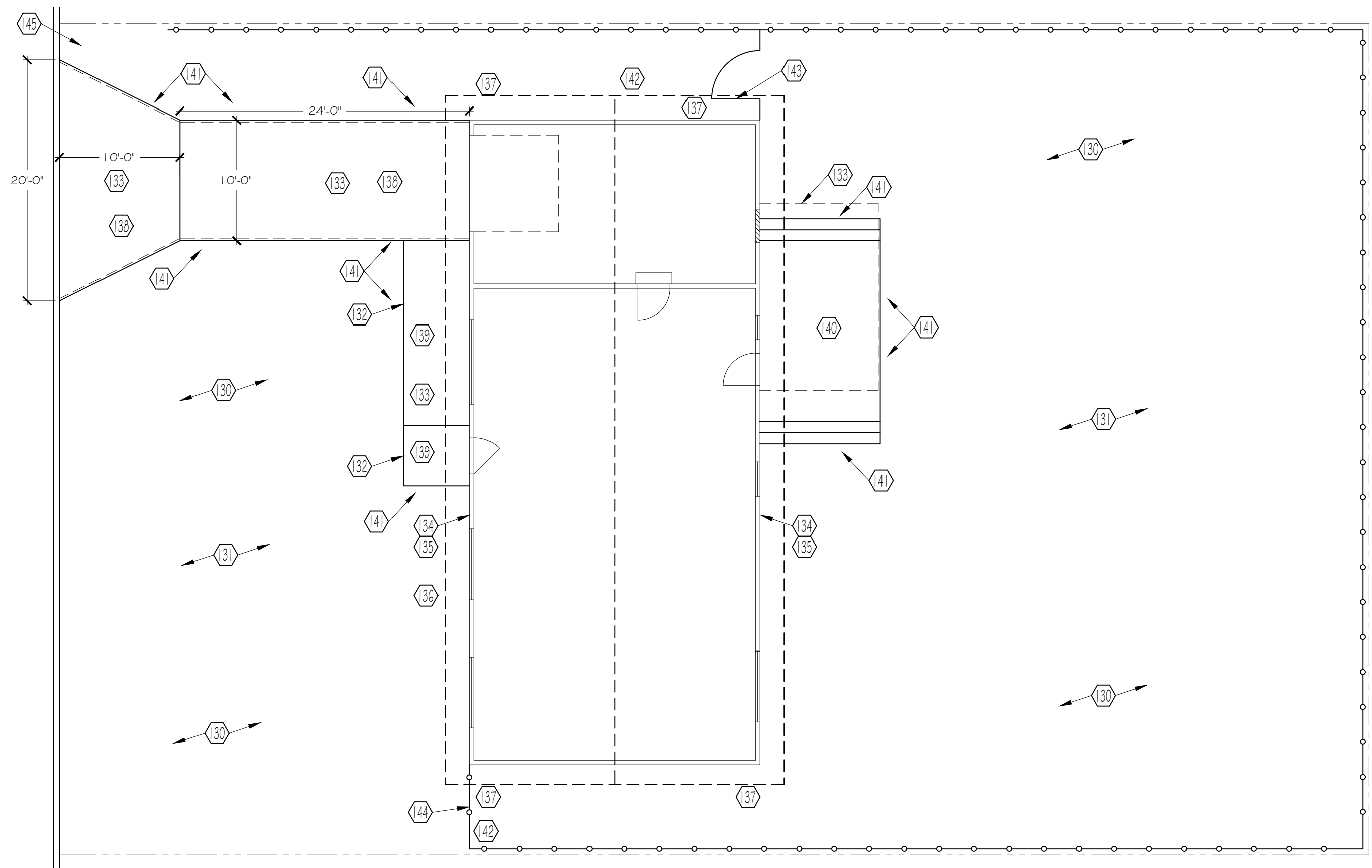
NOTE:  
DRAWINGS ARE FOR REFERENCE ONLY. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR.



2 DEMOLITION FLOOR PLAN  
SCALE: 1/4" = 1'-0"



3 NEW CONSTRUCTION FLOOR PLAN  
SCALE: 1/4" = 1'-0"



1 SITE PLAN  
SCALE: 1/8" = 1'-0"

DATE:	REV.

NAME: MODERNIZATION OF HEMLOCK  
PROJECT#: 20008

Health, Housing & Human Services  
CLATSOP COUNTY  
P.O. BOX 1510 13900 SOUTH GAIN STREET-OREGON CITY, OR 97045-0510  
TEL: 503-650-3143 FAX: 503-650-8639

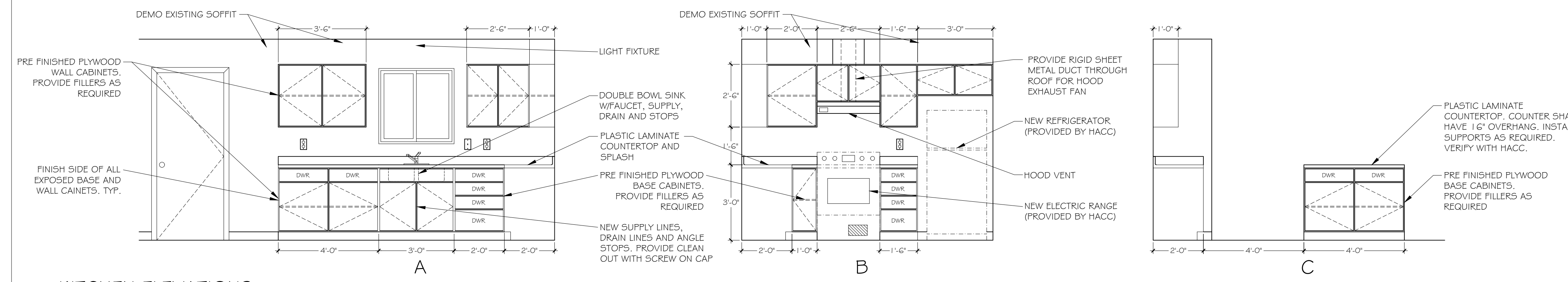
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Drawn by: JT  
Checked by: JK  
Address:  
GG06 Hemlock  
Milwaukie, OR

Sheet Title:  
**FLOOR PLAN**

SHEET:  
**A-1**

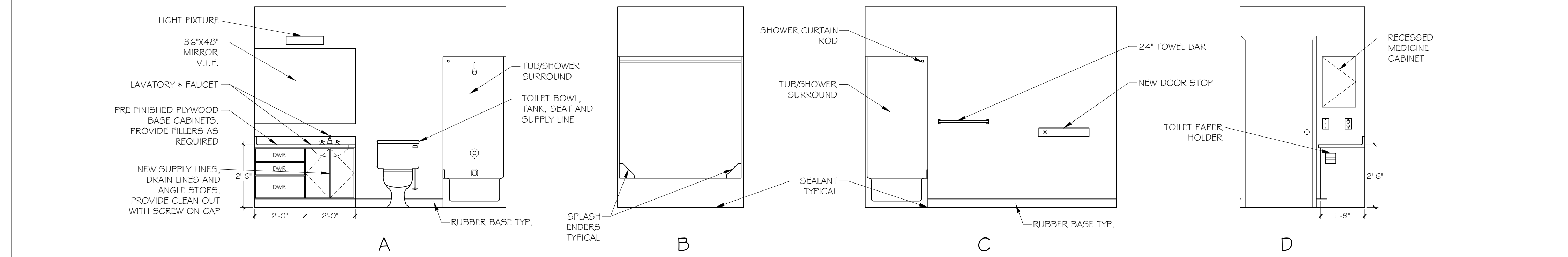
NOTE:  
DRAWINGS ARE FOR REFERENCE ONLY. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR.

DATE:	REV.



**2 KITCHEN ELEVATIONS**  
SCALE: 3/8" = 1'-0"

**NOTE**  
PRIOR TO CABINET INSTALLATION, ALL GYPSUM BOARD AND FLOOR JOINTS AND CRACKS SHALL BE SEALED, PRIMED, PAINTED, AND VERIFIED BY HACC.



**1 BATH ELEVATIONS**  
SCALE: 3/8" = 1'-0"

**NOTE**  
PRIOR TO CABINET INSTALLATION, ALL GYPSUM BOARD AND FLOOR JOINTS AND CRACKS SHALL BE SEALED, PRIMED, PAINTED, AND VERIFIED BY HACC.

NAME: MODERNIZATION OF HEMLOCK  
PROJECT#: 20008

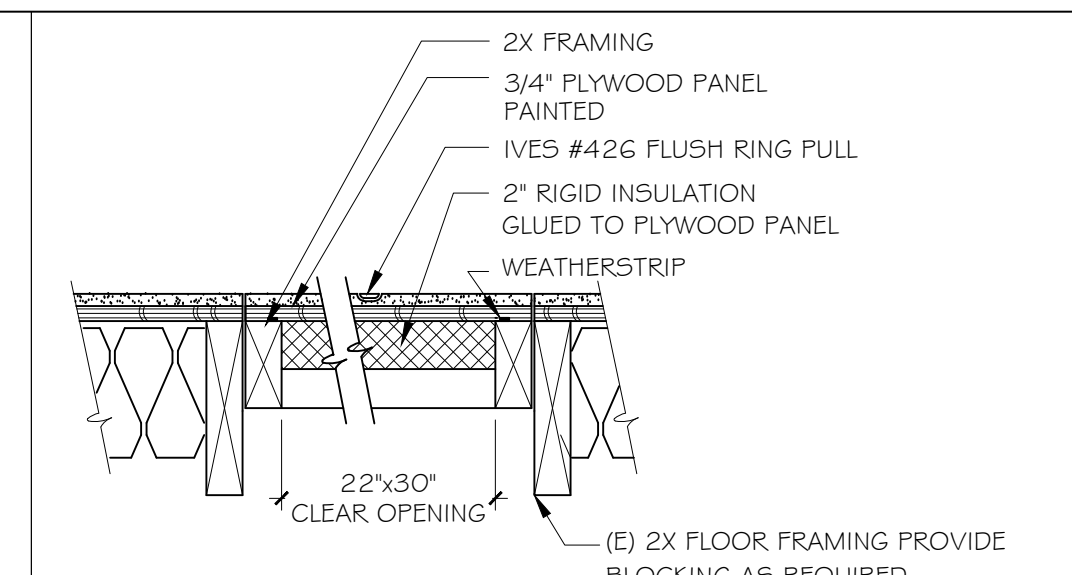
Health, Housing & Human Services  
CLATSOP COUNTY  
P.O. BOX 1510-13900 SOUTH GAIN STREET-OREGON CITY, OR 97045-0510  
TEL: 503-650-3143 FAX: 503-650-3168 TDD: 503-655-8639

Date: 10/15/20  
Drawn by: JT  
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Address:  
6606 Hemlock  
Milwaukie, OR

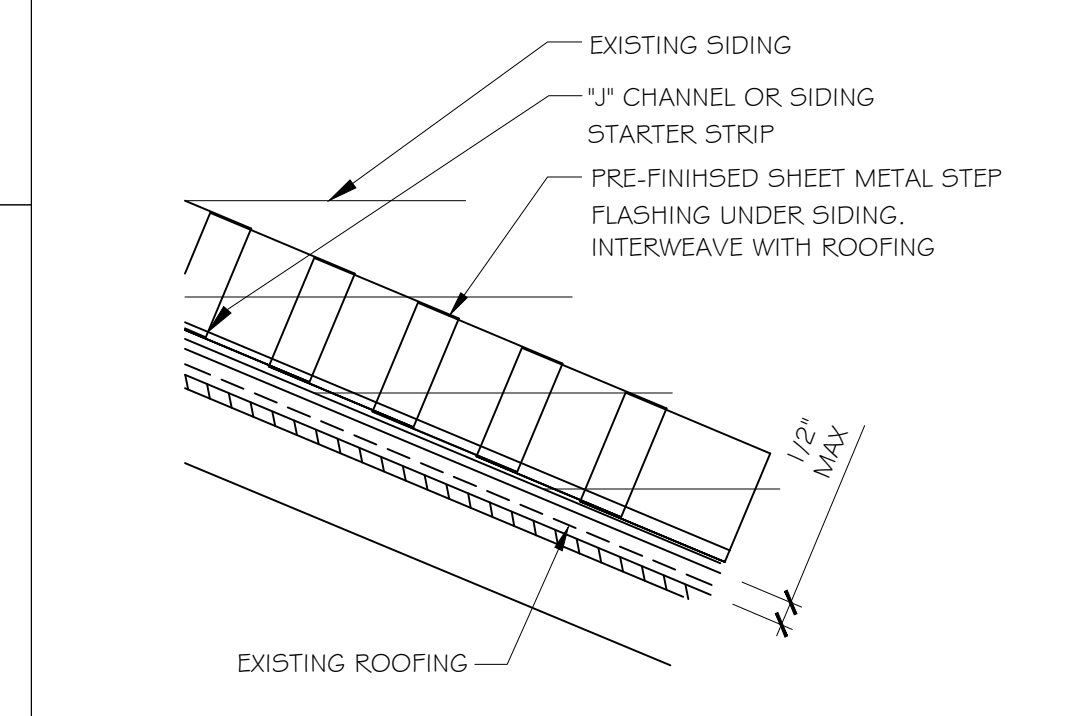
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SHEET:  
**A-2**  
OF

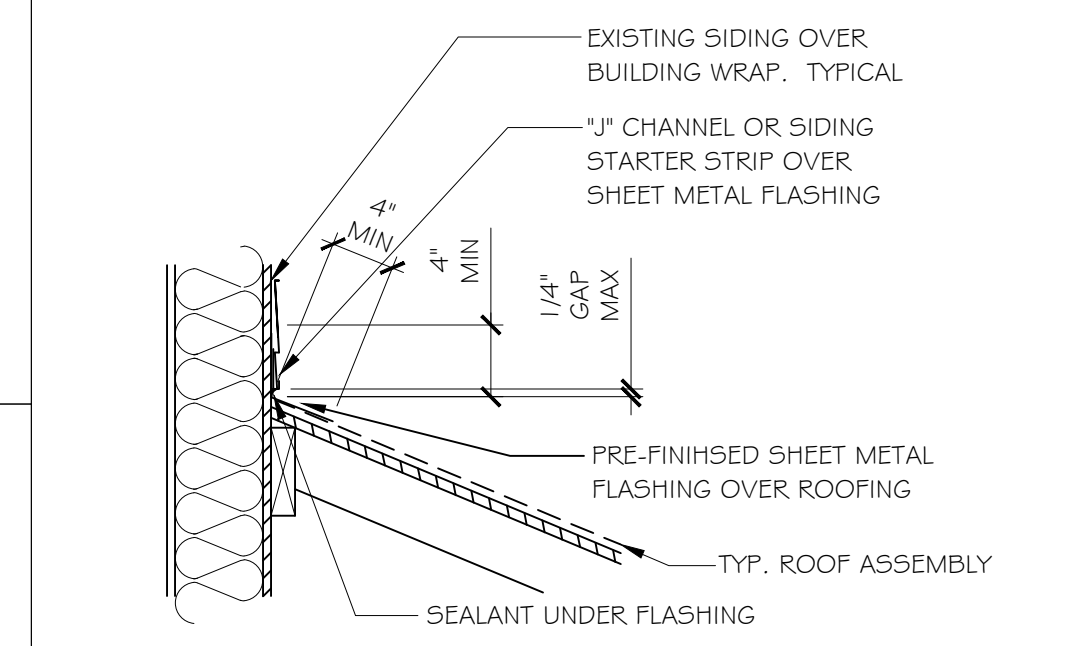
**NOTE:**  
DRAWINGS ARE FOR REFERENCE ONLY. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR. DRAWINGS WERE CREATED OFF OF UNIT 260. SOME ITEMS IN UNIT 250 WILL BE MIRRORED OFF OF UNIT 260.



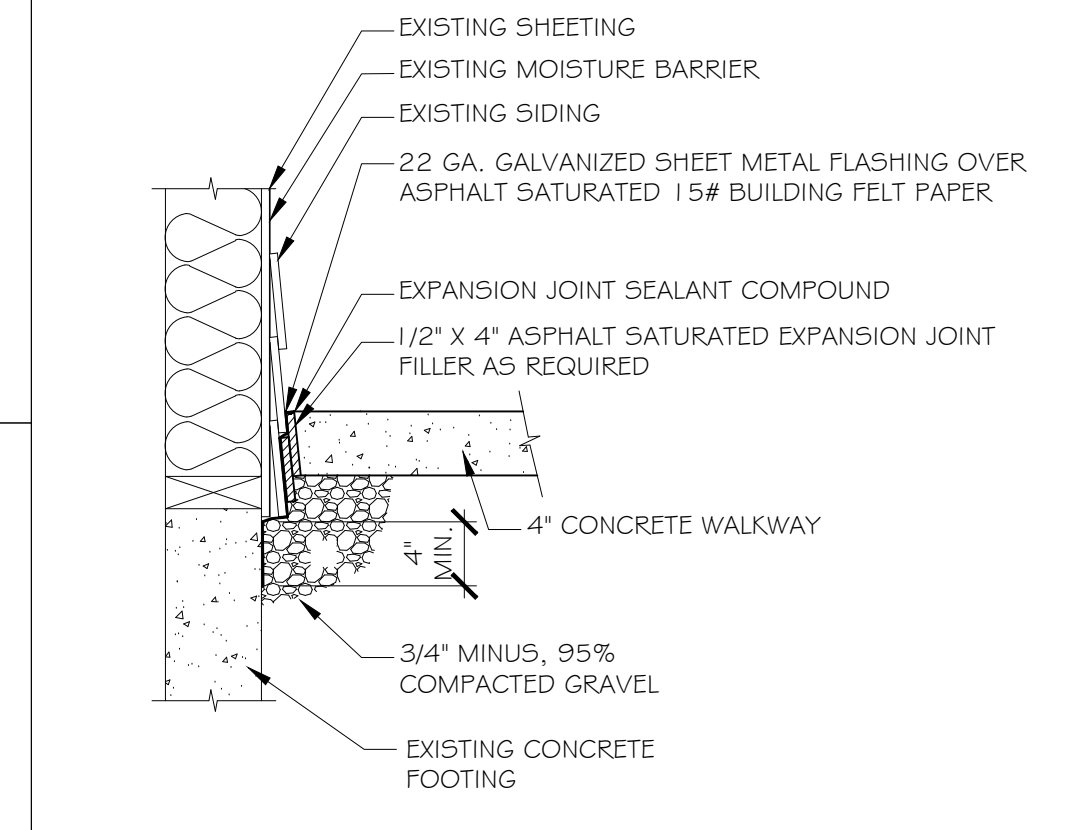
6 FLOOR CRAWL SPACE HATCH  
SCALE: 6"=1'-0"



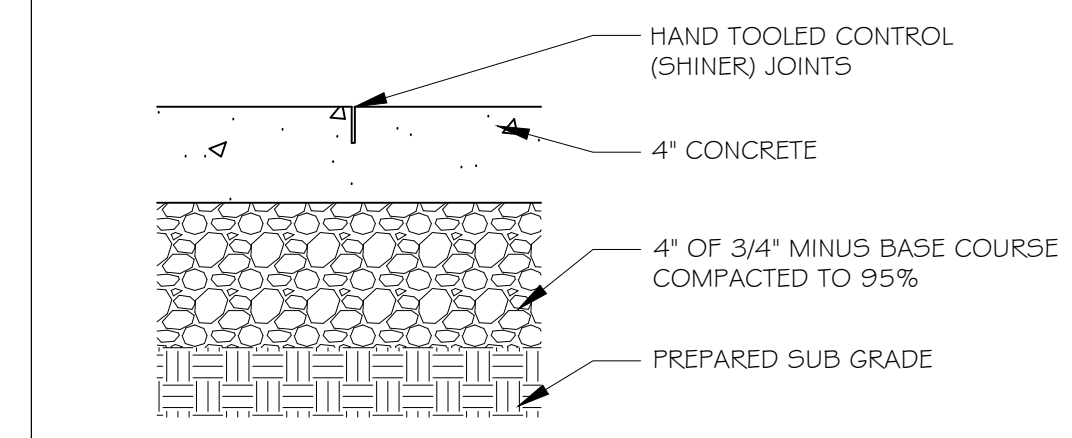
7 TYPICAL SIDE WALL AT ROOF  
SCALE: 3"=1'-0"



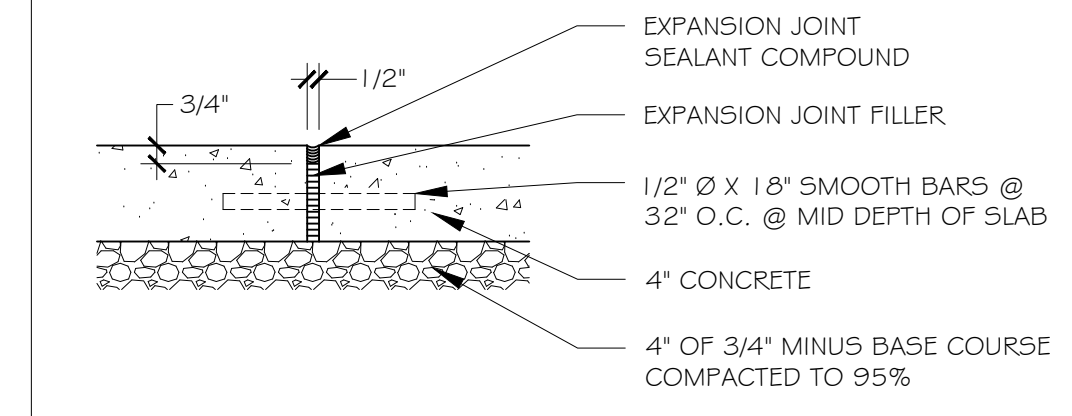
8 TYP ROOF TO WALL CONNECTION  
SCALE: 1"=1'-0"



9 EXPANSION JOINT AT SIDING  
SCALE: 1"=1'-0"

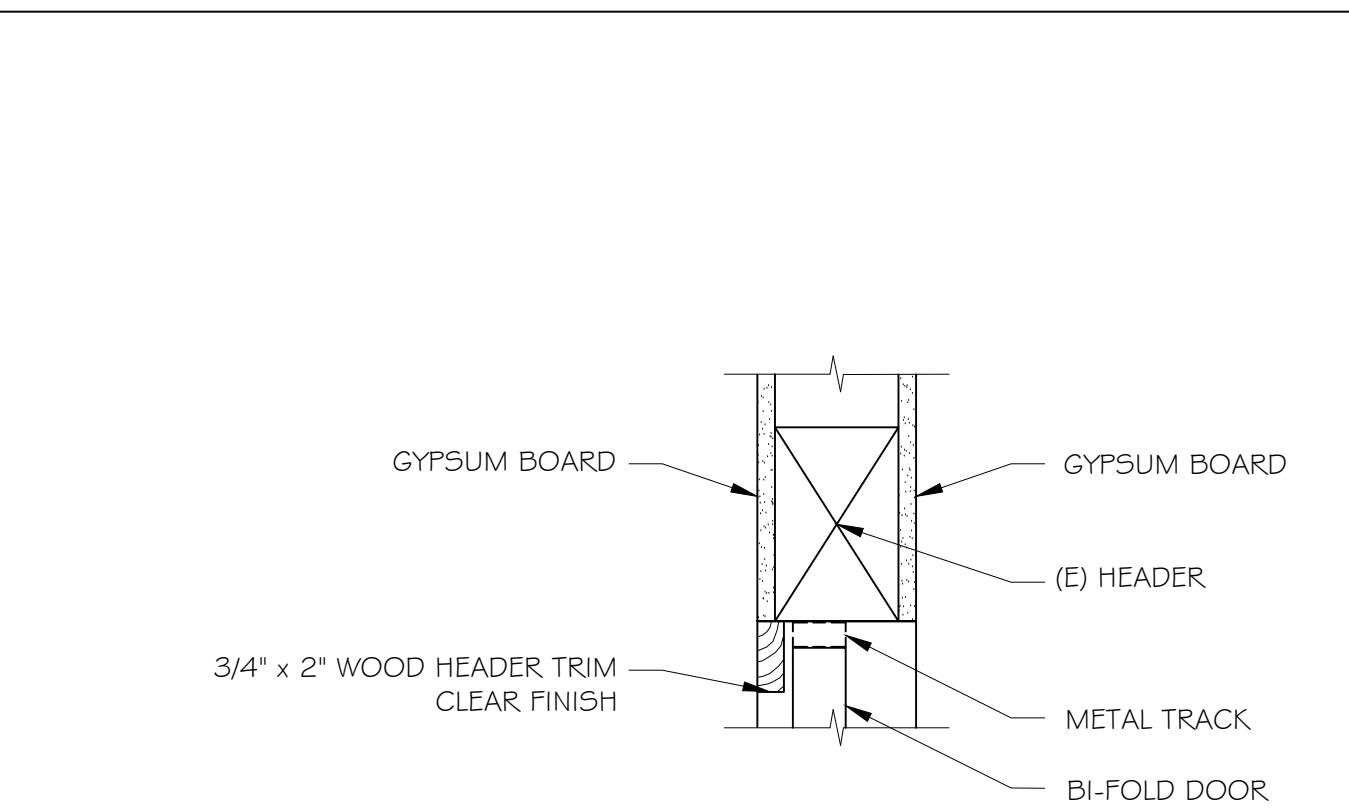


10 CONTROL JOINT  
SCALE: 1"=1'-0"

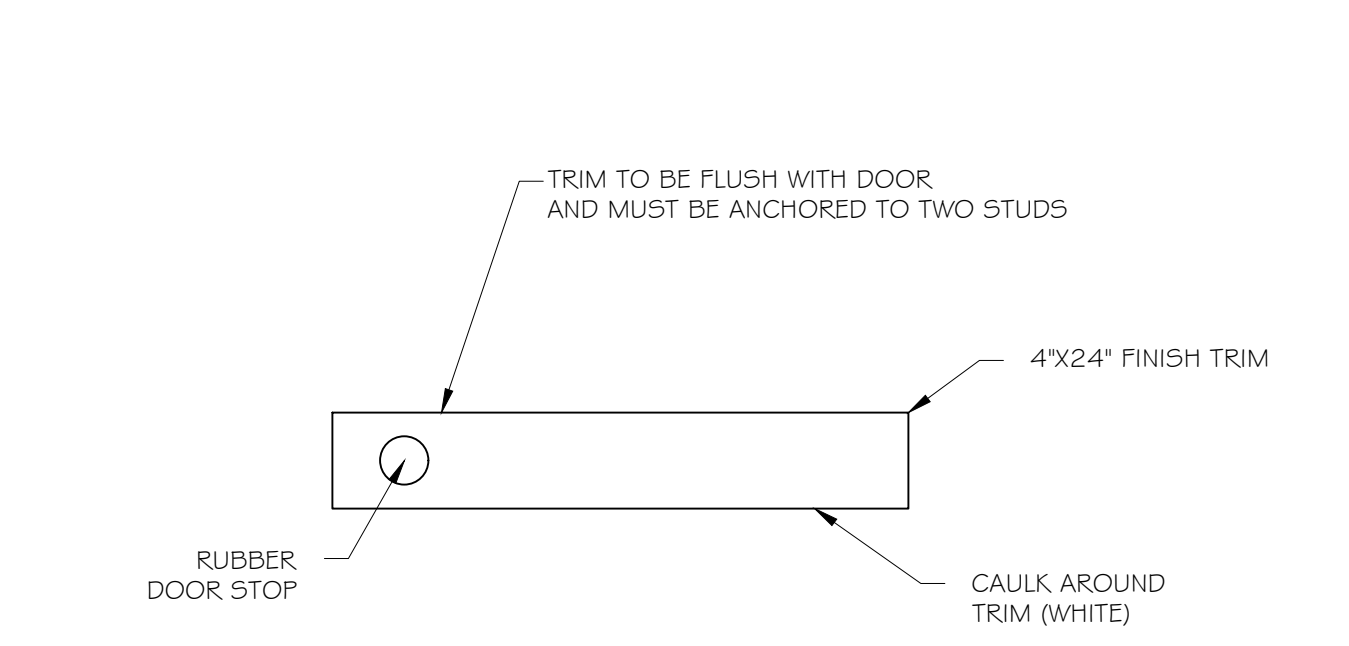


11 EXPANSION JOINT  
SCALE: 1"=1'-0"

NOTE: USE EXPANSION JOINT WHERE WALKS / PATIO ABUTT PERPENDICULAR SURFACES, WALLS, FOUNDATIONS, CURBS, DRIVEWAYS, OR WHERE SHOWN ON PLANS



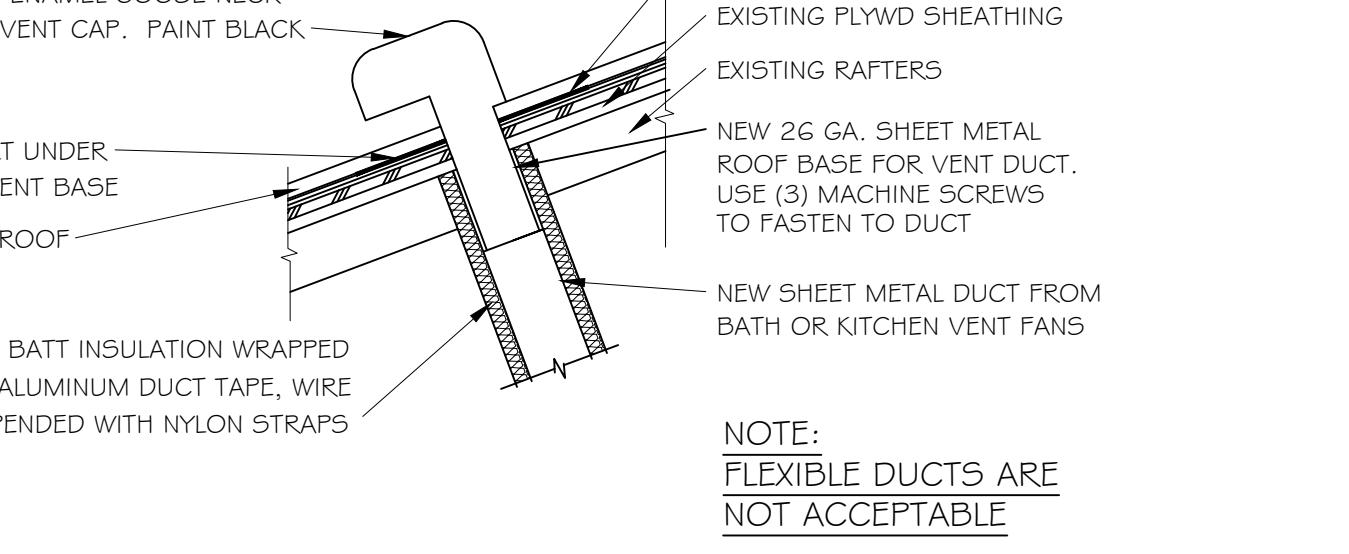
5 BI-PASS DOOR/TRACK SECTION  
SCALE: NTS



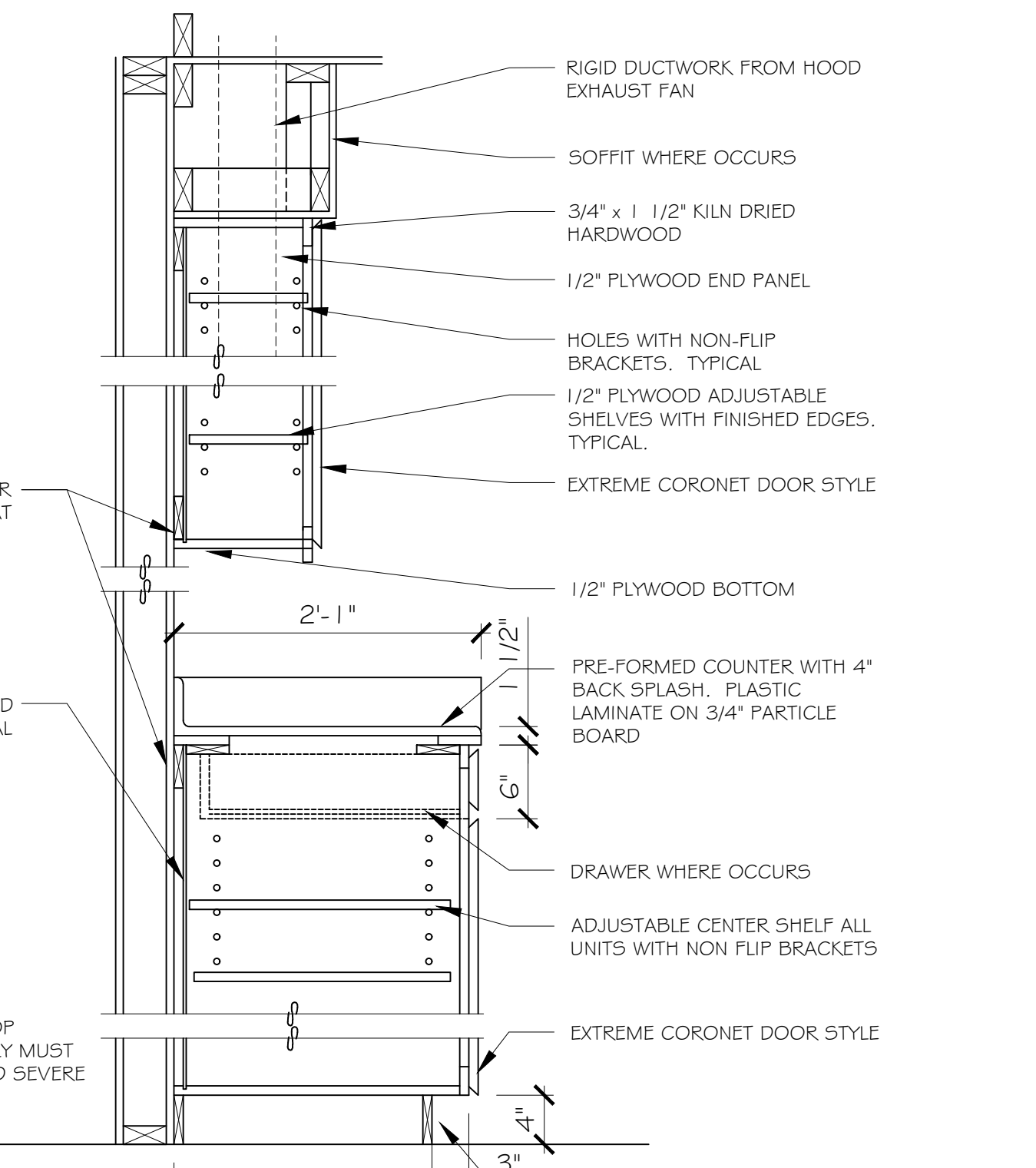
4 TYPICAL DOOR STOP AT DOORS  
SCALE: 1 1/2"=1'-0"



3 EXHAUST VENT CAP AT BATH AND KITCHEN FANS. TYPICAL  
SCALE: 1"=1'-0"

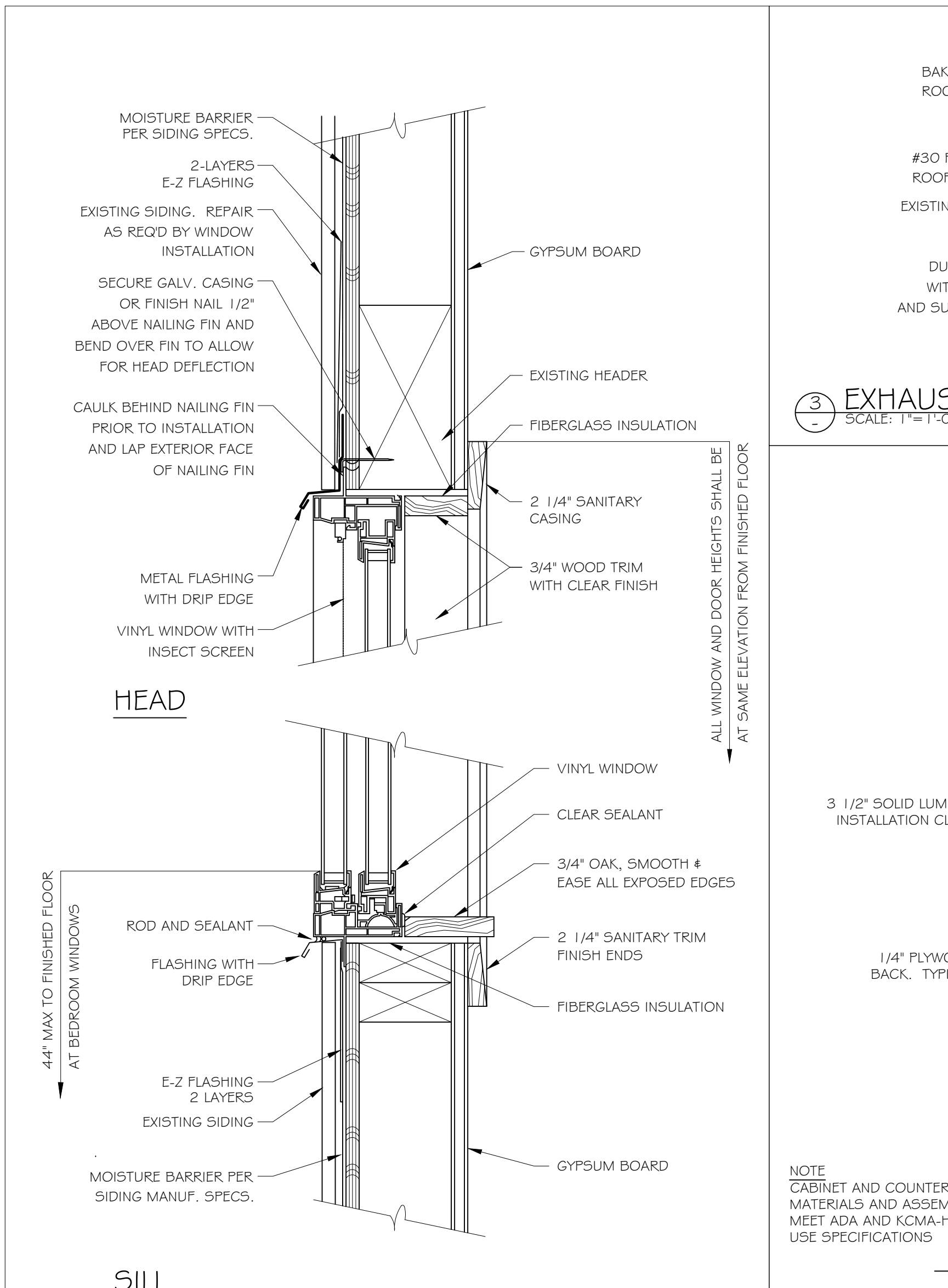


2 TYPICAL BASE AND WALL CABINET  
SCALE: 1"=1'-0"



1 TYPICAL WINDOW DETAIL  
SCALE: 1"=1'-0"

NOTE: DRAWINGS ARE FOR REFERENCE ONLY. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR.



1 TYPICAL WINDOW DETAIL  
SCALE: 1"=1'-0"

NOTE: DRAWINGS ARE FOR REFERENCE ONLY. ALL DIMENSIONS AND FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR.