

EOHLC
#184036

PROJECT MANUAL

MODERNIZATION OF STATE AIDED PUBLIC HOUSING

COMMUNITY ROOM ROOF REPLACEMENT



EOHLC

Massachusetts Executive Office of Housing and Livable Communities

STATE-AIDED DEVELOPMENT:

Orchard Circle Development (667-01)
10 Orchard Circle
Middleton, MA 01949

MIDDLETON HOUSING AUTHORITY

10 Orchard Circle
Middleton, MA 01949
Telephone (978) 774-4333

ARCHITECT

Vance Stein, Inc
85 Sam Fonzo Drive, STE 1
Beverly, MA 01915
Telephone (978) 522-2600
cvance@vancestein.com

BOARD MEMBERS

Maria Paikos, Chair
Karen McCafferty, Vice Chair
Douglas LeColst, Treasurer
Ilene Twiss, State Appointee
Cynthia Dunn, Executive Director

DATE: December 3rd, 2025 (DRAFT)

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PUBLIC NOTIFICATION FOR WRITTEN QUOTES

The **Middleton** Housing Authority, the Awarding Authority, invites written quotes from Contractors for the **Elderly 667-01 Orchard Circle Development** for the **Middleton** Housing Authority in **Middleton** Massachusetts, in accordance with the documents prepared Vance Stein, Inc.

The Project consists of: **Brief one or two sentence description of the work**

The work is estimated to cost \$ **47,284.00**

Quotes are subject to M.G.L. c.149 §44A (2)(B) & to state prevailing wage rates as required by M.G.L. c.149 §§26 to 27H inclusive.

All bidding Requests for Information (RFI's) for general bids shall be submitted via email to **Jessica Juncker**, jjuncker@vancestein.com by **2:00 p.m., XXXXX, XXXXXXXX ##th, 202#**.

Written Quotes will be received until **2:00 p.m., XXXXX, XXXXXXXX ##th, 202#**.

This project is being Electronically Bid (E-Bid). All Quotes shall be prepared and submitted online at Projectdog.com and received no later than the date & time specified above. Hard copy Quotes will not be accepted by the Awarding Authority. For assistance, contact Projectdog, Inc. at 978.499.9014.

Bid Forms and Contract Documents will be available in electronic form and without cost or charge at Projectdog.com, project code **XXXXXX**, beginning **Month Day, 20XX**. Persons desiring hard copies of the documents shall be solely responsible for all printing costs.

The job site and/or existing building will be available for inspection between **Time** A.M. and **Time** P.M. on **Date**. For an appointment call **Cynthia Dunn at the LHA at (978) 774-4333**.

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - BIDDER'S REPRESENTATION

- 1.1 Each Bidder (hereinafter called the "**Bidder**") by making a Quote (hereinafter called "**Quote**") represents that:
 1. The Bidder has read and understands the Contract Documents and the Quote is made in accordance therewith.
 2. The Bidder has visited the site and is familiar with the local conditions under which the Work has to be performed.
- 1.2 Failure to so examine the Contract Documents and site will not relieve any Bidder from any obligation under the Quote as submitted.

ARTICLE 2 - BIDDER CERTIFICATIONS – OSHA & LEAD TRAINING

- 2.1 Massachusetts law requires all workers on this project construction site must have no less than 10 hours of OSHA-approved safety and health training.
- 2.2 The Contractor shall comply with requirements of EPA Regulation 40 CFR 745 including but not limited to Company, supervisor, and worker training.

ARTICLE 3 - MBE/WBE PARTICIPATION GOALS – NO REQUIREMENTS

ARTICLE 4 - REQUESTS FOR INTERPRETATION

- 4.1 Bidders shall promptly notify the Owner of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 4.2 Bidders requiring clarification or interpretation of the Contract Documents shall make such request to the Owner.

ARTICLE 5 - PREPARATION AND SUBMISSION OF QUOTES

THIS PROJECT IS BEING ELECTRONICALLY BID (E-BID) - ALL QUOTES SHALL BE PREPARED AND SUBMITTED ONLINE AT PROJECTDOG.COM.

- 5.1 Quotes shall be prepared and submitted online at Projectdog.com with the form furnished at no cost at Projectdog.com. The sample form enclosed in the Project Manual shall not be extracted or used.
 - 5.1.1 All required Bid Forms must be completed and submitted in unrestricted PDF formatted files. The Bidder must fill-in all required fields and signatures either digitally or manually (print, fill-in, and scan to PDF).
 - 5.1.2 The Bidder shall access the Projectdog.com E-Bidding System by entering the Project Code in the project locator box and then selecting "GC E-Bid" from the project's "Project Details" page. The Bidder must enter their bid price as a numeric, whole dollar value only with no punctuation. If no base bid price is applicable, Bidders are instructed to enter an amount of \$1.00 (one dollar). The E-Bidding system automatically translates the numeric value into words and displays the bid price in both figures and words on the submitted bid form. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
 - 5.1.3 Bidders may upload ("Add File" or "Replace File"), review ("View File"), Save, submit ("Submit my E-Bid"), or retract ("Retract my E-Bid") their E-Bid at any time prior to the designated deadline. The server clock is displayed on the project's E-Bidding page and is the time of record. **Bidders must select "Submit my E-Bid" prior to the designated deadline to officially submit their E-Bid online.** Once submitted, an E-Bid cannot be edited. To modify a submitted E-Bid, Bidders must retract their submission, save any changes, and then submit the updated E-Bid. Upon submitting or retracting their E-Bid, Bidders will receive a convenience email for informational purposes only. Bidders shall contact Projectdog if the email is not received.
 - 5.1.4 Bidders shall review their submitted E-Bid package by selecting "View My Bid Package" from the project's E-Bidding page. Uploaded files may be reviewed individually by selecting "View File". It is also the Bidder's responsibility to ensure that their submitted bid is 100% true, complete, and accurate.
 - 5.1.5 It is also the Bidder's responsibility to confirm online that their E-Bid package has been submitted successfully. Timely submission of an E-Bid shall be the full responsibility of the Bidder.
- 5.2 **Bid Deposits – No Requirements**

5.3 Electronic Submission of Quotes

5.3.1 Quotes shall be prepared and submitted online at Projectdog.com.

5.3.2 Date and time for receipt of Quotes is set forth in the Public Notification.

5.3.3 Timely delivery of a Quote at the location designated shall be the full responsibility of the Bidders.

ARTICLE 6 - ALTERNATES

6.1 Each General Bidder shall acknowledge Alternates by entering the dollar amount and selecting the "Add" or "Subtract" radio button necessitated by each Alternate listed in the corresponding space on the project's E-Bidding page.

6.2 General Bidders shall enter on the Form for Quotes a single amount for each Alternate, the amount for work performed by the General Contractor.

6.3 In the event an Alternate does not involve a change in dollar value, the Bidder shall so indicate by typing "0" for the dollar value of that Alternate and by selecting the "Add" radio button in the corresponding space on the project's E-Bidding page.

6.4 The Low Bidder will be determined on the basis of the sum of the quote and the accepted alternates.

ARTICLE 7 - WITHDRAWAL OF QUOTES**7.1 Before Opening of Quotes**

7.1.1 Any quote may be withdrawn prior to the time designated for receipt of bids by selecting "Retract My E-Bid" from the project's E-Bidding page. Upon retracting, the Bidder will receive a convenience email for informational purposes only. Bidders must contact Projectdog, Inc. at 978.499.9014 if the email is not received. It is the Bidder's responsibility to review and confirm online that their quote has been submitted and/or retracted successfully.

7.1.2 Withdrawn quotes may be resubmitted up to the time designated for the receipt of Quotes.

7.2 After Opening of Quotes

7.2.1 Bidders may withdraw Quotes, without penalty, any time up to the time of Award as defined in paragraph 8.1, and upon demonstrating, to the satisfaction of the Housing Authority, that a bona fide clerical error was made during the preparation of the Quote.

7.3 In the event of a Quotes Withdrawal after Opening of Quotes, the Housing Authority shall consider the Quote from next lowest eligible and responsible bidder.

ARTICLE 8 - CONTRACT AWARD

8.1 **Award** means both the determination and selection of shall be awarded to the responsible person offering to perform the contract at the lowest price by the Owner.

8.2 As used herein, the term "responsible" shall mean the person:

8.2.1 Who demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by a particular contract, based upon a determination of competent workmanship and financial soundness in accordance with the provisions of M.G.L. c.149 (44)(d).

8.2.2 who shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; and

8.2.3 who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work, and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and

8.2.4 who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder; and

8.2.5 who is not debarred from bidding under M.G.L. c.149 §44C.

8.3 The Housing Authority reserves the right to waive any informalities in or to reject any or all Quotes if it be in the public interest to do so.

8.4 The Owner will award the contract to the lowest responsible within thirty days, Saturdays, Sundays, and legal holidays excluded, after the opening of quotes.

8.5 Bidder's Attention is directed to 01.11.30 for any additional criteria that may be a condition of Award of this project.

ARTICLE 9 - FORMS REQUIRED AT CONTRACT APPROVAL

- 9.1** Upon award, the Bidder shall complete the following forms to ensure prompt contract validation. These forms will be provided to the Bidder by Owner, and three (3) originals must be submitted.
- .1 Owner-Contractor Agreement.**
 - .2 Form of Certificate of Vote of Authorization (If Applicable)**
 - .3 Form of Contractor's Equal Employment Certification** in accordance with Section 00.73.36 of the General Conditions.
 - .4 FOR PROJECTS with a bid/contract cost exceeding \$25,000: Form of Performance Bond and Form (00.61.13) and Form of Payment Bond (00.61.16)** must be submitted by the General Contractor on EOHLIC's form, in accordance with the General Conditions. The dates on the bonds must coincide with the contract date, and a current Power-of-Attorney must be attached to each bond.
- 9.2 Insurance Certificates** for the coverage required by Article 9 of the General Provisions must be submitted prior to contract validation.
General Contractors must indicate on Builders Risk insurance Certificate or installation floater if stored materials are covered.
- 9.3** Contractor's Company Certification with EPA Regulation 40 CFR 745 must be submitted prior to contract validation.

ARTICLE 10 - CONTRACT VALIDATION

- 10.1** The Notice to Proceed for construction shall not be issued until the Owner/Contractor Agreement has been executed by the Contractor and the Awarding Authority.
- 10.2** Incomplete or unacceptable submissions of forms required by paragraphs **9.1 - 9.2** will delay the execution of the Owner/Contractor Agreement by the Awarding Authority.

END OF SECTION INSTRUCTIONS TO BIDDERS
00.21.10

**INSERT
PROJECTDOG BIDDER
INSTRUCTIONS**

FORM FOR QUOTES

TO THE AWARDING AUTHORITY: _____ Housing Authority & EOHL # (xxxxxx)

A. The undersigned proposes to comply with all terms and conditions and furnish all labor and materials required to successfully complete the attached scope of work for the contract price specified below, subject to additions and deductions according to the terms of the specifications for the proposed contract price of:

_____ dollars (\$ _____)

For Alternates: No. _____ Add \$ _____

No. _____ Add\$ _____

No. _____ Add\$ _____

No. _____ Add\$ _____

No. _____ Add\$ _____

- B. This Quote includes Addendum No(s). _____
- C. The undersigned hereby certifies that they are able to furnish labor that can work in harmony with all the other elements of labor employed or to be employed on the Work, that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee, and that they will comply fully with all laws and regulations applicable to awards made subject to MGL. c.149 sec.44A-J.
- D. The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair, and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any other rule or regulation promulgated thereunder.
- E. Pursuant to M.G.L. c.62(C) §49(a), the individual signing this document on behalf of the Contractor, hereby certifies, under the penalties of perjury, that to the best of their knowledge and belief the Contractor has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Name of Bidder

By: _____
Signature + Title of person signing Quote

Business Address

City and State.

Date: __

Hard Copy Submissions Will Not Be Accepted
Use form provided on Projectdog.com

BIDDER'S CHECKLIST

**THIS CHECK LIST IS NOT PART OF THE FORM FOR QUOTE!
THIS FORM DOES NOT HAVE TO BE SUBMITTED WITH A QUOTE!**

To ensure that your bids are acceptable to the awarding authority and EOHLIC, and are not rejected due to mistakes, we are providing this Checklist for your convenience. It does not have to be included with a quote. If this checklist is submitted it is an informality that will not void the bid.

ALL BIDDERS

- 1. Have you used the appropriate quote form provided for this specific development?
- 2. Have you properly identified the development, architect (engineer), etc., on your quote form?
- 3. Do your quote amounts, as expressed in figures and words, coincide? The amount expressed in words shall control.
- 4. Have you added any information not called for, or acknowledged an addendum or alternate that does not exist, which would make your bid conditional or obscure, and lead to a bid protest?
- 5. Is your Quote Form **SIGNED** and dated?
- 6. **Bid Deposits are not required.**
- 7. **For BIDS/CONTRACTS exceeding \$25,000: 100% Performance and Payment Bonds are REQUIRED**
- 8. Have you acknowledged every alternate if applicable to this project?
- 9. If an alternate price is requested and you estimate that there is no change in price, did you indicate by selecting "Add" and typing "0" in your electronic bid?

**Leaving this space blank, on your quote form, when alternates are requested,
may lead to rejection of your quote.**

- 10. Have you acknowledged all addenda issued, and followed the instructions contained therein?

This checklist is provided as guidance and assistance to bidders to avoid technical mistakes resulting in rejection of a quote. The full comprehensive instructions are located in section 00.21.30 Instructions to Bidders.

This in no way changes, affects, or supersedes the provisions set-forth in MGL c.149 §44A-J or c.30 §39m or any other sections or provisions contained in the contract documents.

THIS FORM DOES NOT HAVE TO BE SUBMITTED

BIDDER'S REFERENCE FORM

Provide with Form for Quotes

Bidders Name _____ Phone: () _____

LHA/Project Title: _____ Email: _____

The bidder must provide five (5) business references for projects performed & completed within the past five (5) years. Attach additional pages if necessary.

(1) Reference Name: _____ Phone: () _____

Address: _____ Email: _____

Description and date(s) of work: _____

(2) Reference Name: _____ Phone: () _____

Address: _____ Email: _____

Description and date(s) of work: _____

(3) Reference Name: _____ Phone: () _____

Address: _____ Email: _____

Description and date(s) of work: _____

(4) Reference Name: _____ Phone: () _____

Address: _____ Email: _____

Description and date(s) of work: _____

(5) Reference Name: _____ Phone: () _____

Address: _____ Email: _____

Description and date(s) of work: _____

References will be contacted to confirm the bidder's skills, abilities and qualifications to faithfully perform the work as specified. The Authority reserves the right to contact references not listed above. The Bidder will be given the opportunity to explain any unfavorable references received from such outreach.

OWNER-CONTRACTOR AGREEMENT

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF HOUSING AND LIVABLE COMMUNITIES

This agreement made the **NNth** day of **Month 20__** by and between _____ **Housing Authority** hereinafter called the "Owner", and _____ hereinafter called the "Contractor".

Contractor's Name

WITNESSETH, THAT THE OWNER AND THE CONTRACTOR, FOR THE CONSIDERATION HEREINUNDER NAMED, AGREE AS FOLLOWS:

ARTICLE 1. SCOPE OF WORK:

The Contractor shall perform all Work required by the Contract Documents for

Brief Description of the Work prepared by **Name of Architect or Engineer** _____ acting as and referred to in the Contract Documents as the "Architect/Engineer".

ARTICLE 2. TIME OF COMPLETION:

The Contractor shall commence work under this Contract on the date specified in the written "Notice to Proceed" and shall bring the Work to Substantial Completion within **NNN** calendar days of said date.

ARTICLE 3. CONTRACT SUM:

The Owner shall pay the Contractor, in current funds, for the performance of the Work, subject to additions and deductions by Change Order, of the Contract Sum of:

_____ Dollars _____
CONTRACT SUM IN WORDS CONTRACT SUM IN NUMBERS

ARTICLE 4. ALTERNATES:

The following Alternates have been accepted and their costs are included in the Contract Sum stated in Article 3 of this Agreement: Alternate No(s): _____ and total cost for accepted Alternates \$ ____

ARTICLE 5. THE CONTRACT DOCUMENTS:

The following, together with this Agreement, form the Contract and all are as fully a part of the contract as if attached to this Agreement or repeated herein: The Advertisement, Bidding Documents, Contract Forms, Conditions of the Contract, and Specifications as enumerated in the Table of Contents, the drawings as enumerated in the List of Contract Drawings, EOHLC publication known as the Construction Handbook, and all Modifications issued after execution of the Contract. Terms used in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

ARTICLE 6. REAP CERTIFICATION:

Pursuant to M.G.L. c.62(c) §49(a), the individual signing this Contract on behalf of the Contractor, hereby certifies, under the penalties of perjury, that to the best of their knowledge and belief the Contractor has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support

ARTICLE 7. WORKER DOCUMENTATION CERTIFICATION:

In accordance with Executive Order 481 the undersigned further certifies under the penalties of perjury that the Contractor shall not knowingly use undocumented workers in connection with the performance of this contract; that pursuant to federal requirements, the Contractor shall verify the immigration status of all workers assigned to such contract without engaging in unlawful discrimination; and that the it shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker(s). The Contractor understands and agrees that breach of any of these terms during the contract period may be regarded as a material breach, subjecting the Contractor to sanctions, including but not limited to monetary penalties, withholding of payments, contract suspension or termination.

ARTICLE 8. CONFLICT OF INTEREST:

The Contractor covenants, that (1) presently, there is no financial interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c.268A, as amended; (2) in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a subcontractor by the contractor; and (3) no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority."

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED UNDER SEAL.

¹ CONTRACTOR

² AWARDING AUTHORITY

Name of Contractor

Name of Housing Authority

Street

Address

City State Zip

Signature and Seal

By: _____
Signature and Seal

Title

Witness _____

Attest: _____

¹ If a Corporation, attach a notarized copy of the Corporate Vote authorizing signatory to sign Contract.

² If signed by someone other than a Housing Authority Board member, attach a copy of Certified Board Vote authorizing the signatory to sign Contract.

CERTIFICATE OF CORPORATE VOTE OF AUTHORIZATION

Date: _____ 20__

I hereby certify that a meeting of the Board of Directors of the:

NAME OF CORPORATION

duly called and held at _____ on the ___ day of _____ 20__
at which a quorum was present and acting, it was voted that _____

NAME OF CORPORATE OFFICER

of the _____, be and hereby is authorized to execute and deliver

NAME OF CORPORATION

for and on behalf of the Corporation, a Contract with _____ Housing Authority, for
work to be done at State-Aided Housing Development No. _____ in the City/Town of _____

And to act as principal to execute bonds in connection therewith, which Contract and Bonds were
presented to and made part of the records of said meeting.

I further certify that _____ is duly qualified and acting

NAME OF CORPORATE OFFICER

_____ of the Corporation and that said vote has not been repealed,

TITLE

rescinded or amended.

A true copy of the record,

ATTEST: _____

(CORPORATE SEAL)

On this ___ day of _____ 20__, before me, the undersigned Notary Public, personally appeared
_____, duly designated by the board of directors and proved to me,
through satisfactory evidence of identification, which was _____, that s/he is the
person whose name is signed on the foregoing documents, and acknowledged to me that s/he signed it
voluntarily for its stated purpose and that it was her/his free act and deed.

Notary Public

My Commission Expires: _____

BOND NO. _____

PERFORMANCE BOND

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF HOUSING AND LIVABLE COMMUNITIES

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as **Principal**, and _____, as **Surety**, are held and firmly bound unto the _____ **HOUSING AUTHORITY**, as **Obligee**, in the sum of _____ **dollars (\$_____)** to be paid to the Obligee, for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said **Principal** has made a contract with the **Obligee**, bearing the date of _____, **20__** for the _____ in _____, Massachusetts.

PROJECT TITLE

NOW, the condition of this obligation is such that if the **Principal** and all Subcontractors under said contract shall well and truly keep and perform all the undertakings, covenants, agreement, terms and conditions of said contract on its part to be kept and performed during the original term of said contract and any extensions thereof that may be granted by the Obligee, with or without notice to the **Surety**, and during the life and any guarantee required under the contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations changes or additions to said contract that may hereafter be made, notice to the **Surety** of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise, it shall remain in full force and virtue.

IN THE EVENT, that the contract is abandoned by the **Principal**, or in the event that the Obligee, under the provisions of Article 19 of the General Conditions of said contract terminates the employment of the **Principal** or the authority of the **Principal** to continue the work, said **Surety** hereby further agrees that said **Surety** shall, if requested in writing by the Obligee, take such action as is necessary to complete said contract.

IN WITNESS WHEREOF, the **Principal** and **Surety** have hereunto set their hands and seals this:

_____ Day of _____ 20__

PRINCIPAL _____

SURETY _____

By: _____

By: _____

SEAL

ATTORNEY-IN FACT

Attest: _____

Attest: _____

The rate for this bond is _____% for the first \$_____ and _____% for the next \$_____

The total premium for this bond is \$_____

BOND NO. _____

PAYMENT BOND

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF HOUSING AND LIVABLE COMMUNITIES

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as **Principal**, and _____, as **Surety**, are held and firmly bound unto the _____ **HOUSING AUTHORITY**, as **Obligee**, in the sum of _____ **dollars (\$ _____)** to be paid to the Obligee, for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said **Principal** has made a contract with the **Obligee**, bearing the date of _____, **20__** for the _____ in _____, Massachusetts.

PROJECT TITLE

NOW the conditions of this obligation are such that if the **Principal** and all subcontractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the **Surety** of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c.30 §39A, and M.G.L. c.149 §29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force and virtue.

IN WITNESS WHEREOF, the **Principal** and **Surety** have hereunto set their hands and seals this:

_____ Day of _____ 20__

PRINCIPAL _____

SURETY _____

By: _____

By: _____

SEAL

ATTORNEY-IN FACT

Attest: _____

Attest: _____

The rate for this bond is _____% for the first \$ _____ and _____% for the next \$ _____

The total premium for this bond is \$ _____

GENERAL CONDITIONS OF THE CONTRACT

for c.149 sec. 44A (2)(B) PROJECTS BETWEEN \$10,000 - \$50,000

ARTICLE 1 GENERAL PROVISIONS

1.1 THE CONTRACT DOCUMENTS

The Contract for Construction consists of the Contract Documents which include the Owner-Contractor Agreement, Public Notification, Bid Form, Contract Forms, Conditions of the Contract, Specifications, Drawings, all addenda issued prior to execution of the Contract, EOHLIC publication known as the [Construction Handbook](#), and other documents listed in the Agreement and Modifications issued after execution of the Contract.

1.2 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligation.

1.3 THE CONSTRUCTION HANDBOOK

The [Construction Handbook](#) is published by and available, free of charge, from EOHLIC. It outlines the procedures that the Contractor, Owner, Architect/Engineer, and EOHLIC shall follow during the construction of the Work. The most recent version, at the time of bid opening, of the [Construction Handbook](#) is incorporated by reference into the Contract Documents.

ARTICLE 2 OWNER

2.1 OWNER

The term "Owner" sometimes also referred to as the "Awarding Authority" or "Authority" means the Housing Authority identified in the Owner-Contractor Agreement, organized and existing under the provisions of M.G.L. c.121B.

2.2 BIDDER

The terms "Quote(s)", "Bid(s)" or "Bidder(s)" shall mean the person or firm from which prices have been submitted to the Owner for the work identified in these documents.

ARTICLE 3 EOHLIC

3.1 The term "EOHLIC" means the Commonwealth of Massachusetts, Executive Office of Housing and Livable Communities.

3.2 The term "Construction Advisor" means the person who may be designated by the Administrator to assist the Owner with the Administration of the Contract.

3.3 PROJECT FUNDING

The Work under this Contract is funded wholly or in part by the Commonwealth of Massachusetts through EOHLIC pursuant to a Contract for Financial Assistance between EOHLIC and the Owner.

ARTICLE 4 CONTRACTOR

4.1 The Contractor, sometimes referred to as the General Contractor, is the person or entity identified as such throughout the Contract Documents as if singular in number. The term Contractor means the Contractor or its authorized representative.

4.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract.

4.2.2 Unless otherwise required by the Contract Documents, or directed in writing by the Owner, Work shall be done during regular working hours. However, if the Contractor desires to carry on the Work outside of regular working hours or on Saturdays, Sundays, or Massachusetts holidays it shall allow ample time to enable satisfactory arrangements to be made for inspecting Work in progress and shall bear the costs of such inspection. The Owner shall bill the Contractor directly for such costs.

4.2.3 SUPERINTENDENT

4.2.3.1 The Contractor shall employ a Superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case. The Superintendent shall attend each job meeting.

4.2.3.2 The Superintendent shall be a competent and responsible employee, satisfactory to the Owner, who is regularly employed by the Contractor and is designated by the Contractor as its representative to be in full time attendance at the Project site throughout the construction of the Work. The Superintendent shall be responsible for coordinating all the Work of the Contractor and the Subcontractors. The Superintendent shall be licensed consistent with the Massachusetts Building Code. The Superintendent's resume shall be submitted to the Owner prior to commencement of construction and must demonstrate to the Owner's reasonable satisfaction that the Superintendent has performed similar duties on previous construction projects similar to the Project.

4.3 SALES TAX EXEMPTION AND OTHER TAXES

4.3.1 To the extent that materials and supplies are used or incorporated in the performance of this Contract, the Contractor is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966.

4.3.2 The Contractor shall be responsible for paying all other taxes and tariffs of any sort, related to the work.

4.4 PERMITS, FEES, AND NOTICES

4.4.1 The Contractor shall secure and the Owner shall pay for any and all permits. The Contractor shall secure and pay for all licenses, and other fees required for the proper execution of the Work. The Contractor shall coordinate all efforts required to obtain these permits including having the permit issued in the name of the Contractor.

4.4.2 The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on performance of the Work.

4.4.3 If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Owner, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs.

4.5 SAFETY REQUIREMENTS

The Contractor must comply with all Federal, State, and local safety laws and regulations applicable to work performed under this Contract.

4.6 PREVAILING WAGE RATES AND LABOR REGULATIONS

4.6.1 The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of the Massachusetts Department of Labor Division of Occupational Safety. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract. Any questions relative to the applicability of any wage rate shall be directed to the Division of Occupational Safety.

4.6.2 Keep a legible copy of said schedule posted on the site at all times. Provide the Owner, on a weekly basis by first class mail or by email, and keep an on-site file of the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, EOHL, Architect, or any agency having jurisdiction.

4.6.3 Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by MGL c149 § 34B, as amended. Such police officers shall be covered by Worker's Compensation Insurance and Employers Liability Insurance provided by the Contractor.

4.6.4 The Contractor shall not have any claim for extra compensation from the Owner if the actual wages paid to employees on the Contract exceeds the rates listed on the Schedule.

4.6.5 WAGE RATE REPORTING

- .1 The Contractor and all subcontractors shall provide certified payroll affidavits verifying compliance with MGL c.149 §§26 - 27H.
- .2 The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.

4.6.6 APPRENTICE REQUIREMENTS

Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.

4.6.7 EMPLOYEE OSHA SAFETY TRAINING

- .1 All employees who work on this construction site must have no less than 10 hours of OSHA-approved safety and health training.
- .2 The Contractor and all Subcontractors shall furnish to the Owner, with the certified payroll reports, documentation indicating that each employee has successfully completed 10 hours of a course in construction safety and health. This course must be approved by the United States Occupational Health and Safety Administration (OSHA).

ARTICLE 5 CONTRACT ADMINISTRATION

5.1 PRECONSTRUCTION CONFERENCE

Prior to commencement of the Work, the Contractor shall meet in conference with representatives of the Owner, to discuss and develop mutual understandings relative to administration of the quality assurance program, safety program, labor provisions, the schedule of work, and other Contract procedures.

5.2 REJECTION OF DEFECTIVE MATERIALS AND WORK

The Owner's inspection of the Work shall not relieve the Contractor of any of its responsibilities to fulfill the Contract obligations, and defective work shall be corrected. Unsuitable work may be rejected by the Owner, notwithstanding that such work and materials have been previously overlooked or misjudged by the Owner and accepted for payment. If the Work or any part thereof shall be found defective at any time before the final acceptance of the whole Work, the Contractor shall forthwith correct such defect in a manner satisfactory to the Owner, and if any material brought upon the site for use in the Work, or selected for the same, shall be rejected by the Owner as unsuitable or not in conformity with the Contract requirements, the Contractor shall forthwith remove such materials from the vicinity of the Work.

ARTICLE 6 CHANGES IN THE WORK

6.1 Changes in the Contract Sum shall be calculated in accordance with one or a combination of the following methods, as determined by the Architect:

- .1** Lump sum basis, provided the lump sum amount shall include the estimated cost of the change, broken down by Items **a** through **i** in the following Subparagraph **.3**.
- .2** Unit price basis, to be adjusted in accordance with contract unit prices, or other agreed upon unit prices provided that the unit prices shall be inclusive of all costs related to such equitable adjustment.
- .3** Time and materials basis, on a not-to-exceed predetermined upset amount determined by the Architect, to be subsequently adjusted on the basis of the Contractor's actual costs based on the following items **a** through **i**:
 - a.** Cost of labor at the rates found elsewhere in this document, including foremen;
 - b.** Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
 - c.** Rental cost of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others.
 - d.** A percent of the net increase or decrease of Item **a** to cover Worker's Compensation, F.I.C.A., and unemployment contributions.
 - e.** The percentage for Worker's Compensation in Item **d** above shall not exceed the standard manual rate for the involved trade, as set by the Worker's Compensation Rating and Inspection Bureau of Massachusetts. This rate shall not include any surcharges such as experience modifications and all risk factor adjustment programs, etc.
 - f.** For work performed by the Contractor's own forces, there shall be added an amount of 15% of items **a - d** for overhead, superintendence, and profit.
 - g.** For work performed by any Subcontractor, there shall be added an amount of 15% of the Subcontractor's costs for Items **a - d** for the Subcontractor's overhead, superintendence and profit. The Contractor shall be entitled to an additional 10% mark-up on the total amount of the Subcontractor's price as compensation for assuming full responsibility and supervision for the Subcontractor's work.
 - h.** Actual increases in the premium costs for performance and payment bonds required of the Contractor, provided there will be an appropriate credit for reduced premiums for a credit change order.
 - i.** On any change in the Contract Sum that involves a credit, the amount of the credit will not include an overhead and profit factor, however, the credit will include an amount for item **d**. which shall not be less than 25% of item **a**.

6.2 The method provided in Subparagraph 8.3.1, for compensating the Contractor and Subcontractors for changes in the Work, shall be considered to adequately compensate the Contractor and Subcontractors for any and all costs directly, indirectly, or consequentially related to, or caused by, such change in the work.

ARTICLE 7 PAYMENTS

7.1 CONTRACT SUM

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

7.2 APPLICATIONS FOR PAYMENT

7.2.1 Once each month, on a date established at the beginning of the Work, the Contractor shall deliver to the Owner an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner may require, and reflecting a minimum of 5% retainage until the final acceptance and payment by the Owner.

7.2.2 The Owner shall make payment to the Contractor within 30 days of receipt of said application, less any applicable retainage.

7.2.3 The Owner may make changes in any application for payment submitted by the Contractor for:

- .1 Retention based on the value of its claims against the Contractor,
- .2 Retention of 5% of the approved amount of the Application for Payment.

7.3 FINAL PAYMENT

The acceptance by the Contractor of the last payment due under this Contract or the execution of the Final Certificate of Completion, shall operate as a release to the Owner from all claims and liability related to this Contract.

ARTICLE 8 GUARANTY AND WARRANTY

8.1 WARRANTY

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment furnished. The Owner reserves the right to reject said substituted materials even after requesting evidence.

8.2 GENERAL GUARANTY

If at any time during the period of one (1) year from the date of the Substantial Completion the Work to be performed under this Contract, or any part of the Work shall, in the reasonable determination of the Owner, require replacing or repairing due to the fact that it is broken, defective, or otherwise does not conform to the Contract Documents, the Owner will notify the Contractor to make the required repairs or replacement. If the Contractor shall neglect to commence such repairs or replacement to the satisfaction of the Owner within ten (10) days from the date of giving or mailing such notice, then the Owner may employ other persons to make said repairs or replacements. The Contractor agrees, upon demand, to pay to the Owner all amounts which the Owner expends for such repairs or replacements. During this one year guarantee period any corrective work shall be performed in accordance with the applicable terms of this Contract. For items of work completed after substantial completion, the one year guarantee shall commence at the time the Owner accepts such items. This one year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

ARTICLE 9 INSURANCE REQUIREMENTS

The Contractor shall provide insurance coverage as listed in subparagraphs 9.1 - 9.7. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this contract.

9.1 WORKERS' COMPENSATION and EMPLOYERS LIABILITY

Workers' Compensation:	Coverage A	Per G.L. c149 §34 and c152, as amended.
Employer's liability:	Coverage B	\$500,000 Bodily Injury by Accident each accident \$500,000 Bodily Injury by Disease each employee \$500,000 Bodily Injury by Disease policy limit

9.2 COMMERCIAL GENERAL LIABILITY

Contractor shall provide to the Owner the "Commercial General Liability" policy form CG0001, or the exact equivalent with the limits of no less than:

Each Occurrence	\$1,000,000
General Aggregate	\$1,000,000
Products-Completed Operations Aggregate	\$1,000,000
Personal Injury & Advertising Injury	\$1,000,000
Damages to Premises Rented by You- Not Specified Medical Expenses	\$5,000

Additional insured coverage for the Commercial General Liability policy should apply to both ongoing and completed operations with endorsements at least as broad as forms CG2010 0413, CG2038 0423 and CG2037 0412.

9.3 AUTOMOBILE LIABILITY

Contractor shall provide automobile liability coverage for owned, non-owned, and hired autos using ISO Business Auto Coverage form CA0001, or the exact equivalent. If contractor owns no vehicles, this requirement may be met through a non-owned endorsement to the Commercial General Liability.

Bodily Injury	\$500,000 each person \$1,000,000 each accident
---------------	--

Property Damage \$500,000 each accident
or
\$1,000,000 combined single limit

9.4 POLLUTION/ABATEMENT CONTRACTORS

The policy shall:

- .1 Be written on a "true" occurrence basis without any "sunset" clause;
- .2 Have the pollution exclusion amended to add back coverage for all pollution claims;
- .3 Include separate products and completed operations coverage, which shall be maintained for (2) years after Substantial Completion, as defined by G.L. 30 §39G; and
- .4 Provide the following limits of insurance:

Each occurrence	\$1,000,000
General Aggregate	\$2,000,000
Products-Completed Operations Aggregate	\$2,000,000
Personal Injury & Advertising Injury	\$1,000,000
Damage to Premises Rented by You	\$50,000
Medical Expense	\$5,000

9.5 OWNER AS CO-INSURED

The Owner, EOHLIC and where applicable, the Owner's Regional Capital Assistance Team (RCAT) as described in G.L. 121B, §26C or other agent, shall be named as additional insureds on the Contractor's liability policies. Coverage should apply on a primary and non-contributory basis.

9.6 CERTIFICATES OF INSURANCE, POLICIES

9.6.1 The Contractor shall not commence work on this contract until proof of compliance with this article has been furnished to the Owner by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the Contractual Liability Coverage is in force.

9.6.2 The Contractor shall file the original and one certified copy of all policies with the Owner within sixty days after Contract award. If the Owner is damaged by the Contractor's failure to maintain such insurance and to so notify the Owner, then the Contractor shall be responsible for all reasonable costs attributable thereto.

9.7 CANCELLATION

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the Owner at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

ARTICLE 10 INDEMNIFICATION

10.1 The Contractor shall take all responsibility for the Work and take all precautions for preventing injuries to persons and property in or about the Work and shall bear all losses resulting to or on account of the amount or character of the Work. The Contractor shall pay or cause payment to be made for all labor performed or furnished and for all materials used or employed in carrying out this Contract.

10.2 The Contractor shall assume the defense of, and indemnify and save harmless the Owner, EOHLIC, the Owner's Regional Capital Assistance Team (RCAT) as described in M.G.L. 121B, §26C or other agent, from all claims:

- .1 relating to labor performed or furnished and materials used or employed for the Work;
- .2 to inventions, patents and patent rights used in and in doing the Work unless such patent infringement is due to a product or process specified by the Owner;
- .3 to injuries to any person or corporation received or sustained by or from the Contractor and any employees, and subcontractors and employees, in doing the Work, or in consequence of any improper materials, implements or labor used or employed therein;
- .4 and to any act, omission or neglect of the Contractor and any employees therein.

ARTICLE 11 PERFORMANCE AND PAYMENT BONDS

11.1 CONTRACTOR BONDS

11.1.1 For Contracts exceeding \$25,000, the Contractor shall provide the Owner with a 100% performance and payment (labor and materials) bonds in the form provided by EOHLIC, executed by a surety licensed by the Commonwealth's Division of Insurance. Each such bond shall be in the amount of the Contract Sum.

- 11.1.2** If at any time prior to final payment to the Contractor, the Surety:
- .1 is adjudged bankrupt or has made a general assignment for the benefit of its creditors;
 - .2 has liquidated all assets and has made a general assignment for the benefit of its creditors;
 - .3 is placed in receivership;
 - .4 otherwise petitions a state or federal court for protection from its creditors; or
 - .5 allows its license to do business in Massachusetts to lapse or be revoked;

the Contractor shall, within 21 days of any such action listed above, provide the Owner with new performance and payment bonds as described in Paragraph 11.1.1. Such bonds shall be provided solely at the Contractor's expense.

ARTICLE 12 MISCELLANEOUS REQUIREMENTS AND EXECUTIVE ORDERS

12.1 The Contractor shall comply with the provisions of EPA Regulation 40 CFR 745; M.G.L. c.151B; Executive Order 526, Order regarding Non-Discrimination, Diversity, Equal Opportunity, and Affirmative Action; pertaining to minority and women owned business enterprises; Executive Order 527 establishing the Office of Access and Opportunity and Executive Order 481, prohibiting the use of undocumented workers on state contracts and all regulations promulgated pursuant thereto. The aforementioned law, executive orders, regulations and any amendments are incorporated herein by reference and made a part of this Contract.

12.2 CONFLICT OF INTEREST

The Contractor covenants, that:

- .1 presently, there is no financial interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c.268A, as amended;
- .2 in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a subcontractor by the contractor; and
- .3 no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority."

ARTICLE 13 TERMINATION

13.1 TERMINATION FOR CAUSE

13.1.1 The Owner may terminate this contract for cause if it determines that any of the following circumstances have occurred:

- .1 The Contractor is adjudged bankrupt or has made a general assignment for the benefit of its creditors.
- .2 A receiver has been appointed of the Contractor's property.
- .3 All or a part of the Work has been abandoned.
- .4 The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Owner, except as provided in the Contract Documents.
- .5 The Owner has determined that the rate of progress required on the project is not being met.
- .6 The Contractor has substantially violated any provisions of this Contract.

13.1.2 The Owner may complete the work, or any part thereof, and charge its expense of so completing the work or part thereof, to the Contractor.

13.1.3 The Owner may take possession of and use any materials, machinery, implements and tools found upon the site of said Work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Project site after the Owner has no further use for them.

13.3 TERMINATION - NO FAULT

13.3.1 In the event that this Contract is terminated by the Owner, prior to the completion of construction and termination is not based on a reason listed in Paragraph 13.1, the Contractor shall be compensated for its costs incurred, including reasonable costs of de-mobilization, calculated on a percent completion basis covering the period of time between the last approved application for payment and the date of termination.

13.3.2 Payment by the Owner pursuant to Subparagraph 13.3.1 shall be considered to fully compensate the Contractor for all claims and expenses and those of any consultants, subcontractors, and suppliers, directly or indirectly attributable to the termination, including any claims for lost profits.

END OF GENERAL CONDITIONS

00.72.10

SECTION 00.73.36

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

1. DEFINITIONS

For purposes of this Section 00.73.36, the following additional definitions shall apply:

- A. "Minority" means a person who meets one or more of the following definitions:
 - (1.) American Indian or Native American means: all persons having origins in any of the original peoples of North America and who are recognized as an Indian by a tribe or tribal organization.
 - (2.) Asian means: All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian sub-continent, or the Pacific Islands, including, but Not limited to China, Japan, Korea, Samoa, India, and the Philippine Islands.
 - (3.) Black means: All persons having origins in any of the Black racial groups of Africa, including, but not limited to, African-Americans, and all persons having origins in any of the original peoples of the Cape Verdean Islands.
 - (4.) Eskimo or Aleut means: All persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia.
 - (5.) Hispanic means: All persons having their origins in any of the Spanish-speaking peoples of Mexico, Puerto Rico, Cuba, Central or South America, or the Caribbean Islands.
- B. "Commission" or "MCAD" means the Massachusetts Commission against Discrimination.
- C. "E.E.O. Officer" or Equal Employment Opportunity Officer means those persons designated by the Contractor, the Owner, or any other agency or party having jurisdiction under this contract, that serve in a capacity to implement this Section.

2. CONDITIONS

- A. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, handicap, or sex. The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion or transfer; recruitment advertising; recruitment layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship.
- B. The Contractor shall post notices provided by the Commission, in conspicuous places, setting forth the provisions of the Fair Employment Practices Law of the Commonwealth.
- C. The Contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, handicap, or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age or sex.
- D. The Contractor shall not discriminate on grounds of race, color, religious creed, national origin, age, or sex in employment practices, in the selection or retention of Subcontractors, or in the procurement of materials and rentals of equipment.
- E. The Commission and a designee of the Owner shall have access to the construction site and all applicable records of the Contractor and Subcontractors.
- F. The Contractor's EEO Certificate must be signed by the low general and all filed sub-bidders as a condition of Contract validation by EOHLIC.

3. MINORITY GOAL MINIMUM MINORITY PERCENTAGES

- A. Pursuant to his/her obligations under the preceding section, the Contractor shall strive to achieve on this project the labor participation goals contained herein

The participation goals for this project shall be 15.3% for minorities and 6.9% for women.

- B. The participation goals, as set forth herein, shall not be construed as quotas or set-asides; rather, such participation goals will be used to measure the progress of the Commonwealth's equal opportunity, non-discrimination and affirmative action program. Additionally, the participation goals contained herein should not be seen or treated as a floor or as a ceiling for the employment of particular individuals or group of individuals.
- C. Such job categories shall include but not be limited to those "Classes of Work" enumerated in M.G.L. c.149 §44F and for trades covered by Item 1 of the Contractor's bid.
- D. These percentages shall apply to the Contractor and to all Subcontractors, regardless of tier, for all on-site Work.

4. REFERRALS

- A. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by EOHLIC or the Commission; and traditional referral methods utilized by the construction industry, where such referrals are needed to meet minority hiring requirements. The Contractor shall keep accurate records of such requests for referrals.
- B. Records of employment referral orders, prepared by the Contractor, shall be made available to the Owner and to EOHLIC upon request.

5. EEO WORK FORCE REPORTING PROCEDURES

- A. The Contractor shall provide the following information to the Owner on copies of the forms found at the end of this Section.
 - (1.) **Weekly Manpower Reports 00.73.36.04:** The Contractor shall prepare a report after each week of activity, reflecting the actual working hours of all personnel identified as minority or non-minority.
 - (a) This report shall be received by the Owner no later than the Friday following the week reported.
 - (b) Failure to provide information shall result in sanctions as provided in this section.

6. COMPLIANCE - REPORTS AND INFORMATION

- A. The Contractor shall provide all information and reports required by the Owner or EOHLIC and will permit access to its facilities and to any books, records, accounts and other sources of information which may be determined by the Owner or EOHLIC to affect the employment of personnel. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Owner or EOHLIC as appropriate and shall set forth what efforts have been made to obtain the information.

7. COMPLIANCE - INVESTIGATIONS

- A. Whenever the Owner's EEO Officer, the MCAD, or EOHLC believes the Contractor may not be operating in compliance with the terms of these requirements, EOHLC shall conduct an investigation, and may confer with the parties, to verify such allegations. EOHLC shall not initiate an investigation without prior notice to the Contractor.
- B. If EOHLC finds the Contractor in non-compliance, it shall make a preliminary report, and notify the Contractor in writing of the steps necessary to bring such Contractor into compliance. A copy of this report shall be sent to EOHLC's Affirmative Action Officer.

8. COMPLIANCE – EPHLC - AFFIRMATIVE ACTION INVESTIGATION

- A. If the Contractor fails or refuses to fully perform the steps necessary to achieve compliance, EOHLC shall make a report of non-compliance to EOHLC's Affirmative Action Officer, who will then conduct an investigation.
- B. Should EOHLC's Affirmative Action Officer find the Contractor in non-compliance a final report recommending the imposition of one or more of the sanctions listed below shall be issued.
- C. Within fifteen (15) days of said report EOHLC shall, after due notice and giving the Contractor an opportunity to respond, move to impose one or more of the following sanctions to attain compliance.
- D. If EOHLC's Affirmative Action Office believes the Contractor has taken or is taking every possible measure to achieve compliance, a report shall show the Contractor is in compliance.

9. SANCTIONS

- A. For each week that the Contractor fails or refuses to comply, EOHLC may recover from the Contractor, 1/100 of 1% of the original Contract Sum or \$1000 whichever sum is greater, in the nature of liquidated damages.
- B. If a Subcontractor is in non-compliance, EOHLC may recover from the Contractor, 1/10 of 1% of the Subcontract Sum, or \$400 whichever sum is greater, in the nature of liquidated damages, to be assessed by the Contractor as a back charge against the Subcontractor for each week that Subcontractor fails or refuses to comply.
- C. The Owner may suspend part or all of any payment due under the contract until such time as the Contractor or any Subcontractor is able to demonstrate compliance with the terms of the Contract;
- D. The Owner may terminate, or cancel part or all of the Contract, in accordance with the provisions of Article 19 of the General Conditions, unless the Contractor or any Subcontractor is able to demonstrate, within a specified time, compliance with the terms of the Contract.
- E. The Contractor may request EOHLC and Owner to suspend the sanctions conditionally. Whereupon EOHLC shall investigate corrective measures taken by the Contractor and shall either lift or re-impose the sanctions.

10. SEVERABILITY

- A. The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions of the Contract.

END OF EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

00.73.36

FORM OF CONTRACTOR'S EQUAL EMPLOYMENT CERTIFICATION

Commonwealth of Massachusetts
Executive Office of Housing and Livable Communities

This form must be completed and submitted by the Contractor prior to the signing of the Owner-Contractor Agreement.

This certifies that:

Contractor

Street Address

1. Intends to use the following listed construction trades in the work under this contract:

2. Will comply with the minority manpower ratio and specific affirmative action steps contained in Section 00.73.36 of this Contract; and
3. Will obtain similar certifications from each of its subcontractors and submit to the Owner prior to the award of any subcontract under this contract the subcontractor's certification.

SIGNATURE OF AUTHORIZED REPRESENTATIVE OF CONTRACTOR

NAME AND TITLE

DATE

SECTION 00.73.43

PREVAILING WAGES and LABOR REGULATIONS

4.1 PREVAILING WAGE RATES

- 4.6.1** The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of the Massachusetts Department of Labor Division of Occupational Safety. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract. Any questions relative to the applicability of any wage rate shall be directed to the Division of Occupational Safety.
- 4.6.1** Keep a legible copy of said schedule posted on the site at all times. Provide the Owner, on a weekly basis, and keep an on-site file of the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, EOHL, Architect, or any agency having jurisdiction.
- 4.6.1** Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by MGL c149 § 34B, as amended. Such police officers shall be covered by Worker's Compensation Insurance and Employers Liability Insurance provided by the Contractor.

4.2 WAGE RATE REPORTING

- 4.6.1** The Contractor and all subcontractors shall provide certified payroll affidavits verifying compliance with MGL c.149 §§26 - 27H.
- 4.6.1** The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.
- 4.6.1** [Weekly Payroll Form](http://www.mass.gov/lwd/docs/dos/prevaling-wage/pw-payroll.pdf) www.mass.gov/lwd/docs/dos/prevaling-wage/pw-payroll.pdf
- 4.6.1** [Statement of Compliance](http://www.mass.gov/lwd/docs/dos/prevaling-wage/pw-compliance.pdf) www.mass.gov/lwd/docs/dos/prevaling-wage/pw-compliance.pdf

4.3 APPRENTICE REQUIREMENTS

Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.

4.4 EMPLOYEE OSHA SAFETY TRAINING

- 4.6.1** All employees who work on this construction site must have no less than 10 hours of OSHA-approved safety and health training. See Chapter 306 of the Acts of 2004.
- 4.6.1** The Contractor and all Subcontractors shall furnish to the Owner, with the certified payroll reports, documentation indicating that each employee has successfully completed 10 hours of a course in construction safety and health. This course must be approved by the United States Occupational Health and Safety Administration (OSHA).

INSERT WAGE RATES OBTAINED FROM
Department of Labor, Division of Occupational Safety

END OF PREVAILING WAGE AND LABOR REGULATION
00.73.43

**INSERT
PROJECT SPECIFIC
PREVAILING WAGE**

SECTION 01.11.10 SUMMARY OF WORK

1.01 GENERAL SCOPE OF THE WORK

- A.** The Work of the Contract consists of:
1. Demolition and proper disposal/recycling of existing asphalt shingles and underlayment, existing aluminum gutters and aluminum downspouts.
 2. Installation of new asphalt shingle roofing system including but not limited to asphalt roof shingles, underlayment, aluminum drip edge, other sheet metal flashing, ridge vents, starter strips, nails and other fasteners, and plastic cement and other items required for a complete watertight installation.
 3. Installation of new aluminum gutter system including but not limited to 6" aluminum gutters, aluminum downspouts, gutter guards and concrete splash blocks and other items required for a complete installation for proper roof drainage.
 4. Work either shown on the Drawings or included in the specifications unless specifically indicated not to be done.
 5. Work outside the Project Site as called for in the Contract Documents and as required for the performance of the Work.
 6. Providing and restoring, where appropriate, all temporary facilities.
- B.** Execution of Work: Work to be performed in timely and workmanlike fashion. Site must be cleaned up daily with access needed for overnight.
- C.** The Scope of Work, without limiting the generality thereof, includes providing all labor, equipment, materials and supervision necessary to complete the Work in accordance with all specifications and requirements described herein. All Work, including repair or replacement of rejected installations, shall be performed in accordance with highest industry standards by experienced, qualified craftsman for a complete installation in strict accordance with the manufacturer's recommendations and printed instructions. Where such recommendations or instructions are in conflict with the requirements listed herein, the Contractor shall bring the conflict to the attention of the RCAT and/or Architect in writing prior to commencing with any work.
- D.** The Authority may reject any work that is performed which is not in accordance with the specifications and/or highest industry standards in which case the Contractor is fully responsible for replacing or repairing the rejected work at no additional cost to the Owner.
- E.** The Contractor is responsible for and shall verify all existing dimensions, quantities and conditions and shall notify the Authority prior to the start of work if there is a discrepancy between the existing conditions and the requirements of the specifications that will impede the successful completion of the work as specified.
- F.** Changes to the Scope of Work: If necessary, the Contractor may propose changes in the work which result in adjustment to the Contract Sum or Contract Time. Prior to commencing any change work, the Contractor shall submit a written Change Request to the Authority estimating the Contract sum adjustment and/or adjustment to the Contract Time necessary to execute the

change on DHCD's Change Request without receipt of signed approval of the request by the authority. Verbal discussion does not constitute approval of a change to the scope or its associated costs.

1. Any work which deviates from the specification herein that is performed by the Contractor without written approval by the Authority shall be considered performed at the Contractor's own risk. The Authority may reject such work, in which case the rejected work shall be replaced or repaired by the Contractor at no additional cost to the Owner.

G. Warranties/Guaranties:

1. Asphalt shingles
2. EPDM
3. PVC Trim
4. Vinyl Soffits

1.02 TIME OF COMPLETION

- A.** The Work shall be commenced at the time stated in the Owner's Notice to Proceed and shall be completed within [45](#) consecutive calendar days thereafter.

1.03 SELECTION CRITERIA

- A.** In addition to any provisions of the General Conditions, the Contractor will be selected based on the lowest base quote and upon demonstrating successful completion of the following criteria:
1. The Contractor shall demonstrate previous successful experience in projects of similar scope and shall provide reference contacts related to those projects on 00.45.13 – Bidder's Reference Form, and/or at the request of the RCAT/Awarding Authority
 2. The Awarding Authority reserves the right to accept the lowest quote, or to reject the lowest quote and award the contract to the next lowest eligible quote, if the Contractor is unable to provide such references.
 3. If the Awarding Authority (owner) cannot verify compliance with the additional selection criteria from the apparent low bidder's Update Statement, the Awarding Authority (owner) or its Architect may request the bidder provide additional documentation demonstrating compliance with the Contract requirement. This may occur after the general bid opening, but prior to the Contract Award

1.04 OSHA SAFETY TRAINING

- A.** The Contractor shall certify that all employees working on this project have successfully completed a 10 Hour Safety and Health Training Course approved by the United State Occupational Health and Safety Administration (OSHA). This certification must be submitted with the payroll certifications require by Section 00.73.43 Prevailing Wages and Labor Regulations.

1.05 COORDINATION OF WORK

- A.** Notification to Residents will be handled by housing authority staff.
1. The building will remain fully occupied during construction. If access to the building interior is required to complete the work, the Contractor shall notify the Authority sufficiently in

advance of the work so that a minimum of 48 hours' notice can be issued by the Authority to the affected tenant(s). The Contractor shall not enter the building without confirmation from the Authority that the affected tenant has been sufficiently notified. Unless otherwise directed by the Authority, the Contractor must be accompanied by an approved representative of the Authority at all times while accessing the building interior.

2. The Owner shall assist the Contractor to perform the Work in accordance with the approved operational plan by removing obstructions that may be in the Contractor's way, upon proper notice from the Contractor.
3. The Owner may provide a Resident Coordinator to act as liaison with residents and to assist the Contractor in fulfilling the following:
 - i. Notifying all residents two (2) weeks before any work is scheduled in their unit.
 - ii. Notify each resident in writing forty-eight (48) hours before work is scheduled in the unit
 - iii. Obtaining signed permission to enter the unit, if the resident will not be a home.
 - iv. Notify the Owner of any resident who refuses to cooperate with the proposed operational plan.
- B. The Contractor is responsible for coordination of all specification sections herein and all parts of the project, including materials and/or equipment to be furnished by the Owner and the work of all trades and subcontractors to complete the work of the Contract.
- C. Contractor shall cooperate and coordinate with the Authority during all phases of the work regarding, but not limited to, building access, sequencing and temporary protections/construction that may impact the building residents.

1.06 SAMPLES AND SUBMITTALS

- A. The Contractor shall provide samples (or submittal of manufacturer's literature) for the Owner's approval prior to installation:
 1. Submittals shall consist of all documentation required by a related specifications herein, but at minimum shall include all applicable manufacturer's current product data, selected model number(s), selected color(s), performance data, trade name and any other relevant information to demonstrate compliance with the specifications.
 2. Samples. Shall be labeled clearly showing the manufacturer, model number and color, and shall be actual material samples.
 3. "Or-Equals" and Substitutions: Where one or more brands for a given item are specified, the Contractor may submit another brand for review to be considered an approved "or equal" by the Authority. The Contractor shall not install any products which deviate from the specifications without written approval of an "or equal" by the Authority. The contractor is fully responsible for the performance of any item submitted and installed as an "approved or equal" as well as the costs of any changes in any work which may be caused by the approved "or equal" substitution.

1.07 CONDUCT OF THE WORK

- A. Existing Buildings. All units will be occupied during construction. The Contractor shall take all necessary precautions to ensure the public safety and convenience of the occupants during construction.
- B. Unless specifically authorized by the Owner, the Work must be conducted between the hours of 8:00 A.M. and 4:30 P.M. on Monday through Friday. No work is to be done on holidays, Saturdays, or Sundays other than for emergencies.

1.08 SHUTDOWN OF SERVICES

- A. The Contractor's attention is especially called to the fact that the continuous operation of services for this housing development is mandatory. If any unit is to be left without heat, hot water, domestic water, electricity, gas, sanitary facilities, or any other services for more than an eight hour period, the Contractor shall submit a letter and obtain written authority from the Owner before proceeding.

If such a shutdown is unacceptable to the Owner, the Contractor shall make, and pay for, alternative arrangements to insure that services are provided.

1.09 PROTECTION AND ACCESS

- A. The Contractor shall, at all times, leave an unobstructed way along walks and roadways, and shall maintain barriers and lights for the protection of all persons and property in all locations where materials are stored or work is in progress.
- B. The Contractor shall take special measures to protect the tenants from noise, dust, and other disturbances.
- C. The Contractor shall take necessary precautions to insure against fire during construction. The Contractor shall be responsible to insure that the area within the contract limits is kept orderly and clean and that combustible rubbish and construction debris is promptly removed from the site.
- D. All means and methods for protections are the responsibility of the Contractor and the Contractor is solely responsible for safety within the work area.
- E. The Contractor is responsible for security of job site and shall take necessary measures to prevent damage from vandalism, theft, water, frost and/or accident.
- F. Any damages to the work and/or work area, abutting and/or adjoind areas, or any other area in the Development resulting from inadequate protections, or from the Contractor's actions, shall be repaired immediately by the Contractor at no additional cost to the Owner.
 - 1. The contractor is responsible for documenting existing damaged materials and finishes within and adjacent to the work area prior to the start of work.

1.10 TEMPORARY FACILITIES

- A. Temporary Water - The Contractor may make use of the available water supply at the site for construction purposes, provided the permission of the Owner is obtained beforehand, water is verified at the source and only as long as the water is not used wastefully.
- B. Temporary Electricity - The Contractor may make use of the electricity available at the site, metered and paid for by the Owner, provided that the Contractor shall supply the proper adapters and extension cords. Where heavy duty electric equipment drawing a current in

excess of 15 amps is involved, the Contractor shall provide temporary electric work to supply this power.

- C. Temporary Toilets – Contractor shall provide and service an adequate number of toilet booths with chemical type toilets erected in a location approved by the Owner.

- D. Prior to the start of the work, coordinate with the Authority for locations of temporary storage containers, lay-down areas and construction parking. Store equipment and materials only in areas approved by the Authority.

1.11 CLEANING UP

- A. Conduct cleaning and disposal operations to comply with all Federal, State, and local laws, ordinances, and regulations.

- B. Provide on-site containers for collection of waste materials and rubbish, to be located with the approval of the Owner.

- C. At the end of each day's work, remove, and legally dispose, all waste materials and rubbish from the site.

**END OF SECTION OF SUMMARY OF WORK
01.11.50**

SECTION 01.22.00 UNIT PRICES

1.01 GENERAL PROVISIONS

The Unit Prices for items set forth in this section shall be used to determine adjustments to the Contract Sum when changes in the Work involving said items are made in accordance with Article 8 of the General Conditions and other sections of the Contract Documents.

1.02 REQUIREMENTS

- A.** Unit Prices listed under ADDITIONS have been computed to include net cost plus overhead, profit, and bond and all other charges required to complete the work item.
- B.** Unit Prices listed under DEDUCTIONS have been computed at the net cost alone.
- C.** Unit Prices net cost include the cost of all labor, materials, equipment, disposal, and all other costs required to complete the work item.
- D.** Unit Prices shall apply until the date of Contract Completion established at the time of the Notice to Proceed. If the date of Contract Completion has been modified by Change Order, Unit Prices may be adjusted at the discretion of EOHL.
- E.** Unit Prices for excavation include the costs of sheeting and bracing, pumping and dewatering, and all other related costs. Excavation quantities shall be measured as compacted in place at maximum dry density.
- F.** Materials, methods of installation, and definitions of terms set forth under the various Unit Price items in the Schedule of Unit Prices shall be as indicated in the Contract Documents.

1.03 APPLICABILITY OF UNIT PRICES

- A.** The payment lines (when applicable) shall be as indicated in the Contract Documents.
- B.** Prior to commencing removal or placement of materials set forth in the Schedule of Unit Prices, the Contractor shall notify the Architect in sufficient time to permit proper measurements to be taken on behalf of the Owner. Only quantities which have been approved in writing by the Architect will be considered in the determination of adjustments to the Contract Sum.
- C.** Performance of Work which is not required under the Contract Documents or which is not authorized by Change Order, whether or not such Work item is set forth hereunder as a Unit Price item, shall not be considered cause for extra payment. The Contractor will be held fully responsible for such unauthorized work, including the performance of all corrective measures required by the Architect.

**SECTION 02 41 00
SELECTIVE DEMOLITION**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: The following items are included but not limited to as indicated on the drawings.
 - 1. Remove and properly dispose of all layers of existing asphalt shingles down to roof sheathing including but not limited to multiple layers of existing asphalt shingles, a layer of ice and water shield and a layer of roofing felt.
 - 2. Remove and properly dispose of existing gutters, downspouts and associated accessories.
 - 3. Remove and properly dispose of existing metal wrapped trim and associated wood blocking.
 - 4. Remove and properly dispose of existing vinyl soffits.
 - 5. Remove and properly dispose of existing roof vents and vent stack flashing.
 - 6. Refer to drawings for other items to be removed.

1.03 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes.

1.04 RELATED REQUIREMENTS

- A. Section 01 10 00 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 10 00 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- C. Section 01 50 00 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- D. Section 01 70 00 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

1.05 DEFINITIONS

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

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

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

3.02 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to MHA.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to MHA.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone. Identify and mark, in same manner as other utilities to remain, utilities to be reconnected.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
 - 1. Verify construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Separate areas in which demolition is being conducted from areas that remain occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 50 00 in locations indicated on drawings.
- C. Remove existing work as indicated and required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction indicated.
 - 2. Remove items indicated on drawings.
- D. Services including, but not limited to, HVAC, Plumbing, and Electrical: Remove existing systems and equipment as indicated.
 - 1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.
- E. Protect existing work to remain.
 - 1. Prevent movement of structure. Provide shoring and bracing as required.
 - 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
 - 4. Patch to match new work.

3.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 41 00

**SECTION 06 10 00
ROUGH CARPENTRY**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide all labor, equipment, implements and materials required to furnish, install, construct and perform all rough carpentry work as specified herein and as shown on the drawings, generally to include:
 - 1. All rough carpentry including all wood blocking, furring, nailers, grounds, sheathing, underlayment, plywood, sills, strapping and rough lumber, as required for the attachment of the various finishes and trim, and as required for attachment of the work of the other trades. Specifically but not limited to:
 - a. PT railing posts and support columns.
 - b. PT deck structure including rim boards, joists and intermediate blocking as indicating on the drawings.
 - c. PT stair stringers.
 - 2. No attempt is made in this Specification to list all of the various elements of rough carpentry Work, as a major part of the Work to be done is clearly shown on or reasonably inferred from the Drawings. The rough carpentry Work required shall include all such Work required throughout the project to complete the entire intent of the Work, regardless of whether or not each and every item is specifically called for. Refer to Drawings to determine the major extent of the rough carpentry Work required.
 - 3. All rough hardware such as nails, screws, clips, bolts, hangers, ties, straps and expansion fasteners necessary to secure all rough carpentry.

1.03 SECTION INCLUDES

- A. Sheathing.
- B. Preservative treated wood materials.
- C. Miscellaneous framing.
- D. Concealed wood blocking, nailers, and supports.

1.04 RELATED REQUIREMENTS

- A. Section 07 27 00 - Air Barriers: Air barrier over sheathing.
- B. Section 07 62 00 - Sheet Metal Flashing and Trim: Metal wrapped trim.

1.05 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2025.
- C. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).

- D. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2022.
- E. ASTM E2357 - Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies; 2024.
- F. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2024a.
- G. AWPA M4 - Standard for the Handling, Storage, Field Fabrication and Field Treatment of Preservative-Treated Wood Products; 2023.
- H. AWPA U1 - Use Category System: User Specification for Treated Wood; 2025.
- I. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- J. ICC-ES AC310 - Acceptance Criteria for Water-Resistive Membranes Factory-Bonded to Wood-Based Structural Sheathing, Used as Water-Resistive Barriers; 2008, with Editorial Revision (2021).
- K. PS 2 - Performance Standard for Wood Structural Panels; 2019.
- L. PS 20 - American Softwood Lumber Standard; 2025.
- M. SPIB (GR) - Standard Grading Rules; 2021.

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Provide manufacturer's product data, storage, handling instructions and application instructions on each product to be used including but not limited to:
 - 1. Exterior wall sheathing.
 - 2.
- C. Product Data: Submit technical data on wood treatment.
- D. ABAA Field Quality Control Submittals: Submit third-party reports of testing and inspection required by ABAA QAP.
- E. ABAA Manufacturer Qualification: Submit documentation of current evaluation of proposed manufacturer and materials.
- F. ABAA Installer Qualification: Submit documentation of current contractor accreditation and current installer certification. Keep copies of all contractor accreditation and installer certification on site during and after installation. Present on-site documentation upon request.

1.07 QUALITY ASSURANCE

- A. Air Barrier Association of America (ABAA) Quality Assurance Program (QAP); www.airbarrier.org/#sle:
 - 1. Installer Qualification: Use accredited contractor, certified installers, evaluated materials, and third-party field quality control audit.
 - 2. Manufacturer Qualification: Use evaluated materials from a single manufacturer regularly engaged in air barrier material manufacture. Use secondary materials approved in writing by primary material manufacturer.

1.08 WORKMANSHIP

- A. This Specification and drawings do not attempt to define all the types, sizes or installation methods for each item of work. Methods of installation, joinery, sizes, spacing of nailers and furring strips, and other information pertaining to the lumber, plywood, and other items of required work shall be installed in accordance with the details on the Drawings, or what is reasonably inferred, for the specific areas involved. Or in accordance with the listed standards as approved by the Architect.

- B. Work that is to be finished or painted shall be free from defects or blemishes on surfaces exposed to view that will show after the finish coat of paint is applied. Any material which is in any way defective and not up to Specifications for quality and grade for its intended use, or otherwise not in proper condition shall be rejected. Rough lumber shall be dressed four (4) sides, air-dried, well-seasoned, sound and free from splits, cracks, shakes and waness, loose or unsound knots, and decay and shall be construction grade, or equal.
- C. Perform rough carpentry work in accordance with AWI Quality Standards, Custom Grade.

1.09 GRADING STANDARDS

- A. Grade and Trademark: Shall be required on each piece of lumber (or bundle stock); use only the recognized official marks of association under whose rules it is graded. Grade and trademarks will not be required if each shipment is accompanied by certificate of inspection issued by association.
- B. Moisture Content: Except for blocking adjacent to finish millwork, moisture content shall not exceed 19% for lumber 12% for plywood. Moisture content for blocking adjacent to finish millwork shall not exceed 5%.
- C. Quality: Lumber must be sound, thoroughly seasoned, well manufactured and free from defects that cannot be corrected in process of bridging or nailing.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Do not attempt to install material that has been damaged or warped during storage or transportation.

1.11 PROJECT CONDITIONS

- A. Field Measurements: Where woodwork is indicated to be fitted to other construction, check actual dimensions of other construction by accurate field measurements before fabrication, and show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.12 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

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

2.02 EXPOSED DIMENSION LUMBER

- A. Grading Agency: Southern Pine Inspection Bureau, Inc; SPIB (GR).
- B. Sizes: Nominal sizes as indicated on drawings.
- C. Surfacing: S4S.
- D. Moisture Content: S-dry or MC19.
- E. Stud Framing (2 by 2 through 2 by 6 (50 by 50 through 50 by 150 mm)):
 - 1. Species: Southern Pine.

2. Grade: No. 1 or better.
- F. Joist and Rafter Framing (2 by 6 through 4 by 16 (50 by 150 through 100 by 400 mm)):
 1. Species: Southern Pine.
 2. Grade: No. 1 or better.

2.03 CONSTRUCTION PANELS

- A. Wall Sheathing: Oriented strand board structural wood panel with factory laminated water-resistant barrier layer.
 1. Sheathing Panel: PS 2, Exposure 1.
 - a. Size: 4 feet (1219 mm) wide by 8 feet (2438 mm) long.
 - b. Grade: Sheathing.
 - c. Performance Category: 7/16 PERF CAT.
 - d. Span Rating: 24/16.
 - e. Edge Profile: Square edge.
 2. Panels made with binder containing no added urea formaldehyde.
 3. Panel Exposure: No damage from weather exposure for up to 180 days.
 4. Printed fastener spacing symbols on facer for 16-inch 15.98 inch (406 mm) and 24-inch 24.02 inch (610 mm) on center spacing.
 5. Integral Water-Resistive Barrier: Sheet material qualifying as a Grade D water-resistive barrier; complying with ICC-ES AC310.
 6. Water Vapor Permeance of Water-Resistive Barrier: 12 to 16 perms (689 to 918 ng/(Pa s sq m)), minimum, when tested in accordance with ASTM E96/E96M Procedure B.
 7. Maximum Allowable Air Leakage of Assembly: Comply with ASTM E2357.
 - a. Infiltration: Less than 0.04 cfm/sq ft (0.2 L/s per sq m), maximum, at a pressure differential of 1.57 psf (75 Pa).
 - b. Exfiltration: 0.0023 cfm/sq ft (0.012 L/s per sq m), maximum, at a pressure differential of 1.57 psf (75 Pa).
 8. Provide fastening guide on top panel surface with separate markings indicating fastener spacing for 16 inches (406 mm) and 24 inches (610 mm) on center, respectively.
 9. Seam Tape: Manufacturer's standard pressure-sensitive, self-adhering, cold-applied, seam tape.
 10. Warranty: Manufacturer's standard 30 year limited system warranty from date of Substantial Completion.
 - a. Performance: Panel and tape resistance to water penetration; tape adhesion.
 - b. Material: Free from manufacturing defects and panel delamination.
 11. Manufacturers:
 - a. **(Basis of Design)** Huber Engineered Woods, LLC; ZIP System Roof/Wall Sheathing and ZIP System Seam Tape: www.huberwood.com/#sle.
 - b. Georgia-Pacific LLC; ForceField Air and Water Barrier System: www.buildgp.com/#sle.
 - c. Louisiana-Pacific Corporation; WeatherLogic: www.lpcorp.com/#sle.
 - d. Approved equal.

2.04 PRESSURE-PRESERVATIVE TREATMENT (PPT)

- A. Factory-treat wood members in accordance with AWPA U1 and use category indicated.
- B. Applications - Treat the Following:
 1. Posts and columns supporting permanent structures and supported by concrete or masonry slab or footing in direct contact with earth: Use Category UC4A, ground contact, general use.
 2. Decking and decking specialties such as railings, spindles, ball tops, and lattice: Use Category UC4A, ground contact, general use.

3. Wood in contact with ground or fresh water: Use Category UC4A, ground contact, general use.
- C. Kiln-dry wood after treatment with waterborne preservative to maximum moisture content of 19 percent for lumber and 15 percent for plywood.
- D. Fabricate to maximum extent possible before treatment.
- E. Label preservative-treated wood with marking as required by AWPA U1 and ICC (IBC). Unless otherwise permitted by standard U1 and building code, include the following markings: AWPA U1, accredited inspection agency mark, treating plant identification, type of preservative, preservative retention, and permitted end use.
- F. Field Treatment for Cuts and Holes in Preservative-Treated Wood: Comply with AWPA M4.

2.05 ACCESSORIES

- A. Metal and Finish of Fasteners:
 1. Preservative-Treated Wood:
 - a. Nails, timber rivets, wood screws, and lag screws - general use: Hot-dip galvanized steel complying with ASTM A153/A153M Class D or Type 304 stainless steel.
 2. Untreated Wood: Unfinished steel.
- B. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete.
- C. Die-Stamped Connectors: Hot dipped galvanized steel, sized to suit framing conditions.
 1. For contact with preservative treated wood in exposed locations, provide minimum G185 (Z550) galvanizing complying with ASTM A653/A653M.
- D. Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions.
 1. For contact with preservative treated wood in exposed locations, provide minimum G185 (Z550) galvanizing complying with ASTM A653/A653M.
- E. Sill Gasket on Top of Foundation Wall: 3/8 inch (9.5 mm) thick, closed-cell plastic foam.
 1. Width: 3-1/2 inches (89 mm).
 2. Ultraviolet (UV) and Weathering Resistance: Approved in writing by manufacturer for up to 30 days of weather exposure.
- F. Sill Flashing: See Section 07 62 00.
- G. General Purpose Construction Adhesives: Comply with ASTM C557.

PART 3 EXECUTION

3.01 PREPARATION

- A. Where wood framing bears on cementitious foundations, install full width sill flashing continuous over top of foundation, lap ends of flashing minimum of 4 inches (100 mm) and seal.
- B. Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.
- C. Coordinate installation of rough carpentry members specified in other sections.
- D. Examine substrates, adjoining construction, and conditions under which the work is to be installed. Notify the Owner of any deteriorated condition. Do not proceed with the work until unsatisfactory conditions detrimental to the proper and timely completion of the work have been corrected. Whenever rough carpentry is fitted to other work, obtain measurements of such other work, verify dimensions shown and the shop drawing details.
- E. Discard units of material with defects that impair quality of carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted.

3.02 INSTALLATION - GENERAL

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

3.03 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- C. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

3.04 INSTALLATION OF CONSTRUCTION PANELS

- A. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails or screws.
 - 1. Install plywood wall sheathing in accordance with manufacturer's current ICC-ES evaluation report for specified sheathing product.

3.05 SITE-APPLIED WOOD TREATMENT

- A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts, complying with manufacturer's instructions.
- B. Allow preservative to dry prior to erecting members.

3.06 TOLERANCES

- A. Framing Members: 1/4 inch (6 mm) from true position, maximum.
- B. Surface Flatness of Floor: 1/8 inch in 10 feet (1 mm/m) maximum, and 1/4 inch in 30 feet (7 mm in 10 m) maximum.
- C. Variation from Plane, Other than Floors: 1/4 inch in 10 feet (2 mm/m) maximum, and 1/4 inch in 30 feet (7 mm in 10 m) maximum.

3.07 CLEANING

- A. Waste Disposal: See Section 01 74 19 - Construction Waste Management and Disposal.
 - 1. Comply with applicable regulations.
 - 2. Do not burn scrap on project site.
 - 3. Do not burn scraps that have been pressure treated.
 - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.
- B. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION 06 10 00

**SECTION 06 20 00
FINISH CARPENTRY**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide all labor, materials, equipment, services and transportation required to complete all finish carpentry work as shown on Drawings, as specified herein, or both, generally to include the following (Refer to Drawings for locations and details):
 - 1. Installation of PVC door and bay window trim.
 - 2. Installation of break metal wrap over existing trim including but not limited to fascias and freeze boards.
 - 3. Installation of new window shutters.
 - 4. Installation of PVC mounting blocks.
 - 5. This specification does not define the types, sizes, or installation methods for each item of finish or trim. Installation, joinery, sizes, types of finish, spacing of nailers and furring strips, shall be done in accordance with the details on the Drawings for the specific areas involved in accordance with the listed standards as approved by the Architect.
 - 6. All finish carpenter's work and materials not specified elsewhere, but which are implied by the Drawings and/or required for the work, shall be furnished under this Section, whether or not specifically described herein.

1.03 SECTION INCLUDES

- A. Finish carpentry items.

1.04 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition; 2014, with Errata (2016).
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards; 2021, with Errata.

1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Provide manufacturer's product data, storage and handling instructions for factory-fabricated units.
 - 2. Provide instructions for finish hardware.
- C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
 - 1. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
- D. Manufacturer's Instructions: Provide manufacturer's installation instructions for factory-fabricated units.

1.06 QUALITY ASSURANCE

- A. The work of this Section shall be accomplished by a specialist firm of established reputation for performance of work of the highest quality having not less than five years of successful experience in work of this nature and on buildings of similar age and type. If newly organized, whose personnel have previously established a similar reputation in the same field, which is regularly engaged in and maintains a regular force of workman skilled in the work of this Section.
- B. Provide sufficient workmen and supervisors who shall be present at all times during execution of this portion of the Work, and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.
- C. The Contractor shall take all necessary field measurements prior to fabrication and installation of work and shall assume complete responsibility for accuracy of same.
- D. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

1.07 PROJECT CONDITIONS

- A. Field Measurements: Verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed and indicate measurements on Shop Drawings.

1.08 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-fabricated units to project site in original packages, containers or bundles bearing brand name and identification.
- B. Store finish carpentry items under cover, elevated above grade, and in a dry, well-ventilated area not exposed to heat or sunlight.
- C. Protect from moisture damage.
- D. Handle materials and products to prevent damage to edges, ends, or surfaces.

PART 2 PRODUCTS

2.01 FINISH CARPENTRY ITEMS

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Grading for pine shall be as set forth in the published standards of the Association under whose jurisdiction the particular species occur.
- C. Work that is to be finished or painted shall be free from defects or blemishes on all surfaces exposed to view. Any material which is in any way defective and not up to Specifications for quality and grade, or otherwise not in proper condition, shall be rejected.
- D. Finish carpentry work where indicated to have a clear finish shall be dressed and sanded, free from machine and tool marks, abrasions, raised grain, and other defects on surfaces exposed to view. Wood for natural finish millwork shall have uniformity of color.

2.02 FASTENINGS

- A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds.

- B. Adhesive for factory-fabricated units: Manufacturer's recommended adhesive for application.
- C. Fasteners for Exterior Applications: Stainless steel or Hot-dipped galvanized steel complying with ASTM A153/A153M; length required to penetrate wood substrate 1-1/2 inch (38 mm) minimum.

2.03 ACCESSORIES

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Lumber for Shimming and Blocking: Softwood lumber of indicated species.
- C. Cellular PVC Trim and Moldings: Extruded, expanded PVC; UV-resistant, heat-stabilized, and rigid material; for exterior use only.
 - 1. Profiles: As indicated on drawings.

2.04 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.
- C. See Section 061000 for installation of recessed wood blocking.

3.02 INSTALLATION

- A. Install custom fabrications in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.
- B. Set and secure materials and components in place, plumb and level.
- C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch (0.79 mm). Do not use additional overlay trim to conceal larger gaps.

3.03 SITE-APPLIED WOOD TREATMENT

- A. Apply preservative treatment to field-cut surfaces in accordance with manufacturer's instructions wherever cuts, holes, sawing, or other fabrication of wood members is required after pressure-preservative treatment.
- B. Apply preservative treatment in accordance with manufacturer's instructions.
- C. Allow preservative to dry prior to erecting members.

3.04 PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
- B. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

3.05 TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch (1.6 mm).
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch (0.79 mm).

3.06 SOLID SURFACE PREPARTATION AND INSTALLATION

- A. Preparation and Fabrication: Precondition surfacing materials and surfaces to receive surfacing materials in accordance with manufacturer's printed instructions. Fabrication of seams and

fixture mouthing in accordance with factory fabrication manual. Work to be performed by factory trained specialists.

- B. Install components plumb and level in accordance with approved shop drawings and manufacturer's printed installation instructions.
- C. Form field joints using manufacturers recommended adhesive, with joints inconspicuous in finished work.
- D. Adhere top mount sinks/bowls to countertop using manufacturer's recommend adhesive and mounting hardware.

END OF SECTION 06 20 00

**SECTION 06 60 00
CELLULAR PVC FABRICATIONS**

PART 1 - GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide all labor, equipment, implements and materials required to furnish, install, construct and perform all rough carpentry work as specified herein and as shown on the drawings, generally to include:
 - 1. Furnish and install PVC trim as indicated on Drawings

1.03 SECTION INCLUDES

- A. Cellular PVC fabrications including the following:
 - 1. Trim.
 - 2. Mouldings.

1.04 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.
- B. Section 06 20 00 - Finish Carpentry.

1.05 REFERENCES

- A. ASTM International (ASTM): ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM D-7032: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails), ASTM International.
- C. ASTM D-7031: Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products, ASTM International
- D. ASTM E-84: Test Method for Surface Burning Characteristics of Building Materials, ASTM International.
- E. ASTM D 570: Water Absorption of Plastics
- F. ASTM D 1761: Mechanical Fasteners in Wood
- G. ASTM D1413: Test method for Wood Preservatives by Laboratory Soil-block Cultures
- H. ASTM C177: Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus

1.06 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Sizes, profiles, surface style, and color options.

5. Performance characteristics.

C. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (152.4 mm) square representing actual product, color, and patterns.

1.07 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with requirements of authorities having jurisdiction and applicable codes at the location of the project.

B. Manufacturer Qualifications: Minimum 5 years experience manufacturing similar products.

C. Installer Qualifications: Minimum 2 years experience installing similar products.

D. Mock-Ups: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Construct area designated by Architect.

2. Do not proceed with remaining work until workmanship is accepted by Architect.

3. Remodel mock-up area as required to produce acceptable work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

B. Comply with manufacturer's recommendations. Handle materials to avoid damage.

1.09 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.10 WARRANTY

A. Provide manufacturer's standard limited warranty for products, stating that components will be free from defects in material that occur as a direct result of the manufacturing process, occur under normal use and service, occur during the warranty period and result in blistering, peeling, flaking, cracking, splitting, cupping, rotting or structural defects from termites or fungal decay.

1. AZEK Trim Warranty Period: 25 years.

2. Moulding Warranty Period: 25 years.

3. AZEK Rail Warranty:

a. 10 years for applications other than single-family residential.

4. AZEK Rail Accessories Warranty: 5 years.

5. Trex Enhance Decking & Fascia:

a. 10 years for applications other than single-family residential.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Trim:

1. AZEK Building Products, Inc: www.azek.com/.

2. CertainTeed, Inc: www.certainteed.com/#sle.

3. Wolf Home Products: www.wolfhomeproducts.com/.

4. Approved equal.

B. Mouldings:

1. AZEK Building Products, Inc: www.azek.com/.

2. CertainTeed, Inc: www.certainteed.com/#sle.

3. Wolf Home Products: www.wolfhomeproducts.com/.

4. Approved equal.

2.02 TRIM

- A. Fire Performance Characteristics: Provide products complying with the following:
 - 1. Flame Spread Index: Less than 25, ASTM E 84.
- B. PVC Trim: Material shall have the following characteristics:
 - 1. Material: Solid Cellular PVC.
 - 2. Style: Traditional.
 - 3. Trim Size, 5/4 Thickness:
 - a. 5/4 x 4 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 3-1/2 inches (89 mm) by 12 feet actual dimension.
 - b. 5/4 x 5 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 4-1/2 inches (114 mm) by 12 feet actual dimension.
 - c. 5/4 x 6 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 5-1/2 inches (140 mm) by 12 feet actual dimension.
 - d. 5/4 x 8 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 7-1/4 inches (184 mm) by 12 feet actual dimension.
 - e. 5/4 x 10 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 9-1/4 inches (235 mm) by 12 feet actual dimension.
 - f. 5/4 x 12 x 12 feet (365.76 cm) nominal, 1 inches (25.4 mm) x 11-1/4 inches (286 mm) by 12 feet actual dimension.
- C. PVC Sheet: Material shall have the following characteristics:
 - 1. Material: Solid Cellular PVC.
 - 2. Style: Traditional.
 - 3. Sheet Size:
 - a. 3/4 inches (19.05 mm) x 4 feet (121.92 cm) x 8 feet (243.84 cm) actual dimension.

2.03 MOULDINGS

- A. Casing Profiles: Material shall have the following characteristics:
 - 1. Material: Solid Cellular PVC.
 - 2. Casing Profile:
 - a. Back Moulding: 11/16 inches (17.46 mm) x 1 5/8 inches (15.88 mm) x 16 feet (487.68 cm), AZM-217.

2.04 ACCESSORIES

- A. Fasteners: Stainless steel or hot-dip galvanized, with thin shank, blunt point, full round head as recommended by the manufacturer.
- B. Adhesives: AZEK Adhesive, a non-toxic, odorless, UV stable, water-based PVC cement, or manufacturers recommended adhesive.
- C. Sealants: Urethane, polyurethane or acrylic based sealants without silicone.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions that may be detrimental to proper or timely completion.
- B. For decking and porch flooring installations, ensure surfaces are suitable for installation of decking and that adequate structural support has been provided.
 - 1. Standard Installation: Confirm that joists are spaced at 16 inches (406.4 mm) on center maximum, and are sloped at a minimum of 1/4 inch (6.35 mm) per foot away from the building.
 - 2. Forty-five Degree Angle Installation: Confirm that joists are spaced at 12 inches (304.8 mm) on center maximum, and are sloped at a minimum of 1/4 inch (6.35 mm) per foot away from the building.

- C. Do not proceed until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. General: Install products in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
 - 1. Use manufacturer's recommended fasteners, not more than 2 inches (50.8 mm) from ends.
 - 2. Glue joints to eliminate joint separation.
 - 3. Allow for expansion and contraction at ends of the runs.
- B. Decking and Porch Flooring Installation:
 - 1. Install with grain side up for the walking surface.
 - 2. Fasten tight to joists. Provide shims if there are variations in framing.
 - 3. Countersink fasteners slightly to provide necessary clearance when installing the next board.
 - 4. Cut final boards as required for proper appearance.

3.03 CLEANING AND PROTECTION

- A. Protect from damage during construction operations. Promptly repair any damaged surfaces. Remove and replace work which cannot be satisfactorily repaired.
- B. Clean products, prior to Substantial Completion, using materials recommended by the manufacturer to remove stains, dirt and debris prior to final acceptance.

END OF SECTION 06 60 00

**SECTION 07 21 00
THERMAL INSULATION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Batt insulation in exterior roof construction.

1.02 DEFINITIONS

- A. Mineral Fiber Material Composition: Insulation referred to as mineral fiber block, board, and blanket insulation is composed of fibers from mineral based substances such as rock, slag, or glass and processed from the molten state into fibrous form.
 - 1. Based on type of insulation substance, the material will be referred to as a mineral fiber when having a rock or slag base, and glass fiber with a glass or silica sand base, also considered a mineral.
 - 2. Insulation blankets are flexible units consisting of felted, bonded, or unbonded fibers formed into rolls or flat cut pieces referred to as batts; rolls are simply longer versions of batts.
 - 3. For additional information about mineral fiber and the various classification types, refer to the following reference standards; ASTM C553, ASTM C612, ASTM C665, and ASTM C726.

1.03 REFERENCE STANDARDS

- A. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications; 2024.
- B. ASTM C612 - Standard Specification for Mineral Fiber Block and Board Thermal Insulation; 2014 (Reapproved 2019).
- C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2024.
- D. ASTM C726 - Standard Specification for Mineral Wool Roof Insulation Board; 2024.
- E. ASTM E136 - Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 Degrees C; 2024c.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

PART 2 - PRODUCTS

2.01 APPLICATIONS

- A. Insulation in Wood Framed Walls: Batt insulation with separate vapor retarder.

2.02 MINERAL FIBER BLANKET INSULATION MATERIALS

- A. Flexible Glass Fiber Blanket Thermal Insulation: Preformed insulation, complying with ASTM C665; friction fit.
 - 1. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
 - 2. Thickness: To fill existing cavity.
 - 3. Products:
 - a. CertainTeed Corporation: www.certainteed.com/#sle.
 - b. Johns Manville: www.jm.com/#sle.
 - c. Owens Corning Corporation: www.ocbuildingspec.com/#sle.
 - d. Approved Equal.

2.03 ACCESSORIES

- A. Nails or Staples: Steel wire; electroplated or galvanized; type and size to suit application.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BATT INSTALLATION

- A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
- B. Install in exterior wall spaces without gaps or voids. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
- E. At wood framing, place vapor retarder on warm side of insulation by stapling at 6 inches (152 mm) on center. Lap and seal sheet retarder joints over face of member.
- F. Tape seal tears or cuts in vapor retarder.
- G. Extend vapor retarder tightly to full perimeter of adjacent window and door frames and other items interrupting the plane of the membrane; tape seal in place.

3.03 PROTECTION

- A. Do not permit installed insulation to be damaged prior to its concealment.

**SECTION 07 31 13
ASPHALT SHINGLES**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide all labor, equipment, implements and materials required to furnish, install, construct and perform all work as specified herein and as shown on the drawings, generally to include:
 - 1. Furning and install hip/ridge vent.
 - 2. Furning and install algae resistant asphalt shingles.
 - 3. Furning and install synthetic non-asphaltic sheet "Roofing Felt" as indicated on Drawings.
 - 4. Furning and install self-adhering, rubber-modified asphalt sheet "Ice & Water Shield" as indicated on Drawings.
 - 5. Furning and install roof vents.
 - 6. Furning and install plumbing stack boots.

1.03 SECTION INCLUDES

- A. Asphalt shingle roofing.
- B. Flexible sheet membranes for eave protection, underlayment, and valley protection.
- C. Flashing.

1.04 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Roof sheathing.
- B. Section 07 21 00 - Thermal Insulation: Nailable rigid insulation.
- C. Section 07 62 00 - Sheet Metal Flashing and Trim: Edge and cap flashings.
- D. Section 07 71 23 - Manufactured Gutters and Downspouts.

1.05 REFERENCE STANDARDS

- A. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing; 2017 (Reapproved 2023).
- B. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021.
- C. ASTM D3161/D3161M - Standard Test Method for Wind Resistance of Steep Slope Roofing Products (Fan-Induced Method); 2020 (Reapproved 2025).
- D. ASTM D3462/D3462M - Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules; 2023.
- E. ASTM D4869/D4869M - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing; 2016a (Reapproved 2021).
- F. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2024a.

- G. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings; 2025.
- H. ASTM F1667/F1667M - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples; 2021a.
- I. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments; 2023.
- J. NRCA (RM) - The NRCA Roofing Manual; 2025.
- K. UL (DIR) - Online Certifications Directory; Current Edition.

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating material characteristics, performance criteria, and limitations.
- C. Manufacturer's Installation Instructions: Indicate installation criteria and procedures.
- D. Manufacturer's qualification statement.
- E. Installer's qualification statement.
- F. Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in MHA's name and registered with manufacturer.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacture of roofing systems similar to those required for this project, with not less than 5 years of documented experience.
- B. Installer Qualifications: Company specializing in installing asphalt shingles, with at least 3 years of documented experience.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store materials with labels intact in manufacturer's unopened packaging until ready for installation.
- B. Store materials under dry and waterproof cover, well ventilated, and elevated above grade on a flat surface.
- C. Protect materials from harmful environmental elements, construction dust, direct sunlight, and other potentially detrimental conditions.
- D. When storing roofing materials on roofing system ensure no damage occurs to supporting members and other materials.

1.09 FIELD CONDITIONS

- A. Do not install shingles, eave protection membrane, underlayment, or _____ when surface, ambient air, wind chill, or _____ temperatures are below 45 degrees F (7 degrees C).

1.10 WARRANTY

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Algae Resistant Asphalt Shingles:
 - 1. CertainTeed Roofing; Presidential Shake TL AR: www.certainteed.com/#sle.
 - 2. Owens Corning Corporation: www.owenscorning.com/en-us/#sle.
 - 3. Tamko Building Products, Inc.[<>]: www.tamko.com/.
 - 4. Approved equal.

2.02 ASPHALT SHINGLES

- A. Asphalt Shingles: Asphalt-coated glass felt, mineral granule surfaced, complying with ASTM D3462/D3462M.
 - 1. Fire Resistance: Class A, complying with ASTM E108.

2. Wind Resistance: Class A, when tested in accordance with ASTM D3161/D3161M.
3. Fire or Wind Resistance Criteria: Provide UL (DIR) listed and labeled products.
4. Warranted Wind Speed: Not greater than 110 mph (177 km/h).
5. Algae resistant.
6. Weight: ___ lb/100 sq ft (___ kg/9.3 sq m).
7. Self-sealing type.
8. Style: Square.
9. Color: As selected by Architect.

2.03 SHEET MATERIALS

- A. Eave Edge Starter Shingles: Glass felt base, with ceramic coated mineral granules tightly embedded in refined, water-resistant asphalt, complying with ASTM D3462/D3462M.
 1. Shingle Size: 8-3/16 by 38-1/4 inches (208 by 972 mm), nominal.
 2. Application: Roof with slope greater than 2 inches per foot (51 mm per 305 mm) and shingle exposure less than 5-5/8 inches (143 mm).
 3. Products:
- B. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams.
 1. Type: Woven polypropylene with anti-slip polyolefin coating on the backside.
 2. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-self-adhesive sheet.
 3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
 4. Flammability: Minimum of Class A, when tested in accordance with ASTM E108.
 5. Ultraviolet (UV) Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of six months.
 6. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
 7. Performance: Meet or exceed requirements for ASTM D226/D226M, Type II asphalt-saturated organic felt.
 8. Liquid Water Transmission: Passes ASTM D4869/D4869M.
 9. Fasteners: As recommended by manufacturer or building code qualification report or approval.
 10. Products:
 - a. **(Basis of Design)** GAF; TigerPaw: www.gaf.com/.
 - b. CertainTeed Roofing: www.certainteed.com/.
 - c. Tamko Building Products, Inc.[<>]: wwwXXXXX.com/.
 - d. Approved equal.
- C. Underlayment: Self-adhering, rubber-modified asphalt sheet complying with ASTM D1970/D1970M; with strippable release film and woven polypropylene sheet top surface.
 1. Minimum Requirements: Comply with ICC-ES AC188.
 2. Thickness: 40 mils, 0.040 inch (1.01 mm).
 3. Top Surface: Polyethylene film.
 4. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
 5. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
 6. Water Vapor Permeance: 0.067 perm (0.38 ng/(Pa s sq m)), when tested in accordance with ASTM E96/E96M, Procedure A (desiccant method).
 7. Performance: Meet or exceed requirements for ASTM D226/D226M, Type II asphalt-saturated organic felt.
 8. Liquid Water Transmission: Passes ASTM D4869/D4869M.
 9. Functional Temperature Range: From minus 70 degrees F (minus 56.7 degrees C) to 212 degrees F (100 degrees C).
 10. Products:

- a. **(Basis of Design)** CertainTeed Roofing; WinterGuard Sand Waterproofing Underlayment: www.certainteed.com/#sle.
- b. GAF: www.ftsolutionsroof.com/#sle.
- c. GAF: www.ftsolutionsroof.com/#sle.
- d. Approved equal.

2.04 FLASHING

- A. Metal Flashing: Prefinished aluminum; see Section 07 62 00.

2.05 ACCESSORIES

- A. Roofing Nails: Standard round wire shingle type, galvanized steel, stainless steel, or copper roofing nails, minimum 3/8-inch (9.5 mm) head diameter, 12-gauge, 0.109-inch (2.77 mm) nail shank diameter, 1-1/2 inches (38 mm) long and complying with ASTM F1667/F1667M.
- B. Plastic Ridge Vents: Extruded plastic with vent openings do not permit direct water or weather entry; flanged to receive shingles.
- C.
- D.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions prior to starting this work.
- B. Verify roof deck is of sufficient thickness to accept fasteners.
- C. Verify roof penetrations and plumbing stacks are in place and flashed to deck surface.
- D. Verify deck surfaces are dry, free of ridges, warps, or voids.

3.02 PREPARATION

- A. Seal roof deck joints wider than 1/16 inch (1.5 mm) as recommended by shingle manufacturer.
- B. At areas where eave protection membrane is to be adhered to substrate, fill knot holes and surface cracks with latex filler.
- C. Broom clean deck surfaces before installing underlayment or eave protection.
- D. Protect surrounding areas and adjacent surfaces from damage during execution of this work.
- E. Install eave edge flashings tight with fascia boards, weather lap joints 2 inches (50 mm) and seal with roof cement, and secure flange with nails spaced ____ inches (____ mm) on center.

3.03 INSTALLATION

- A. Underlayment:
 1. Roof Slopes Up to 4:12: Install two layers of underlayment over area not protected by eave protection, with ends and edges weather lapped minimum 6 inches (150 mm), or as required by manufacturer and local building code, whichever is greater; stagger end laps of each consecutive layer and nail in place.
 2. Roof Slopes Greater Than 4:12: Install underlayment perpendicular to slope of roof, with ends and edges weather lapped minimum 2 inches (50 mm), or as required by manufacturer and local building code, whichever is greater; stagger end laps of each consecutive layer, nail in place, and weather lap minimum 4 inches (100 mm) over eave protection.
 3. Weather lap and seal watertight with plastic cement any items projecting through or mounted on roof.
- B. Valley Protection:
 1. Install flexible flashing in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.

2. Weather lap joints minimum 2 inches (50 mm), or as required by manufacturer and local building code, whichever is greater.
 3. Nail in place minimum 18 inches (450 mm) on center, 1 inch (25 mm) from edges.
 4. At Exposed Valleys: Install one layer of sheet metal flashing, minimum 24 inches (600 mm) wide, centered over open valley and crimped to guide water flow. Weather lap joints minimum 2-inch (50 mm) wide band of lap cement along each edge of first layer, press roll roofing into cement, and nail in place minimum 18 inches (450 mm) on center and 1 inch (25 mm) from edges.
 5. At Exposed Valleys: Install minimum 36-inch (900 mm) wide roll roofing with mineral surface side up centered over first layer of protection. Apply 4-inch (100 mm) wide band of lap cement along each edge of first layer, press roll roofing into cement, nail in place minimum 18 inches (450 mm) on center and 1 inch (25 mm) from edges.
- C. Metal Flashing:
1. Install flashings in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
 2. Weather lap joints minimum 2 inches (50 mm) and seal weather tight with plastic cement.
 3. Secure in place with nails at ____ inches (____ mm) on center, and conceal fastenings.
 4. Items Projecting Through or Mounted on Roofing: Flash and seal weather tight with plastic cement.
- D. Shingles:
1. Install shingles in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
 - a. Fasten individual shingles using two nails per shingle, or as required by manufacturer and local building code, whichever is greater.
 - b. Fasten strip shingles using four nails per strip, or as required by manufacturer and local building code, whichever is greater.
 2. Place shingles in straight coursing pattern with 5-inch (125 mm) weather exposure to produce double thickness over full roof area, and provide double course of shingles at eaves.
 3. Project first course of shingles 3/4 inch (19 mm) beyond fascia boards.
 4. Extend shingles 1/2 inch (13 mm) beyond face of gable edge fascia boards.
 5. Cap hips and ridges with individual shingles, maintaining 5-inch (127 mm) weather exposure, and place to avoid exposed nails.
 6. Coordinate installation of roof mounted components or work projecting through roof with weathertight placement of counterflashings.
 7. Complete installation to provide weathertight service.

3.04 CLEANING

- A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.
- B. Clean exposed work upon completion of installation; remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to finish.

3.05 PROTECTION

- A. Do not permit traffic over finished roof surface; protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged asphalt shingles or accessories before Date of Substantial Completion.

END OF SECTION 07 31 13

**SECTION 07 46 40
VINYL AND POLYMER SIDING**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Furning and install new vinyl soffit and accessories.

1.03 SECTION INCLUDES

- A. Vinyl soffits.
- B. Accessories and trim.

1.04 REFERENCE STANDARDS

- A. ASTM D3679 - Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Siding; 2025.
- B. ASTM D4477 - Standard Specification for Rigid (Unplasticized) Poly(Vinyl Chloride) (PVC) Soffit; 2024.
- C. ASTM D5206 - Standard Test Method for Windload Resistance of Rigid Plastic Siding; 2024.
- D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2024.
- E. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2024.

1.05 RELATED SECTIONS

- A. Section 06100 - Framing and Sheathing.
- B. Section 07260 - Vapor Retarders.
- C. Section 07900 - Joint Sealers.

1.06 REFERENCES

- A. ASTM D7793 – Standard Specification for Insulated Vinyl Siding.
- B. ASTM D3679 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding.
- C. ASTM D4477 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Soffit.
- D. ASTM D5206 - Standard Windload Resistance Test.
- E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- F. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- G. ASTM D7254 – Standard Specification for Polypropylene (PP) Siding

1.07 DESIGN/PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Code compliance in accordance with one or more the following:
 - 1. IBC and IRC

2. Florida Building Code
 3. National Building Code of Canada
 4. California Building Code
- B. PVC Fire Resistance: Provide vinyl siding products that meet or exceed the following ratings:
1. Flame Spread Index < 25, per ASTM E84.
 2. Fire endurance classification of 1 hour, per ASTM E119 in a wall assembly.
- C. Cedar Impressions® Shake and Shingle Siding Fire Resistance: Provide thermoplastic polyolefin siding products that meet or exceed the following ratings:
1. Flame Spread Index <200 per ASTM E84.

1.08 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 12 inches (304.8 mm) long, representing actual product, color, and patterns.

1.09 QUALITY ASSURANCE

- A. Installer Qualifications: Provide installer with not less than three years of experience with products specified or has obtained 5-Star Green Contractor (Preferred), 5-Star Contractor (preferred), or Master Craftsman credentials from CertainTeed.
- B. Mock-Up: Provide a mock-up for evaluation of installation techniques and workmanship.
1. Finish areas designated by Architect.
 2. Do not proceed with remaining work until workmanship and color is approved by Architect.
 3. Reinstall mock-up area as required to produce acceptable work.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation. Refer to manufacturer's installation instructions for specific storage and handling requirements.

1.11 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.12 WARRANTY

- A. Provide manufacturer's standard lifetime limited warranty on siding products, transferable to new owners.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Plastic Soffit Panels:
1. **(Basis of Design)** CertainTeed Corporation; ____: www.certainteed.com/.
 2. Georgia-Pacific Vinyl Siding and Accessories: www.gpvinylsiding.com/.
 3. Versatex: www.versatex.com/.
 4. Approved equal.

2.02 MATERIALS

- A. Vinyl Siding, Soffit and Components: Provide products made of extruded polyvinyl chloride as specified in this section and manufactured to comply with requirements of ASTM D3679.
 - 1. Provide elongated nailing slots on nailing flanges to allow for movement.
 - 2. Factory-notch ends of horizontal panels to form overlapping joints.
 - 3. Provide products that meet weathering requirements of ASTM D3679.

2.03 VINYL CARPENTRY™ SOFFITS

- A. Beaded T2 soffit, invisibly vented.
 - 1. Design: Triple 2 inches (50.8 mm) vented; smooth finish.
 - 2. Width: 6 inches (152.4 mm) plus or minus .062 inch (1.57 mm).
 - 3. Length: 12 feet (365.76 cm) 6 inches (152.4 mm) plus or minus .025 inch (0.64 mm).
 - 4. Average Thickness: 0.039 inch (0.99 mm).
 - 5. Exposure: 2 inches (50.8 mm) single nailing hem.
 - 6. Maximum Warp (per 2 panels): 0.250 inch (6.35 mm).
 - 7. Ventilation: <1.06 sq. inches per sq. ft.
 - 8. Color: As selected by MHA from manufacturer's standards.
- B. Soffit Accessories:
 - 1. J-Channel: 3/8 inch (9.52 mm), 1/2 inch (12.7 mm), 5/8" (0.63 inch (16 mm)) and 3/4 inch (19.05 mm) by 12 feet (365.76 cm), 6 inch (152.4 mm) length, for vertical and eave applications.
 - 2. Soffit H-Bar: 3/8 inch (9.52 mm), 1/2 inch (12.7 mm) or 3/4 inch (19.05 mm) by 12 feet (365.76 cm), 6 inches (152.4 mm) length, for horizontal and eave applications.
 - 3. Color: As selected by MHA from manufacturer's standards.

2.04 VINYL CARPENTRY ACCESSORIES

- A. Standard Accessories:
 - 1. J-Channel: Standard width, 12 feet (365.76 cm), 6 inches (152.4 mm) length.
 - 2. Color: refer to Product Catalog for color availability of accessories

2.05 FASTENERS

- A. Provide galvanized or other corrosion-resistant nails as recommended by manufacturer of siding products.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Examine, clean, and repair as necessary any substrate conditions which would be detrimental to proper installation.
- B. Do not begin installation until unacceptable conditions have been corrected.

3.03 INSTALLATION

- A. Install products in accordance with the latest printed instructions of the manufacturer.
- B. Installer should have current 5-Star Contractor (preferred) or Master Craftsman credentials.
- C. Install products with all components true and plumb.
- D. For Vinyl Siding: Nail horizontal panels by placing nail in center of slot. Nail vertical panels by placing first nail at top of top slot and remaining nails in center of slots. Drive nails straight, leaving 1/16 inch (1.59 mm) space between nail head and flange of panel. (NOTE: Refer to 04-

03-1099-US Installation Manual for latest installation recommendations) For Polymer Siding:
Refer to 04-03-1099-US Installation Manual for latest installation recommendations

- E. Allow space between both ends of siding panels and trim for thermal movement. Overlap horizontal panel ends one-half the width of factory pre-cut notches.
- F. Stagger lap joints in horizontal siding in uniform pattern as successive courses of siding are installed.
- G. Install J-channel and flashing to accommodate successive courses of vertical siding. Install wood shims at building corners to bring cut edges of vertical siding out to correct plane.

3.04 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.05 CLEANING

- A. At completion of work, remove debris caused by siding installation from project site.

END OF SECTION 07 46 40

SECTION 07 53 23
EPDM THERMOSET SINGLE-PLY ROOFING - CARLISLE

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Furning and install fully adhered EPDM roofing membrane as indicated in Drawings.

1.03 SECTION INCLUDES

- A. Adhered roof system with ethylene propylene diene monomer (EPDM) roofing membrane.

1.04 RELATED REQUIREMENTS

- A. Section 07 62 00 - Sheet Metal Flashing and Trim: Counterflashing.

1.05 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015, with Editorial Revision (2022).

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturer's written information listed below.
 - 1. Product data indicating membrane materials, flashing materials, vapor retarder, surfacing, and fasteners.
 - 2. Preparation instructions and recommendations.
- C. Warranty:
 - 1. Submit manufacturer warranty and ensure that forms have been completed in MHA's name and registered with manufacturer.
 - 2. Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.

1.07 QUALITY ASSURANCE

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Protect products in weather protected environment, clear of ground and moisture.
- C. Protect foam insulation from direct exposure to sunlight.
- D. Keep Safety Data Sheets (SDS) at the project site at all times during transportation, storage, and installation of materials.

- E. Comply with requirements from MHA to prevent overloading or disturbance of the structure when loading materials onto the roof.

1.09 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather. Refer to manufacturer's written instructions.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F (5 degrees C) or above ____ degrees F (____ degrees C).
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- E. Proceed with work so new roofing materials are not subject to construction traffic as work progresses.
- F. Do not allow grease, oil, fats, or other contaminants to come into direct contact with membrane.

1.10 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Carlisle SynTec Systems: www.carlisle-syntec.com/#sle.
- B. Approved equal.

2.02 ROOFING APPLICATIONS

- A. EPDM Membrane Roofing: One ply membrane, fully adhered.
- B. Roofing Assembly Performance Requirements and Design Criteria:
 - 1. Wind Uplift:
 - a. Designed to withstand wind uplift forces calculated with ASCE 7.
 - b. Design Wind Speed: In accordance with local building code and authorities having jurisdiction (AHJ).

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Single Source Responsibility: Provide and install products from single source.
- B. Base Sheet: Manufacturer's standard, reinforced composite of aluminum foil with self-adhesive SBS backing and removable poly release films.
 - 1. Product: Carlisle VapSeal MD Air/Vapor Barrier.
- C. Membrane:
 - 1. Material: Ethylene propylene diene monomer (EPDM); ASTM D4637/D4637M, Type I (non-reinforced).
 - 2. Sheet Width: Factory fabricated into largest sheets possible.
 - 3. Color: Black.
 - 4. Products:
 - a. Carlisle SynTec Systems; Sure-Seal.
- D. Seaming Materials: As recommended by membrane manufacturer.
- E. Flexible Flashing Material: Same material as membrane.
- F. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

2.04 ACCESSORIES

- A. Prefabricated Flashing Accessories:
 - 1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
 - 2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
 - 3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
 - 4. Carlisle SynTec Systems; Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):
 - a. 9 inches (229 mm) wide, 45 mil, 0.045 inch (1.1 mm) thick, reinforced EPDM membrane with 3 inches (76 mm) wide, 30 mil, 0.030 inch (0.76 mm) thick cured synthetic rubber with pressure-sensitive adhesive laminated to both edges.
- B. Membrane Adhesive: As recommended by membrane manufacturer.
- C. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- D. Sealants: As recommended by membrane manufacturer.
- E. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.
- F. Edgings and Terminations: Manufacturer's standard edge and termination accessories.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION, GENERAL

- A. Clean substrate thoroughly prior to roof application.
- B. Do not begin work until other work that requires foot or equipment traffic on roof is complete.
- C. Apply manufacturer's recommended vapor retarder or temporary roof before roof installation.

3.03 WOOD DECK PREPARATION

- A. Verify flatness and tightness of joints of wood decking. Verify that all wood decking edges are fully supported. Fill knot holes with latex filler or completely cover with securely nailed sheet metal.

3.04 INSTALLATION - GENERAL

- A. Perform work in accordance with manufacturer's instructions.
- B. Do not apply roofing membrane during unsuitable weather.
- C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

3.05 VAPOR RETARDER INSTALLATION

- A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
 - 1. Extend vapor retarder under cant strips and blocking to deck edge.
 - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.

3.06 MEMBRANE APPLICATION

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.
- C. Fully Adhered Application: Apply adhesive at manufacturer's recommended rate. Fully embed membrane in adhesive except in areas directly over or within 3 inches (76 mm) of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
- D. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches (76 mm). Seal permanently waterproof.
- E. At intersections with vertical surfaces:
 - 1. Extend membrane over cant strips and up a minimum of 4 inches (102 mm) onto vertical surfaces.
 - 2. Fully adhere flexible flashing over membrane and up to nailing strips.
- F. Coordinate installation of roof drains and sumps and related flashings, locate field splices away from low areas and roof drains, and lap upslope sheet over downslope sheet.
- G. Daily Seal: Install daily seal per manufacturer's instructions at the end of each workday. Prevent infiltration of water at incomplete flashings, terminations, and at unfinished membrane edges.

3.07 CLEANING

- A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.
- B. Remove wrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.
- C. Remove bituminous markings from finished surfaces.
- D. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- E. Repair or replace defaced or damaged finishes caused by work of this section.

3.08 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION 07 53 23

**SECTION 07 62 00
SHEET METAL FLASHING AND TRIM**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Furnish and install continuous drip edge as indicated on the Drawings.
 - 2. Furnish and install 24 inch (609.6 mm) wide aluminum valley flashing centered on valley and properly tape edges as indicated on Drawings.
 - 3. Furnish and install field formed prefinished aluminum flashing and counterflashing as indicated on the Drawings.

1.03 SECTION INCLUDES

- A. This Section includes requirements for supplying labor, materials, tools, and equipment to complete the Work as shown on the Drawings Architectural Division as specified herein including, but not limited to, the following:
 - 1. Adhesive/Primer
 - 2. Self-Adhered Water Resistive Air Barrier
 - 3. Air Barrier
 - 4. Sealant
- B. Fabricated sheet metal items, including flashings, counterflashings, gutters, and downspouts.
- C. Sealants for joints within sheet metal fabrications.

1.04 RELATED REQUIREMENTS

- A. Section 07 71 23 - Manufactured Gutters and Downspouts.

1.05 REFERENCE STANDARDS

- A. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.
- B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018 (Reapproved 2024).
- C. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2024).
- D. CDA A4050 - Copper in Architecture - Handbook; Current Edition.
- E. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.07 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Metal Flashing and Trim:
 - 1. Americlad: www.americlad.com/
 - 2. Petersen Aluminum Corporation: www.pac-clad.com/.
 - 3. Tamlyn: www.tamlyn.com/.
 - 4. Approved equal.

2.02 PREFINISHED ALUMINUM SHEETS

- A. Description: Factory-applied topcoat systems applied to aluminum flat sheet substrates prior to fabrication by coil coating; topcoat systems consist of primers and organic topcoats on exposed side and backing coats on unexposed side.
- B. Aluminum Sheet Substrates: ASTM B209/B209M, alloy and temper as recommended by manufacturer for application.
- C. Application: Valley Flashing.
 - 1. Drawing Detail: As indicated on drawings.
 - 2. Base Metal Thickness: 0.040 inch (1.0 mm), minimum.
 - 3. Coating System: High-performance organic coating system.
 - 4. Color: To match asphalt shingle color.
- D. Application: Drip Edge Trim.
 - 1. Drawing Detail: As indicated on drawings.
 - 2. Base Metal Thickness: 0.040 inch (1.0 mm), minimum.
 - 3. Coating System: High-performance organic coating system.
 - 4. Color: White.

2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18-inch (450 mm) long legs; seam for rigidity, seal with sealant.
- F. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing gravel. Return and brake edges.

2.04 GUTTERS AND DOWNSPOUTS

- A. See Section 07 71 23 for manufactured gutters and downspouts.
- B. Seal metal joints.

2.05 FLASHING

- A. Flashing Panels for Exterior Wall Penetrations: Premanufactured components and accessories as required to preserve integrity of building envelope; suitable for conduits and facade materials to be installed.

2.06 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Primer Type: Zinc chromate.
- C. Concealed Sealants: Non-curing butyl sealant.
- D. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- E. Asphalt Roof Cement: ASTM D4586/D4586M, Type I, asbestos-free.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch (0.38 mm).

3.03 INSTALLATION

- A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.
- B. Apply plastic cement compound between metal flashings and felt flashings.
- C. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Seal metal joints watertight.
- E. Secure gutters and downspouts in place with concealed fasteners.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION 07 62 00

**SECTION 07 71 23
MANUFACTURED GUTTERS AND DOWNSPOUTS**

PART 1 GENERAL

1.01 GENERAL PROVISIONS

- A. The BIDDING REQUIREMENTS, CONTRACT FORMS, and CONTRACT CONDITIONS as listed in the Table of Contents, and applicable parts of Division 1 – GENERAL REQUIREMENTS, shall be included in and made a part of this section.
- B. Examine all other Sections of the Specification for requirements which affect Work of this Section whether or not such Work is specifically mentioned in this Section.
- C. Coordinate Work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under Contract.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Furnish and install pre-finished manufactured aluminum gutters, downspouts and all associated accessories.
 - 2. Furnish and install concrete splash pads

1.03 SECTION INCLUDES

- A. Pre-finished aluminum gutters and downspouts.
- B. Precast concrete splash pads.

1.04 RELATED REQUIREMENTS

- A. Section 07 62 00 - Sheet Metal Flashing and Trim.

1.05 REFERENCE STANDARDS

- A. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on prefabricated components.
- C. Shop Drawings: Indicate locations, configurations, jointing methods, fastening methods, locations, and installation details.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.
- B. Prevent contact with materials that could cause discoloration, staining, or damage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Gutters and Downspouts:
 - 1. ATAS International, Inc; Commercial Gutters: www.atas.com/.
 - 2. Drexel Metals Inc: www.drexmet.com/.
 - 3. SAF Perimeter Systems, a division of Southern Aluminum Finishing Company, Inc: www.saf.com/persys/.
 - 4. Approved equal.
- B. Aluminum Leaf Guards:

1. ATAS International, Inc: www.atas.com/.
2. HydroShield Building Products; EZ Smooth Flow: www.hydroshieldbuildingproducts.com/.
3. FlexxPoint; Flow Guard Gutter Guards: www.flexxpointdirect.com/.
4. SAF Perimeter Systems, a division of Southern Aluminum Finishing Company, Inc: www.saf.com/persys/.
5. Approved equal.

2.02 MATERIALS

- A. Pre-Finished Aluminum Sheet: ASTM B209/B209M, ___ alloy, ___ temper; 0.040 inch (1.016 mm) thick.
1. Finish: Plain, shop pre-coated with polyvinylidene fluoride (PVDF) coating.
 2. Color: As selected from manufacturer's standard colors by MHA.

2.03 COMPONENTS

- A. Gutters: Profile as indicated.
- B. Downspouts: CDA rectangular profile.
- C. Anchors and Supports: Profiled to suit gutters and downspouts.
1. Anchoring Devices: In accordance with CDA requirements.
 2. Gutter Supports: Brackets.
 3. Downspout Supports: Brackets.
- D. Fasteners: Galvanized steel, with soft neoprene washers.

2.04 FABRICATION

- A. Form gutters and downspouts of profiles and size indicated.
- B. Fabricate with required connection pieces.
- C. Form sections square, true, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- D. Hem exposed edges of metal.
- E. Fabricate gutter and downspout accessories; seal watertight.

2.05 ACCESSORIES

- A. Splash Pads: Precast concrete type, profiles size(s) as indicated; minimum 3,000 psi (21 MPa) compressive strength at 28 days, with minimum 5 percent air entrainment.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that surfaces are ready to receive work.

3.02 PREPARATION

- A. Paint concealed sheet metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch (0.381 mm).

3.03 INSTALLATION

- A. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.
- B. Slope gutters 1/8 inch per foot (0.003 mm/m) .
- C. Set splash pads under downspouts. Secure in place with _____ .

END OF SECTION 07 71 23