

**PORT OF COUPEVILLE
COUPEVILLE WHARF BUILDING EMERGENCY REPAIRS**

PROJECT MANUAL

RMC Architects, PLLC
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Bellingham, WA 98225

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RMC Project #2238

February 2023

Set No. _____

SECTION 00 00 02 - PROJECT TEAM LIST

Client	Port of Coupeville PO Box 128 Greenbank, WA 98253-0130 360-222-3688 360-222-3051	Chris Michalopoulos Executive Director executivedirector@portofcoupeville.org Mary Hogan Project Manager Projectmanager@portofcoupeville.org Cell: 310-245-1317
Architect	RMC Architects, pllc 1223 Railroad Avenue Bellingham, WA 98225 360-676-7733	Brad Cornwell, Principal brad.c@rmcarchitects.com Lexie Costic lexie.c@rmcarchitects.com
Structural	Swenson Say Faget 2124 Third Avenue, Suite 100 Seattle, WA 98121 206-443-6212	Dan Say dsay@ssfengineers.com Greg Juttner gjuttner@ssfengineers.com
Cost Estimating	DCW Cost Management 415 1 st Ave N #9671 Seattle, WA 98109 206-259-2990	Trish Drew trish@dcwcost.com

END OF SECTION

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Specification Sections are listed. The Contractors shall check their copies of the Specifications with the Table of Contents to be sure they are complete.

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SECTION 00 00 04 – DRAWING INDEX

PART 1 - GENERAL

1.1 LIST OF DRAWINGS

The Drawings listed below are hereby made part of this contract.

GENERAL

G001 COVER SHEET

ARCHITECTURAL

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END OF SECTION

SECTION 00 11 00 – BID ADVERTISEMENT

The Port of Coupeville is seeking bids for the following project:
COUPEVILLE WHARF BUILDING EMERGENCY REPAIRS

SCOPE: The project involves replacement of the existing asphalt shingle roofing and underlayment with new metal shingle roofing panels and underlayment, replacement of gutters and downspouts, and targeted structural stabilization improvements to the existing roof framing.

PROJECT MANAGER: Chris Michalopoulos, Exec. Director (360) 222-3688
Mary Hogan, Project Manager (360) 245-1317

ESTIMATED BASE BID COST RANGE: \$ 390,000 to \$ 430,000

SUBMITTAL TIME/DATE/LOCATION: Prior to 3:00 PM, Thursday, March 9, 2023
Mark Submittals: Port of Coupeville
Attn.: Chris Michalopoulos, Executive Director
Mary Hogan, Project Manager

Mail to: P.O Box 128, Greenbank, WA 98253-0130

OR Hand Deliver: **March 9, 2023 between 1PM & 3PM only to:**
765 Wonn Road, Suite E, Jim Davis House,
Greenbank, WA 98253
[White House at far back & on the right of parking lot]

PRE-BID WALK-THROUGH: Scheduled for 1PM, February 22, 2023 at
26 Front Street Coupeville, WA 98239

Plans and specifications may be viewed at the following plan center: Plans and specifications may be viewed at the following plan centers: Abadan Reprographics & Imaging, Spokane, WA; ARC Document Solutions, Seattle, WA; ARC Document Solutions, Tacoma, WA; Associated Builders & Contractors, Spokane, WA; Associated General Contractors, Boise, ID; Builder's Exchange of Washington, Everett, WA; Daily Journal of Commerce Plan Center, Portland, OR; Daily Journal of Commerce, Seattle, WA; Hermiston Plan Center, Hermiston, OR; Contractor Plan Center, Milwaukie, OR; Ridgeline Graphics (Wenatchee Plan Center), Wenatchee, WA; Spokane Regional Plan Center, Spokane, WA; Tri-City Construction Council, Kennewick, WA; Walla Walla Valley Plan Center, Walla Walla, WA; Weekly Construction Reporter, Bellingham, WA; Yakima Plan Center, Yakima, WA.

Please direct questions regarding this project to the office of the Consultant, RMC Architects, pllc, Attn: Lexie Costic, lexie.c@rmcarchitects.com 1223 Railroad Avenue, Bellingham, WA 98225, phone (360) 676-7733.

The State of Washington prevailing wage rates are applicable for this public works project located in Island County. Bidders are responsible to verify and use the most recent prevailing wage rates. The "Effective Date" for this project is the Bid Form due date above. The applicable prevailing wage rates may be found on the Department of Labor & Industries website located at <https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>.

The Owner reserves the right to accept or reject any or all bids and to waive informalities.

SECTION 00 21 00 — INSTRUCTIONS TO BIDDERS

1.1 BID SECURITY / GUARANTEE

- A. When the sum of the base bid plus all additive bid alternates is \$25,000 or less, bid security is not required.
- B. When the sum of the base bid plus all additive bid alternates is over \$25,000 a certified check, bank cashier's check or original bid bond, made payable to Port of Coupeville for an amount equal to at least five (5%) of the total bid, shall accompany each bid as evidence of good faith and as a guarantee that if awarded the contract, the bidder will execute the contract and give a 100% payment and performance bond. Owner reserves the right to hold the bid guarantees of all bidders until the successful bidder has entered into the contract and furnished the required bonds and insurance certificates, or for a period of 60 days, whichever is the shorter time. Bid deposits in cash will not be accepted. Bid deposit checks may be deposited by the Owner.

1.2 EXECUTION OF CONTRACT

- A. The successful bidder (for contracts in excess of \$100,000) will be required to execute said contract, and furnish a 100% payment and performance bond, and insurance certificate, satisfactory to the Owner, within ten (10) days after receiving from the Owner properly prepared contract documents. If the successful bidder, upon acceptance of its bid by Owner within the period specified for acceptance, fails to execute all Contract Documents or give a bond and insurance as required within the time specified, Owner may reject the bid. The bid guarantee may be retained by Owner as liquidated damages, not as a penalty.
- B. When the Contractor furnishes a 100% payment and performance bond, the Owner shall retain five percent (5%) of the contract amount for a period of forty-five (45) days after date of final acceptance or until receipt of all necessary releases from the Department of Revenue and the Department of Labor & Industries and settlement of any liens filed. The Contractor may submit a retainage bond, for all or any portion of the retained amount plus any increases due to changes, in a form acceptable to the Owner and from a bonding company meeting the standards established by the Owner. In turn, the Contractor shall accept like bonds from any Subcontractors or Suppliers from which the Contractor has retained funds.

1.3 BID SUMS

- A. The sum of the money shown on the bid is to cover all work included in base bid, together with any Addenda thereto, unit prices called for, or for any alternates called for, and shall include all items of labor, material, equipment, overhead and compensation, to complete all of the work under each particular heading.

1.4 TAXES

- A. The bid sum and any agreed variations thereof shall include all taxes imposed by law, but no State sales tax. Therefore, the bid sum should not include State sales tax. However, State sales tax will be paid to the Contractor by the Owner, and will be paid to the State by the Contractor in conformance with the law. Contractor shall furnish proof of payment of all taxes required by law.

1.5 EXAMINATION OF SITE AND CONDITIONS

- A. Bidder acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost. Failure to take this precaution will not release the successful bidder from entering into contracts nor excuse them from performing the work in strict accordance with the terms of the contract. Contractor shall employ, so far as possible, such methods and means in the carrying out of their work as will not cause any interruption or interference with any other Contract. No statement made by any officer, agent, or employee of the Owner or Architect in relation to the physical conditions pertaining to the site of the work will be binding on the Owner or Architect.
- B. Bidder acknowledges that it has satisfied itself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by Owner, as well as from the drawings and specifications made a part of these Contract Documents.
- C. Bidder acknowledges that adjoining areas will be conducting normal operations during the work. Bidder should anticipate pedestrian and traffic congestion, limited parking, and the requirement that the work be coordinated with ongoing operations.
- D. Bidder acknowledges that its bid is based upon a schedule and assumptions which incorporate these conditions.
- E. Owner assumes no responsibility for any conclusions or interpretations made by bidder based on the information made available by Owner. Should a bidder find discrepancies or omissions in the drawings or specifications, or should bidder be in doubt as to their meaning, bidder shall at once notify the Architect/Engineer. If appropriate, written instructions will be sent to all bidders by addenda. Questions received less than 7 days before the time of bid opening may not be answered. All addenda issued shall be incorporated into these Contract Documents.

1.6 PREPARATION OF BIDS

Bidder shall comply with the following instructions in preparing its bid.

- A. All Contractor firm information shall be typed or printed on the bid form provided to the General Contractor. The firm name must match the firm name on the bid guarantee.

Bids must be (1) submitted on the bid forms furnished to General Contractor or on copies of those forms, and (2) manually signed in ink. The person signing the bid must initial each page.

- B. If the Bid Form includes alternate bid items, failure to bid on the alternates shall disqualify the bid. If bidding on all alternate items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted. When bidding on alternates for which there is no charge, bidder shall write the words "No Charge" in the space provided on the Form of Proposal. Alternate bids will not be considered unless requested in the Form of Proposal.
- C. Public works projects in which trench excavation will exceed a depth of four (4) feet shall include adequate safety systems that meet the requirements of Chapter 49.17 RCW. The costs of trench safety systems shall be a separate item in the Form of Proposal. This bid item shall be part of the total base bid.
- D. Bidders shall acknowledge receipt of all addenda by identifying the Addendum number in the space provided in the Form of Proposal.
- E. Bidder shall include in the bid any & all Allowances provided in the Project Specifications. Owner will pay the difference if the actual cost exceeds the Allowance.

1.7 TIME, DATE AND LOCATION OF BID SUBMITTAL

- A. Bids will be received at the time and place as facilitated by the Port of Coupeville.

1.8 SUBMISSION OF BIDS

- A. Bids and bid modifications shall be submitted to the office specified in the advertisement for bids and (2) showing the project title, bid opening date and time, and the name and address of bidder.
- B. Bids shall include ALL required CDBG Attachments referenced in Division 00.
- C. Bids and bid modifications by email, facsimile, telephone, or orally will not be considered.
- D. People with disabilities who wish to request special accommodation, (e.g., sign language interpreters, Braille, etc.) need to contact the General Contractor/Owner ten (10) working days prior to the scheduled bid opening.

1.9 WITHDRAWAL OF BID

- A. At any time prior to the scheduled closing date and time for receipt of bids, any bidder may withdraw their bid, either personally, in writing, or by email or facsimile, in the manner set forth herein for modification of bid. If withdrawal is made personally, proper receipt shall be given.
- B. After the scheduled closing date and time for the receipt of bids, or before award of contract, no bidder will be permitted to withdraw their bid unless said award is delayed for a period exceeding sixty (60) days, or unless the bidder can demonstrate, to the

satisfaction of the owner, that the bid contained a significant error. The owner will require a copy of the original, signed and dated bid preparation sheets to be submitted with the bid. These will be used by the Owner to determine whether the bid contained a significant error. Any bidder claiming a significant error must notify the Owner in writing within 5 work days of bid opening.

C. The Owner will approve or disapprove the request for withdrawal of the bid in writing

1.10 BID EVALUATION

A. Bids which are incomplete, or which are conditioned in any way, or which contain erasures, alterations, or items not called for in the Form of Proposal, or which are not in conformity with the law or with these instructions, shall be rejected as nonresponsive if the irregularity is material and may be rejected as nonresponsive if the irregularity is not material.

B. Owner reserves the right to reject any or all bids and to waive any informalities or nonmaterial irregularities in the bids received.

C. If the bid includes a supplemental schedule of unit prices for labor and materials, or other items for the purpose of establishing a cost basis for unforeseen contract changes, Owner reserves the right to reject, without impairing the balance of the bid, any or all such predetermined unit prices in such supplement which the Owner may consider excessive or unreasonable.

D. The determination of the low responsive bid shall be made by Owner based upon any combination of the base bid and alternates which, in Owner's sole discretion, is in Owner's best interest considering price, schedule, and other factors. The numbering of the Alternates in the Form of Proposal bears no relationship to the order in which the Alternates may be selected by Owner.

E. The Owner may negotiate bid price adjustments with the low responsive bidder, including changes in the contract documents, to bring the bid within the available funding.

1.11 REJECTION OF BID

A. The Owner reserves the right to reject any and/or all bids. The Owner also reserves the right to waive any informalities or nonmaterial irregularities in the bids received. If any bidder has an interest in more than one bid, all bids in which such bidder is interested shall be rejected.

1.12 CONTRACT DOCUMENTS

A. The Contract Documents are defined and enumerated in The Owner-Architect Agreement and General Conditions A201 with associated Supplemental Conditions are part of the Contract. The successful General Contractor and Subcontractors are required to pay for printing of all sets of drawings and specifications needed at any tier for the required work on this project.

1.13 WAGE RATES

- A. The Contractor shall pay prevailing wage rates as outlined and required in Section 00 66 00 – Special Conditions.

1.14 SUBSTITUTE PRODUCTS APPROVAL

- A. See Section 01 61 00 for substitution requirements if requested during bidding.

1.15 SPECIAL REQUIREMENTS FOR MINORITY AND WOMEN'S BUSINESS ENTERPRISES (WMBE) PARTICIPATION

A. LIST OF CERTIFIED MWBE FIRMS

1. A list of certified Minority and Women's Business Enterprises (MWBE) may be obtained from the Office of Minority and Women's Business Enterprises at <http://omwbe.wa.gov/directory-of-certified-firms/>.

B. MINORITY AND WOMEN BUSINESS ENTERPRISES (MWBE) REQUIREMENTS

1. The voluntary goals/participation requirements for this bid are
- | | |
|--------------------------------------|-------------|
| Female Participation in each Trade | <u>6.9%</u> |
| Minority Participation in each Trade | <u>6.1%</u> |

End of Section 00 21 00

AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

OWNER:
(Name, legal status and address)

BOND AMOUNT:

PROJECT:
(Name, location or address, and Project number, if any)

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this _____ day of _____

_____	_____	_____
<i>(Witness)</i>	<i>(Contractor as Principal)</i>	<i>(Seal)</i>
_____	_____	_____
	<i>(Title)</i>	
_____	_____	_____
<i>(Witness)</i>	<i>(Surety)</i>	<i>(Seal)</i>
_____	_____	_____
	<i>(Title)</i>	

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

SECTION 00 70 00 – PUBLIC WORK CONTRACT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes contract documents that may be used as standard form of agreement between Owner and Contractor.
 - 1. Port – Contractor Contract
 - 2. General Conditions
 - 3. G702 – Application and Certificate for Payment (or equivalent)
 - 4. G703 – Continuation Sheet (or equivalent)
 - 5. G707 – Consent of Surety to Final Payment
 - 6. G710 – Architects Supplemental Instructions

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

PUBLIC WORKS CONTRACT

(Short Form)

THIS PUBLIC WORKS CONTRACT (the "Contract") is entered into this ___ day of _____, 2020, by and between **PORT OF COUPEVILLE** (the "Owner"), and _____ (the "Contractor").

CONTRACTOR

Contractor's Name	
Contractor's Authorized Representative	
Contractor's Address	
Telephone Number	
Email address	
Washington Contractor Registration Number	
Washington UBI Number	
Federal Identification Number	

In consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. **Work.** For and in consideration of the Contract Sum noted below, subject to the terms and conditions contained herein, the attachments hereto, and the documents referenced herein, Contractor agrees to perform the following work (the "Work") in a timely and workmanlike manner, including supplying all necessary supervision, materials, equipment, supplies, and skilled and sufficient workforce and to fully, completely, and faithfully comply with all the terms and conditions of this Contract:

(Insert and list above a precise description of the Work covered by this Contract, referring to the numbers of drawings and pages and/or sections of specifications including any applicable addenda and/or alternates, etc.)

2. **Contract Documents.** The Contract Documents include:
- i. this Contract with all the General Conditions and Exhibits attached hereto, which are incorporated herein by this reference;
 - ii. the Invitation to Bid and all appendices, attachments, conditions, and/or specifications attached thereto (the "Proposal Documents"), including, without limitation, all drawings and specifications contained therein;
 - iii. any additional drawings and/or specifications provided by Owner;
 - iv. any Change Orders executed by and between Owner and Contractor after execution of this Contract; and
 - v. Contractor's Proposal.

Any conflicting provisions in the Contract Documents shall be interpreted harmoniously, if possible, or, in the event they cannot be reconciled, they shall be interpreted in the manner most favorable to Owner, and the interpretation shall be governed in the order listed above.

3. **Contract Sum.** Owner shall pay Contractor the fixed price of _____, plus Washington State sales tax, for all Work completed in conformance with this Contract and the Contract Documents.

4. **Contract Time.** The Work shall commence within ___ days after Owner issues a Notice to Proceed, and the Work shall receive substantial completion no later than ___ days after Contractor's receipt of the Notice to Proceed (the "Contract Time"). The parties agree that time is of the essence in this Contract and Owner will suffer damage and be put to additional expenses in the event that Contractor does not have the Work substantially completed by the end of the Contract Time.

(CHECK IF APPLICABLE) Because it is difficult to accurately compute the amount of such costs and damages, Contractor hereby covenants and agrees to pay to Owner liquidated damages of \$_____ per day for each day that expires after the time set forth above, which Contractor and Owner agree reasonably approximates Owner's actual damages.

5. **Retainage.** Owner will retain five percent (5%) of the total project billings until no later than sixty (60) calendar days after the Completion Date in compliance with RCW 60.28.011. The Completion Date is the day all the Work specified is complete and all obligations of Contractor are fulfilled by Contractor. All documentation required by the Contract and required by law must be furnished by Contractor before establishment of this date. ALL RETAINAGE (subject to allowance for claims) WILL BE HELD UNTIL THE FOLLOWING CONDITIONS ARE MET:

- i. Receipt of the Department of Labor and Industries Affidavit of Wages Paid.
- ii. Receipt of certificate of payment of excise taxes from the Department of Revenue.
- iii. Certificate from Employment Security Department.

6. **Payment and Performance Bond.** Contractor shall secure from a surety company acceptable to Owner, admitted and licensed in the State of Washington, and shall pay for a surety bond in the full amount of the Contract Sum, plus sales tax, pursuant to RCW 39.08 (the "Contractor's Bond"). Within five (5) days of entering into this Contract, Contractor shall deliver two (2) copies of the bond to Owner. OWNER MAY WITHHOLD PAYMENT TO

CONTRACTOR UNTIL SUCH SURETY BOND IS RECEIVED.

7. **Prevailing Wage.** Contractor and its subcontractors shall pay prevailing wages as required and shall comply with RCW 39.12, RCW 49.28, Chapter 296-127 WAC, and all other applicable laws and regulations. A Statement of Intent to Pay Prevailing Wages shall be signed and filed with the Department of Labor and Industries from Contractor and its subcontractors before Contractor performs any Work. Each Statement of Intent to Pay Prevailing Wages must be approved by the industrial statistician of the department of labor and industries before it is submitted to Owner. Each application for payment submitted by Contractor must state that the prevailing wages have been paid in accordance with the Statements of Intent to Pay Prevailing Wages. Following the final acceptance of the Work, Contractor and its subcontractor shall file an Affidavit of Wages Paid before the retainage is released to the Contractor.

8. **Representation.** Owner and Contractor represent and warrant that the following statements are true and accurate:

THIS CONTRACT CONTAINS AN INDEMNIFICATION OF CERTAIN LIABILITIES AND A WAIVER OF CONTRACTOR'S TITLE 51 RCW IMMUNITY.

IN WITNESS WHEREOF, Owner and Contractor have executed this Contract, effective the date of the last authorized signature below.

Dated this _____ day of _____.

[OWNER]

[CONTRACTOR]

By: _____

By: _____

Its: _____

Its: _____

GENERAL CONDITIONS

1. **Payment.** Contractor shall receive progress payments on a monthly basis for Work approved by Owner and all materials to be used on the Work which have been stored on site by Contractor. Contractor's monthly pay applications shall be submitted to the office of Owner on the twenty-fifth (25th) of the month for work projected through month end. Pay applications that reach the office of Owner after the twenty-fifth (25th) of the month will not be processed until the following month. Applications for payment submitted by Contractor shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the application for payment. Each application for payment shall include a clear description of all Contractor's work for that month with the progress projected through the end of the month. Conditional and Unconditional Lien Waivers for Contractor and all its subcontractors and suppliers must be signed and submitted to Owner with each application for payment.

Contractor shall be paid for Work completed to date from Owner's last progress billing date, less any offsets, deductions, and/or disputed amounts by the tenth (10th) day of the following month.

Contractor may invoice for materials so delivered and receive payment as outlined above; provided, however, that such stored materials shall be at the risk of Contractor until acceptance of the Work. Contractor acknowledges that all payments accepted by it or which are otherwise due under this Contract shall constitute a trust fund in favor of laborers, materialmen, governmental authorities, and all others who are legally entitled to claim a lien on the premises covered by this Contract or otherwise file a claim against any retainage or payment bond. Contractor shall pay its own subcontractors, suppliers, and all others who are legally entitled to claim a lien on the premises covered by this Contract or otherwise file a claim against any retainage or payment bond, all sums owed them within ten (10) days of receipt of payment from or on behalf of Owner.

For work Contractor performs on a lump sum basis, as a condition precedent to payment, Contractor shall submit a schedule of values that is acceptable to Owner and Owner allocating the entire Contract Price to the various portions of the Work, and which shall be prepared in such form and supported by reasonable evidence to substantiate the values. Contractor shall bill on the percent of completion basis unless otherwise specified in this Contract. All changes shall be billed as separate line items. Contractor's failure to submit an acceptable schedule of values entitles Owner to withhold all monies demanded by Contractor without incurring any liability to Contractor.

2. **Insurance.** Contractor shall obtain and keep in force during the term of this Contract and for six (6) years following final acceptance of the Work by Owner, commercial general liability insurance and such other insurance specified in, and with dollar limits and coverage not less than the types and amounts of coverage as follows:

	Per Occurrence Coverage	Aggregate Coverage
General Commercial Liability	\$1,000,000	\$2,000,000
Automobile Liability	\$1,000,000	N/A

Such insurance shall be "occurrence-based" and shall include contractual liability coverage applicable to the indemnity provisions of this Contract and "completed operations" coverage. Contractor shall furnish to Owner evidence of this insurance including the provision regarding notice of cancellation or reduction in coverage. Such evidence of insurance shall be in the form

of an Insurance Certificate issued by an insurer satisfactory to Owner and shall provide for not less than forty-five (45) days' prior written notice to Owner of cancellation or reduction in coverage.

Contractor shall provide insurance that (1) names Owner as additional insured for liability arising out of Contractor's work, including completed operations losses, without qualification, limitation, or reservation; (2) is endorsed to be primary and non-contributory with any insurance maintained by Owner; (3) does not contain a "cross liability" or similar exclusion that would bar coverage for claims between or among insureds; (4) contains a severability of interest provision in favor of Owner; and (5) contains a waiver of subrogation against Owner. Before commencing work, Contractor shall provide a copy of the additional insured endorsement to Owner as evidence of additional insured status.

Owner makes no representations that the required minimum amount of insurance is adequate to protect Contractor. The procuring and/or carrying of insurance shall not limit Contractor's obligation or liability pursuant to this Contract or as a matter of law.

If Contractor maintains higher insurance limits than the minimums required herein, Owner shall be insured for the full available limits of Commercial General and/or Excess or Umbrella liability maintained by Contractor, irrespective of whether such limits maintained by Contractor are greater than those required by this Agreement or whether any certificate of insurance furnished to Owner evidences limits of liability lower than those maintained by Contractor.

3. Warranty. All workmanship and materials shall be performance guaranteed. If any findings or test studies reveal improper materials, defective components, or inadequate performance as outlined in the Contract Documents, Contractor shall remove and replace the materials in question.

Contractor warrants to Owner that materials and equipment furnished under the Contract will be of good quality and new, unless otherwise required or permitted by the Contract, that the Work of this Contract will be performed in a workmanlike manner and free from defects not inherent in the quality required or permitted, will comply with all applicable codes and regulations, will be consistent with industry standards, and that the Work will conform to the requirements of the Contract. This warranty shall be in addition to and not in limitation of any other warranty or remedy required by law or the Contract. This warranty shall extend for the longer of the period of (i) the warranty normally given by Contractor for the Work in its ordinary course of business, (ii) the warranty period set forth in the Quote or other documents sent to Owner, or (iii) one (1) year from the date of substantial completion of the Work or occupancy of the Work by Owner, whichever occurs first. The warranty shall not apply to any damage or loss of the Work occasioned by Owner's failure to perform ordinary and reasonable maintenance during the warranty period or any written notice of defects received after the one (1) year period. Owner shall promptly notify Contractor in writing of all warranty claims and allow Contractor reasonable access to the Work to correct or repair the Work.

4. Claims. As a condition precedent to any right to recover for any instances of interruption, disruption, extra work, additional work, changed work, delay, hindrance, and/or efficiency loss of any nature whatsoever in the Work (collectively, "Impact"), believed by Contractor to be caused by the acts or omissions of Owner, Architect/Engineer, or the employees or agents of any of them, Contractor shall provide written notice to Owner within five (5) days after occurrence of the Impact. Such written notice shall identify the cause of the Impact the party Contractor believes is responsible for the Impact, and a rough order of

magnitude as to the extra cost and/or time resulting from the Impact. In the event Contractor believes it is entitled to receive compensation due to damages from such an Impact and/or is entitled to an extension of time, its Statement of Claim (setting forth in detail, at a minimum, the facts and contract terms supporting Contractor's alleged entitlement and quantum basis for Contractor's claim with supporting data and/or the facts and contract terms to support an extension of time) shall be delivered to Owner within an additional fifteen (15) days after the Incident. **FAILURE OF CONTRACTOR TO PROVIDE TIMELY WRITTEN NOTICE, AS PROVIDED IN THIS PARAGRAPH, AND/OR FAILURE BY CONTRACTOR TO TIMELY PROVIDE ITS STATEMENT OF CLAIM FOR AN INCREASE IN THE CONTRACT AMOUNT, OR FOR AN EXTENSION OF TIME, SHALL RESULT IN A WAIVER OF CONTRACTOR'S RIGHT TO RECOVER ANY ADDITIONAL COST OR TIME RESULTING FROM THE IMPACT.** Owner does not waive the requirement for timely written notice and/or timely written submission of the Statement of Claim unless Owner's waiver is unequivocal, explicit, in writing, and signed by Owner.

5. Change Orders. Owner may, without invalidating the Contract, order in writing extra Work or make changes to the Work by altering, adding to, or deducting from the Work, and the Contract Sum and Contract Time shall be adjusted accordingly. All such Work shall be executed under the conditions hereof, and of the Contract Documents, except that any claims for extension of time caused thereby must be agreed upon at the time of ordering such change. Contractor shall make no claims for extras unless the same shall be agreed upon in writing by Owner and signed by Owner prior to the performance of any such extra Work. No change order is valid and binding on Owner unless and until it has been signed by Owner. **NO ORAL INSTRUCTIONS AUTHORIZING A CHANGE IN THE WORK, ADJUSTMENT IN THE CONTRACT SUM, MAXIMUM CONTRACT SUM, OR ADJUSTMENT IN THE CONTRACT TIME SHALL BE VALID OR BINDING ON OWNER.** In case of any dispute over adjustment of the Contract Sum or time, Contractor shall proceed with the Work and the dispute shall be resolved in accordance with the procedures set forth in the Contract. Contractor acknowledges that, unless expressly stated otherwise within a written change order, any change in the Contract Sum and/or time effected through a written change order shall constitute full accord and satisfaction for all costs incurred, labor performed, material and equipment furnished, and any delay, acceleration, or loss of efficiency associated with the change in the Work.

6. Indemnification. To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless Owner and its officials, agents, and employees from and against claims, damages, losses, and expenses, including, but not limited to attorneys' and experts' fees, (collectively, a "claim") arising out of or resulting from performance of the Work under this Contract. Such obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this paragraph.

Contractor's duty to indemnify Owner shall not apply to liability for damages arising out of claims caused by or resulting in whole from the negligence of Owner or its officials, agents, or employees. Contractor's duty to indemnify Owner for liability for damages arising out of claims caused by or resulting from the concurrent negligence of (a) Owner, its agents, or employees; and (b) Contractor, its agents, employees, and lower-tier subcontractors or suppliers of any tier shall apply only to the extent of negligence of Contractor, its agents, employees, and lower-tier subcontractors or supplier of any tier.

CONTRACTOR SPECIFICALLY AND EXPRESSLY WAIVES ANY IMMUNITY THAT MAY BE GRANTED IT UNDER THE WASHINGTON STATE INDUSTRIAL INSURANCE ACT, TITLE

51 RCW. FURTHER, THE INDEMNIFICATION OBLIGATION UNDER THIS CONTRACT SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE TO OR FOR ANY THIRD PARTY UNDER WORKERS' COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEE BENEFITS ACTS, PROVIDED CONTRACTOR'S WAIVER OF IMMUNITY BY THE PROVISIONS OF THIS PARAGRAPH EXTENDS ONLY TO CLAIMS AGAINST CONTRACTOR BY OWNER AND DOES NOT INCLUDE, OR EXTEND TO, ANY CLAIMS BY CONTRACTOR'S EMPLOYEES DIRECTLY AGAINST CONTRACTOR.

Contractor agrees that its defense and indemnity obligations to Owner under this Contract survive any limitation imposed by any statute of repose or limitation including but not limited to RCW 4.16.300, 4.16.310, or 4.16.326, and Contractor hereby waives any and all defenses under any statute of repose or limitations. Contractor further agrees that any statute of limitation on a claim by Owner pursuant to this provision shall not begin to run until Owner discovers that Contract has breached either its duty to defend or its duty to indemnify, whichever occurs first.

7. Safety. Contractor and its subcontractors shall take all reasonably necessary safety precautions pertaining to its Work and its work performance, including compliance with applicable laws, ordinances, regulations, and orders issued by a public authority, whether federal, state, local, or other, OSHA/DOSH (Washington State Division of Safety and Health), and any safety measures requested by Owner. Contractor shall at all times be responsible for providing a safe jobsite and be responsible for the Work performance and safety of all employees, personnel, equipment, and materials within Contractor's or its subcontractors' care, custody, or control. Contractor and its subcontractors shall furnish all required safety equipment for its Work and ensure all of their employees and subcontractors' employees have and wear personal protective equipment in compliance with applicable OSHA/DOSH requirements.

Contractor certifies that it and its subcontractors maintain a written Accident Prevention Plan and a jobsite-specific safety plan in compliance with applicable OSHA/DOSH regulations. The Accident Prevention Plan should address Contractor's role and responsibilities pertaining to safety on the jobsite, training, and corrective action, and be tailored to safety and health requirements for the Work involved.

8. Housekeeping. Contractor shall regularly remove all refuse, waste, and debris produced by its operation. Refuse shall not be permitted to accumulate to the extent that it interferes with free access to the jobsite, creates a safety hazard, or otherwise violates the Contract Documents. Avoidance of safety hazards through good housekeeping is an important part of Contractor's obligations. In the event Contractor or its subcontractor fails or refuses to meet these requirements, Owner may remove refuse and charge all costs to the Contract, provided that Contractor has received twenty-four (24) hours' prior written notice. In the event Owner determines emergency conditions exist, Owner may proceed as above without prior notice.

9. Termination. Upon three (3) calendar days' written notice to Contractor, Owner may terminate this Contract in whole or in part for Owner's convenience and/or at its option. Contractor's remedy for such convenience or optional termination is limited to the following: (a) payment pursuant to the terms of this Contract for all Work properly performed prior to termination; (b) partial payment for lump sum items of Work on the basis of the percent complete of such items at the time of termination; and (c) Contractor's reasonable close-out

costs. In no event shall Contractor be entitled to any compensation for loss of anticipated profits or unallocated overhead on work not performed.

If Contractor refuses or fails to supply enough properly-skilled workers or materials to maintain the schedule of Work; refuses or fails to make prompt payment to subcontractors or suppliers of labor, materials, or services; fails to correct, replace, or re-execute faulty or defective Work done or materials furnished; disregards the law, ordinances, rules, regulations, or orders of any public authority having jurisdiction; files for bankruptcy; or breaches this Contract and fails to correct the default and maintain the corrected condition within not less than three (3) working days of receipt of written notice of the default, then Owner, without prejudice to any rights or remedies otherwise available to it, shall have the right to any or all of the following remedies:

- a. Supply such numbers of workers and quantity of materials, equipment, and other facilities as Owner deems necessary for the completion of the Work, or any part thereof, which Contractor has failed to complete or perform after the above notice, and to charge the cost thereof to Contractor who shall be liable for the payment of same including reasonable overhead and profit.
- b. Contract with one or more additional contractors to perform such part of the Work as Owner shall determine to provide prompt completion of the Work and charge the cost thereof to Contractor.
- c. Withhold payment of any monies due or to become due Contractor pending corrective action to the extent required and to the satisfaction of Owner.
- d. Terminate this Contract, use any materials, implements, equipment, appliances, or tools furnished or belonging to Contractor to complete the Work and furnish those materials, equipment, and/or employ such workers as Owner deems necessary to maintain the orderly progress of the Work. Contractor's equipment shall only be utilized when equivalent equipment is not locally available to lease and will not be supplied by a substitute contractor and when procurement of substitute equipment will not delay completion of the Work. All of the costs, including reasonable overhead, profit and attorneys' fees, incurred by Owner in arranging to and performing the Work shall be charged to Contractor and Owner shall have the right to deduct such expenses from monies due or to become due Contractor. Contractor shall be liable for the payment of any expenses incurred in excess of the unpaid balance of the Contract Price.

In the event Owner terminates Contractor for Default and it is later determined by the dispute resolution proceedings set forth herein that Contractor was not in default, then such termination shall be automatically deemed a termination for convenience and Contractor shall be compensated accordingly.

In the event of any emergency, Owner may proceed as above without notice.

If Contractor files or otherwise becomes subject to bankruptcy proceedings, Owner and Contractor agree that any delay attendant to the assumption or rejection of Contract by the bankruptcy Trustee or a debtor-in-possession will be prejudicial to Owner. Consequently, Contractor, to minimize delay to the Work and to mitigate damages and/or other prejudice suffered by Owner, hereby stipulates to a notice period of ten (10) calendar days for Owner's motion to require Trustee or debtor-in-possession to assume or reject Contract.

10. Permits. Contractor shall obtain and pay for all required permits. Contractor is to provide and pay for any required plan development and engineering, etc. required to obtain the needed permits. Contractor shall pay for any and all inspections necessary for execution and

completion of the Work.

11. Compliance with Codes and Regulations. Contractor shall comply with all applicable statutes in performing the Work, including, but not limited to, all federal, state, and local laws, regulations, codes, and standards that are applicable at the time Contractor performs Work.

12. Taxes and Temporary Functions. Contractor shall pay any and all federal, state, and municipal taxes, including sales taxes, if any, for which Contractor may be liable in carrying out this Contract. Contractor shall be responsible for all temporary functions associated with its Work, including, but not limited to, lighting, wiring, protection, hoisting, scaffolding, rigging, flagmen, drinking water, storage, ventilation, and heat.

13. Dispute Resolution. At Owner's sole option, all claims, disputes, and other matters in question between Owner and Contractor arising out of or relating to this Contract, the breach thereof, or Work thereunder, shall be decided by arbitration conducted in accordance with the Construction Industry Arbitration Rules of the AAA then governing, or by an arbitrator mutually agreed upon by the parties. If Owner elects to arbitrate any such dispute, Owner and Contractor shall be bound by any findings and award of such arbitration finally and without recourse to any court of law other than for the enforcement of the arbitrator's decision. As between the parties to this Contract, the substantially prevailing party in any arbitration shall be entitled to an award of its attorneys' fees, costs and expert fees incurred. Owner and Contractor expressly grant the arbitrator the authority to award attorneys' fees and costs.

If Owner does not select Arbitration as the means of dispute resolution, all other claims, disputes and other matters in question between Owner and Contractor arising out of or relating to this Contract, the breach thereof, or work there under, shall be decided by an action filed exclusively in the Superior Court of the County in which the Project is located. The parties irrevocably waive their right to federal court jurisdiction and their right to a trial by jury. The substantially prevailing party in any such litigation shall be entitled to an award of its attorneys' fees and costs.

No claim, dispute, or controversy shall interfere with the progress and performance of the Work and, unless otherwise agreed in writing, Contractor shall carry on the Work and maintain the construction schedule as directed by Owner pending resolution of any dispute, including arbitration or litigation, and, if so, Owner shall continue to make payment of undisputed amounts due to Contractor in accordance with this Contract.

14. Non-Discrimination. In connection with the performance of this Contract, Contractor shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, sex, sexual orientation, national origin, age, marital status, genetic information, honorably discharged veteran or military status, presence of a sensory, mental or physical disability, or use of a trained dog guide or service animal. Contractor shall take affirmative action to ensure that applicants are employed and the employees are treated during employment without regard to their race, color, creed, religion, sex, sexual orientation, national origin, age, marital status, genetic information, honorably discharged veteran or military status, presence of a sensory, mental or physical disability, use of a trained dog guide or service animal or any other protected class. In the event that Contractor violates this provision, Owner may terminate this Contract immediately.

15. Assignment. Contractor shall not assign this contract nor any part thereof, nor any monies due or to become due thereunder without the prior written approval of Owner.

Contractor shall not sublet any part of this contract without first having obtained the written consent of Owner to do so. In the case that such consent is given, it shall in no way release Contractor from any responsibility, but Contractor shall be held in all respects accountable for the same as if no consent had been given. Contractor will be required to give personal attention to the work which is sublet.

16. Waiver. No failure by Owner to insist upon the strict performance of any covenant, duty, contract, term, or condition of this Contract or to exercise any right or remedy consequent upon a breach thereof, shall constitute a waiver of any such breach or any other covenant, duty, contract, term, or condition. Any waiver by Owner must be expressly made in writing and signed by Owner.

17. Severability and Survival. In case any one or more of the provisions contained in this Contract shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision hereof, and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein. All covenants, promises, and performance which are not fully performed as of the date of termination shall survive termination as binding obligations.

18. Neutral Authorship. Each of the provisions of this Contract has been reviewed and negotiated, and represents the combined work product of all parties hereto. No presumption or other rules of construction which would interpret the provisions of this Contract, in favor of or against the party preparing the same, shall be applicable in connection with the construction or interpretation of any of the provisions of this Contract.

19. Entire Contract. This Contract contains all terms and conditions agreed by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind any of the parties hereto. No modification, termination, or amendment of this Contract may be made except by written Contract signed by all parties.



AIA Document G702[®] - 1992

Application and Certificate for Payment

TO OWNER: Port of Coupeville
PO Box 128
Greenbank, WA 98253-0130

PROJECT: Coupeville Wharf Emergency Repairs

APPLICATION NO: 001

PERIOD TO:

CONTRACTOR: To Be Determined

VIA ARCHITECT: RMC Architects, PLLC
1223 Railroad Avenue
Bellingham, WA 98225

CONTRACT FOR: General Construction

CONTRACT DATE: / /

PROJECT NOS: / /

Distribution to:
OWNER: ARCHITECT:
CONTRACTOR: FIELD:
OTHER:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
AIA Document G703[®], Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM \$0.00
2. NET CHANGE BY CHANGE ORDERS \$0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2) \$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$0.00
5. RETAINAGE:
 - a. 0 % of Completed Work (Column D + E on G703) \$0.00
 - b. 0 % of Stored Material (Column F on G703) \$0.00

Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$0.00

6. TOTAL EARNED LESS RETAINAGE \$0.00
(Line 4 Less Line 5 Total)
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$0.00
(Line 6 from prior Certificate)

8. CURRENT PAYMENT DUE \$0.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6) \$0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00

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

CONTRACTOR:

By: _____ Date: _____
State of: _____
County of: _____
Subscribed and sworn to before me this _____ day of _____
Notary Public: _____
My Commission expires: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

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

AMOUNT CERTIFIED \$0.00
(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: _____ Date: _____

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

AIA Document G703® - 1992

Continuation Sheet

AIA Document G702®, Application and Certificate for Payment, or G732™, Application and Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached. Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:

APPLICATION DATE:

PERIOD TO:

ARCHITECT'S PROJECT NO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		E THIS PERIOD	F MATERIALS PRESENTLY STORED (Not in D or E)	G TOTAL COMPLETED AND STORED TO DATE (D+E+F)	H BALANCE TO FINISH (C-G)	I RETAINAGE (If variable rate)
			FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD					
	GRAND TOTAL								

DRAFT AIA® Document G707™ - 1994

Consent Of Surety to Final Payment

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR:

TO OWNER: *(Name and address)*

CONTRACT DATED:

OWNER:

ARCHITECT:

CONTRACTOR:

SURETY:

OTHER:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

on bond of
(Insert name and address of Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

(Surety)

(Signature of authorized representative)

Attest:
(Seal):

(Printed name and title)



AIA[®] Document G710[™] – 2017

Architect's Supplemental Instructions

PROJECT: *(name and address)*

CONTRACT INFORMATION:

Contract For:

Date:

ASI INFORMATION:

ASI Number:

Date:

OWNER: *(name and address)*

ARCHITECT: *(name and address)*

CONTRACTOR: *(name and address)*

The Contractor shall carry out the Work in accordance with the following supplemental instructions without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgment that there will be no change in the Contract Sum or Contract Time.

(Insert a detailed description of the Architect's supplemental instructions and, if applicable, attach or reference specific exhibits.)

ISSUED BY THE ARCHITECT:

ARCHITECT *(Firm name)*

SIGNATURE

PRINTED NAME AND TITLE

DATE

SECTION 00 73 00 – SUPPLEMENTARY CONDITIONS

The Public Works contract, in its entirety, includes the General Conditions of the Contract for Construction (the "General Conditions"). These Supplementary Conditions of the Contract for Construction ("Supplementary Conditions") are attached to and made a part of the Contract Documents and are intended to supplement the General Conditions. Capitalized terms used herein but not defined herein shall have the same meanings as in the General Conditions.

GENERAL PROVISIONS

1. In the event of any unauthorized use, reuse, transfer or modification of the Drawings, Specifications or other documents by Contractor, any lower tier contractor or material supplier, or other person or entity under Contractor's direct or indirect employ, Contractor agrees to indemnify, defend and hold Owner, Architect, their officers, directors, shareholders, employees, agents, and consultants harmless from and against any and all claims, liabilities, suits, demands, losses, damages, costs and expenses, including, but not limited to, reasonable attorneys' fees and all legal expenses and fees incurred through appeal, and all interest thereon, accruing to or resulting from any and all persons, firms, or any other legal entities on account of any damages or losses to property or persons, including, but not limited to, injuries or death or economic losses arising out of such unauthorized use, reuse, transfer or modification, except where Architect is found to be solely liable as between the parties hereto as well as between any other persons, firms or other legal entities for such damages or losses by a court or forum of competent jurisdiction.

CONTRACTOR

2. In the event of conflicts or discrepancies among the Contract Documents, the following order of precedence shall govern: (1) Amendments and revisions (such as change orders), with those of later date taking precedence over those of earlier date; (2) the Agreement; (3) the Supplementary Conditions; (4) the General Conditions; (5) Drawings and Specifications. Drawings shall govern Specifications for quantity and location, and Specifications shall govern Drawings for quality and performance. In case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.
3. Contractor shall provide, before site mobilization, a site specific safety plan outlining intended safety procedures, methodologies and communications throughout the course of the work.
4. Any requests for substitution shall be made in a timely manner and in full compliance with all Contract requirements. By making a request for substitution, Contractor: (1) represents that the Contractor has investigated the proposed substitute product and determined that it is equal to or superior in all respects to that specified; (2) represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified; (3) certifies that the cost data presented is complete and includes all related costs under this Contract except for the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and (4) will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
5. If the Contractor performs Work knowing it to be which Contractor knows or should know is contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

6. Incomplete, uncoordinated or incorrect Shop Drawings and other submittals shall be returned to Contractor who shall be held responsible for all time delays and extra costs of review or handling by Architect or Owner, because of such submittals being incomplete, uncoordinated or incorrect.
7. The Work shall be in accordance with Architect-reviewed submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's review of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's review thereof. If more than one submittal review stamp (Architect's and one or more of its consultants' stamp) appears on a submittal, the most stringent action and notations thereon shall apply. Signature on a submittal review stamp by the Architect or a Consultant does not imply that it has reviewed Work not within its professional discipline or scope of services.

ARCHITECT

8. Architect's duties shall not extend to the receipt, inspection and acceptance on behalf of Owner or Contractor of materials, furniture, furnishings and equipment at the time of their delivery to the premises or installation. Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of Architect in Architect's administration of the Contract for Construction, or by tests, inspections or approvals required or performed by persons other than Contractor. If Architect recommends procedures, either directly or by reference to standards or manufacturers' recommendations, Contractor shall adopt such recommendations as its own, or inform Architect if exception is taken to such procedures, and may utilize or propose alternative procedures that Contractor will warrant as fulfilling the intent of the Contract Documents.
9. Based on Architect's on-site evaluations and the data comprising the Contractor's Applications for Payment, the Architect will review and certify, to the best of its knowledge, information and belief, the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the amount certified and will issue Certificates for Payment in such amounts.

CHANGES IN THE WORK

10. Change Order Pricing:

Procedures: When the fixed price method is used to determine the value of any Work covered by a Change Order, or of a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:

- a. Breakdown and itemization of details on COP: Contractor's Change Order Proposal, or request for adjustment in the Contract Sum, shall be accompanied by a complete itemization of the costs, including labor, material, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below, and shall be submitted on breakdown sheets in a form approved by Owner.
- b. Use of industry standards in calculating costs: All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.

- c. Costs contingent on Owner's actions: If any of Contractor's pricing assumptions are contingent upon anticipated actions of Owner, Contractor shall clearly state them in the proposal or request for an equitable adjustment.
- d. Markups on additive and deductive Work: The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond and insurance markups will apply to the net difference.
- e. Breakdown not required if change less than \$1,000: If the total cost of the change in the Work or request for equitable adjustment does not exceed \$1,000, Contractor shall not be required to submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Owner to determine fair value.
- f. Breakdown required if change between \$1,000 and \$2,500: If the total cost of the change in the Work or request for equitable adjustment is between \$1,000 and \$2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit the Owner to determine fair value:
 - 1) lump sum labor;
 - 2) lump sum material;
 - 3) lump sum equipment usage;
 - 4) overhead and profit as set forth below; and
 - 5) insurance and bond costs as set forth below.
- g. Components of increased cost: Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:
 - 1) Craft labor costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:
 - (a) Basic wages and benefits: Hourly rates and benefits as stated on the L&I approved "statement of intent to pay prevailing wages" or a higher amount if approved by the Owner. Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
 - (b) Worker's insurance: Direct contributions to the state of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by the L&I
 - (c) Federal insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
 - (d) Travel allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.

- (e) Safety: Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed 2% of the sum of the amounts calculated in (a), (b), and (b) above.
- 2) Material costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.
- 3) Equipment costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. Equipment charges shall be computed on the basis of actual invoice costs or if owned, from the current edition of one of the following sources:
 - (a) The National Electrical Contractors Association for equipment used on electrical work.
 - (b) The Mechanical Contractors Association of America for equipment used on mechanical work.
 - (c) The EquipmentWatch Fleet Manager Estimator Package (digital). The maximum rate for standby equipment shall not exceed that shown in the Associated General Contractors Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement, current edition on the Contract execution date. The EquipmentWatch Rental Rate Blue Book shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement, current edition on the Contract execution date.
- 4) Allowance for small tools, expendables & consumable supplies: Small tools consist of tools which cost \$250 or less and are normally furnished by the performing contractor. The maximum rate for small tools shall not exceed the following:
 - (a) 3% for Contractor: For Contractor, 3% of direct labor costs.
 - (b) 5% for Subcontractors: For Subcontractors, 5% of direct labor costs.Expendables and consumables supplies directly associated with the change in Work must be itemized.
- 5) Subcontractor costs: This is defined as payments Contractor makes to Subcontractors for changed Work performed by Subcontractors of any tier. The Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.
- 6) Allowance for overhead: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Owner of any change in the Contract Sum. If the Contractor is compensated, the amount of such compensation shall be reduced by the amount Contractor is otherwise entitled to under this subsection (6). This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities,

field engineering, schedule updating, as-built drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the rates below:

- (a) Projects less than \$3 million: For projects where the Contract Award Amount is under \$3 million, the following shall apply:
 - (1) Contractor markup on Contractor Work: For Contractor, for any Work actually performed by Contractor's own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (2) Subcontractor markup for Subcontractor Work: For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (3) Contractor markup for Subcontractor Work: For Contractor, for any work performed by its Subcontractor(s) 6% of the first \$50,000 of the amount due each Subcontractor, and 4% of the remaining amount if any.
 - (4) Subcontractor markup for lower tier Subcontractor Work: For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
- 7) Allowance for profit: Allowance for profit is an amount to be added to the cost of any change in contract sum, but not to the cost of change in Contract Time for which Contractor may have been compensated. It shall be limited to a reasonable amount, mutually acceptable, or if none can be agreed upon, to an amount not to exceed the rates below:
 - (a) Contractor / Subcontractor markup for self-performed Work: For Contractor or Subcontractor of any tier for work performed by their forces, 6% of the cost.
 - (b) Contractor / Subcontractor markup for Work performed at lower tier: For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% of the subcontract cost developed.
- 8) Insurance and bond premiums: Cost of change in insurance or bond premium: This is defined as:
 - (a) Contractor's liability insurance: The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and
 - (b) Payment and Performance Bond: The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The cost of any change in insurance or bond premium shall be added after overhead and allowance for profit are calculated in accordance with subparagraph 6 and 7 above.

PAYMENTS AND COMPLETION

11. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents and all required final inspections and permits have been obtained so that the Owner can occupy or utilize the Work for its intended use, subject only to completion of minor items (punchlist).

END

SECTION 01 10 00 – SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Project Location:
 - 1. 26 Front Street, Coupeville, WA 98239
 - a. The facility is a building (in the Limited Commercial District/Historic District) on the Wharf of Coupeville, Washington.
- B. Base Bid:
 - 1. Work of this scope includes but is not limited to the following:
 - a. The Base Bid includes the following:
 - 1.1 Structural seismic stability improvements to roof framing.
 - 1.2 Removal of existing asphalt shingle roof and underlayment.
Installation of new metal shingle roofing panels and new weather resistive underlayment. Replacement of associated flashings, gutters, and downspout system.
 - b. The project involves limited exterior site utility connections and pedestrian ADA accessibility components.
 - c. The Contractor shall coordinate with the Port Construction Coordinator to minimize the impact on day-to-day facility operations. Work shall not interrupt in any manner the daily work activities and comfort of the building occupants.

1.2 WORK BY OWNER AND OTHER CONTRACTORS ON-SITE

- A. Work by Owner and other Contractors will occur before, during and after Contractor's scope of work. Work that interfaces with Contractor's work will be identified on the Contractor's schedule and coordinated between Owner and Contractor.
 - 1. Furnishing of miscellaneous items as noted on architectural and structural drawings.

1.3 GENERAL CONSTRUCTION

- A. All work to be bid under one general contract, except for work specified under 1.2.
- B. Include all labor, material, equipment, and related services necessary to complete the work called for by the drawings and specified herein.
- C. NOTE: All Port Buildings are non-smoking and non-vaping. Smoking or vaping will not be permitted on the Wharf premises (dock, causeway, building).
- D. Contractors and Subcontractors submitting bids for this Project are required to thoroughly familiarize themselves with specified products and installation procedures. Submit any objections or substitution requests for the products and procedures specified in accordance with Product Requirements. Submittal of Bid constitutes acceptance of products and procedures specified.

- E. Conflicts & Omissions in Contract Documents
 1. Bring immediately to Owner's Reps and Architects attention any conflicts and omissions between the Drawings and Specifications and between the Drawings or Specifications and actual site conditions. In the event of a conflict or discrepancy among or in the Contract Documents, interpretation shall be governed as indicated in the General Conditions.
 2. Where conflicts and omissions have not been brought to Owner's attention, it is understood that Contractor has figured the most costly method or methods to implement the work.
- F. Discrepancies and Contract Document Review
 1. Specifications and Drawings are basis of the Work: The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings, Specifications, and other provisions of the Contract Documents.
 2. Parts of the Contract Documents are complementary: The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.
 3. Contractor to report discrepancies in Contract Documents: Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Owner. If, during the performance of the Work, the Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly report the conflict to A/E in writing before proceeding with the Work affected thereby.
 4. Contractor knowledge of discrepancy in documents- responsibility: Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or Shop Drawings where required, unless instructed to do so in writing by Owner. If Contractor performs any construction activity, and it knows or reasonably should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.
 5. Contractor to perform Work implied by Contract Documents: Contractor shall provide any work or materials the provision of which is clearly implied and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically. F. Interpretation questions referred to A/E: Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the Architect/Engineer.
- G. Structural Requirements of General Work
 1. General: Except as otherwise indicated, comply with applicable requirements for structural provisions within units of general and site work (Divisions 02- 14 and 31-33).
- H. Mechanical/Electrical Requirements of General Work

1. General: Except as otherwise indicated, comply with applicable requirements of Divisions 21, 22 and 23 for plumbing and mechanical provisions within units of general and site work (Divisions 02- 14 and 31-33) and with applicable requirements of Division 26, 27, and 28 Sections for electrical provisions within units of general work (Divisions 02-14).
 2. Refer to Division 22, 23, 26, 27 and 28 Sections and Drawing Notes for the characteristics of the respective mechanical, plumbing and electrical services to be connected to units of general work. Provide units manufactured or fabricated for proper connection to and utilization of available services. Except as otherwise indicated, final connection of mechanical service to general work is defined as being mechanical work, and final connection of electrical service to general and mechanical work is defined as being electrical work.
 3. Except as otherwise indicated, comply with applicable provisions of the National Electrical Code (NEC) and standards by National Electrical Manufacturer's Association (NEMA), for electrical components of General Work. Provide Underwriters Laboratories listed and labeled products where applicable.
- I. It is the Contractor's responsibility to verify all field measurements, survey control, staking and conditions. No allowance will be made for any items incorrectly fabricated or installed due to failure to perform such verification prior to commencing the work.

1.4 SCHEDULE

- A. All Base Bid Work must be substantially completed within sixty (60) days from NTP to Substantial Completion for The Work. Final completion is to be achieved within twenty-five (25) days after Substantial Completion. The notice to proceed is tentatively scheduled to be issued on or around Friday, March 24, 2023.

1.5 SCHEDULE DATES:

- A. February 16, 2023, Thursday – Advertising and Release to Bid (3-week Bid period).
- B. February 22, 2023, Thursday, 1 PM – Pre-bid Site Walkthrough (Optional).
- C. March 2, 2023, Thursday – Last Addendum Issued.
- D. March 9, 2023, Thursday – Bid Opening.
- E. March 24, 2023, Friday – Estimated Notice to Proceed.
- F. April 3, 2023, Monday – Estimated On-site Mobilization & Construction Start.
- G. June 2, 2023, Friday – Base Bid Substantial Completion (60 Calendar Days)
- H. June 27, 2023, Tuesday – Base Bid – Final Completion (25 days).

1.6 COORDINATING AND SCHEDULING

- A. The Contractor is responsible for coordinating and scheduling all work of the project.

- B. All work under this project will be undertaken with portions of this building in full operation. Contractor shall coordinate his work to avoid unreasonable disturbance to adjacent areas.
- C. The site, immediate surroundings, and access to the site shall be cleaned and made presentable as requested. Disruptive noise and activities must be reviewed and authorized by the project representative, and minimized. The Contractor's project schedule shall recognize these days.
- D. The Contractor shall provide a schedule and strategy for maintaining and minimizing disruption of services.

1.7 PERMITS – SEE GENERAL CONDITIONS

- A. The Contractor shall procure and pay for all permits, licenses and all governmental inspection fees which are necessary or incidental to the initiation, performance and completion of the Work and shall give all notices required by such permits and licenses.

Any action taken by the Port to assist the Contractor in obtaining permits or licenses shall not relieve the Contractor of its sole responsibility to obtain permits or licenses.
- B. Where applicable law, regulations, ordinances or agency policy prohibits the issuance of a necessary temporary operational or other permit to entities other than a public agency, the Port will support the Contractor's request for such permit and will accept the permit in the Port's name, but only if.
 - 1. The Contractor takes all necessary action leading to the issuance of the permit;
 - 2. The permit is determined to be in the public interest;
 - 3. The permit applies only to work performed in connection with this Project;
 - 4. The Contractor agrees in writing, in a form approved by the Port, to abide by all requirements of the permit, and to defend and hold harmless the Port from any liability in connection with work prosecuted under the permit; and
 - 5. The Contractor agrees, in writing, to indemnify, defend and hold the Port harmless from all expenses incurred in connection with such permit.
- C. All costs incurred in connection with permits and licenses shall be considered incidental to the Contract and shall be included in the Contract Sum; no increase in the Contract Time or Contract Sum will be made. Loss of time, if any, suffered by the Contractor due to unreasonable delays in obtaining permits or licenses; may be considered in relation to a request by the Contractor for an adjustment to the Contract Time in accordance with General Conditions paragraph G-07.03.

The Contractor shall assume all costs and liabilities arising from the use of patented devices, materials, or processes used on or in performance of the Work.

1.8 HOURS OF WORK

- A. The Owner will occupy a portion of the existing building during the entire

construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate owner usage. (Reference Section 01 32 10 Construction Progress Documentation)

- B. The Contractor has no limitation on work hours other than;
 - 1. The work shall be accomplished with the minimum of disruption to the facility during the hours of 6am to 5pm, Monday through Friday, and the following additional details:
 - a. Disruptive construction activity, including noisy work, is only permissible within normal working hours, 8AM – 5PM.
 - b. Perform the Work so as not to interfere with the Owner's operations. Work is to be performed within the constraints of the schedule of events. Contractor shall coordinate with the Owner's Representative to accommodate any after-hours events scheduled in the construction schedule.
 - c. "After hours" or weekend work:
 - 1) The Contractor shall notify the Construction Coordinator of additional specific work periods; after normal business hours or on weekends, as the Contractor may need to accomplish the work staying within the contract limits, the timelines listed above and without additional cost to the Owner. The Construction Schedule shall be updated to reflect the approved periods.
 - 2. Coordinate any work with the Owner's Representative that may have impact on the air quality of the interior of the building.

1.9 WORK SEQUENCE

- A. Immediately after award of contract and before commencing any work, develop a schedule and sequence of work, including dates in sequence, and submit for Owner approval.

1.10 CONTACT INFORMATION

- A. Port of Coupeville Facilities for building and program schedules or other information.
 - 1. Chris Michalopoulos, Executive Director (360) 222-3688 and Mary Hogan, Projects Manager, (310) 245-1317.
 - 2. Contract protocols for communications will be discussed at the required Pre-Construction meeting.

1.11 SECURITY

- A. The General Contractor and all project subcontractors and crew members will be subject to Security measures of the facility include but are not limited to check-in and checkout at the building and will be operational during construction. Costs for all security checks and fingerprinting are to be borne by the Contractor and are not reimbursed by the Owner. Only workers that successfully pass the background checks will be allowed to work on site period.

1.12 SPECIAL CONDITIONS

- A. The Contractor will follow all O.S.H.A. and W.S.H.A. Regulations for the safety of employees and County staff.
- B. Maintain areas of work in conditions prior to work.
 - 1. Maintain the condition of the areas as prior to the work, and clean if necessary to restore to prior conditions.
 - 2. Provide cover protection to furniture, counters and equipment as necessary to maintain clean conditions.
 - 3. Coordinate work area with Owner. Secure work area, including tools and materials in work areas. Maintain control of work area, including tools and materials during work hours.
 - 4. Tools that are not being used need to be locked up at all times.
 - 5. Tools that are kept overnight rather than moving them every day can be stored in a locked area provided by and coordinated with the owner.
 - 6. Maintain safe and secure access to office areas, staff and public.
 - 7. Coordinate with Owner for elevator access. With prior coordination and approval, the Contractor may use the stairwells as well, for tools, materials and large items.
 - 8. Minimize number of trips accessing the Work area.
 - 9. Indicate by work schedule the specific days and times that work is scheduled in occupied office spaces; and the schedule shall be submitted no less than 7 calendar days prior to requested times. Schedule shall be updated and approved weekly.
 - 10. Identification badges are to be worn at all times.
- C. Work on the roofs and exterior flashings and building envelope.
 - 1. Tools and materials may be staged on the roof near the area of Work, in one location as approved by the Owner's Representative. All materials and tools must be secured and protected, as well as stored in a manner to prevent any building damage, or dispersal by weather and wind conditions.

1.13 GENERAL REQUIREMENTS

- A. The Contractor will provide all labor and materials needed to complete this project and be entirely familiar with the relevant plans, specifications and existing facility and exhaust system.
- B. The Contractor will work closely and collaboratively with the Port as directed in the preconstruction meeting.
- C. The Contractor is responsible for the following:
 - 1. Obtain all permits.
 - 2. Obtain all inspections and any other inspections that may be necessary to complete the project

- D. Order, receive, store, and deliver to job site all goods needed for the project.
- E. A location for a job trailer and associated laydown and project trash and recycling containers will be provided, and the location will be coordinated with the Construction Coordinator.
- F. The Contractor may not have access to the existing toilet facilities in the building.
- G. All work must meet all applicable codes. Report any or all violations or potential violation of applicable codes to the Owner's Representative to determine proper corrective measures.
- H. The work area must be cordoned and a clean jobsite must be maintained at all times.
- I. All debris removed from the job site must be documented as to the final destination and paperwork must be provided to the Owner's Representative to verify the legal disposition of materials.
- J. The Contractor must protect all property, buildings & grounds, work, materials, and construction equipment in their care from damage, vandalism and theft.
- K. The Contractor must remove all tools and excess material from the work site at the end of every work period.
- L. Upon completion of the project and prior to final payment, the Contractor must provide "as built" drawings to the Owner's Representative. As built drawings will be required in PDF and Physical format. Drawings shall illustrate and annotate found existing conditions and Requests for Information (RFI).
- M. All warranty information, technical manuals, signed off permits, and related materials must be submitted to and approved by the Owner's Representative before a final payment request can be processed.
- N. All MSDS (Material Safety Data Sheets) for products used to complete this project must be submitted to Facilities, including record of disposal hazardous material. MSDS sheets shall to be submitted in electronic format before products are allowed on site.
- O. No work relating to change orders can be done without prior written consent of the Port and approval of the change order. Change Orders must be submitted with Labor and Materials listed separately.
- P. The Owner shall have the right, subject to provisions in the General Conditions, to require Work which creates unacceptable odors, to be stopped and rescheduled within or outside of normal business hours. The Port may have employees who are chemically sensitive. The Construction Coordinator is to be notified prior to use of odorous materials such as paints and adhesives. The Contractor shall adhere to such modifications. There shall be no additional costs to the Owner for after-hours work.

1.14 QUALITY ASSURANCE

- A. Contractor and Contractor's personnel shall be experienced, thoroughly trained and completely familiar with the systems, equipment, devices, fixtures, materials, etc. and the required methods of installation.
- B. The Contractor and Contractors personnel, subcontractors and sub-

subcontractors that do work on site may be required to pass a background check.

- C. Contractor must provide proof, upon request, that all personnel are licensed according to Washington State RCW.
 - 1. Contractor, subcontractors and all personnel are subject to and will be paid Prevailing Wages.
- D. All materials, equipment and workmanship shall be properly inspected by the Contractor and at all times be subject to inspection by the County. The Contractor must provide all samples, data and documents necessary for such inspection. The County will be afforded full and free access at the jobsite and the shops and places of business of the Contractor for such inspection and to determine the status of the work. If Contractor covers all or any part of the work prior to any inspection or test specifically requested by County, the cost of any necessary uncovering and replacing shall be borne by the Contractor.
- E. Neither the failure to make inspections or tests, nor to discover defective workmanship, materials or equipment, shall prejudice the rights of the Port thereafter to reject the work and or require its correction.
- F. The Contractor shall furnish the Port any guarantee or warranty furnished as a customary trade practice in connection with the purchase of any equipment, materials or items incorporated into the project.
- G. Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The Port shall not be barred from requiring the Contractor to remove, replace, repair, or dispose of any unauthorized or defective work or material or from recovering damages for any such work or material.
- H. Definitions:
 - 1. FOIO = Furnished by Owner, Installed by Owner.
 - 2. FOIC = Furnished by Owner, Installed by Contractor.
 - 3. FCIC = Furnished by Contractor, Installed by Contractor.

1.15 DESIGN TEAM

- A. Architect:
RMC Architects, PLLC
POC – Brad Cornwell, AIA,
Lexie Costic, AIA
1223 Railroad Ave.
Bellingham, WA 98225
brad.c@rmcarchitects.com
lexie.c@rmcarchitects.com
(360) 676-7733
- B. Structural Engineer:
Swenson Say Faget
2124 Third Avenue, Suite 100
Seattle, WA 98121
Dan Say
dsay@ssfengineers.com
(206) 443-6212
- C. Cost Estimating:
DCW Cost Management
415 1st Ave N #9671
Seattle, WA 98109
Trish Drew
trish@dcwcost.com
(206) 259-2990

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 26 00 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Architect may issue Supplemental Instructions (ASI), a written order comprising instructions or interpretations signed by the Port PM authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions" or equivalent.
- B. Related Sections
 1. Section 00 73 00 – Supplementary Conditions.
 2. Section 01 31 00 – Project Management and Coordination.
 3. Section 01 31 15 – Communication.

1.3 CHANGE ORDER PROPOSAL (COP) REQUESTS

- A. Owner-Initiated Change Order Proposal: Architect/Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 1. Change Order Proposal Requests issued by Architect/Owner are not instructions either to stop work in progress or to execute the proposed change.
 2. Within time specified in Proposal Request 14 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include anticipated impact on Contractor's construction schedule. Use available total float before requesting an extension of the Contract Time. Note that additional time, if any, will only be considered at the time of a proposed change. Cost of that additional time, if any, shall also be included in the proposal.
 - e. Quotation Form: Use attached form, or one acceptable to Architect/Owner.

- B. Contractor-Initiated Work Change Order Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include costs of labor and supervision directly attributable to the change.
 5. Include anticipated impact on Contractor's construction schedule. Use available total float before requesting an extension of the Contract Time. Note that additional time, if any, will only be considered at the time of a proposed change. Cost of that additional time, if any, shall also be included in the proposal.
 6. Comply with requirements in Section 01 61 00 "Common Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
 7. Change Order Proposal Request Form: Use attached form or one acceptable to Architect/Owner.

1.4 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. Construction Change Directive: The Architect, with Owner authorization, may issue a Construction Change Directive that instructs Contractor(s) to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
- C. Construction Change Directive (CCD)
1. Owner's Representative may sign and issue a Construction Change Directive and issue three (3) originals.
 - a. Directive describes work change additions or deletions, with attachments of revised contract documents.
 - b. Owner will sign and date as directive to proceed with changes.
 2. Contractor shall promptly sign and date and return all but one copy to the proceed with work and follow procedures noted in the General Conditions while still returning all but one copy to the Owner's Representative.

3. Distribution:
 - a. Owner's Representative will issue one original each to Owner and Contractor while maintaining one for Owner Representative's files.

1.5 CHANGE ORDER (CO) PROCEDURES

- A. On Owner's approval of a Change Order Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on the attached Change Order Form or with form acceptable to Owner.
- B. Upon signature and execution by the Owner, the Change Order becomes part of the contract documents, which then alters the contract time and cost as needed.
- C. Contractor may only request payment for the work against an approved Change Order.
- D. Change Orders - Procedures
 1. Preliminary Initiation - Changes: Changes may be initiated by Owner's Representative with Owner's approval through a Change Order Proposal submitted to Contractor. Request will include:
 - a. Detailed description of changes, products, and location of changes in Project.
 - b. Supplementary or revised Drawings and Specifications.
 - c. Such request is for information only, and is not an instruction to execute changes, or to stop work in progress.
 2. Contractor Initiated Changes: Contractor may initiate changes by submitting a written notice including:
 - a. Description of proposed changes.
 - b. Reasons for making changes.
 - c. Effect on Contract Sum and Contract Time.
 - d. Effect on work of separate Subcontractors.
 - e. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.
- E. Approval Or Rejection Of Proposal
 1. When change is initiated by Owner through a Change Order Proposal:
 - a. Contractor to submit in writing within ten (10) days of date on Change Order Proposal:
 - 1) All direct and indirect costs.
 - 2) Schedule of Values and Unit Prices including basis for costs.
 - 3) Impact on other work not described. Describe and include all direct and indirect costs of changes to other work not specified in the Change Order Proposal.
 - 4) Quotation will be guaranteed for period specified in Change Order Proposal, beginning from signing of proposal. But as a minimum, 45 days.
 - 5) Proposal to be signed by authorized person.
 - 6) Submit breakdown of all direct and indirect costs.
 - b. Owner's Representative and Owner will review proposal and respond in writing by one of the following:

- 1) Authorizing the Change Order Proposal.
 - 2) Requesting additional information.
 - 3) Rejecting.
 - c. Authorization to proceed with change through a written CCD, fully executed COP, or Change Order permits Contractor to undertake work.
 2. When Change is Initiated by Contractor:
 - a. Owner's Representative and Owner will review and the Owner's Representative will respond in writing by one of the following:
 - 1) Processing a Change Order Proposal.
 - 2) Requesting additional information.
 - 3) Rejecting.
 - b. If Owner responds by processing a Change Order Proposal, follow procedure outlined in Paragraph F.1, above.
 - c. If additional information is requested by Owner, respond in writing within seven (7) days of Owner's request.
- F. Documentation of Proposals and Claims
1. Support each lump sum proposal quotation and each unit price (not previously established) with detailed substantiating data. Clearly cross reference tracking numbers of CCDs, RFIs, COPs, etc. to allow easy identification of costs origins
 2. On request, provide additional data to support time and cost computations:
 - a. Labor hours, number of workers, time cards and hourly rate cost justification
 - b. Equipment hours, make and model, number of pieces required, rental agreements and hourly rate justification.
 - c. Products required.
 - d. Recommended source of purchase and unit cost.
 - e. Quantities required.
 - f. Documented credit for work deleted from Contract.
 - g. Justification citing specifics of critical path impacts per current CPM for any change in Contract Time.
 3. Support each request for additional costs, and time-and-material/force account work with documentation, as required for lump-sum proposal. Include additional information:
 - a. Name of Owner's authorized agent who ordered work, and date of order.
 - b. Dates and times work was performed and by whom.
 - c. Time record, summary of hours worked and hourly rates paid.
 - d. Receipts and invoices for:
 - 1) Equipment used, listing dates and times of use.
 - 2) Products used, listing of quantities.
 - 3) Subcontracts.
 4. Document requests for substitutions for Products as specified elsewhere in Division 01 and the General Conditions.
- G. Preparation of Change Orders
1. Owner's Representative will prepare Change Orders.
 2. Change Order describes work changes, additions and deletions, with attachments of revised Contract Documents to define change details.

3. Change Order provides accounting of any Contract Sum and Contract Time adjustment.
- H. Lump Sum/Fixed Price Change Order
1. Content of Change Orders will be based on:
 - a. Owner's Change Order Proposal and Contractor's responsive Proposal as mutually agreed between Owner and Contractor.
 2. Proper signatures (original and dated) on CCD, Change Order Proposal, or Change Order authorize Contractor to proceed with changes.
 3. Contractor shall promptly sign and date Change Order or provide detailed written and signed statement detailing reasons if refusing to sign. Contractor shall not be paid on any work where he has not signed and returned the Change Order.
- I. Unit Price Change Order
1. Content of Change Orders will be based on, either:
 - a. Definition of extent of required changes.
 - b. Contractor's Proposal for change, as approved with appropriate signatures.
 - c. Survey of completed work.
 2. The amount of unit prices is to be:
 - a. Any stated in the Bid Form/Agreement.
 - b. Those mutually agreed upon between Owner and Contractor.
 3. When Change Order quantities can be determined prior to start of work:
 - a. Appropriate listed persons for Owner's Representative and Owner will sign and date as authorization for work to proceed.
 - b. Contractor to sign and date Change Order promptly and return.
 4. When quantities cannot be determined prior to start of work, the following procedures shall be followed:
 - a. Appropriately signed instructions will be issued by Owner's Representative and Owner authorizing Contractor to proceed on unit price basis, citing applicable unit prices, approximate total cost, and maximum amount approved for work. Maximum amount cannot be exceeded without further written authorization whether or not work is completed.
 - b. At completion of change, Contractor shall determine cost of work based on unit prices and quantities used. Justify per paragraph H above.
 - 1) Submit documentation establishing any requests for Contract Time change per the General Conditions.
 - c. All pertinent listed parties must sign and date Change Order indicating their agreement to change in Contract Sum and Contract Time.
- J. Correlation with Contractor's Submittals
1. Contractor to periodically revise Schedule of Values and Request for Payment forms to record each Change Order as a separate item of Work. Record adjusted Contract Sum.
 2. Contractor to periodically (at least monthly) revise Construction Schedule reflecting each change in as-built conditions or in Contract Time.
 - a. Revise sub-schedules to show changes for other items of work affected by changes.

3. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

K. Distribution

1. Copies in triplicate to Owner's Representative.
2. Change Orders: Upon authorization, Owner to transmit three (3) signed originals to Owner's Representative.
 - a. Owner's Representative retains one copy for his files.
 - b. Owner's Representative transmits one copy to Contractor.
 - c. Owner's Representative transmits one copy to Owner.

1.6 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Revise request for payment forms to record each change order as separate item of work. Record adjusted contract sum.
- B. Revise construction schedule to reflect changes in contract time.
- C. Upon completion of work under change order, enter pertinent modifications in record documents.

1.7 DISTRIBUTION

- A. Upon a change order proposal receiving a work authorization signature or an authorized change order the Owner will transmit one signed copy to Contractor and Architect.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 26 00

CHANGE ORDER PROPOSAL

Coupeville Wharf Building Emergency Repairs
Port of Coupeville

Date:

COP # 000

ARCHITECT / OWNER REQUEST

To: (Contractor), please provide your proposal for executing the following change(s):

From: (Consultant)

Description:

Attachments:

Distribution: (on-site CAs), Owner PM, Architect

CONTRACTOR'S PROPOSAL

To: (Consultant)

From: (Contractor)

Description:

Adjust contract amount (not including WA State Sales Tax)

_____ Lump Sum (increase)(decrease) of \$_____

_____ Unit Price (attached proposal per Bid Form breakdown)

_____ Other: _____

Adjust Contract Time

Remains unchanged

_____ Increased by _____ days

_____ Decreased by _____ days

By:

(contractor's representative)

(Date)

ARCHITECT/ENGINEER'S REVIEW

Acceptance is recommended by the Consultant after examination of this proposal and finding that the cost and time adjustments are reasonable.

Consultant

(By)

(Date)

Rejection

Consultant;

(By)

(Date)

ACCEPTANCE

The Owner accepts this proposal, pending review and approval of all detailed costs and the preparation of a formal change order. This acceptance (does) (does not) constitutes Work Authorization to proceed immediately with the modification.

Owner PM

(By)

(Date)

Distribution: (Contractor); (Consultant); (on-site CA); (Owner PM); (Architect); (SubConsultant, if appropriate)

CHANGE ORDER

Coupeville Wharf Building Emergency Repairs
Port of Coupeville

CO # _____

SCOPE OF CHANGE TO WORK

The contract for the project identified above is hereby amended as outlined in the space below or on attached referenced sheets. All other provisions of the contract remain in full force and effect.

TIME OF COMPLETION

The contract time is (increased) (decreased) (unchanged) by _____ calendar days.

The date of Substantial Completion as of the acceptance of this Change Order is _____

CONTRACT AMOUNT

Above changes adjust the Contract Amount as follows (excluding Washington State Sales Tax)

Original Contract Amount was \$ _____

Net change by previously authorized Change Orders \$ _____

Contract Amount prior to this Change Order was \$ _____

This Change Order will (increase) (decrease) (not change) the Contract Amount by \$ _____

New Contract Amount including this Change Order will be \$ _____

The Contractor is prepared to accomplish the described change(s) within the time and contract amount limits noted above.

(Contractor) _____
(By) _____ (Date) _____

The Consultant has reviewed the above change(s) in scope, time, and contract amount and recommends they be accepted.

(Consultant) _____
(By) _____ (Date) _____

The Owner authorizes the changes described above.

(Owner) _____
(By) _____ (Date) _____

Distribution: (Contractor); (Owner); (Consultant);

SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 00 70 00 – Public Works Contract
 - 2. AIA G702 – Application & Certification for Payment
AIA G703 – Continuation Sheet (SOV)
 - 3. Section 00 73 00 – Supplementary Conditions
 - 4. Section 01 26 00 – Contract Modification Procedures
 - 5. Section 01 74 19 – Construction Waste Management
 - 6. Section 01 77 00 – Closeout Procedures
- C. Prior to Submittals
 - 1. Submit an accepted list of all Subcontractors and Suppliers.
 - 2. Resolve/Agree to Contractors preferred Retainage Option for withheld monies.
 - 3. Submit a complete IRS Form W-9 Payers Request form to Owner.
 - 4. Submit Labor and Industries “Intent to Pay Prevailing Wages.”

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the Schedule of Values to Owner but no later than fourteen (14) days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.

2. Arrange schedule of values consistent with format of AIA Document G703 or Owner approved equivalent.
3. Submit on Owner provided Owner forms acceptable to Owners Representative. At a minimum, subdivide into following allocated items:
 - a. Bond.
 - b. Insurance.
 - c. General condition items; mobilization (not more than 3% of the Contract Sum), temporary facilities, temporary utilities, submittals, demobilization, etc.
 - d. Phases and/or areas of building.
 - e. Specification sections.
 - f. Individual components of Work, and major pieces of equipment.
 - g. Labor amount and material or equipment amount, listed separately.
 - h. Contract Closeout items; manuals, spare parts, maintenance material, system demonstrations, record documents, operation and maintenance data, etc.
 - i. Individually approved changes.
 - j. Provide separate line items for "Final Documentation and Punchlist Completion", equaling three percent (3%) of the total Contract Amount. This amount will be released upon final completion of the Project.
4. Labor amount shall include all on site installation costs (including labor, applicable taxes, insurance, fringe benefits, erection equipment, tools, and overhead/profit).
5. Material and equipment shall include all material and manufactured equipment costs (including delivery costs, taxes, insurance, and overhead/profit).
6. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 - a. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling two percent of the Contract Sum and subcontract amount.
7. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
8. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
9. Alternates: Provide a separate line item in the schedule of values for each alternate. Show line-item value of alternate, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
10. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
11. Schedule Updating: Update and resubmit the schedule of values with the next Applications for Payment when Change Orders result in a change in the Contract Sum. Include each Change Order as a new line item.
12. The schedule, unless objected to by Owner or Owners Representative, shall be

used as a basis for reviewing percent complete of line items on Contractor's Applications for Payments.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor but not less than every thirty days. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms:
 - 1. Itemized in accordance with approved schedule of values.
 - 2. Furnish in triplicate.
 - 3. Signed by duly authorized agent of Contractor.
 - 4. Notarize Application for Payment.
 - 5. Application for Payment serves as certification by Contractor of status of Project.
 - 6. Provide certified payroll, to comply with State and Grant (if applicable) requirements.
- D. Application Preparation: Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 3. Submit with Application, Certification of Prevailing Wage.
 - 4. Bond and insurance cost may be requested for on first application.
 - 5. Equal monthly payments may be made for General Condition based upon number of months Contractor is scheduled to be on site.
 - 6. May include amounts for changes in work which have been authorized by Construction Change Directives, or by Change Proposal Requests approved by Owner.
 - 7. Shall not include request for payments for portions of Work for which Contractor does not intend to pay to a Subcontractor or supplier, unless such Work has been performed by others whom Contractor intends to pay.
 - 8. Based upon value of Work provided in accordance with Contract Documents.
 - 9. Contractor warrants that title to all Work covered by an Application for Payment will pass to Owner upon receipt of payment.
 - 10. Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from Owner shall, to the best of Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials

and equipment relating to Work.

- E. Transmittal: Submit one electronic color pdf file with all signatures, notarization, and attachments and three originals.
- F. Additional forms: with each Application for Payment, submit the following completed forms:
 - 1. Waste Management Progress Report (Section 01 74 19)
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Sustainable design action plans.
 - 5. Schedule of unit prices.
 - 6. Submittal schedule (preliminary if not final).
 - 7. List of Contractor's staff assignments.
 - 8. Contractor Site Specific Safety Plan(s).
- H. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Submittals and Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G707-1994, "Consent of Surety to Final Payment" or Owner equivalent.
 - 5. Evidence that claims have been settled.
 - 6. Final liquidated damages settlement statement.

1.4 PAYMENT FOR STORED MATERIAL AND EQUIPMENT

- A. Application for Payment may include materials and equipment ready, but not yet incorporated in Work, delivered, and suitably stored at site, for subsequent incorporation in Work.
 - 1. For purpose of above paragraph, "materials and equipment" eligible for payment, are defined as finished goods made specifically for subject job and requiring extensive time to be manufactured or obtained.
 - 2. Raw materials or work-in-process at manufacturer's plant is not eligible for payment.
- B. Payment by Owner for such materials and equipment not yet incorporated in Work will be made provided following is accomplished:
 - 1. Items must be listed separately as material, or equipment cost on Application for Payment Schedule of Values.
 - 2. Provide receipted Invoices or Bills of Sale as evidence that Contractor is unconditional owner of equipment or material, with Application for Payment.

3. Provide Stored Material and Equipment Affidavit with Application for Payment, use form furnished by Owners Representative.
 4. Identify items in storage as property of Owner and furnish description of identification method.
 5. Provide written inventory of items, including Contractor's certification that all quantities have been received, and are in good condition.
- C. Payment for materials and equipment stored on site shall be conditioned upon compliance by Contractor with procedures satisfactory to Owner to establish Owner's title to such materials and equipment or otherwise protect Owner's interest, and shall include the cost of applicable insurance, storage and transportation to site for such materials and equipment
- D. Owner retains right to verify storage by physical inspection prior to partial payment, and at any time thereafter.
- E. Payment does not relieve Contractor's responsibility for protecting, safeguarding, insurance, transporting, and proper installation of equipment or materials.
- F. Warranty and guarantee period does not commence until Substantial Completion of work.
- G. Payment will be treated same as "work-in-place," with evidence of delivery to job site, except that payments will not include value of labor and mark-up.
- H. Each subsequent Application for Payment will restate prior month's materials and equipment not incorporated in Work, and current month additions and deletions for materials and equipment incorporated into work. Inventory must be updated and included with each subsequent application to indicate current status.
- I. Use Stored Material and Equipment Inventory form furnished by Owners Representative, or similar acceptable format.
- J. Payment for Off-Site Stored Material will not be allowed.
- K. Upon making of partial payments by Owner, all materials and equipment covered thereby become sole property of Owner. Partial payments, however, do not constitute Owner's acceptance of material, equipment or work, nor be construed as waiver of any right or claim by Owner.
- L. Contractor shall be deemed as having care, custody, and control of items.
- 1.5 RETAINAGE
- A. Until Substantial Completion, five (5) percent retainage will be withheld from value of Work completed and material stored.

PORT OF COUPEVILLE
COUPEVILLE WHARF BUILDING EMERGENCY REPAIRS

SECTION 01 29 00
PAYMENT PROCEDURES

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 29 00

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination drawings.
 - 2. Requests for Information (RFIs).
 - 3. Project meetings.
 - 4. Management of project schedule (weekly).

1.2 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.
- B. The complexity of accomplishing a renovation project in and adjacent to an occupied and fully operational building requires that careful planning and coordination be developed and followed to accomplish the work. This planning and coordination shall minimize disruption to operations and allow involved parties to anticipate construction activity and to integrate other contract(s) with this Project.
- C. Coordinate scheduling, submittals and work identified in the Contract to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- D. Coordinate work between all Sections of Contract Documents to avoid conflicts and omissions. Take special care to coordinate work indicated as Architectural, Mechanical, Electrical and other major Divisions of the Contract Documents.
- E. Responsibility
 - 1. The Contractor shall be in charge of this Contract and the site, as well as the directing and scheduling of all Work. Contractor shall be on site at all times work of this Contract is in progress. Do not delegate responsibility for coordination to any subcontractor.
 - 2. Anticipate interrelationship of all subcontractors and their relationship with the total Work.
 - 3. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of Work between Sections. Contractor's decisions, if consistent with Contract Document requirements, shall be final.
 - 4. Final responsibility for the performance, interface, and completion of the Work and the Project in accordance with the Contract Documents shall be with the Contractor.

1.3 PROJECT PHASING & MILESTONES

- A. Define any intermediate project phases and milestones within the delivery of work as may be required by this Contract. These requirements should be represented in the project schedule.
 - 1. Prior to any work beginning on the site, the Contractor shall submit, and receive final approval on:
 - a. Construction schedule;
 - b. All required plans, such as, but not limited to, safety, demolition, quality control, and waste management;
 - c. On all materials to be used on the project in accordance with Section 01 33 00 – Submittal Procedures.
- B. Refer to Section 01 10 00 for specified Contractor's Working Hours on this project, including Working Hours specified for completing the work required by project phasing and milestones.
- C. Progress Schedule: Refer to Section 01 32 00, Construction Progress Documentation.

1.4 SPECIAL COORDINATION

- A. There are occupied spaces outside of the limits of construction. These spaces will not be vacated for construction during this contract. Any work in these surrounding areas must be coordinated with the Owner.
- B. Additional special requirements and conditions may apply to the work of this contract. Refer to Section 01 50 00 for detailed description of these additional requirements and conditions.
- C. The Owner may require access to the site to perform work related or unrelated to the project. The Contractor shall coordinate with the Owner to accommodate such work within the contract time.
- D. Refer to Summary of Work for a description of other Contractor work for the Owner that is expected to be occurring within the building or other adjacent location to the construction limits of this Project. Cooperate with the Owner Contractors during the duration of this Project to prevent impact to this or other Owner projects.
- E. The Owner's custodial staff will typically be working during Contractor's normal working hours. Contractor shall coordinate with the Owner to accommodate such work within the contract time.

1.5 SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or

- supplying products.
- 2. Number and title of related Specification Section(s) covered by subcontract.
- 3. Drawing number and detail references, as appropriate, covered by subcontract.

1.6 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, which depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

1.7 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
 - 1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid.
 - 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components

within ceiling plenum to accommodate layout of light fixtures indicated on Drawings.

3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility.

1.8 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to the Architect/Owner.
- D. Consultant's Action: Consultant will review each RFI, determine action required, and respond. Allow seven working days for Consultant's response for each RFI. RFIs

received by Consultant after 1:00 p.m. will be considered as received the following working day. Architect may choose to delay response to low priority RFIs in order to facilitate response to high priority RFIs.

1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Consultant's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
2. Consultant's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Consultant's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 26 00 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.

E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's or SubConsultant's response was received.

F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect/Owner within seven days if Contractor disagrees with response.

1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.9 PROJECT MEETINGS

A. General: Work with Architect and Owner to schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Attendees: Inform contractors, subcontractors and suppliers whose presence is required, of date and time of each meeting.
2. The Consultant will compile minutes of each Project Meeting and will furnish copies to Owner, Contractor and Subconsultants.
3. For those persons designated by the Contractor to attend and participate in Project Meetings, provide required authority to commit the Contractor to solutions agreed upon in the Project Meetings.

- B. Preconstruction Conference: Owner will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Sustainable design requirements.
 - l. Preparation of record documents.
 - m. Use of the premises.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.
 3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at the Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Meetings: Weekly or Bi-monthly (2x per month) once Contractor is given NTP; attendance by Owner, Contractor, Architect, Consultants, applicable sub-contractors and suppliers.
1. Attendance:
 - a. To the maximum extent practicable, assign the same person or persons to represent the Contractor at Project meetings throughout progress of the Work.
 - b. Subcontractor, materials suppliers, and others may be invited to attend those Project meetings in which their aspect of the Work is involved, as previously approved by Architect.
 2. Minimum agenda:
 - a. Review, revise as necessary, and approve minutes of previous meetings.
 - b. Review progress of the Work since last meeting, including status of submittals for approval.
 - c. Identify problems which impede planned progress.
 - d. Develop corrective measures and procedures to regain planned schedule.
 - e. Complete other current business.
 3. Revisions to minutes:
 - a. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting they will be accepted as properly stating the activities and decisions of the meeting.
 - b. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
 - c. Challenge to minutes shall be settled as priority portion of "old business" at the next regularly scheduled meeting.
- E. Communications: All correspondence shall be identified with the name of the Work as it appears in the Contract Documents, and with the state project number.
- F. Field Orders: The Owner may issue written orders which interpret the Contract Documents or which order minor changes in the work without change in the Contract Sum or the Contract Time, if agreed to by the Contractor. In addition, the Owner may, in order to expedite the work, issue field orders affecting the Contract Sum and Contract Time; such field orders shall be followed by written Change Orders formalizing the work.
- G. Special Reports:
1. General: Submit special reports directly to the Owner within one day of an occurrence. Submit a copy of the report to the Architect and other entities that are affected by the occurrence.
 2. Reporting Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information.
 3. Reporting Accidents: Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions. For this purpose, a significant accident is defined to include events where personal

injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

4. Provide copies of all inspection notices received during the course of the Project, including approvals and corrective notices to the Architect.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00

REQUEST FOR INFORMATION

Coupeville Wharf Building Emergency Repairs
Port of Coupeville

Date _____

RFI # _____

From:

(Requestor)

(Contractor), (Subcontractor)

RESPONSE REQUIRED BY DATE: _____

REQUEST

Subject: _____

Reference (drwg./spec. sec.): _____

Requested Information / Solution to: _____

Impact to project cost? ___ No ___ Yes. Approximate cost impact: _____

Impact to project schedule? ___ No ___ Yes. Number of days impact: _____

RESPONSE

Information / solution _____

Respondent(s):

Architect: _____ Contractor _____ Owner _____

PM _____ PM _____ PM _____

Date _____ Date _____ Date _____

Distribution:

Consultant, other

Contractor PM, other

Owner PM, other

SECTION 01 31 15 — COMMUNICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 GENERAL COMMUNICATION

- A. Telephone communication and correspondence shall be between Contractor's Representative and A/E (as Owner's Agent).
- B. Subcontractors are not to contact members of the design team directly unless explicitly agreed to by Contractor, A/E and PM. All such contact, discussions and correspondence to and from Contractor will be documented in writing and routed through the A/E and Owner's Representative with a copy to PM.
- C. The General Contractor shall transmit problems or questions in writing using a Request for Information (RFI).
- D. On-Site Lines Of Authority & Communications: Establish on-site lines of authority and communications including attendance at Pre-Construction Meeting and Progress Meetings as required by the A/E and Owner's Site Representative. All on-site lines of authority and communications shall be established through the A/E.
- E. The A/E, and PM will not typically be working during the Contractor's normal working hours as defined in Section 01 10 00. The Contractor shall anticipate that all communication and weekly construction meetings with these parties will occur between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday, except Holidays throughout the duration of the Project.
- F. The Contractor shall incorporate any cost affect this may have on the progress of the Project into his Base Bid. No overtime payments will be authorized, or time delays allowed, for the Contractor or subcontractors to communicate with the A/E and PM outside of the Contractor's normal working hours.

1.3 EMERGENCY COMMUNICATION

- A. An Emergency list will be established.
 - 1. The Contractor shall provide a list of names, pagers, wireless and wired telephone numbers of staff who are capable of addressing an emergency issue that may occur outside of Contractor's normal working hours. The persons designated on the list shall be available

at the project site within 30 minutes of being contacted.

Provide two names for each of the following:

- a. General Contractor
 - b. Mechanical Subcontractor
 - c. Electrical Subcontractor
 - d. Fire Protection Subcontractor
 - e. Demolition Subcontractor
2. Submit the list to the A/E five (5) working days prior to the Preconstruction Meeting. The A/E will include the same information for design team members and Owner representatives and distribute the list at the Preconstruction Meeting.

1.4 CORRESPONDENCE

- A. All correspondence to and from Contractor will be routed through A/E and Owner's Representative.
- B. Include project title and project number on all correspondence.

1.5 REQUEST FOR INFORMATION (RFI)

- A. See Section 01 31 00.

1.6 NON-COMPLIANCE NOTICE (NCN)

- A. Any work that is identified as not in compliance with the Contract Documents, either by oral discussion with the contractor, or written communication to the contractor, shall be removed and replaced without cost to the Owner, including removal of additional material necessary to confirm non-compliance. At its option, the Owner may accept written alternative solutions by the contractor and recommended by the A/E. The Contractor shall notify the A/E and Owner in writing immediately following oral discussion or receipt of any written communication if the contractor believes they are in compliance with the Contract Documents. The A/E will make a determination based on the Contract Documents. If the A/E finds the work is in noncompliance the A/E will issue a written Non-Compliance Notice (NCN). Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. Upon receipt of the NCN, the Contractor shall take immediate action to correct work. Review corrections at progress meetings for closure.
- B. If the Contractor fails or refuses to comply promptly after the final determination of the appropriate corrective action, the Owner may:
 1. issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Owner will not pay for non-complying work or follow on work until the noncomplying work is corrected or replaced. If it becomes necessary to stop work due to non-correction or non-complying work, no delay claim, time extension, or compensation will be granted, or
 2. the Owner may elect to correct the non-compliant work and back charge the Contractor by a deductive Change Order.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION 01 31 15

SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Daily construction reports.
 - 4. Site condition reports.
 - 5. Interval schedule.
- B. Contractor, promptly after being awarded the Contract, shall prepare and submit for Owner's and Owners Representative's information a Contractor's construction schedule for the Work. Schedule shall not exceed time limits current under Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to entire Project to extent required by Contract Documents, and shall provide for expeditious and practicable execution of Work.
- C. Schedule: Refer to Section 01 10 00, 1.4:
 - 1. The Contract will be written to include approximately sixty (60) calendar days for completion from Notice to Proceed for the Work, including Base Bid and accepted Alternates.
 - 2. Final Completion: Twenty-five (25) consecutive calendar days beginning on the date that Substantial Completion is reached.
- D. Coordinate Subcontractors' schedules for entire project.
 - 1. Secure time commitments for performing critical elements of Work from parties involved.
 - 2. Coordinate each element on the schedule with other construction activities; include minor elements involved in sequence of Work.
 - 3. Show each activity in proper sequence.
 - 4. Indicate graphically the sequences necessary for completion of related portions of Work.
 - 5. Resolve conflicts among schedules of Subcontractors.
 - 6. Revise as required by conditions and progress of work.
 - 7. Furnish copy of schedules for entire project to each Subcontractor.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 2. Predecessor Activity: An activity that precedes another activity in the network.
 3. Successor Activity: An activity that follows another activity in the network.
- B. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- C. Float: The measure of leeway in starting and completing an activity.
1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.

1.3 SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
1. PDF electronic file.
- B. Startup Network Diagram/Schedule: Of size required to display entire network for entire construction period. Show logic ties for activities. Submit for approval at least 10 days prior to scheduled construction start.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
1. Prior to submitting its first and subsequent Application for Payment, the Contractor, after consultation with its subcontractors, shall submit an electronic copy of the Contractor's Construction Schedule consistent with the requirements of the Contract Documents. This submittal shall incorporate all comments received from the Owner and the Architect. The Owner may withhold not less than ten percent of any progress payment until a satisfactory schedule is submitted.
 2. Should the Contractor fail to meet any scheduled date as shown on the current Contractor's Construction Schedule, the Contractor shall, if requested, be required at its own expense to submit within ten (10) days of the request an updated Contractor's Construction Schedule. If the Contractor's progress indicates to the Owner that the Work will not be Substantially Completed within the Contract Time, the Contractor shall, at its own expense, increase its work force and/or working hours to bring the actual completion dates of the activities into conformance with the Contractor's Construction Schedule and Substantial Completion with the Contract Time. The Contractor shall reschedule and also submit a revised Contractor's Construction Schedule at its own expense within ten (10) days of notice from the Owner's Representative that the sequence of work varies significantly from that shown on the Contractor's Construction Schedule showing work to complete on original Contract Time with approved extensions. Neither the Owner nor the Architect will, however, be obligated to review the substance or sequence of the Contractor's Construction Schedule or otherwise determine whether it is correct, appropriate or attainable.

- D. Construction Schedule Updating Reports: Submit with Applications for Payment.
 - 1. Each week the Contractor shall prepare and submit electronic copies of a "bar chart" type schedule showing planned activities for the next two (2) weeks. Submit and present current schedule at the weekly meeting. Format shall be 8-1/2" X 11" or 11" by 17" as necessary to be easily legible. If hand drawn, all graphics and text shall be clear to all recipients.
- E. Daily Construction Reports: Submit when requested, or if required by Grant Funding Requirements.
- F. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 - 2. Procurement Activities: Include procurement process activities for major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Section 01 33 00 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 - 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.

5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 14 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Work Stages: Indicate important stages of construction for each major portion of the Work.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- F. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 14 days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 INTERVAL SCHEDULE

- A. Interval Schedule: Prepare and update weekly a 4 week interval schedule. Show 1 week of actual progress (planned vs. actual performance). Forecast 2 weeks of start and completion dates for each activity, task or event in comparison to the prepared schedule.

1. Activities in interval schedule shall relate directly to activities in the construction schedule.

2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events.
 10. Stoppages, delays, shortages, and losses.
 11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Construction Change Directives received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial completions and occupancies.
 19. Substantial Completions authorized.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.

3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 01 32 00 – Construction Progress Documentation.
 - 2. Section 01 61 00 – Common Product Requirements
 - 3. Section 01 61 01 – Substitution Request Form
 - 4. Section 01 74 19 – Construction Waste Management.
 - 5. Section 01 78 00 – Closeout Submittals.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Digital Data Files: Electronic copies (PDF format) of digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect will furnish Contractor one set of digital data drawing files (pdf format) of the Contract Drawings for use in preparing Shop Drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Architect.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Resubmittal Review: Allow 14 days for review of each resubmittal.
- D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Indication of full or partial submittal.
 - o. Transmittal number, numbered consecutively.
 - p. Submittal and transmittal distribution record.
 - q. Other necessary identification.
 - r. Remarks.
- E. Options: Identify options requiring selection by Architect or Owner.

- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBSTITUTION REQUEST

- A. General: If a Bidder or Contractor desires approval of some material or product other than that specified, he may submit a written request for approval of the substitute item in accordance with the following requirements:
 - 1. All such requests must be made on the Substitution Request Form, attached as part of Section 01 61 00.
 - 2. No request for approval will be considered unless submitted in accordance with this section.
 - 3. Final decision as to whether an item is an equal or satisfactory substitution rests with the Owner.
- B. Substitution Requests: Every substitution request must state whether the item offered is an equal or better substitution. Alternative or substitute material or product must be accompanied by its reference in the Contract Documents and complete catalog, LEED performance/criteria, technical and other information for both the specified item and the proposed substitution. If applicable, include samples showing comparison for physical and other pertinent characteristics as required to establish equivalence of acceptability for the proposed application. Where specific test results are required by the Contract Documents, the comparison data for the proposed item shall be based upon the same test methods as those described, or they shall be correlated to clearly demonstrate comparability. The same guarantee described for the specified product is required for the substitution.
- C. During Bid Period: Submit substitution requests for approval of alternative materials or products specified. All requests must be received by Architect/Consultant no later than ten (10) days prior to scheduled time for receipt of bid or proposal in order to receive consideration. Bidders will be informed by addendum of additional materials and products approved for use. No other form of approval will be given during bid period

and bidders shall not rely upon any approval not incorporated into the documents in this matter.

- D. After Award of Contract: Substitution requests for approval of substitute materials will not be considered, except if one or more of the following conditions exists. With its request, the Contractor shall indicate which condition he believes applies:
1. Unavailability: A substitution is required because the specified item is not available, due to factors beyond the control of the Contractor.
 2. Unsuitability: Subsequent information or changes disclose inability of the specified item to perform as intended.
 3. Regulatory requirements: Final interpretation of Code, regulatory requirements, safety requirements, or insurance requirements necessitate a change due to inability of the specified item to conform.
 4. Warranty: Manufacturer or fabricator cannot certify or warrant performance of specified item as required.
 5. Owner's benefit: In the judgment of the Architect, acceptance of the proposed substitution is clearly in the Owner's best interest because of cost, quality, or other consideration. In requesting a substitution under this clause, the contractor shall furnish substantiation of any such reason.
 6. "Approved", "Approved equal" or "approved equivalent": Where products or manufacturers are specified by name, accompanied by the term "approved", "or approved equal" or "approved equivalent".
- E. Redesign and coordination: In making request for approval of alternative or substitute materials, the Bidder/Contractor must represent that he has personally investigated the proposed product and, in his opinion, it is equivalent or superior on all respects to that specified. Also, Contractor will coordinate all trades including changes in the work thereof as may be required, will waive all claims for additional costs which subsequently become apparent as a consequence of the substitution and will bear all costs related hereto, including costs of Architect's services for redesign if deemed necessary.
- F. Substitutions will not be considered if they are indicated or implied on shop drawings or other project data submittals, without proper notice shown on attached form.

2.2 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
1. Post electronic submittals as PDF electronic files directly via email to Architect/Owner.
 - a. Architect will electronically return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 24 by 36 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.

2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 - b. Note that color selection submittals may have to be submitted concurrently to provide context for selection. Coordinate with Architect.
 6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect/Owner will retain one Sample set each; remainder will be returned.
 - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Coordination Drawings Submittals: Comply with requirements specified in Section 01 31 00 – Project Management and Coordination.
- F. Contractor's Construction Schedule: Comply with requirements specified in Section 01 32 00 – Construction Progress Documentation.
- G. Application for Payment and Schedule of Values: Comply with requirements specified in Section 01 29 00 – Payment Procedures.

- H. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 01 45 00 – Quality Requirements.
- I. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 78 00 – Close-out Submittals.
- J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- K. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- P. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- Q. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- S. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

- T. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- U. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- V. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.3 DELEGATED-DESIGN SERVICES (SEE GENERAL CONDITIONS OF CONTRACT)

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Sections 01 77 00 and 01 78 00.
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has

been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. If more than two submittal reviews are necessary by A/E, consultants will charge General Contractor for time involved to resolve/approve at standard hourly personnel rates.

END OF SECTION 01 33 00

SECTION 01 35 20 – SAFETY PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 PRELIMINARY WORK

- A. Prior to the start of and during the course of above and below ground Work the Contractor shall make a thorough survey of the entire worksite to determine all potential hazards and notify the Owner in writing of any such hazards prior to the commencement of work. Workmen shall be made aware of those hazards and shall be instructed in procedures and the use of equipment for their protection. The Contractor shall verify the location, condition, and whether it is active or inactive of all utilities on and near the worksite and take precautions to protect all people working on the project, the general public, and the property.
- B. Submit a site specific safety plan in accordance with Section 01 35 20, 1.8. Submit (2) copies of site safety plan to Owner as record of intent. Submit to allow for Owner review and comment if necessary and re-submittal with modifications prior to beginning any work.

1.3 IMMINENT DANGER

- A. The Contractor shall be wholly responsible for all accidents or death occurring at any time during the progress or completion of this project which may happen to any person employed to perform work on this project; or for any injury or death its work, operations, or persons performing work on this project may cause to any person not employed in the work of this project; or for any damage its work, operations, or persons performing work on this project may cause to the work being constructed, or to any existing public or private property, either on or adjoining the project site or along any routes of travel. Completion of this project includes any time work is being performed on this project, even after final acceptance by the Owner.

1.4 SAFETY

- A. The Contractor shall ensure that all persons, while on the work site, comply with the requirements of Island County, the Port, and WISHA, these requirements, and the safety precautions contained in the several Specification Sections. The Contractor shall promptly and fully comply with, execute and, without separate charge thereof to the Owner, shall enforce compliance with the provisions of the latest adopted Washington Industrial Safety and Health Act, with particular attention paid but not limited to Chapter 296-155, WAC Safety Standards for Construction Work; with particular attention paid but not limited to Chapter 296-24

WAC General Safety and Health Standards; with particular attention paid but not limited to Chapters 296-27, 196-350 and 296-360 WAC regarding Administrative Safety and Health Act Chapter 49-17 RCW, and any addenda thereto.

All persons at minimum include: Owner Representatives, Architects Staff, SubConsultants Staff, General Contractor Staff, Subcontractor Staff, Vendors, Delivery Personnel and Project Inspectors.

- B. The Contractor shall immediately advise the Owner of inspections conducted by WISHA at the work site, and shall transmit copies of reports, citations and violations to the Owner and A/E.

1.5 SAFETY RESPONSIBILITIES

- A. Contractor shall be responsible to:
 - 1. Ensure compliance with these requirements, WISHA requirements, and other safety requirements.
 - 2. Authorize immediate action to correct substandard safety conditions.
 - 3. Review and act to ensure compliance with safety procedures with its supervisors, subcontractors, and suppliers.
 - 4. Make thorough daily safety inspections of the work site and immediately act to eliminate unsafe acts and unsafe conditions.
 - 5. Investigate worksite accidents and recommend immediate corrective action.
 - 6. Assist in the preparation of accident investigation and reporting procedures.
 - 7. Be responsible for the control, availability, and use of safety equipment, including employee personal protective equipment.
 - 8. Submit two (2) copies of site specific safety plan to Owner.

1.6 REQUEST FOR VARIANCES

- A. Requests for variances to deviate from WISHA requirements must follow the current established procedures by that Agency.

1.7 FAILURE TO COMPLY

- A. If work on the project is stopped due to the Contractor's failure to comply with the requirements of WISHA or other applicable safety requirements, no part of the time loss due to any such suspension of operations or stop orders shall be made the subject of a claim for extension of time or for increased cost or damage by the Contractor.

1.8 SITE SPECIFIC SAFETY PLAN

- A. In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions. For these purposes, the Contractor shall:
 - 1. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that

- will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific safety plan to the Owner's representative prior to the initial scheduled construction meeting.
2. Provide adequate safety devices and measures including, but not limited to, the appropriate safety literature, notice, training, permits, placement and use of barricades, signs, signal lights, ladders, scaffolding, staging, runways, hoist, construction elevators, shoring, temporary lighting, grounded outlets, wiring, hazardous materials, vehicles, construction processes, and equipment required by all applicable state, federal, and local laws and regulations.
 3. Comply with the State Environmental Policy Act (SEPA), Clean Air Act, Shoreline Management Act, and other applicable federal, state, and local statutes and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources.
 4. Post all permits, notices, and/or approvals in a conspicuous location at the construction site.
 5. Provide any additional measures that the Owner determines to be reasonable and necessary for ensuring a safe environment in areas open to the public. Nothing in this part shall be construed as imposing a duty upon the Owner or A/E to prescribe safety conditions relating to employees, public, or agents of the Contractors.
- B. Contractor safety responsibilities: In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether on site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- C. Contractor to maintain safety records: Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.
- D. Contractor to provide HazMat training: Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
1. Information. At a minimum, Contractor shall inform persons working on the Project site of:
 - a. WAC: The requirements of chapter 296-62 WAC, General

- Occupational Health Standards;
 - b. Presence of hazardous chemicals: Any operations in their work area where hazardous chemicals are present; and
 - c. Hazard communications program: The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets required by chapter 296-62 WAC.
2. Training. At a minimum, Contractor shall provide training for persons working on the Project site which includes:
- a. Detecting hazardous chemicals: Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
 - b. Hazards of chemicals: The physical and health hazards of the chemicals in the work area;
 - c. Protection from hazards: The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
 - d. Hazard communications program: The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- E. Hazardous, toxic or harmful substances: Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
- 1. Illegal use of dangerous substances: Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site, any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 Days on the Project site.
 - 2. Contractor notifications of spills, failures, inspections, and fines: Contractor shall promptly notify Owner of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Owner of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.

- F. Public safety and traffic: All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- G. Contractor to act in an emergency: In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- H. No duty of safety by Owner or A/E: Nothing provided in this section shall be construed as imposing any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION 01 35 20

SECTION 01 42 00 - REFERENCED STANDARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. See other sections of the specifications for additional definitions.

1.2 DEFINITIONS

- A. General: Basic contract definitions are included in the General Conditions for this Contract. The following supplements Part 1 of those Conditions and expands on definitions and intent of language generally used in the Contract Documents.
- B. "Accepted": Means accepted by the A/E when used in conjunction with the A/E's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Approved": Where used in conjunction with A/E's response to submittals, requests, applications, inquires, reports, and claims by Contractor, the meaning of the term "approved" will be held to limitations of A/E's responsibilities and duties as specified in General and Supplementary Conditions. Where the terms "or approved" or "as approved" or "for approval" are used, the A/E is the sole judge of the quality and suitability of the proposed substitutions. In no case will "approval" by A/E be interpreted as a release of Contractor from responsibilities to fulfill requirements of the Contract Documents. Whenever a material, article or piece of equipment is identified on the Drawings or in the Project Manual by reference to manufacturer's or vendor's names, trade names, catalog numbers, or the like, and followed by the wording "or approved", "or approved substitute" or "equivalent, as approved", it is so identified for the purpose of establishing a standard, and any material, article, or piece of equipment of other manufacturers or vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or piece of equipment so proposed is, in the opinion of the A/E, of equivalent substance, quality, appearance or function and has been approved by the A/E in writing prior to bid opening in conformance with the provision of Section 01 60 00, Product Requirements, Article 2.03. It shall not be purchased or installed by the Contractor without A/E's and Owner's prior written approval.
- D. "A/E", "Consultant": Means the design firm identified in the Contract Documents.
- E. "As required": Means as required by regulatory bodies, by referenced standards, by existing conditions, by generally accepted construction practice, or by the Contract Documents, to suitably complete the work and at the direction of the A/E.
- F. "Authority Having Jurisdiction" (AHJ): Means any person which has responsibility related to issuing final occupancy and permits for this Project.

- G. "Concealed": Means spaces out of sight. Such as above ceilings, below floors, between double walls, furred-in areas, pipe and duct shafts, and similar spaces.
- H. "Conditions" or "General Conditions": Means the General Conditions for the Port of Coupeville Construction.
- I. "Coordinate": Means the Contractor is to coordinate scheduling, submittals, and work of various sections of the specifications, drawings and construction of all trades to assure efficient and orderly sequence of interdependent construction elements for a complete and operating installation.
- J. "Demolish": Means to tear down and remove completely, including any anchors, unless noted otherwise, without damaging adjacent surfaces that all to remain.
- K. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the A/E, requested by the A/E, and similar phrases. However, no such implied meaning will be interpreted to extend A/E's responsibility into Contractor's area of construction supervision.
- L. "Engineer": Where the term engineer is used, it means either:
1. Consultant in its respective discipline to the A/E or Owner as listed in the Project Manual.
 2. Consultant to the Contractor, retained by contractor to perform services required by construction activities.
- M. "Experienced": When used with respect to any trade performing services for the project, means having a minimum of 5 successfully completed previous projects similar in size and scope to this project, being familiar with the special requirements indicated, and aware of and compliance with AHJ requirements.
- N. "Exposed": Means open to view and not covered or concealed.
- O. "First Class Workmanship": Means to
1. Verify before installing any material that the receiving surface is plumb, level, true to line, and straight to achieve tolerances identified. Surfaces not meeting this criteria are to be identified to the contractor and corrected before proceeding.
 2. New work is to be tight, straight, even, and smooth with respect to the new work and interfacing with adjoining surfaces.
- P. "Furnish": Means to supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- Q. "General" or "General Requirements": The provisions or requirements of Division 1 Sections. General Requirements apply to entire work of Contract and where so indicated, to other elements of work which are included in the Project.
- R. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Project Manual (Specifications

and Detail Book), and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited, and is applicable where reasonably implied and necessary in conformance with work specified, drawn, or required for completion.

- S. "Inspection": As used in reference to actions of the A/E or his/her consultants, shall mean to review or observe the Work, but not to "inspect" the Work as the Contractor or Authority Having Jurisdiction will inspect.
- T. "Install": Means operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations to permanently affix to project, as applicable in each case.
- U. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- V. "Install in Accordance with Manufacturer's Instructions and Directions": Throughout the Documents, although it may not be specifically stated, the Contractor is to install all work in accordance with Manufacturer's literature, unless otherwise noted or directed, for the best results. Where more than one Manufacturer is involved in the work, or its component parts, the Contractor shall follow each Manufacturer's literature.
 - 1. In the event of conflict between the Manufacturer's Literature, or its literature and the Contract Documents, the Contractor shall submit the discrepancy or conflict to the A/E for resolution and written instruction prior to proceeding with any work.
 - 2. No Manufacturer preparatory steps or installation procedures may be omitted. If the Contract Documents generalize the installation procedure, but do not necessarily mention all procedures, those procedures are not exempt from being completed by the Contractor unless they are specifically modified or stated as being exempt.
- W. "Owner": Means "Port of Coupeville":
 - 1. Port of Coupeville will be represented by a Project Manager (PM) who has been involved with the design and is responsible for managing the A/E Agreement and Construction Contract.
 - 2. Port of Coupeville may assign a project specific Site Representative (Site Inspector) to be present on-site during construction. This "Site Rep" will observe and report daily activities to the Owner and provide assistance to assure Owner impacts, project access, construction quality and construction related responses are addressed. As an agent of the Owner, the Site Rep may expedite Owner decisions.
 - a. The Site Representative will make daily visits to the site to review the progress of the work and its conformance with the Contract Documents. The Site Representative will bring relevant issues to the attention of the Contractor's QA Representative, A./E, and PM.
 - b. The Site Representative will participate in the pre-construction meeting, quality control meetings, progress meetings, pre-installation meetings, and closeout/punch list meetings in addition to walk-throughs.
 - 3. "By Owner" refers to work that will be performed by the Owner or Owner's agents at

the Owner's cost.

- X. "Patch": Means to cut out to nearest joint and replace with like kind material.
- Y. "Product": Means materials, systems and equipment provided by the Contractor for use in the Work.
- Z. "Project Manual": Means the volume(s) included as part of the Project Documents.
- AA. "Project Site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- AB. "Provide": Means to furnish, coordinate, and install, complete, in place and ready for the intended use.
- AC. "Regulations": Means laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- AD. "Remove": Means to detach items from the existing construction and legally dispose of offsite unless indicated to be "removed and salvaged" or "removed and reinstalled".
- AE. "Repair": Means to perform minor corrections and patching of all indicated materials.
- AF. "Replace": Means to provide new material to match adjacent materials, unless noted otherwise.
- AG. "As Required": Means to complete the work in a first class workmanship manner.
- AH. "Remove and Salvage": Means to remove, clean, and pack or crate item to protect against damage, identify contents of packed item, and deliver to Owner's designated storage area.
- AI. "Remove and Reinstall": Means to remove, clean, service, and otherwise prepare the item to be reused; restore if the item is historic; store and protect against damage and reinstall in the same location or as otherwise indicated.
- AJ. "Satisfactory": Means "satisfactory to the A/E and Owner"; the A/E shall be the sole judge of the acceptability of a product or an installation.
- AK. "Selected": Means "selected by the A/E and Owner" and is not necessarily limited to a manufacturer's standard line of colors, finishes or details.
- AL. "Similar", "Similar to": Where the words "similar" or "similar to" are used:
 - 1. Where it occurs in the Contract Documents, shall mean that a portion of the Work shall have common features and be visually consistent with, but may not necessarily be identify to, related portions of the Work. Contractor shall correlate

similar conditions of the Work. The Contractor shall identify any uncertainties to the A/E. Do not proceed without A/E's direction.

2. Where it is followed by a manufacturer's name and product, model, or type number, such manufacturer, product, model or type number shall be considered as the standard of quality for the item or product work specified, in a general and technical sense, not meaning "identical", and the provisions pertaining to "or approved" shall apply to any other proposed material, article, or piece of equipment of other manufacturers or vendors.

- AM. "Testing Agencies": Means an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.
- AN. "Trades": Means any person or group of people which provides services to or work on the Project. Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- AO. "Verify": Means the Contractor is to verify existing conditions and coordinate any variations from what is shown in the Contract Documents with the A/E.
- AP. "(E)": Means Existing.
- AQ. "(N)": Means New.
- AR. "V.I.F.": Means Verify in Field.
- AS. "Equal," "accepted equal," and "approved equal" shall mean as accepted, in writing, by Architect as being of equivalent quality, utility, and appearance.

1.03 SPECIFICATION AND DRAWING FORMAT AND CONTENT EXPLANATION

- A. The General Conditions, Supplemental Conditions, and Division 1 of these specifications shall be a part of technical Divisions and Sections the same as if they were specifically called for in each section.
- B. Wording of these Specifications: These Specifications are of the abbreviated or streamlined type and may include incomplete sentences. Words such as "shall," "the Contractor shall," "shall be," and similar mandatory phrases, are included by inference.
- C. Tense, Gender, Singular, Plural: Present tense words include future tense. Words in masculine gender include feminine and neuter genders. Words in the singular include plural. Plural words include singular.
- D. All, Entire, and the Like: For brevity throughout the documents, these words may be omitted. Read their implications into all work, as the following parenthetical insertion exemplifies: "Balance and adjust (all) dampers."

- E. Specification by Reference: Any material specified by reference or number, symbol or title of a specified standard, such as commercial standard, ANSI and ASTM documents, Federal Specifications, trade association standard, or the like, shall comply with the following:
 - 1. The latest revision requirements thereof;
 - 2. Any amendment or supplement thereto in effect on date of the Project Manual, except as modified;
 - 3. When building code requirements refer to a different issue of standards specifications, such issue governs.

- F. Drawings are in part diagrammatic and do not necessarily show complete details of construction, work or materials, performance or installation. They do not necessarily show how construction details, other items or work, fixtures, and equipment may affect any particular installation. The Contractor is required to ascertain and correlate the work to bring the parts together into a satisfactory and completed whole.
 - 1. Where on any of the drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other portions of the work.
 - 2. Wherever a detail is referenced and developed for a specific condition, same or similar detail shall apply to identical or similar conditions elsewhere on project even though not specifically referenced.

1.04 INDUSTRY STANDARDS

- A. Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

- B. Comply with the standards in effect as of the date of the Contract Documents.

- C. Where compliance with 2 or more standards or quantities of scope are specified and the standards or count established differ or have conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer to the A/E before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the A/E for a decision before proceeding.

- D. Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Contractor shall obtain copies directly from the publication source and have them available at the job site all reference standards which are referenced in the technical specifications of the Project Manual or on the Drawings.

- E. Graphic Standards: Symbols used in the Contract Documents, except as otherwise noted, are those symbols recognized in the construction industry for purposes indicated.
- F. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in the Contract Documents, are defined to mean the associated names. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents. The following list may not be complete or may have additional listings not used in the Contract Documents. Refer to Gales Research Company "Encyclopedia of Associations", available in most libraries, for any missing names.

AA	Aluminum Association 900 19 th St., NW, Suite 300 Washington, DC 20006	HEI	Heat Exchange Institute c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851
AABC	Associated Air Balance Council 1518 K St., NW Washington, DC 20005	HI	Hydronics Institute P.O. Box 218 35 Russo Place Berkeley Heights, NJ 07922
AAMA	American A/Eural Manuf's Assoc. 1540 E. Dundee Road, Suite 310 Palatine, IL 60067	HI	Hydraulic Institute 9 Sylvan Way Parsippany, NJ 07054-3802
ADC	Air Diffusion Council One Illinois Center, Suite 200 111 East Wacker Drive Chicago, IL 60601-4298	IBD	Institute of Business Designers 341 Merchandise Mart Chicago, IL 60654
AAN	American Association of Nurserymen 1250 Eye St., NW, Suite 500 Washington, DC 20005	ICEA	Insulated Cable Engineers Assoc, Inc. P.O. Box 440 South Yarmouth, MA 02664
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol St., Suite 249 Washington, DC 20001	IEC	International Electrotechnical Comm. (Available from ANSI) 1430 Broadway New York, NY 10018
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215 Research Triangle Park, NC 27709	IEEE	Institute of Elect & Electronic Eng 345 E. 47th St. New York, NY 10017
ABMA	American Bearing Manufacturers. Assoc 1101 Connecticut Ave., NW, Suite 700 Washington, DC 20036	IESNA	Illuminating Engineering Society of North America 345 E. 47th St. New York, NY 10017
ACI	American Concrete Institute P.O. Box 19150 Detroit, MI 48219	IGCC	Insulating Glass Certification Council C/o ETL Testing Laboratories, Inc. P.O. Box 2040 Route 11, Industrial Park Cortland, NY 13045

ACIL	American Council of Independent Laboratories 1629 K St., NW Washington, DC 20006	ILI	Indiana Limestone Institute of America Stone City Bank Building, Suite 400 Bedford, IN 47421
ACPA	American Concrete Pipe Assoc. 8300 Boone Blvd., Suite 400 Vienna, VA 22182	IRI	Industrial Risk Insurers P.O. Box 5010 85 Woodland St Hartford, CT 06102-5010
ADC	Air Diffusion Council One Illinois Center, Suite 200 111 East Wacker Dr Chicago, IL 60601-4298	ISA	Instrument Society of America P.O. Box 12277 67 Alexander Dr. Research Triangle Park, NC 27709
AFBMA	Anti-Friction Bearing Manufacturers Assoc. (Now ABMA)	LIA	Lead Industries Association, Inc. 295 Madison Ave. New York, NY 10017
AFPA	American Forest and Paper Assoc. (American Wood Council of the) 2nd Floor, 1250 Connecticut Ave., NW Washington, DC 20036	LPI	Lightning Protection Institute 3365 N. Arlington Heights Rd., Suite J Arlington Heights, IL 60004
AGA	American Gas Assoc. 1515 Wilson Blvd Arlington, VA 22209	MCAA	Mech Contractors Assoc of America 1385 Piccard Dr. Rockville, MD 20850-4329
AHA	American Hardboard Assoc. 1210 W. Northwest Highway Palatine, IL 60067	ML/SFA	Metal Lath/Steel Framing Assoc. (A Division of the National Association of A/Eural Metal Manufacturers) 600 S. Federal St., Suite 400 Chicago, IL 60605
AI	Asphalt Institute P.O. Box 14052 Lexington, KY 40512-4052	MSS	Manufacturers Standardization Society of the Valve and Fittings Industry 127 Park St., NE Vienna, VA 22180
AIA	The American Institute of Architects 1735 New York Ave., NW Washington, DC 20006	NAA	National Arborist Assoc. Route 101, P.O. Box 1094 Amherst, NH 03031-1094
AIA	American Insurance Assoc. 1130 Connecticut Ave., NW, Suite 1000 Washington, DC 20036	NAAMM	National Association of A/Eural Metal Manufacturers 600 S. Federal St., Suite 400 Chicago, IL 60605
AIHA	American Industrial Hygiene Assoc. 2700 Prosperit Ave., Suite 250 Fairfax, VA 22031	NAIMA	North American Insulation Manufacturers Assoc. 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314
AISC	American Institute of Steel Construction One East Wacker Dr., Suite 3100 Chicago, IL 60601-2001		
AISI	American Iron and Steel Institute 1101 17th St., NW Washington, DC 20036-4700		

ALI	Associated Laboratories, Inc. c/o HOH Chemicals 500 S. Vermont St. Palatine, IL 60067	NAPA	National Asphalt Pavement Assoc. NAPA Building 5100 Forbes Blvd. Lanham, MD 20706-4413
ALSC	American Lumber Standards Committee P.O. Box 210 Germantown, MD 20875	NAPF	National Association of Plastic Fabricators (Now DLPA)
AMCA	Air Movement and Control Assoc. 30 W. University Dr. Arlington Heights, IL 60004-1893	NBHA	National Builders Hardware Assoc. (Now DHI)
ANSI	American National Standards Institute 11 West 42nd St., 13th Floor New York, NY 10036	NCRPM	National Council on Radiation Protection and Measurements 7910 Woodmont Ave., Suite 800 Bethesda, MD 20814
AOAC	AOAC International 2200 Wilson Blvd., Suite 400 Arlington, VA 22201-3301	NEC	National Electrical Code (from NFPA)
AOSA	Association of Official Seed Analysts California State Seed Laboratory 1220 N St. Sacramento, CA 95814	NECA	National Electrical Contractors Assoc. 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814
APA	American Plywood Assoc. P.O. Box 11700 Tacoma, WA 98411	NEII	National Elevator Industry, Inc. 185 Bridge Plaza, North Fort Lee, NJ 07024
API	American Petroleum Institute 1220 L St., NW Washington, DC 20005	NEMA	National Elect Manufacturers Assoc. 2101 L St., NW, Suite 300 Washington, DC 20037
ARI	Air-Conditioning and Refrigeration Institute 4301 Fairfax Dr., Suite 425 Arlington, VA 22203	NETA	International Electrical Testing Assoc. P.O. Box 687 Morrison, CO 80465
ARMA	Asphalt Roofing Manufacturers Assoc. 6000 Executive Dr., Suite 201 Rockville, MD 20852-3803	NFPA	National Fire Protection Assoc. One Batterymarch Park P.O. Box 9101 Quincy, MA 02269-9101
ASA	Acoustical Society of America 500 Sunnyside Blvd. Woodbury, NY 11797	NFPA	National Forest Products Assoc. (Now AFPA)
ASC	Adhesive and Sealant Council 1627 K St., NW, Suite 1000 Washington, DC 20006-1707	NHLA	National Hardwood Lumber Assoc. P.O. Box 34518 Memphis, TN 38184-0518
		NLGA	National Lumber Grades Authority 4400 Dominion St., Suite 103 Burnaby, BC V5G 4G3

ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329	NMCA	National Concrete Masonry 2302 Horse Pen Road Herndon, VA 22071-3406
ASME	American Society of Mech Engineers 345 East 47th St. New York, NY 10017	NPA	National Particleboard Assoc. 18928 Premiere Ct. Gaithersburg, MD 20879
ASPE	American Society of Plumb Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362	NPCA	National Paint and Coatings Assoc. 1500 Rhode Island Ave., NW Washington, DC 20005
ASSE	American Society of Sanitary Engineering P.O. Box 40362 Bay Village, OH 44140	NRCA	National Roofing Contractors Assoc. 10255 W. Higgins Rd., Suite 600 Rosemont, IL 60018-5607
ASTM	American Society for Testing and Materials 1916 Race St. Philadelphia, PA 19103-1187	NSF	National Sanitation Foundation 3475 Plymouth Rd. P.O. Box 130140 Ann Arbor, MI 48113-0140
ATIS	Alliance for Telecommunications Industry Solutions 1200 G St., NW, Suite 500 Washington, DC 20005	NTMA	National Terrazzo and Mosaic Assoc. 3166 Des Plaines Ave., Suite 132 Des Plaines, IL 60018
AWI	Architectural Woodwork Institute P.O. Box 1550 13924 Braddock Rd., No. 100 Centerville, VA 22020	NWMA	National Woodwork Manuf. Assoc. (Now NWWDA)
AWS	American Welding Society 550 LeJeune Rd., NW Miami, FL 33126	NWCB	Northwest Wall & Ceiling Bureau 1032-A N.E. 65th Street Seattle, WA 98115
AWPA	American Wood Preservers' PO Box 286 Woodstock, MD 21163-0286	NWWDA	National Wood Window and Door Assoc. 1400 E. Touhy Ave., #G54 Des Plaines, IL 60018
AWWA	American Water Works Assoc. 6666 W. Quincy Ave. Denver, CO 80235	PATMI	Power Actuated Tool Manufacturers' Institute, Inc. 1000 Fairgrounds Rd., Suite 200 St. Charles, MO 63301
BHMA	Builders' Hardware Manuf Assoc. 355 Lexington Ave., 17th Floor New York, NY 10017	PCA	Portland Cement Assoc. 5420 Old Orchard Rd. Skokie, IL 60077
		PCI	Precast/Prestressed Concrete Institute 175 W. Jackson Blvd. Chicago, IL 60604
		PDI	Plumbing and Drainage Institute c/o Sol Baker 1106 W. 77th St., South Dr. Indianapolis, IN 46260

BIFMA	The Business and Institutional Furniture Manufacturer's Association 2680 Horizon Dr., SE, Suite A1 Grand Rapids, MI 49546-7500	PEI	Porcelain Enamel Institute 102 Woodmont Blvd., Suite 360 Nashville, TN 38205
CAGI	Compressed Air and Gas Institute c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851	RFCI	Resilient Floor Covering Institute 966 Hungerford Dr., Suite 12-B Rockville, MD 20805
CAUS	Color Association of the United States 409 W. 44th St. New York, NY 10036	RMA	Rubber Manufacturers Assoc. 1400 K St., NW Washington, DC 20005
CBM	Certified Ballast Manufacturers Assoc. 1422 Euclid Ave., Suite 402 Cleveland, OH 44115-2851	SDI	Steel Door Institute 30200 Detroit Rd Cleveland, OH 44145
CCC	Carpet Cushion Council P.O. Box 546 Riverside, CT 06878	SGCC	Safety Glazing Certification Council c/o ETL Testing Laboratories Route 11, Industrial Park Cortland, NY 13045
CFFA	Chemical Fabrics & Film Assoc, Inc. c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851	SHLMA	Southern Hardwood Lumber Manufacturers Assoc. (Now HMA)
CGA	Compressed Gas Assoc. 1725 Jefferson Davis Highway Suite 1004 Arlington, VA 22202-4100	SIGMA	Sealed Insulating Glass Manuf Assoc. 401 N. Michigan Ave. Chicago, IL 60611
CISCA	Ceiling and Interior Systems. Construction Assoc 579 W. North Ave., Suite 301 Elmhurst, IL 60126	SMACNA	Sheet Metal and Air Conditioning Contractors National Assoc. 4201 Lafayette Center Dr. Chantilly, VA 22021
CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Rd., Suite 419 Chattanooga, TN 37421	SPRI	Single Ply Roofing Institute 20 Walnut St. Wellesley Hills, MA 02181
CRI	Carpet and Rug Institute P.O. Box 2048 Dalton, GA 30722	SSPC	Steel Structures Painting Council 4516 Henry St. Pittsburgh, PA 15213
CRSI	Concrete Reinforcing Steel Institute 933 N. Plum Grove Rd. Schaumburg, IL 60173	SSPMA	Sump and Sewage Pump Mfg Assoc. P.O. Box 647 Northbrook, IL 60065-0647
CTI	Ceramic Tile Institute of America 12061 West Jefferson Blvd. Culver City, CA 90230	STI	Steel Tank Institute 570 Oakwood Rd. Lake Zurich, IL 60047
DHI	Door and Hardware Institute 14170 Newbrook Dr. Chantilly, VA 22021-2223	TCA	Tile Council of America P.O. Box 326 Princeton, NJ 08542-0326

DIPRA	Ductile Iron Pipe Research Assoc. 245 Riverchase Parkway East, Suite O Birmingham, AL 35244	TIMA	Thermal Insulation Manuf Assoc. (This Organization is now defunct. See NAIMA)
DLPA	Decorative Laminate Products Assoc. 13924 Braddock Rd. Centreville, VA 22020	UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook, IL 60062
ECSA	Exchange Carriers Standards Assoc. (Now ATIS)	UNI	Uni-Bel PVC Pipe Assoc. 2655 Villa Creek Dr., Suite 155 Dallas, TX 75234
EIA	Electronic Industries Assoc. 2001 Pennsylvania Ave., NW Washington, DC 20006-1813	WCLIB	West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281
EJMA	Expansion Joint Manufacturers Assoc. 25 N. Broadway Tarrytown, NY 10591	WLPDIA	Western Lath, Plaster, Drywall Industries Assoc. (Formerly California Lath & Plaster Assoc.) 8635 Navajo Rd. San Diego, CA 92119
ETL	ETL Testing Laboratories, Inc. P.O. Box 2040 3933 Route 11, Industrial Park Cortland, NY 13045	WRI	Wire Reinforcement Institute 1101 Connecticut Ave. NW, Suite 700 Washington, DC 20036-4303
FCIB	Floor Covering Installation Board 310 Holiday Ave. Dalton, GA 30720	WSC	Water Systems Council 600 S. Federal St., Suite 400 Chicago, IL 60605
FM	Factory Mutual Systems 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062	WWPA	Western Wood Products Assoc. Yeon Building 522 SW 5th Ave. Portland, OR 97204-2122
FTI	Facing Tile Institute P.O. Box 8880 Canton, OH 44711	W.W.P.A	Woven Wire Products Assoc. 2515 N. Nordica Ave. Chicago, IL 60635
GA	Gypsum Association 810 First St., NE, Suite 510 Washington, DC 20002		
GANA	Glass Assoc. of North America 3310 S.W. Harrison St. Topeka, KS 66611-2279		

G. Federal Government Agencies: Federal government agency names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in the Contract Documents, are defined to mean the associated names. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents. The following list may not be complete or may have additional listings not used in the Contract Documents. Refer to Gales Research Company "Encyclopedia of Associations", available in most libraries, for any missing names.

ADAAG	ADA Accessibility Guidelines Access Board 1331 F Street NW, Suite 1000 Washington, DC 20004-1111	FHA	Federal Housing Administration (U.S. Department of Housing and Urban Development) 451 Seventh St., SW Washington, DC 20201
CE	Corps of Engineers (U.S. Department of the Army) Chief of Engineers - Referral Washington, DC 20314	FS	Federal Specification (from GSA) Specifications Unit (WFSIS) 7th and D St., SW Washington, DC 20407
CFR	Code of Federal Regulations (Available from the Government Printing Office) N. Capitol St. between G and H St., NW Washington, DC 20402 (Material is usually first published in the "Federal Register")	GSA	General Services Administration F St. and 18th St., NW Washington, DC 20405
CPSC	Consumer Product Safety Commission 5401 Westbard Ave. Bethesda, MD 20207	MIL	Military Standardization Documents (U.S. Department of Defense) Naval Publications and Forms Center 5801 Tabor Ave. Philadelphia, PA 19120
CS	Commercial Standard (U.S. Department of Commerce) Government Printing Office Washington, DC 20402	NIST	National Institute of Standards and Technology (U.S. Department of Commerce) Gaithersburg, MD 20899
DOC	Department of Commerce 14th St. and Constitution Ave., NW Washington, DC 20230	OSHA	Occupational Safety and Health Administration (U.S. Department of Labor) 200 Constitution Ave., NW Washington, DC 20210
DOT	Department of Transportation 400 Seventh St., SW Washington, DC 20590	PS	Product Standard of NBS (U.S. Department of Commerce) Government Printing Office Washington, DC 20402
EPA	Environmental Protection Agency 401 M St., SW Washington, DC 20460	REA	Rural Electrification Administration (U.S. Department of Agriculture) 14th St. and Independence Ave., SW Washington, DC 20250
FAA	Federal Aviation Administration (U.S. Department of Transportation) 800 Independence Ave., SW Washington, DC 20590	USDA	U.S. Department of Agriculture Independence Ave. Washington, DC 20250
FCC	Federal Communications Commission 1919 M St., NW Washington, DC 20554	USPS	U.S. Postal Service 475 L'Enfant Plaza, SW Washington, DC 20260-0010
FDA	Food and Drug Administration 5600 Fishers Lane Rockville, MD 20857		

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01 45 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 3. Specific test and inspection requirements are not specified in this Section.

1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
 - 1. Laboratory Mockups: Full-size physical assemblies constructed at testing facility to verify performance characteristics.
 - 2. Visual Assembly and Performance Mockups
 - a. Visual and Performance Mockups: Build visual mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation. Visual and performance mockup indicated on drawings will also be used to verify constructability of transitions between various exterior envelope assemblies and to set expectations for workmanship, as it relates to envelope detailing.
 - 1) Build stand alone temporary mockups of typical conditions as shown on Drawings.

- 2) Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3) Locate visual and performance mockup in an area approved by Owner and Architect. The location shall allow for frequent access by construction workers, Owner and Architect during envelope construction.
- C. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

1.3 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.4 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Field Reports: Prepare written information documenting tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 5. Other required items indicated in individual Specification Sections.

1.5 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to

practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

- F. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- G. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect/Owner PM.
 - 2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 - 5. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
 - 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 7. Demolish and remove mockups when directed unless otherwise indicated.
- H. Integrated Exterior Mockups: Construct integrated exterior mockup either according to approved Shop Drawings or as indicated on Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials. Comply with requirements in "Mockups" Paragraph (see 01 45 00, 1.2, B.2).

1.6 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
 - 3. Quality-Control Services that are the Owner's responsibility are as follows:
 - a. Testing identified by structural engineer's General Notes and drawings.
 - b. Inspection and Tests required by the Authority with Jurisdiction.
 - c. Initial non-destructive test/inspection of roofing unless installation fails the test. Test is at Owner's discretion.

- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.
- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Preliminary design mix proposed for use for material mixes that require control by

- testing agency.
 - 6. Security and protection for samples and for testing and inspecting equipment at Project site.
 - G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- 1.7 SPECIAL TESTS AND INSPECTIONS
- A. Special Tests and Inspections: Conducted by a qualified special inspector as required by authorities having jurisdiction as indicated in the structural notes, as indicated in individual Specification Sections and drawings and as follows:
 - 1. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 2. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 - 3. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 4. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 5. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's/Owner's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 73 00 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 40 00

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, project identification signage and security and protection facilities.
- B. Ongoing Operations: The existing Port of Coupeville Tenants shall remain in operational during the course of construction. Temporary mobilization by Contractor shall be provided to sustain these operations.
- C. Related Requirements:
 - 1. Section 01 10 00 "Summary of Work" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.

1.3 SUBMITTALS

- A. Site Specific Safety Plan: Show temporary facilities, utility hookups, construction fence enclosures & gates, staging areas, and parking areas for construction personnel. Include Emergency Contacts, list of key project contacts and copy of Contractor's safety plan procedures.
 - 1. Indicate how building entrances and circulation routes maybe maintained or modified for occupants and visitors, and if overhead work is going to occur, overhead protection. Fencing shall not have any direct attachment to any buildings.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and as applicable.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire prevention program.
- D. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.

1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, sprayed insulation, plastering, and/or terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- E. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust-control partitions at each phase of work.
 2. HVAC system isolation schematic drawing.
 3. Location of proposed air-filtration system discharge.
 4. Waste handling procedures.
 5. Other dust-control measures.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Existing Work
 1. Existing construction and equipment not scheduled to be removed shall be kept in its original condition. If damaged, replace at no additional cost to the Owner.
 2. Repair damaged surfaces to match adjacent finish.
- C. Protection of Existing Utilities
 1. Known utilities of record are referenced or shown on the Contract Drawings but are not to be considered as As-Built. The Contractor shall consider that the

actual As-Built location may be within a tolerance of five (5) feet vertically or five (5) feet either side horizontally of that indicated in the documents. The Contractor shall take the following steps:

- a. Notify Owner in writing, on each occasion, of the intent to work near existing utility services or structures or when a new excavation or sawcutting operation is about to begin. Submit procedure for approval to assure safe and continuous operation of the services.
 - b. Proceed with sufficient caution within the As-Built tolerance area to preclude damaging any known utilities. In the event unidentified utilities are encountered, notify Owner's Representative immediately.
 - c. In the event unknown utilities are damaged during construction, temporary services and/or repairs shall be made immediately by the Contractor to maintain continuity of services. Costs for temporary and/or permanent repairs will be accounted for through a Change Order.
- D. Contractor shall be limited to staging areas and routes into and out of the project area as coordinated with Project Manager and which do not block accessible entrances or accessible parking. Storage of construction debris and stockpiled materials shall only be permitted in those areas indicated and within the construction area in a manner that does not obstruct or cause potential harm to anyone using identified paths through the construction area. Care must be taken that no hazardous or dangerous materials or debris be left in accessible areas. All construction materials shall be stored in secured areas.
- E. A portion of the work may require the Contractor to work outside the identified limits of construction. Contractor shall be required to coordinate all such work with the Owner and notify the Owner a minimum of (2) weeks in advance. Such notification shall include an identification of the area which the Contractor will require to perform the work, a description of the work to be performed, and a duration (in calendar days) until the work is completed.
1. Work in these areas will affect the Owner's normal operations and require coordination. The Owner will be responsible for temporarily relocating people. The Contractor shall be responsible for the protection of any equipment or furniture in these locations during construction.
- F. At all times during the project the Contractor shall provide a safe, non-hazardous pathway for the designated primary and temporary emergency egress routes. The pathway shall be a minimum 4 feet wide and if temporary clearly marked at 10-foot intervals by directional painted arrows, cones and tape, or other commonly recognized and identifiable means. The pathway shall be a non-slip surface, either modifying the existing surfaces as necessary or providing a slip resistant plywood surface. Any exterior pathways shall be maintained so water does not pond on the route and no trip hazards exist.
- G. Security
1. Maintenance of Security:
 - a. It is the Contractor's responsibility to provide adequate security to protect the building and work site from unauthorized entry. Contractor shall be solely responsible for any theft, damage, or injury caused by a breach of such security.

- b. Initiate security program promptly after job mobilization, when enclosure fence, gates, and temporary enclosures are installed.
 - c. Maintain security program throughout construction period, until Owner occupancy or Owner acceptance precludes the need for Contractor security.
2. Entrance Control:
- a. Provide control of all persons and vehicles entering and leaving Project site.
 - b. Allow entrance only to authorized persons with proper identification.
 - c. Owner's access to construction site shall be allowed at all times.

1.6 TEMPORARY STORAGE AND STAGING AREAS

- A. Coordinate with the Owner's Representative for space to locate a temporary storage container or field office, or laydown area.
- B. Contractor's access to construction area will be permitted through approaches in such a manner that traffic will not interfere with Owner's activities.
- C. Maintain storage and working areas in clean and orderly condition.

1.7 CONTRACTOR'S FIELD OFFICE

- A. Not required, but can be provided if Contractor deems necessary.

1.8 TEMPORARY ACCESS

- A. Roof access to be allowed unless arrangements are limited by the Owner's Representative.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly.
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
- D. Provide Sanitary Facilities for Contractor Forces or prearrange Port access to "public facilities."
- E. Preapprove location and locate so as to not impair Project Facility functions.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

2.3 TEMPORARY FENCES AND BARRICADES

- A. Contractor furnish, install and maintain all necessary sound temporary fences, barricades, warning lights and all other safety devices necessary to prevent injury to persons and damage to property.
- B. Contractor is responsible to design all construction barricades and fences with proper sizes of members and with adequate supports to protect public from injuries or accidents, arising from construction Work.
- C. Contractor is responsible to install and maintain necessary security barriers to prevent public access and entry to secure areas of the building during and after normal working hours.
- D. Materials
 - 1. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 8 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch-OD top and bottom rails. Provide galvanized-steel bases for supporting posts. All materials to be new and not reused.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Connections to existing electrical service is available without metering.
 - 1. Arrange with utility company, Owner, and existing users for time when current service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Connect to existing water service for necessary distribution piping in

sizes and pressures adequate for construction.

- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel at location approved by Port Staff/PM or arrange otherwise. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- D. Heating: Provide temporary heating required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
 - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- G. Data Service: Provide separate Contractor data service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- I. Fire Protection System: Protect Existing sprinkler service to building and existing primary valves during course of work.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Project Signs: General Contractor is allowed one Project Sign.
 - 1. Identification Signs: For General Contractor.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - 3. Subcontractor signs will not be allowed at site fencing or at site entrance; but will only be allowed on project mobile unit of the GC (if provided).
- B. Waste Disposal Facilities: Comply with requirements specified in Section 01 74 19 Construction Waste Management.
- C. Temporary Stairs: If or until permanent stairs are available, provide temporary stairs where ladders are not adequate (if applicable).
- D. Use of Permanent Stairs: Use of stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities. This may involve temporary scaffolding above adjacent existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Temporary Erosion and Sedimentation Control: Comply with Temporary Erosion and Sedimentation Controls located in drawings.
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.

- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- J. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire prevention program.
 - 1. Prohibit smoking or vaping in construction areas.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect materials from water damage and keep porous and organic materials from coming into prolonged contact with concrete.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
 - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 - 2. Keep interior spaces reasonably clean and protected from water damage.
 - 3. Discard or replace water-damaged and wet material.
 - 4. Discard, replace, or clean stored or installed material that begins to grow mold.
 - 5. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the

building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00.

3.7 TEMPORARY PROTECTION

- A. Protect Work in progress and adjoining materials in place, during handling and installation.
- B. Supervise construction operation to assure that Work, completed or in progress, is not subject to harmful, dangerous, damaging or otherwise deleterious exposure throughout construction period.
- C. Apply protective covering to assure protection of Work from damage or deterioration. Remove coverings at Substantial Completion or at time of initial operation.
- D. Adjust, lubricate and maintain operable components to assure operability without damaging effects throughout construction period.

3.8 PROTECTION OF EXISTING FACILITIES AND OCCUPANTS

- A. Contractor shall plan their work to ensure that they complete construction in accordance with the Contract Time allowed while complying with the access and time restrictions established.
- B. Building shall remain accessible to all abled and disabled pedestrian traffic. Contractor shall maintain required means of fire egress throughout the Contract duration.
- C. Noise and Vibration Control
 - 1. The following environmental performance standards are to be considered a minimum level of requirement for this project, unless local AHJ requirements are more restrictive. The maximum allowable noise levels as measured at the property line of noise impacted uses or activities shall not exceed the following levels:

Maximum Sound Level (dB(A))	Duration of Any One-Hour Period (min)	Applicable Hours**
47	Continually	10 p.m. – 7 a.m.
52	15	
57	5	15*
62	1	10 p.m. – 7 a.m.

* Total not to exceed 15 minutes in any one hour.

** The lower noise levels apply on all hours of weekends and holidays.

- 2. Maintain the level of construction noise inside adjacent buildings and/or rooms from exceeding 85 dBA during the periods the Contractor is working. Contractor shall meet this criterion by erecting barriers between equipment or job and such interior areas, or by providing equipment noise attenuators.
- 3. Machinery and Equipment – General: Electric-driven is preferred in place of gas or diesel powered machinery. If noise levels on any equipment cannot reasonably be brought down to criteria, either that equipment will not be allowed on the job or use times will have to be scheduled subject to approval of the Owner. Conformance to this specification shall be included in the Contract price and no compensation shall be allowed for special equipment, overtime, etc., that may be required.
- 4. Outdoor Vehicle and Internal Combustion Engine Noise: Notwithstanding the exterior noise level requirements specified in paragraph “1.” above, the noise level of each piece of vehicle and internal combustion engine noise shall not be greater than 85 dBA at a distance of 50 feet as measured under noisiest operating conditions. Rubber-tired equipment shall be used whenever possible instead of equipment with metal tracks.
 - a. Mufflers for stationary engines shall be equipped with noisy attenuators of hospital-area quality for silencing. Construction traffic plan shall be approved by the Owner. Routing shall be through the nearest exit, subject to approval of Owner.
- 5. Equipment:
 - a. Air Compressors: Equip air compressors with isolating spring base for vibration and silencing packages for noise reduction. Electric-driven preferred.

- b. The use of core-drilling or saw cutting equipment, or electric driven drills, is required for all demolition. Scabblers and Roto Hammers are permitted. Other pneumatic tools are not allowed without prior approval.
 - c. Arc Welders: No arc welders are to be connected to Owner's utilities, unless approved by the Owner. Provide separate gas generators for arc welders.
 - d. Limited Hours of Use Within Buildings: Within occupied facilities, noise producing equipment used is subject to approval of Owner and shall be, in general, allowed only before 7 a.m. and after 6 p.m. Specific scheduling is required, with two (2) weeks advance notice required and approval by Owner.
- D. Pollution Control
1. Provide methods, means, and facilities required to prevent contamination of soil, water, and atmosphere. Allow no discharge of noxious substances from construction operations.
 2. Provide equipment and personnel and perform emergency measures required to contain any spillages. Remove contaminated soils and liquids.
 - a. Excavate and dispose of all contaminated earth off-site in compliance with laws and regulations.
 - b. Replace with suitable compacted fill and topsoil. Provide Owner with receipt of soil acceptability prior to installation.
 3. Take special measure to prevent harmful substances from entering public waters.
 - a. Prevent disposal of wastes, effluents, chemicals, and other such substances in or adjacent to bodies of water, or in sanitary or storm sewers.
 - b. When any runoff contains hazardous chemicals, collect and dispose of legally. Submit proposed collection methods to A/E and Owner for approval by Owner.
 4. Provide systems for control of atmospheric pollutants in accordance with Federal/State/Local published rules and regulations.
 - a. Prevent toxic concentrations of chemicals.
 - b. Prevent harmful dispersal of pollutants into the atmosphere.
- E. Tree, Plant & Lawn Protection
1. Preserve and protect existing trees, plants and lawns at the site which are designated to remain, and those adjacent to the site.
 2. No storage or traffic shall be permitted within the drip or root zone of any planting.
 3. Carefully supervise excavating, grading and filling, and subsequent construction operations, to prevent damage.
 - a. All work within the branch spread of trees shall be done by hand. When roots are encountered during excavation, the Owner shall be immediately notified. Do not further expose or cut until a determination is made by the A/E or Site Representative. Where roots are to be cut, pruned cleanly. Protect all exposed roots with moist organic mulch or burlap; backfill as soon as possible.
 - b. Under no circumstances shall the Contractor, for his convenience or ease of construction, remove existing trees designated to remain.
 - c. Fertilize all trees where roots have been exposed.
 4. If branches or roots need to be removed due to construction, use a certified arborist approved by the Owner to perform such work.
 5. Any damaged plant material that is to remain shall be replaced with the same

species and equal size, or repair in accordance with arborist requirements, at no cost to the Owner. Damage is defined as changes to the tree appearance which were not originally there.

- a. Trees which cannot be suitably replaced greater than six (6) inch caliper shall be paid for at the rate of \$100.00 per square inch of cross sectional area measured three (3) feet above existing grade. This amount shall be credited to the Owner.
 - b. Damaged and destroyed trees shall be removed from the site, the stumps grubbed, and the ground surface repaired, all at Contractor's expense.
6. Do not drive heavy equipment directly over lawn areas; protect with boards and/or plywood to prevent rutting and need for restoration. Remove protection at the end of each work day so as to maintain healthy growth and reapply as necessary. Any damaged lawn areas shall be restored to an 'as-is' condition.

F. Landscape Maintenance and Restoration

1. If a landscaped area is indicated to be a construction staging/parking area, protect surface adequately to avoid damage. Restore to existing condition using the following requirements:
 - a. Remove all construction equipment, building material, debris, and remnants of destroyed sod or plantings before commencing landscape restoration.
 - b. Rough grade the site according to the existing conditions or specified grading plan.
 - c. Till or hand pick (except under trees) soil to a depth of 8 inches. Remove any rocks over 1 inch in diameter, torn roots and debris.
 - d. Amend soil, if topsoil does not exist or was removed, with 4 inches of organic material and till to a depth of 12 inches.
 - e. Fine grade the area according to existing conditions or to exact grading specifications.
 - f. Replace materials to match original conditions.
2. Tree and Shrub Planting
 - a. Location and spacing of trees, shrubs and groundcover according to existing conditions shall be determined in the field with the A/E and Owner. Do not plant material without an approval or in field locating.
 - b. Standard planting procedure shall consist of:
 - 1) Preparing a hole for the plant of 1-1/2 times the diameter of the rootball to be planted.
 - 2) Do not dig the hole any deeper than the rootball to assure proper surface grade. Bottom of hole shall have loss material amended with organic material.
 - 3) The plant shall be planted at the proper depth.
 - 4) The hole shall be backfilled with existing loose soil taken from the excavation of the hole and watered in until the proper grade is achieved.
3. Final Landscape Inspection: Final inspection shall take place at the completion of the work to verify conformance to the specifications and/or original conditions.
4. The Contractor shall maintain its staging area by mowing or trimming grass and other growth to a height no greater than six (6) inches.

3.9 COMPLETION OF WORK

- A. Upon completion of Work or as progress of work dictates or sooner if directed by Owner or Owners Representative, remove all temporary facilities, and return all improvements on or about site and adjacent property which are not shown to be altered, removed or otherwise changed; to condition which existed previous to starting work.

END OF SECTION 01 50 00

SECTION 01 61 00 — COMMON PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. For requirements peculiar to a given product, material, or piece of equipment, see appropriate technical specification Section.

1.2 DEFINITIONS

- A. Definitions used in this Section are not intended to change the meaning of other terms used in the Contract Documents.
 - 1. Product: "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from the Contractor's previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 2. "Named Products" are items identified by the manufacturer's product name, including such items as a make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - 3. "Materials" are products that must be shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 4. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.3 SUBMITTALS

- A. See Section 01 33 00 for submittal requirements.
- B. Proposed Product List: See Individual Product Selections.
- C. Long-Lead-Time Items
 - 1. Forward copies of acknowledgment, production and shipping schedules to Architect as they are received for all required items.
- D. Submit electronic copies in conformance with provisions of Article 2.3 below.

1.4 QUALITY ASSURANCE

- A. To the fullest extent possible, provide products of the same kind from a single source.
- B. When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options. Compatibility is a basic general requirement of product/material selections.
- C. Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior. Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. All access routes, staging areas, loading restrictions, and other uses of the building shall be coordinated and approved by the A/E and Owner PM prior to the start of work. Ease of access to the building is limited and should be verified prior to moving materials.
- B. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 - 1. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing to prevent damage, deterioration, loss or theft. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage. Where appropriate, submit MSDS for all delivered products.
 - 2. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 - 3. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
 - a. Store with lids sealed, outside of building, all glues, adhesives, sealers, caulking, mastics, cleaners, paints, thinners and related flammable and hazardous materials.
 - 4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that quantities are correct and that products are undamaged and properly protected. Reject damaged and defective items.

5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units. Store and protect in accordance with manufacturers' instructions, with seals and labels intact and legible.
6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
8. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
9. Prevent contact with material that may cause corrosion, discoloration, or staining.
10. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.6 JOB CONDITIONS

- A. Pre-Installation Conferences
 1. At each meeting review progress of other work and preparations for particular work under consideration, including requirements of Contract Documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protections.
 2. Record attendees, significant discussions of each conference, and agreements and disagreements, along with final plan of action; distribute record of meeting promptly to everyone concerned including A/E and Owner.
 - a. Do not proceed with the work if associated pre-installation conference cannot be concluded successfully.
 - b. Instigate actions to resolve impediments to performance of the work, and reconvene conference at earliest date feasible.
 3. Discuss any pertinent issues at the weekly Progress Meetings; see Section 01 31 00 – Project Management and Coordination.

PART 2 - PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

- A. Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 2. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar application.
 3. Color and Appearance Consistency of Finish Materials: All finish materials of their respective kinds, in regards to construction phasing, shall be consistent in color and appearance throughout the total Project and shall be purchased out of one dye lot, production run, batch, etc., as applicable, for the total Project for each respective material.
- B. Additional Requirements: Material and equipment incorporated in to the work:
1. Shall conform to applicable specifications and standards.
 2. Shall comply with size, make, type and quality specified or as specifically approved in writing by Architect.
 3. Shall be free of ASBESTOS, FORMALDEHYDE and LEAD.
 4. Manufactured and Fabricated Products:
 - a. Design, fabricate, and assemble in accordance with first-class "Workmanship" as defined in these Contract Documents.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges; parts to be interchangeable.
 - c. Two or more items of the same kind to be identical and by same manufacturer (whether furnished under one Section or more).
 - d. Products shall be suitable for service conditions.
 - e. Adhere to indicated equipment capacities, sizes, and dimensions unless variations are specifically approved in writing.
 - f. Except where field finishing is specified or otherwise required, products and fabricated items shall be pre-finished off-site.
 5. Do not use materials and equipment for other than designed or specified purposes and uses.
- C. Nameplates: Except as otherwise indicated for required approval labels, and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on exterior of the work.
1. Labels: Locate required labels and stamps on a concealed surface or, where required for observation after installation, on an

- accessible surface which, in occupied spaces, is not conspicuous.
2. Equipment Nameplates: Provide permanent nameplate on each item of service connected or power-operated equipment. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings and similar essential operating data. Locate nameplates on an easily accessed surface which, in occupied spaces, is not conspicuous.

2.2 PRODUCT SELECTION

- A. The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
 1. Proprietary Specification Requirements. Where only a single product or manufacturer is named, or indicates "no equals", "no substitutions", or "no exceptions", provide the product indicated. Notify A/E if it is discovered that the named product does not comply with the contract documents, or is not appropriate for the function intended.
 2. Semi proprietary Specification Requirements. Where two or more products or manufacturers are named, or indicates "no equals", "no substitutions", or "no exceptions", provide one of the products indicated. Notify A/E if it is discovered that none of the named products complies with the contract documents, or is not appropriate for the function intended.
 3. Nonproprietary Specification Requirements. Where the Specifications list products or manufacturers, or indicates "or approved equal" or "other acceptable", comply with Contract Document provisions concerning PRODUCT SUBSTITUTION to obtain approval for use of another product.
 4. Descriptive Specification Requirements. Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
 5. Performance Specification Requirements. Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated. Submit manufacturer's recommendations contained in published product literature or by the manufacturer's certification of performance for approval by A/E.
 6. Visual Matching. Where matching an established sample is required, the A/E's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where there is no product available within the specified category which matches satisfactorily and also complies with other specified requirements, comply with the provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.

7. Visual Selection. Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures ..." or similar phrases, select a product and manufacturer that complies with other specified requirements. The A/E will select the color, pattern, and texture from the product line selected.

2.3 PRODUCT SUBSTITUTION

- A. General Provisions
 1. The requirements for substitutions do not apply to specified Subcontractor options on products and construction methods. Revisions to Contract Documents, where requested by Owner or Architect, are "changes" not "substitutions".
 2. Subcontractor's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions" and do not constitute a basis for change orders, except as provided for in contract documents. Otherwise, the Subcontractor's requests for changes in products, materials and methods of construction required by contract documents are considered requests for "substitution", and are subject to requirements hereof.
 3. If a Bidder or Contractor desires approval of some material or product other than that specified, it shall submit a written request for approval of the substitute item in accordance with the following requirements:
 - a. All such requests must be made on the SUBSTITUTION REQUEST FORM at end of this Section. Where specifications specify a product color and/or pattern, Contractor shall include a sample of proposed product/item at a size appropriate to make an evaluation with the specified product.
 - b. No request for approval will be considered unless submitted in accordance with this Section.
 - c. Final decision as to whether an item is an equal or satisfactory substitution rests with Owner.
 4. Every substitution request must state whether the item offered is equal or equivalent to the specified product. The substitute material or product must be accompanied by its reference in the Contract Documents and complete catalog, technical and other information. If applicable, include samples showing comparison of physical and other pertinent characteristics as required to establish equivalence of acceptability for the proposed application. Where specific test results are required by the Contract Documents, the comparison data for the proposed item shall be based upon the same test methods as those specified, or they shall be correlated to clearly demonstrate comparability. The same guarantee described for the specified product is required for the substitution.

- B. Substitutions – During Bidding Period: During the Bid period, submit substitution requests for approval of substitute materials or products, for all items indicated as proprietary or “approved equal” semi-proprietary. Include confirmation of LEED criteria performance to match original product selection. All requests shall be received by A/E/Consultants no later than ten (10) days, or as indicated elsewhere in the Contract Documents, prior to scheduled time for receipt of bid in order to receive consideration. Bidders will be informed by addendum of additional materials and products approved for use. No other form of approval will be given during the bid period and bidders shall not rely upon any approval not incorporated into the Contract Documents in this manner.
- C. Substitutions – After Starting Work or After Contract Award: Not allowed unless:
1. After Award of Contract: Substitution requests for approval of substitute materials will not be considered, except if one or more of the following conditions exists. With its request, the Contractor shall indicate which condition he believes applies:
 - a. Unavailability: A substitution is required because the specified item is not available, due to factors beyond the control of the Contractor.
 - b. Unsuitability: Subsequent information or changes disclose inability of the specified item to perform as intended.
 - c. Regulatory requirements: Final interpretation of Code, regulatory requirements, safety requirements, or insurance requirements necessitate a change due to inability of the specified item to conform.
 - d. Warranty: Manufacturer or fabricator cannot certify or warrant performance of specified item as required.
 - e. Owner's benefit: In the judgment of the Architect, acceptance of the proposed substitution is clearly in the Owner's best interest because of cost, quality, or other consideration. In requesting a substitution under this clause, the contractor shall furnish substantiation of any such reason.
 - f. “Approved”, “Approved equal” or “approved equivalent”: Where products or manufacturers are specified by name, accompanied by the term “approved”, “or approved equal” or “approved equivalent”.
- D. In making request for approval of substitute materials, the Bidder/Contractor shall represent that it has investigated the proposed product and, in its opinion, it is equal or superior in equivalence in all respects to that specified. Also, Contractor shall coordinate all trades including changes thereto as may be required, that it waives all claims for additional costs which subsequently become apparent as a consequence of the substitution, and that it will bear all costs related hereto, including costs of A/E's services for redesign, if deemed necessary.

- E. Substitutions will not be considered if they are indicated or implied on Shop Drawings or other project data submittals, without proper notice shown on the SUBSTITUTION REQUEST FORM at the end of this Section. Submissions received that include products or manufacturers not listed in the specifications or approved on the form during the bid period will be returned and marked "Revise and Resubmit".
- F. Action By A/E
 1. During Bidding Period: If the A/E and Owner approves any proposed substitution, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.
 2. After Start of Work: as described above.

PART 3 - EXECUTION

3.1 INSPECTIONS & ACCEPTANCE OF SUBSTRATES

- A. Installer's Inspection of Conditions
 1. Require Installer of each major unit of work to inspect substrate to receive the work, and conditions under which the work will be performed, and to report (in writing to Contractor) unsatisfactory conditions.
 2. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
- B. Contractor's Inspection. Inspect each item of material or equipment immediately prior to installation, and reject damaged and defective items.

3.2 GENERAL INSTALLATION PROVISIONS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
 1. When Contract Documents require installation of work to comply with Manufacturer's printed instructions, obtain and distribute instructions to concerned parties, including A/E, and field office, before starting that particular work.
 2. Until project is complete, maintain at jobsite one (1) set of complete installation and maintenance instructions for materials and equipment.
 3. Handle, install, connect, clean, condition and adjust products in accordance with Manufacturer's recommendations, directions and specified requirements.
 - a. Should job conditions or specified requirements conflict with Manufacturer's instructions, consult with A/E for further instructions.
 - b. Do not proceed with work without clear instructions.
 4. Perform work in accordance with Manufacturer's instructions. Do

not omit any preparatory step or installation procedure unless it is:

- a. Verified with and accepted by A/E in writing.
- b. Specifically modified or exempted by Contract Documents.
- c. Perform additional requirements that are specified which are greater than the manufacturer's requirements and do not have a deleterious affect on the product being installed.

B. Owner-Furnished Products

1. Refer to Drawings for identification of Owner furnished products; items may include I.T. related systems, modular office furniture, appliances, etc.
2. Owner's Responsibilities:
 - a. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
 - b. Arrange and pay for product delivery to site.
 - c. On delivery, inspect products jointly with Contractor.
 - d. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - e. Arrange for manufacturers' warranties, inspections, and service.
3. Contractor's Responsibilities:
 - a. Review Owner reviewed shop drawings, product data, and samples.
 - b. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 - c. Handle, store, install and finish products.
 - d. Repair or replace items damaged after receipt.
 - e. Enable Owner vendor access and logistical support for products as required.

C. Attachment & Connection Devices & Methods

1. Provide attachment and connection devices and methods necessary for anchoring work securely and properly in place as it is installed; install true to line and level, and within recognized industry tolerances if not otherwise indicated.
2. Allow for expansions and building movements.
3. Provide uniform joint widths in exposed work, organized for best possible visual effect. Refer questionable visual-effect choices to A/E for final decision.

D. Precautions

1. Acclimate product to room conditions as required by standard specifications and/or as recommended by manufacturer.
2. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion which will ensure best possible results for each unit of work, in coordination with entire work.
3. Isolate each unit of work from non-compatible work, as required to prevent deterioration.
4. Re-check measurements and dimensions of the work, as an

- integral step of starting each installation.
5. Coordinate enclosure (closing-in) of work with required inspections and tests, so as to avoid necessity of uncovering work for that purpose.
- E. Mounting Heights: Except as otherwise indicated in the Contract Documents, mount individual units of work at industry recognized standard mounting heights, for applications indicated. Refer questionable mounting height choices to A/E for final decision.
- F. In-Place Protection
1. General
 - a. During handling and installation of work at project site, clean and protect work in progress and adjoining work on a basis of perpetual maintenance.
 - b. Apply suitable protective covering on newly installed work where reasonably required to ensure freedom from damage or deterioration at time of Substantial Completion; otherwise, clean and perform maintenance on newly installed work as frequently as necessary through remainder of construction period.
 - c. Adjust and lubricate moving components to ensure operability without damaging effects. Contractor is responsible for function, condition and unblemished appearance of all work on Project, and any item or work judged defective by A/E shall be subject to replacement at no additional cost to Owner.
 2. To extent possible through reasonable control and protection methods, supervise performance of work in a manner and by means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposures during construction period.

END OF SECTION 01 61 00

SUBSTITUTION REQUEST FORM

TO: RMC Architects
1223 Railroad Avenue
Bellingham, WA 98225

ATTN: Brad Cornwell / Lexie Costic

CC: Owner / Contractor

PROJECT NAME: _____

CONTRACTOR: _____

We hereby submit for consideration, the following product instead of the specified items for above project:

SECTION	PARAGRAPH	SPECIFIED ITEM
_____	_____	_____

Proposed substitution: _____

Attach complete dimensional information and technical data, including laboratory tests, if applicable.

Include complete information on changes to Drawings and Specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to provide equal quality, performance, and appearance to that specified. Clearly mark Manufacturer's literature to indicate equality or equivalence in performance. Indicate differences in quality of materials and construction.

Fill in blanks below:

- A. Does the substitution affect dimensions shown on Drawings:
No ___ Yes ___. If yes, clearly indicate changes:

- B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by requested substitution?

- C. What effect does substitution have on other trades, other Contracts, and contract completion date?

- D. What effect does substitution have on applicable code requirements?

- E. Differences between proposed substitution and specified item.

F. Does product match or perform to specified LEED Criteria / Sustainability Performance?
Confirm and provide documentation.

G. Manufacturer's warranties of the proposed and specified items are:
Same _____ Different _____(explain)

H. List of names and addresses of 3 similar projects on which product was used, date of
installation, and A/E's name and address. (Attach list with requested information)

I. Cost impact: _____

Undersigned attests function and quality are equal or equivalent to specified items.

CERTIFICATION OF EQUAL OR EQUIVALENT PERFORMANCE AND ASSUMPTION OF
LIABILITY FOR EQUAL OR EQUIVALENT PERFORMANCE

Signature

Date _____

Firm

Address

Telephone Fax

Signature must be by person having authority to legally bind Contractor to the above terms.

For Use by A/E:

Accepted
 Accepted As Noted

Not Accepted
 Received Too Late

END OF FORM

SECTION 01 73 00 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.
- B. Coordinate with Section 02 41 19 – Selective Demolition.

1.2 SUBMITTALS

- A. Provide Demolition Submittal only when cutting and patching deviates from what is indicated in the Contract Documents. Submit written request to perform cutting and patching 1 week in advance of cutting or alternation with affects:
 - 1. Structural value or integrity of any element of Project.
 - 2. Integrity or effectiveness of weather exposed or moisture resistant elements or systems.
 - 3. Efficiency, operation, maintenance, or safety of operational equipment.
 - 4. Visual qualities of elements exposed to view.
- B. Include the following data, drawings, and other relevant information for review:
 - 1. Include plans, elevations, sections, and details.
 - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, and required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Detail fabrication and assembly of any structural supports and/or shoring, including stamped approval by contractor's engineer.
 - 4. Include diagrams for power, signal, and control wiring.
- C. Samples: For each exposed product and for each material to be patched, including color and texture prior to cutting.

1.3 QUALITY ASSURANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

- B. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio. All cutting and patching must be cleared by x-ray, pachometer or profometer prior to start of work. Structural Engineer shall be notified before cutting.
- C. Operational Limitations: do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction exposed on exterior or in occupied spaces in a manner that would, in Owners Representative's opinion, reduce the building's aesthetic or visual qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction which was cut and patched in a visually unsatisfactory manner. Owner Rep and Architect shall be notified before cutting.
- E. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- F. Warranty or existing warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

1.4 DESCRIPTION

- A. Install Work in such a manner and sequence as to preclude or minimize cutting and patching of new Work.
- B. Execute cutting, fitting or patching of Work, required to:
 - 1. Make several parts fit properly.
 - 2. Uncover Work to provide for installation of ill-timed Work.
 - 3. Remove and replace defective Work.
 - 4. Remove and replace non-conforming Work.
 - 5. Remove samples of installed Work for testing.
 - 6. Install specified Work in existing construction.
 - 7. Provide rerouting penetrations of non-structural surfaces for installation of piping and electrical conduit.
 - 8. Patch and repair fireproofing damaged after installation of other Work or demolition activities.
 - 9. Remove and finish construction at connections to other structures.
 - 10. Remove existing roofing where required by new Work, and patch to match existing roofing.
- C. Do not endanger any Work or any Work of other Contractors, by cutting, excavating, or otherwise altering any Work except with written consent of Contractor subject to review by Owners Representative.

- D. Do not cut into or cut away any structural concrete or other structural members, any other concrete or dig under any foundations or into structural walls or other parts, or in any case allow same to be done without full knowledge and written consent of Owners Representative.
- E. Be responsible for damage resulting from violation of these provisions.
- F. Use only firms or individual trades qualified to perform Work required under this Section.

1.5 JOB CONDITIONS

- A. Before start of Work, obtain and pay for all permits required by all authorities having jurisdiction and notify all interested utilities companies.
- B. Obtain approval of Owner and authorities having jurisdiction for Work which affects existing exit ways, exit stairs, means of egress, or access to, or exit from, areas.
 - 1. Review with and obtain approval of authorities for any temporary construction which affects such areas.
- C. Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- E. Avoid cutting existing utilities, pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated until alternate provisions have been provided.
- F. Items to be salvaged and delivered to Owner shall be carefully removed and properly stored in an area easily accessible for removal by Owner.

1.6 PAYMENT FOR COSTS

- A. Costs caused by discovered existing conditions, or discovered defective Work, shall be paid by Owner; Work not conforming to intended Contract Documents, shall be paid by Contractor responsible for non-coordinated, rejected, or non-conforming Work.
- B. Approval by Owner's Representative to proceed with cutting and patching does not waive Owner Representative's right to later require complete removal and replacement of unsatisfactory work.
- C. Contractor is responsible to coordinate ALL trades work to complete intended work. Trades are to coordinate and sequence their work to align with other trades. Costs to complete and execute the intended work shall be paid by the Contractor.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation, including main fire sprinkler, electrical, and mechanical systems to remain or be revised.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 4. Notify Owner Rep and Architect of "Conflict" conditions.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 01 31 00 Project Management and Coordination.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- C. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

A. SUMMARY

- 1. General Contractor is responsible for all cutting, fitting, and patching, required to complete the Work and to:
 - a. Make its several parts fit together properly;
 - b. Join new work to existing work;
 - c. Uncover portions of the Work to provide for installation of any ill timed work;
 - d. Remove and replace defective work;
 - e. Remove and replace work not conforming to requirements of Contract Documents;
 - f. Remove samples of installed work as specified for testing;
 - g. Provide routine penetrations of non-structural surfaces for installation of piping, duct work, and electrical conduit.
- 2. In addition to the demolition specified for this Project and that specifically shown, cut, move or remove items necessary to provide access or to allow alterations and new work to proceed. Include such items as:
 - a. Removal of abandoned items and items serving no useful purpose, such as abandoned piping, conduit and wiring, and miscellaneous brackets, hardware and the like.
 - b. Cleaning of surfaces, and removal of surface finishes as needed to install new work and finishes.
 - c. Repair or removal of hazardous or unsanitary conditions.

B. Definitions

- 1. "Cutting and patching" includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.
 - a. "Cutting and patching" is performed for coordination of the work, to uncover work for access or inspection, to obtain samples for testing, to permit alterations to be performed or for other similar purposes.
 - b. Cutting and patching performed during the manufacture of products, or during the initial fabrication, erection or installation processes is not considered to be "cutting and patching" under this definition. Drilling of holes to install fasteners and similar operations are also not considered to be "cutting and patching".
 - c. "Selective Demolition" is recognized as related-but-separate categories of work, which may or may not require cutting and patching as defined in this Section.
 - d. See respective Specification Sections for additional definitions and requirements pertaining to Cutting and Patching.

- C. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
 - 2. Provide openings through non-structural surfaces for mechanical and electrical work.
- D. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- E. Temporary Support: Provide temporary support of work to be cut.
- F. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- G. Submittals
 - 1. Submit written request 48 hours in advance of cutting or altering elements which effects:
 - a. Structural integrity of element.
 - b. Integrity of weather-exposed or moisture-resistant elements.
 - c. Efficiency, maintenance, or safety of element.
 - d. Visual Qualities of sight-exposed elements.
 - e. Work of Owner or separate Contractor.
 - f. Utilities.
- H. Hazardous Materials
 - 1. Asbestos-containing materials is not anticipated to be found in the existing building. Such materials most often include thermal insulation, acoustical insulation and sprayed or trowelled-on fireproofing. Workers may encounter asbestos-containing materials which was unable to be identified. Particular precautions shall be exercised in certain areas including, but not limited to flooring, wall spaces, crawl spaces, tunnels, pipe enclosures, boiler rooms, roofing and behind wall heating units.
 - 2. Asbestos and P.C.B. materials is not anticipated to be found in the existing building. Workers may encounter such material(s) which was unable to be identified. Particular precautions shall be exercised during demolition.
 - 3. If asbestos or P.C.B. material is believed to be encountered on site, the Contractor shall immediately stop work in the area affected and report the condition to the Architect in writing.
 - 4. The Contractor shall be responsible for the removal of all asbestos and P.C.B.'s as identified.
- I. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- J. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing. Repaint to nearest change in plane.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- K. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully. Coordinate with Section 01 74 19.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Section 01 45 00 Quality Requirements.

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 01 74 19 — CONSTRUCTION WASTE MANAGEMENT & DISPOSAL

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 DESCRIPTION

- A. The Owner desires that this project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.
- B. Of the waste material that is generated, as much as economically feasible shall be reused, salvaged, or recycled. The Project Goal includes recycle and/or salvage of at least 20% of the non-hazardous construction and demolition. Recycle and/or salvage an additional 30% (50% total) of nonhazardous construction and demolition debris. This is consistent with the intent of RCW 39.04.135 and is mandated whenever practicable.
- C. The Town of Coupeville requires best management practices to be used to prevent construction debris from falling into Penn Cove.
- D. With these goals, the Contractor shall develop a Waste Management Plan for this project.

1.03 DEFINITIONS

- A. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals and inorganic wastes.
- B. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial and industrial waste, including construction, remodeling, repair and demolition operations.
- C. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- D. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- E. Environmental Pollution and Damage: The presents of chemical, physical, or biological elements or agents which adversely affect human health or

welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humanity; or degrade the utility of the environment for aesthetic, cultural or historical purposes.

- F. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- G. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.
 - 1. Inert Solids / Inert Waste: Non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of water-quality objectives established by a regional water board pursuant to local regulations and does not contain significant quantities of decomposable solid waste.
- H. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- I. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- J. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- K. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- L. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- M. Return: To give back reusable items or unused products to vendors for credit.
- N. Reuse: To reuse a construction waste material in some manner on the project site.
- O. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- P. Sanitary Wastes:
 - 1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution or consumption of food.
 - 2. Sewage: Domestic sanitary sewage.
- Q. Sediment: Soil and other debris that has been eroded and transported by storm or well production runoff water.

- R. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- S. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- T. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- U. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.04 SUBMITTALS

- A. See Section 01 33 00 for Submittal Procedures.
- B. Landfill Alternatives Proposal – Draft Waste Management Plan: Within 14 working days after receipt of Notice to Proceed, or prior to any trash or waste removal, whichever occurs first, Contractor shall submit to the A/E and Owner for review and approval three (3) copies of the Draft Waste Management Plan projecting trash/waste that will require disposal and alternatives to landfilling, with net costs. The plan shall contain, as a minimum, the following:
 - 1. An analysis of trash/waste to be generated and landfill options as specified for Waste Management Plan described below.
 - 2. Describe as many alternatives to landfilling as possible.
 - a. List each material proposed to be salvaged, reused, or recycled during the course of the Project.
 - b. Estimate quantities for each waste stream.
 - c. State the proposed recycle or disposal method for each waste stream.
 - d. State on-site storage method for each waste stream.
 - e. State transportation method for each waste stream.
 - f. State the estimated net cost resulting from each alternative, after subtracting revenue from sale of recycled or salvaged materials and landfill tipping fees saved due to diversion of materials from the landfill.
 - 3. Provide alternatives to landfilling for at least the following materials:
 - a. Aluminum and plastic beverage containers.
 - b. Corrugated cardboard.
 - c. Wood pallets.
 - d. Clean dimensional wood: May be used as blocking or furring.
 - e. Land clearing debris.
 - f. Excavated soils.
 - g. Concrete: May be crushed and used as riprap, aggregate, sub-base material, or fill.

- h. Bricks.
 - i. Concrete masonry units (CMUs).
 - j. Precast concrete panels.
 - k. Asphalt paving: May be recycled into paving for project.
 - l. Metals, including packaging banding, metal studs and trim, ductwork, piping, sheet metal, structural steel, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - m. Glass.
 - n. Gypsum drywall and plaster.
 - o. Carpet, carpet cushion, carpet tile, and carpet remnants, both new and removed: DuPont (<http://flooring.dupont.com>) and Interface (www.interfaceinc.com) conduct reclamation programs.
 - p. Asphalt roofing shingles.
 - q. Paint.
 - r. Plastic sheeting.
 - s. Rigid foam insulation.
 - t. Plumbing fixtures.
 - u. Mechanical and electrical equipment.
 - v. Fluorescent lamps (light bulbs).
 - w. Acoustical ceiling tile and panels.
4. Include the names for each subcontractor who will transport solid or hazardous waste from the site and the name of the receiving facility that will accept waste for disposal.
- C. Review: The Draft Waste Management Plan will be reviewed by the A/E for comment with a copy going to the Owner.
- 1. The plan is checked to make sure all materials that may be economically recycled are listed.
 - 2. The plan is also checked for the haulers, recyclers and disposal facilities, to include recycling, general waste and hazardous waste facilities.
 - 3. Plan review comments are made by the A/E. Once no further comments are necessary, the contractor may proceed with its plan.
- D. Waste Management Plan: Include the following information:
- 1. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.
 - 2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
 - 3. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
 - a. List each material proposed to be salvaged, reused, or recycled.

- b. List the local market for each material.
 - c. State the estimated net cost, versus landfill disposal.
 4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
 5. Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
 6. Transportation: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.
 7. Recycling Incentives: Describe procedures required to obtain credits, rebates, or similar incentives.
- E. Implementation: The Contractor shall submit monthly a progress report summary of waste generated at the project. The summary shall be submitted on a form acceptable to the Owner and shall contain the following information:
1. For each material recycled, reused, or salvaged from the project, the amount (in tons or cubic yards), the date removed from the job site, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, the net total cost or savings of salvage or recycling the material. Include manifests, weight ticket receipts or invoices.
 2. The amount (in tons or cubic yards) of material landfilled from the project, the location of the receiving facility, the total amount of tip fees paid at the landfill, and the total disposal cost. Include manifests, weight tickets, receipts and invoices.
- F. Recycling Incentive Programs:
1. Where revenue accrues to Contractor, submit copies of documentation required to qualify for incentive.
 2. Where revenue accrues to Owner, submit any additional documentation required by Owner in addition to information provided in periodic Waste Disposal Report.

1.05 RESOURCES

- A. Contractor may request specific technical assistance or referrals from the following resources:

Waste Reduction Specialist
Solid Waste Services Program
Department of Ecology
(360) 407-6352

1.06 ADDITIONAL RECYCLING REQUIREMENTS

- A. Handling
 - 1. Materials shall be free of dirt, adhesives, solvents, petroleum contamination and other substances deleterious to recycling process. Clean materials which are contaminated prior to placing in collection containers.
 - 2. Arrange for collection by or delivery to the appropriate recycling center or transfer station that accepts construction and demolition waste for purpose of recycling.

- B. Participation In Re-Use Programs
 - 1. The Whatcom County REStore (360) 647-5921.
 - 2. Industrial Materials Exchange (IMEX) program sponsored by the Local Hazardous Waste Management Program in King County.
 - a. IMEX is a free service designed to help businesses find markets for materials that traditionally would be discarded. The premise of the IMEX program is that material discarded by one business may be a resource for another business.
 - b. To obtain a current Materials Listings Catalog, call IMEX at (206) 296-4692.
 - c. Materials Catalog website:
www.kingcountyhazwastewa.gov/en/business-disposal/imex.
 - 3. Habitat for Humanity - South Puget Sound, a non-profit housing organization that rehabilitates and builds housing for low income families.
 - a. Sites requiring donated materials vary. Contact HFH at (360) 956-3456.

- C. Rebate, Tax Credits, Etc.: Rebates, tax credits and other savings obtained for recycled or reused materials shall accrue to Contractor.

PART 2 - PRODUCTS

2.01 PRODUCT SUBSTITUTIONS

- A. Notify Owner's Representative when Contractor is aware of materials, equipment or products that meet the aesthetic and programmatic intent of Contract Documents, but which are more environmentally-sensitive than materials, equipment or products specified or indicated in the Contract Documents.

PART 3 – EXECUTION

3.01 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for

instructing workers and overseeing and documenting results of the Waste Management Plan.

- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Architect.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
 - 1. Pre-bid meeting.
 - 2. Pre-construction meeting.
 - 3. Regular job-site meetings.
 - 4. Job safety meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
 - 1. As a minimum, provide:
 - a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
 - b. Separate dumpsters for each category of recyclable.
 - c. Recycling bins at worker lunch area.
 - 2. Provide containers as required.
 - 3. Provide temporary enclosures around piles of separated materials to be recycled or salvaged.
 - 4. Provide materials for barriers and enclosures that are nonhazardous, recyclable, or reusable to the maximum extent possible; reuse project construction waste materials if possible.
 - 5. Locate enclosures out of the way of construction traffic.
 - 6. Provide adequate space for pick-up and delivery and convenience to subcontractors.
 - 7. If an enclosed area is not provided, clearly lay out and label a specific area on-site.
 - 8. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.

- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.
- J. Disposal Operations:
 - 1. Promptly and legally transport and dispose of removed and demolished items and waste materials that are not identified-d to be recycled or reused.
 - 2. Do not burn, bury or otherwise dispose of rubbish and waste materials on project site.
 - 3. Aggregating material and/or hauling it off site shall not occur between the hours of 10:00 PM and 7:00 AM unless it complies with Specification Section 01 50 00.

3.02 ATTACHMENTS

- A. Suggested Format Waste Management Plan
 - 1. Table 1: Waste Identification
 - 2. Table 2: Waste Reduction Work Plan

END OF SECTION 01 74 19

TABLES

WASTE MANAGEMENT PLAN

Project Title: <Insert Project Title>

Job No.: <Insert Job Number>

Waste Management Coordinator: <Insert Name, Title, and contact information>

Recycling Requirement - To recycle/salvage <Insert Percentage> of waste generated on the site.

TABLE 1: WASTE IDENTIFICATION

Material	Est. Qty.	Est. tons *	Point of Generation	Comments/Assumptions

* Avg volume-to-weight conversions are:
 Mixed waste 5.7 yds/ton
 Wood 6.7 yds/ton
 Cardboard 20 yds/ton
 Drywall 4 yds/ton
 Rubble 1.4 yds/ton

TABLE 2: WASTE REDUCTION WORK PLAN

Material	S/R/D *	Est Qty. S/R/D (tons)	Actual Qty S/R/D(tons)	Handling and Transport Procedures	Destination (Name, address, phone) **

- * S Salvage/Reuse
- R Recycle
- D Dispose

** For materials sent for recycling or disposal, send to facilities currently permitted by the Authority having Jurisdiction.

No solid waste management permit required for on-site processing of clean waste concrete, provided the processed product meets the "inert fill material" definition in Chapter 342H, HRS.

Solid Waste Management Permit required if destination site accepts for processing such waste materials (e.g. Clean waste concrete) from other sites.

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

- B. Related Requirements:
 - 1. Section 00 72 00 – General Conditions.
 - 2. Section 01 78 00 Close-Out Submittals for operation and maintenance manual requirements.

1.2 SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.
- D. Certificates of Release: From authorities having jurisdiction.
- E. Certificate of Insurance: For continuing coverage.
- F. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list).

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 7 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including

- project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit sustainable design submittals not previously submitted.
 7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 7 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings.
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 7 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect and/or Subconsultants, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 01 29 00 Payment Procedures.
 - 2. List of Incomplete Items: Submit copy of Consultant's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 - 5. Submit Certificate of Completion.

- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Submit list of incomplete items in the following format:
 - a. PDF electronic file. Architect/Subconsultants will return annotated copy.

1.6 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.

- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed

- description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in Professional Class 'A' Office's, cleaning and maintenance program. Comply with manufacturer's written instructions.
 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project/Work Area or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.

- f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- h. Sweep concrete floors broom clean in unoccupied spaces.
- i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
- j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- k. Remove labels that are not permanent.
- l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- o. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
- p. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.

3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 01 77 00

SECTION 01 78 00 – CLOSEOUT SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
- B. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.2 SECTION INCLUDES

- A. Project Record Document submittal.
- B. Operation and Maintenance manuals.
- C. Warranties, Bonds, Extra Stock and Materials, Permits, and Manuals.
- D. Sample Project Warranty Form.

1.3 CLOSEOUT SUBMITTALS – RECORD DRAWINGS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set of marked-up record prints.
 - 2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints.
 - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

1.4 CLOSEOUT SUBMITTALS – OPERATIONS & MAINTENANCE DATA

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
 2. One paper copy. Include a complete operation and maintenance directory.
- C. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

1.5 CLOSEOUT SUBMITTALS – WARRANTIES & BONDS & PERMITS

- A. Warranties, Bonds, and Permits:
1. Obtain and assemble executed certificates, warranties, bonds, receipts for extra stock, permits signed by any authorities having jurisdiction, and any required service and maintenance contracts from the respective manufacturer's, suppliers, and Subcontractors. These may be tabbed in the front of the General Operation and Maintenance Manual provided they do not over-fill the binder(s).
 2. Verify that documents are in proper form, contain full information, and are notarized.
 3. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.
 4. Co-execute submittals when required.
 5. PDF electronic file: Submit on digital media file acceptable to Architect.
 6. Provide Table of Contents neatly typed, in complete and orderly sequence. Include complete information for each of the following:
 - a. Product or work item;
 - b. Firm, with name of principal, address, and telephone number;

- c. Scope;
- d. Date of beginning of warranty or service and maintenance contract;
- e. Duration of warranty or service maintenance contract;
- f. Proper procedure in case of failure;
- g. Instances which might affect validity of warranty or bond; and
- h. Contractor, name or responsible principal, address, and telephone number.

PART 2 - PRODUCTS

2.1 PROJECT RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - 1. Format: Annotated PDF electronic file with comment function enabled.
 - 2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 3. Refer instances of uncertainty to Architect through Construction Manager for resolution.
 - 4. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
- C. Format: Identify and date each record Drawing; include the designation

"PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Annotated PDF electronic file with comment function enabled.
3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 PROJECT RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file or scanned PDF electronic file(s) of marked-up paper copy of Specifications.

2.3 PROJECT OPERATION, AND MAINTENANCE MANUALS

- A. Directory: Prepare a single, comprehensive directory of operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information.
- B. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 1. Title page.
 2. Table of contents.
 3. Manual contents.

- C. Title Page: Include the following information:
1. Subject matter included in manual.
 2. Name and address of Project.
 3. Name and address of Owner.
 4. Date of submittal.
 5. Name and contact information for Contractor.
 6. Name and contact information for Construction Manager.
 7. Name and contact information for Architect.
 8. Name and contact information for Commissioning Authority.
 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 10. Cross-reference to related systems in other operation and maintenance manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- F. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, vinyl-covered, stiff cover loose-leaf binders, in thickness necessary to accommodate contents, three D-sized rings sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets. Wilson Jones #344 Series or equal.
 - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of

- Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
 4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.4 PROJECT OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor is delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
 1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
 1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.

8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PROJECT PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
 4. Material and chemical composition.
 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.6 PROJECT SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 PROJECT RECORD DOCUMENTS - RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.

- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and Construction Manager's reference during normal working hours.

3.2 PROJECT MANUALS PREPARATION

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- C. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- D. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
- E. Comply with Section 01 77 00 – Closeout Procedures for schedule for submitting both Record Documentation and operation and maintenance documentation.

3.3 WARRANTIES, BONDS, AND PERMIT MANUAL

- A. Project Warranty – General:
 - 1. If, within one (1) year after the Date of Substantial Completion of the Work, or designated portion thereof, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor, and where applicable, his subcontractor that portion of the work, shall correct it promptly after receipt of a written notice from the Owner or Architect to do so. This obligation shall survive Termination of the Contract. The

Owner will give such notice promptly after discovery of the condition.

B. Categories Of Specific Warranties

1. Warranties on the work are in several categories, including those of General Conditions, and including (but not necessarily limited to) the following specific categories related to individual units of work specified in Sections of Divisions 02 through 33 of these specifications.
 - a. Special Project Warranty (Guarantee): A warranty specifically written and signed by Contractor for a defined portion of the work; and, where required, countersigned by subcontractor, installer, manufacturer or other entity engaged by Contractor.
 - b. Specified Product Warranty: A warranty which is required by contract documents, to be provided for a manufactured product incorporated into the work; regardless of whether manufacturer has published warranty without regard for specific incorporation of product into the work, or has written and executed warranty as a direct result of contract document requirements.
 - c. Coincidental Product Warranty: A warranty which is not specifically required by contract documents (other than as specified in this section); but which is available on a product incorporated into the work, by virtue of the fact that manufacturer of product has published warranty in connection with purchases and uses of product without regard for specific applications except as otherwise limited by terms of warranty.
2. Refer to individual sections of Divisions 02 through 33 for the determination of units of work which are required to be specifically or individually warranted, and for the specific requirements and terms of those warranties (or guarantees).

C. Disclaimer and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

D. General Limitations

1. It is recognized that specific warranties are intended primarily to protect Owner against failure of the work to perform as required, and against deficient, defective and faulty materials and workmanship, regardless of sources.
2. Except as otherwise indicated, specific warranties do not cover failures in the work which result from:
 - a. Unusual and abnormal phenomena of the elements,
 - b. The Owner's misuse, maltreatment or improper maintenance of the work,

- c. Vandalism after time of substantial completion, or
 - d. Insurrection or acts of aggression including war.
- E. Related Damages & Losses
- 1. General: In connection with Contractor's correction of warranted work which has failed, remove and replace other work of project which has been damaged as a result of such failure, or must be removed and replaced to provide access for correction of warranted work.
 - 2. Consequential Damages: Except as otherwise indicated or required by governing regulations, special project warranties and product warranties are not extended to cover damage to building contents (other than work of Contract) which occurs as a result of failure of warranted work.
- F. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- G. Reinstatement Of Warranty Period: Except as otherwise indicated, when work covered by a special project warranty or product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for the time period starting on the date of acceptance of replaced or restored work and ending upon date original warranty would have expired if there had been no failure, with an equitable adjustment for depreciation.
- H. Replacement Cost, Obligations: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. Contractor shall be responsible for the cost of replacing or restoring defective Work regardless of whether the Owner has benefited from use of the Work through a portion of anticipated useful service life.
- I. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, right, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- J. Rejection Of Warranties: Owner reserves the right, at time of final acceptance or thereafter, to reject coincidental product warranties submitted by the Contractor, which in opinion of Owner tend to detract from or confuse interpretation of requirements of Contract Documents.
- K. Contractor's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or sub-subcontract for materials or units of work for project where a special project warranty, specified product warranty, certification or similar commitment is required, until it has been determined that entities required to countersign such commitments are willing to do so.

- L. Co-execute warranties when required. Provide originals of each for inclusion in each operation and maintenance manual.
- M. Retain warranties and bonds until time specified for submittal.

3.4 SPECIFIC WARRANTY FORMS

- A. Where a special project warranty (guarantee) or specified product warranty is required, prepare a written document to contain terms and appropriate identification, ready for execution by required parties.
- B. Submit draft to Owner (through Architect) for approval prior to final executions.
- C. Form of Warranty to state the following:

I (We), (insert Contractor name), certify (insert name of trade or portion of work being guaranteed) installed by (insert name of appropriate subcontractor) on (insert the name of the project and project number) located in Bellingham, WA, is performed in strict accordance with Contract Documents. Further, I (we) guarantee this work to be (watertight, without lead, other, etc.) caused by defects in materials and workmanship, for (fill in specific required guarantee period) years from (date of substantial completion), and will repair, or replace, without delay, any defects in materials and workmanship discovered within warranty period.

Sincerely,

(Name of Contractor/responsible principal/address/telephone number)
Signed by Owner, Partner, or other person authorized to commit firm.

3.5 DELIVERY OF EXTRA OR MAINTENANCE MATERIALS / SPARE PARTS

- A. Deliver to Owner prior to Substantial Completion unless Owner requests earlier delivery or as another date agreed.
- B. Delivery to location as directed by Owner.
- C. Use Spare Parts and Maintenance Material Transmittal form.
 - 1. Acquire Owner's acceptance of items listed on transmittal.
 - 2. Transmittal to indicate Owner's acceptance and signature indicating receipt of materials.
 - 3. Forward copy of transmittal forms with Owner's acceptance to Owner's Representative

- D. Spare Parts and Tools
 - 1. Package in clearly identified boxes. Provide qty. two (2) of each part/tool unless otherwise waived by Owner's Representative.
 - a. Indicate manufacturer's name, part name and stock number.
 - b. Indicate what each piece of equipment, part or tool is associated with products and use.
 - c. Indicate name, address and phone number of closest supplier.

- E. Maintenance Materials
 - 1. Package in clearly identified boxes.
 - a. Indicate trade name and stock number.
 - b. Indicate which item material is to be used with.
 - c. Indicate name, address and phone number of closest supplier.

- F. Extra Materials
 - 1. Package in clearly identified containers or install where indicated.
 - a. Indicate trade name, stock number, size, color, etc.
 - b. Indicate where product is to be used.
 - c. Indicate name, address and phone number of closest supplier.

END OF SECTION 01 78 00

WARRANTY

Coupeville Wharf Building Emergency Repairs
Port of Coupeville

PROJECT: Coupeville Wharf Building
Emergency Repairs
26 Front Street, Coupeville, WA
CONTRACT NO.: _____
Port of Coupeville

OWNER'S REPRESENTATIVE: _____

DATE OF SUBSTANTIAL COMPLETION: _____
As indicated on Certificate of Substantial Completion

Contractor, warrants to Owner's Representative that Work is free from defects not inherent in the quality required or permitted, and that Work conforms to requirements of Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

If, within one-year after the date of Substantial Completion of Work or designated portion thereof, or by terms of an applicable special warranty required by Contract Documents, any of the Work is found to be not in accordance with requirements of Contract Documents, the Contractor shall correct it promptly after receipt of written notice from Owner's Representative to do so unless Owner's Representative has previously given Contractor a written acceptance of such condition. Owner's Representative shall give such notice promptly after discovery of the condition.

The above shall not be construed to establish a period of limitation with respect to other obligations which Contractor might have under Contract Documents. Establishment of one-year period for correction of Work relates only to specific obligation of Contractor to correct Work, and has no relationship to time within which obligation to comply with Contract Documents may be sought to be enforced, nor to time within which proceedings may be commenced to establish Contractor's liability with respect to Contractor's obligations other than specifically to correct Work.

CONTRACTOR: _____

ADDRESS: _____

BY: _____ SIGNATURE: _____

TITLE: _____ DATE: _____

Subscribed and sworn to me this ____ day of _____ in the year of _____

NOTARY PUBLIC: _____ SIGNATURE: _____
LOCATION: _____

My Commission Expires: _____

END OF SECTION 01 78 01

SECTION 02 41 19 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Section 01 73 00 – Execution
- B. Section 01 74 19 – Construction & Demolition Waste Management
- C. Section 02 08 00 – Hazardous Materials Report

1.2 REFERENCES

- A. American National Standards Institute (ANSI).
 - 1. A10.6 "American National Standard Safety Requirements for Demolition."
- B. NFPA 241.

1.2 SUBMITTALS

- A. Detailed information, prior to demolition commencement, on methods, and sequencing.
- B. Inventory of any items to be salvaged, prior to start of demolition.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable rules, codes, regulations, and safety orders of all public agencies having jurisdiction.

1.4 SITE CONDITIONS

- A. Preplan demolition Work for minimal interruptions or disruptions to Owner's ongoing operations.
- B. Provide dirt and dust barriers, debris containers, removal routes, and disposal to protect areas utilized by Owner's personnel.
- C. Where existing unidentified utilities, structures or services are discovered submit information for resolution prior to proceeding.
- D. Prohibited from use are any form of explosives.
- E. Work to be demolished has been tested and contains material believed to contain asbestos, lead paint, or other hazardous materials. Should Contractor encounter materials suspected to be hazardous and not identified as such, the Contractor shall stop work in that area and notify the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Carefully remove items marked or designated for salvage or reuse and store as directed.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas affected by Work of this Section and verify that necessary shoring and other required protection is in place.
- B. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- C. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- D. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- E. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect and Owner Representative.

3.2 PREPARATION

- A. Provide protection as necessary and in accordance with applicable regulations.
- B. Verify existing utility services to remain in operation, cooperate with Owner in scheduling Work so there will be a minimum of interference. Prearrange utility shutdown or temporary interruption with Owner prior to Work commencement.
- C. Notify Utility Providers having service connections within the building.
- D. Contact municipal and regulatory agencies affected by and interested in the Work. Secure necessary information and permits required, and make detailed arrangements for smooth safe prosecution of the Work.
- E. Cover all existing floor, wall and ceiling registers, grilles and diffusers for supply, return and exhaust air prior to demolition and any possible abatement activities.

3.3 DEMOLITION – GENERAL

- A. Perform Work in accordance with ANSI A10.6, and regulatory requirements.

- B. Contractor shall be solely responsible for safety, adequacy and satisfactory performance of methods and means employed.
- C. Sequence of removal of concrete, masonry, and similar building elements shall be such that structural integrity of building is maintained at all times.
- D. Legally dispose of demolition materials off site. Location of disposal site and length of haul are the Contractor's responsibility.
- E. Carefully remove salvage items to be retained by Owner and place in an area designated by Owner.
- F. Remove items scheduled to be reused and store as directed.

3.4 SELECTIVE DEMOLITION PROCEDURES

- A. Concrete and Asphaltic Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated. Provide silica control measures per State standards at concrete work.
- B. Gypsum Wallboard & Lath & Plaster: Demolish in sections. Cut walls at full depth at junctures with construction to remain and at regular intervals using power-driven saw, then remove wall cleanly between saw cuts.
- C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove. Provide silica control measures per State standards.
- E. Cutting in Precast/Prestressed Concrete Construction
 - 1. Do not cut openings nor core drill vertically nor horizontally through stems of members.
 - 2. Openings smaller than 6 IN diameter or 6 IN maximum dimension may be cut in flanges of units after obtaining prior written approval of Owners Representative.
 - a. When approval is obtained, comply with instructions of Owners Representative.
- F. Cutting in Steel Frame and Metal Deck Construction
 - 1. Do not cut nor drill holes in webs and flanges of columns, beams, purlins, and joists without prior written approval of Owners Representative.
 - a. When approval is obtained, comply with requirements and instructions of Owners Representative and provide reinforcing at such locations when required.
 - 2. When openings are cut into metal decks having cast-in-place concrete slab over metal deck:

- a. No reinforcing of holes is required for circular openings or sleeves up to 6 IN diameter and for rectangular openings having no side dimension greater than 6 IN.
 - b. Reinforce openings greater than 6 IN.
 - c. Obtain prior written approval of Owners Representative for openings not shown on Owners Representative or structural drawings.
 - d. Comply with additional requirements and instructions of Owners Representative.
3. When openings are cut into metal roof decks that have no concrete cast-in-place (except lightweight insulating cementitious roof fill) over deck:
- a. No reinforcing of holes is required for circular openings less than 6 IN diameter and for rectangular openings having no side dimension greater than 6 IN.
 - b. Reinforce openings between 6 IN and 12 IN, with 20 GA flat steel sheet 12 IN greater in dimension than opening; fusion weld to top surface of deck at each corner and on each side midway between corners.
 - c. Do not cut openings greater than 12 IN without prior written approval of Owners Representative.
 - 1) Comply with requirements and instruction of Owners Representative.
- G. Do not remove or damage fireproofing materials.
1. Install hangers, inserts, supports, and anchors prior to installation of fireproofing.
 2. Repair or replace existing or compromised new fireproofing damaged as part of the work.
- H. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings." Do not use methods requiring solvent-based adhesive strippers.
- I. Roofing and Flashing: Remove no more existing roofing than what can be covered in one day by new roofing and so that building interior remains watertight and weathertight. See Division 7 for new roofing requirements.
1. Remove existing roof membrane, flashings, copings, and roof accessories.
 2. Remove existing roofing system down to substrate.

- J. Metal Siding and Framing: Demolish in small sections, carefully with straight line cuts to components. Block and support areas supported by removed framing components as described on structural drawings or per framing standards as described in IBC Chapter 23.

3.6 CLEANING

- A. Provide cleaning during demolition as necessary and to the acceptance of the Architect.
- B. Leave all portions of demolition area in a level, safe, and sanitary condition acceptable to public authorities and the Architect.
- C. Dispose of all waste material in compliance with project's Waste Management Plan in accordance with Section 01 74 19 - Construction Waste Management and Disposal.

END OF SECTION

SECTION 06 10 00 – ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Sections:
1. Section 06 16 00 – Sheathing
 2. Section 07 41 13 – Metal Roof Panels.

1.2 RELATED DOCUMENTS

- A. See Structural Notes in drawing set. In case of discrepancy, Structural Notes will govern.

1.3 REFERENCES

- A. American Plywood Association (APA).
1. "Guide to Plywood Grades."
- B. ASTM International (ASTM).
1. D 3201 - "Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Based Products."
- C. Federal Specifications (FS).
1. TT-W-571 - "Wood Preservation: Treating Practices."
- D. International Building Code (IBC).
- E. United States Product Standard (PS).
1. PS-1 - "Construction and Industrial Plywood."
- F. West Coast Lumber Inspection Bureau (WCLIB).
1. "Standard Grading Rules for West Coast Lumber No. 16."
- G. Western Wood Products Association (WWPA).
1. "Grading Rules for Lumber."
- H. Evergreen Sustainable Development Standard (ESDS)
1. Criterion 6.2 – Low/No VOC adhesives and caulks.
 2. Criterion 7.1 – Composite Wood Products that contain No Added Urea Formaldehyde (NAUF).

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Conform with applicable requirements of IBC Chapter 23 and as noted on Structural Drawings.
- B. Certifications:
 - 1. Each piece of lumber shall bear the grade mark of WCLIB or WWPA, and each mill shipment to the site shall be accompanied by a certificate of inspection by WCLIB or WWPA.
 - 2. Each piece of plywood shall be grade stamped in accordance with APA "Guide to Plywood Grades," in conformance with requirements of PS-1

1.5 SUBMITTALS

- A. List of all intended products including fasteners for project.

1.6 DELIVERY, STORAGE, AND HANDLING

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

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Refer to Project Structural Drawings.

2.2 FABRICATION

- A. Refer to Project Structural Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Coordination:
 - 1. Prior to bidding, contact local regulatory authorities having jurisdiction to identify, and comply with, any special framing, blocking or backing details, or caulking conditions as may be required for structural or fire stopping, or energy code requirements.
 - 2. Coordinate with Work of other Sections to ensure that all fixtures, devices, outlets, ducts, pipes, and similar items can be installed as shown without modifications to framing. Provide all blockouts, raceways and similar framing as required.

- B. General: Fit accurately. Secure rigidly, to lines and levels shown, plumb and square to a tolerance of 1/8 inch in 10 feet. Provide any special framing, even if not specifically shown, as required to properly complete Work.

- C. Blocking
 - 1. Provide all wood blocking, backing, furring, grounds, nailers, stripping, and similar rough carpentry as detailed and as otherwise required to anchor fixtures and equipment to be installed by other trades. Perform all cutting, boring and similar Work.
 - 2. Provide additional studs or blocking as required to assure solid end and edge nailing for all siding and facias.
 - 3. Provide additional blocking as required for edge nailing of all soffit materials at all soffits and overhangs.
 - 4. Provide blocking or bracing as required to make interior walls rigid.

- D. Framing and Fasteners: Provide all framing members and fasteners as specified in Structural Drawings.

END OF SECTION 06 10 00

SECTION 06 16 00 – SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Roof sheathing.
- B. Related Sections include the following:
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 07 41 13 – Metal Roof Panels

1.2 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

PART 2 - PRODUCTS

2.1 WOOD PANEL PRODUCTS, GENERAL

- A. Provide all wood products as specified in Structural Drawings.

2.2 ROOF SHEATHING

- 1. Provide roof sheathing as specified in Structural Drawings.

2.3 FASTENERS

- A. Provide fasteners as specified in Structural Drawings and/or sheathing manufacturer.

2.4 MISCELLANEOUS MATERIALS

- A. Adhesives for Field Gluing Panels to Framing: Formulation complying with ASTM D3498 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.
 - 1. Use adhesives that have a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction, unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."
 - 3. Structural Drawings.
- D. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate wall and roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 WOOD STRUCTURAL PANEL INSTALLATION

- A. General: Comply with applicable recommendations in APA Form No. E30S, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- B. Fastening Methods: Fasten panels as indicated below:
 - 1. Floor Sheathing:
 - a. Glue and nail to wood framing.
 - b. Screw to cold-formed metal framing.
 - c. Space panels 1/8 inch apart at edges and ends.

END OF SECTION 06 16 00

SECTION 07 41 13 – METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes the following:
 - 1. Aggregate-coated metal roof panels.

1.2 RELATED REQUIREMENTS

- A. Section 06 10 00 Routh Carpentry
- B. Section 06 16 00 Sheathing
- C. Section 07 92 0 Joint Sealants

1.3 REFERENCE STANDARDS

- A. American Society of Mechanical Engineers (ASME) (www.asme.org):
 - 1. ANSI/ASME B18.6.1 – Wood Screws (Inch Series)
 - 2. ANSI/ASME B18.6.4 – Thread Forming and Tread Cutting Tapping Screws and Metallic Drive Screws, Inch Series.
- B. ASTM International (ASTM) (www.astm.org):
 - 1. ASTM A 653/A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron-Alloy-Coated (Galvannealed) by the Hot-Dip process.
 - 2. ASTM A 792/A 792M – Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip process.
 - 3. ASTM C 920 – Standard Specification for Elastomeric Joint Sealants.
 - 4. ASTM D 226/D 226M – Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roof Underlayment for Ice Dam Protection.
 - 5. ASTM E 108 – Standard Test Methods for Fire Tests of Roof Coverings.
- C. ICC Evaluation Service (www.icc-es.org):
 - 1. ICC-ES Evaluation Report ESR-1754 – DECRA Shingle XD (Direct-to-Roof Deck Installation).
- D. International Organization for Standardization (ISO) (www.iso.org):
 - 1. ISO 9001:2015 – Quality management systems – Requirements
 - 2. ISO 14001:2015 – Environmental management systems – Requirements with guidance for use.
- E. UL (www.ul.com):
 - 1. UL 790 – Standard for Standard Test Methods for Fire Tests of Roof Coverings.
 - 2. UL 2218 – Standard for Impact Resistance of Prepared Roof Covering Materials.

1.4 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00.
- B. Product data: Submit manufacturer's product data, including preparation and installation instructions. Include material finish color/pattern selection.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, flashing, fasteners, finish, options, and accessories.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer regularly engaged in the manufacturing of roof panels of similar type to that specified for a minimum of 10 years.
 - 2. Certified Company:
 - a. ISO 9001:2015
 - b. ISO 14001:2015
- B. Installer's Qualifications:
 - 1. Installer regularly engaged in installation of roof panels of similar type to that specified for a minimum of 5 years.
 - 2. Use persons trained for installation of roof panels and flashing systems.

1.6 WARRANTY

- A. Contractor Guarantee:
 - 1. Contractor shall guarantee the installation of the new roofing, underlayment, and associated flashings to be watertight for a period of 2 years from the Date of Substantial Completion
 - 2. Contractor shall repair, at his own expense, all defects which are manifested as part of the Contractor's work within 2 years.
 - 3. Contractor shall respond within 48 hours after notification of leakage to the roof site. If he does not, the Owner shall have the right, without invalidating this guarantee, to make any temporary repairs required, in order to protect the building and its contents from any damage due to the roof leakage. The cost of the same will be billed to the Contractor.
- B. Guarantee Period:
 - 1. This period shall be established as commencing from the date that the Architect inspects the repairs and finds them to be in compliance with the contract documents and written approval of same is obtained from holder of the warranty.

2. Roofing Contractor shall notify the Architect in writing when the roof is complete for a final inspection.
- C. Manufacturer's Warranty:
1. Submit Manufacturer's Lifetime Limited Warranty.
 - a. Wind: Resist blow-off in wind speed up to 120 mph.
 - b. Hail: Resist hail stone penetration, cracks, and splits. Hail stone size limit – 2.5”.

1.7 DELIVERY, STORAGE , AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
1. Store and dandle materials in accordance with manufacturer's instructions.
 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 3. Store materials in clean, dry, area indoors.
 4. Do not store materials directly on floor or ground.
 5. Protect materials and finish during storage, handling, and installation to prevent damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Manufacturer: DECRA Roofing Systems, Inc., 1230 Railroad St., Corona, California 92882. Toll Free 877-463-3272. Phone 951-272-8180. Fax 951-272-4476. www.decra.com. ino@decra.com.
- B. Substitutions: Comply with Sections 01 61 00 and 06 61 01.
- C. Single Source: Provide materials from single manufacturer.

2.2. MATERIALS

- A. Basis-of-Design Product: DECRA Roofing Systems, Inc. "Shingle XD" aggregate-coated metal roof panels.
- B. Roof Panels: DECRA "Shingle XD" interlocking panels, resembling heavy-weight dimensional roof shingles.
1. Material: Pre-corrugated, pressure-formed, aluminum-zinc alloy-coated steel, ASTM A 782/A 792M, with multiple vertical ribs forming 2 flat steps, each of which have raised and lowered pan sections.
 2. Thickness: 28 gauge, 0.0149 inch (0.378 mm).
 3. Finish: Ceramic-coated, colored stone chip finish.
 4. Color: Midnight Eclipse
 5. Dimensions: Overall Panel Size: 14-1/8 inches (359 mm) wide by 52-3/8 inches (1,330 mm) long.

6. Installed Panel Exposure: 12-1/4 inches (311 mm) wide by 49-1/2 inches (1,257 mm) long.
7. Side Panel Laps: 2-3/4 inches (70 mm).
8. Panel leading Edges Bent Down: 1/2 inch (13 mm); provides overlap for weather protection and adjoining to prior roof panels course.
9. Installed Weigh: 140 pounds per 100 square feet.
10. Recycled Steel Content Maxium 30 percent.
11. Non-Combustable, ASTM E 108, UL 790: Class A.
12. Impact Resistance, UL 2218: Class 4.
13. ICC-ES Evaluation Reports:
 - a. Direct-to-Roof Deck Installation: ESR-1754.

C. Flashing:

1. Valley: DECRA "XD Valley" aluminium-zinc alloy-coatd tseelsheet, ASTM A 792/A 792M.
 - a. Pressure formed into valley with stone-coated valley cap.
 - b. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
 - c. Finish: Match upper-exposed stone-coatd surface of valley cap o shingle material.
2. Valley: Aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - a. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
3. Side Flashing: DECRA "Side Flashing" aluimum-zinc alloy-coated steel sheet, ASTM A 79/A 792M.
 - a. Pressure formed to flash vertical roof surface transitsons.
 - b. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
 - c. Finsh: Ceramic-coated, colored-stone chip finish to match roofing material.
4. Roof-to-Wall Flashing: Aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - a. Pressure formed to flash vertical roof surface transitsons.
 - b. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
 - c. Finish: Match color of exterior finish.
5. Pipe Jack Flashing:
 - a. Material: Galvanized or aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - b. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
 - c. Finish: Clean, prime, and paint to match roof material.
6. Underpan: DECRA "Single XD Underpan" aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - a. Pressure formed to counter flash roof penetrations matching roof panel material.
 - b. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
7. Fascia Flashing: DECRA "Fasca Metal" aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - a. Pressure formed angle installed at first batten to cover build up.
 - b. 3.5 inches minimum (89 mm, 26 gauge, 0.0179 inch (0.455 mm)).
 - c. Finish: Paint to match exterior finish.
8. Fascia Metal: Aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - a. Pressure formed angle installed at first batten to cover build up.
 - b. 3.5 inches (89 mm, 26 gauge, 0.0179 inch (0.455 mm)).
 - c. Finish: Paint to match exterior finish.

9. Hip and Ridge: DECRA "Shingle XD Hip & Ridge" covers, fasciae, drips, rakes, and other trim required, matching shingle material, color, and finish.
 - a. Hips/Ridges and Rakes: DECRA "Shingle XD Hipe & Ridge" aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M.
 - b. Pressure formed to match roofing material.
 - c. Thickness: 26 gauge, 0.0179 inch (0.455 mm).
 - d. Finish: color and finish to be applied along hips, ridges, and rakes.

2.3 ACCESSORIES

- A. Sheet Metal Materials: Aluminum-zinc alloy-coated steel sheet, ASTM A 792/A 792M, Class AZ50, coating designation; minimum Grade 37.
- B. Self Adhering Underlayment:
 1. Manufacturers:
 - a. Grace; Product: Ice and Water Shield or Approved.
 - b. Substitutions: See Section 01 25 00 - Substitution Procedures or Approved.
 2. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams.
 - a. Type: Woven polypropylene with anti-slip polyolefin coating on both sides.
 - b. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-self-adhesive sheet.
 - c. Self Sealability: Passing nail sealability test specified in ASTM D1970.
 - d. Flammability: Minimum of Class A, when tested in accordance with ASTM E108.
 - e. Low Temperature Flexibility: Passing test specified in ASTM D1970.
 - f. Water Vapor Permeance: Vapor retarder; maximum of 1 perm, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
 - g. Liquid Water Transmission: Passes ASTM D4869.
 - h. Functional Temperature Range: Minus 70 degrees F to 212 degrees F.
 - i. Fasteners: As specified by manufacturer and building code qualification report or approval, if any.
 - j. Products:
 - 1) Intertape Polymer Group, Inc; Nova-Seal Premium (25-year limited warranty): www.itape.com.
 - 2) System Components Corporation, Inc. ; ProTex: www.systemcomponents.net.
 3. Flexible Flashing: Self-adhering polymer-modified asphalt sheet complying with ASTM D1970; 40 mil total thickness; with strippable treated release paper and polyethylene sheet top surface.
- C. Sealant:
 1. Once-part elastomeric polyurethane sealant, ASTM C 920.
 2. Exposed Sealant: Color to match roof panels.

- D. Fasteners:
 - 1. Screws:
 - a. Wood Screws: ANSI/ASME B18.6.1.
 - b. Sheet Metal Screws: ANSI/ASME B18.6.4.
 - c. Corrosion resistant.
 - d. Minimum No. 9.
 - e. Length: Sufficient to penetrate substrate 1/2 inch (13 mm) minimum.
 - f. Color: Silver or color coordinated to match roof panels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrate to receive roof panels.
- B. Verify surfaces to support roof panels are clean, dry, square, sound, stable, rigid, and capable of supporting the weight.
- C. Notify Architect/Engineer of conditions that would adversely affect installation or subsequent use.
- D. Do not begin preparation or installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Prepare substrate in accordance with manufacturer's instructions. Coordinate sequence of work with structural scope of work.
- B. Clean Substrate of projections and substances detrimental to roof panels.
- C. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.
- E. Coordinate installation of roof panels with flashing and other adjoining work to ensure proper sequencing.
- F. Do not install roof panels until vent stacks and other penetrations through roof have been installed and are securely fastened.
- G. Do not install roof panels until flashing is in place.

3.3 INSTALLATION

- A. Install roof panels in accordance with manufacturer's instructions at locations indicated on the Project Drawings.
- B. Install roof panels weathertight.
- C. Valleys: Install in accordance with manufacturer's instructions with a minimum 6-inch (152 mm) overlap in direction of rainwater flow.

- D. Flashing: Install as indicated on the Project Drawings and in accordance with the manufacturer's instructions.
- E. Roof Panels:
 - 1. Install roof panels, accessories, flashing, and hip and ridge level and plumb.
 - 2. Use fasteners as specified and in accordance with manufacturer's instructions.
 - 3. Install each panel using a random stagger pattern in accordance with manufacturer's instructions.
 - 4. Fasten each panel with minimum 5 fasteners running horizontally along the back panel clip, with placement in target screw hole punch-outs.
- F. Cut roof panels into each side of valleys in accordance with manufacturer's instructions straight and true to the line of the valley.
- G. Hip and Ridge:
 - 1. Install hip and ridge along hips, ridges, and rakes as indicated on the Project Drawings and in accordance with manufacturer's instructions.
 - 2. Bend and fold exposed ends of hips and ridges and neatly cap with end cap or piece of similar material.
- H. Do not install roof panels in a manner that detracts from appearance of roof.
 - 1. Do not rack panels.
 - 2. Do not line panels vertically up to roof.
 - 3. Do not use even panel offsets.
 - 4. Do not make a pattern with panels.
- I. Do not use the following with the roof panel system:
 - 1. Lead.
 - 2. Copper.
 - 3. Pressure-treated lumber containing copper compounds in the treatment solution.

3.4 ADJUSTING

- A. Repair minor damages to roof panels in accordance with manufacturer's instructions and as approved by the Architect.
- B. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by the Architect.

3.5 CLEANING

- A. Clean roof panels of debris, including metal shavings, promptly after installation.
- B. Remove all empty containers, materials, and debris from the site. Dispose off site in accordance with applicable regulations.
- C. Remove any joint sealant spills, masking materials, and similar items from all surfaces not intended for application.

- D. Dispose of waste materials in compliance with project's Waste Management Plan in accordance with Section 01 74 19 – Construction Waste Management and Disposal.

3.6 PROTECTION

- A. Protect Work of this Section to ensure that, except for normal weathering, Work will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 07 60 00 - FLASHING AND SHEET METAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Sections:
 - 1. 06 10 00 Rough Carpentry.
 - 2. 07 41 13 Metal Roof Panels.
 - 3. 07 92 00 Joint Sealants.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. A 653 - "Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process."
 - 2. B 29 - "Specification for Refined Lead."
 - 3. B 32 - "Specification for Solder Metal."
- B. Federal Specification (FS).
- C. Sheet Metal and Air Conditioning Contractors National Association (SMACNA).
 - 1. "Architectural Sheet Metal Manual."

1.3 SYSTEM DESCRIPTION

- A. Comply with details and recommendations of SMACNA "Architectural Sheet Metal Manual."

1.4 SUBMITTALS

- A. Shop Drawings showing shape, size, material, assembly, joints, seams, laps, fastenings, and connections of all flashing and sheet metal Work.

1.5 WARRANTY

- A. Furnish two year material and workmanship warranty.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Galvanized Sheet Steel (used at downspouts, gutters, associated anchors, and gutter screen protection): Commercial Quality, ASTM A 526, shop primed 26 gage minimum, galvanized in conformance with ASTM A 525, G 90 coating designation.
- B. Nails, Discs, and Rivets: Hot-dip galvanized steel nails. Where sheet metal is built in over roofing materials or other sheet, use nails with 1 inch diameter tinned discs. Rivets shall be tinned soft iron rivets.

- C. Fastenings: Bolts and nuts, powder-driven fasteners, screws, washers, and other fasteners for exterior use shall be galvanized.
- D. Sealant: As specified in Section 07 92 00.

2.2 FABRICATION

- A. Fabricate all flashing and sheet metal Work in accordance with requirements of SMACNA and as shown.
- B. Fabricate as much Work in shop as is practicable.
- C. Accurately form all sheet metal Work to fit snugly with exposed edges folded under at least 1/2 inch without sharp exposed corners.
- D. Seam and solder watertight all corners and joints shown or required to make a watertight installation.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Remove all dirt and foreign materials from surfaces to receive flashing and sheet metal. Surfaces shall be clean, smooth, even, and free from defects, prior to installation.
- B. Remove old drip edges, gutters, and downspouts and recycle as required in Section 01 74 19.

3.2 INSTALLATION

- A. Install materials in accordance with SMACNA recommendations, reviewed shop drawings, detailed Specifications, and step-by-step application procedures.
- B. Provide expansion joints as required to permit normal expansion and contraction without straining of metal, joints, or fasteners. Provide at all material junctions and at a maximum of 30 feet in straight runs. Unless otherwise shown, select joint type best suited and least obtrusive for conditions of installation.
- C. Perform all cutting, fitting, drilling, and other similar Work in sheet metal as required to accommodate other Work.
- D. Provide sheet lead sanitary vent flashing with all seams burned watertight. Turn top of sleeve into roof vent in a neat manner so that lead extends down into vent pipe 1-1/2 inch minimum.
- E. Pipe and Conduit Penetrations: Provide metal flashed collars, extend base flanges 4 inch minimum onto roof per roof panel manufacturer warranty detail. Allow space at top of collar for application of sealant specified in Section 07 92 00.

- F. Completed installation shall be watertight and divert water away from the building towards drainage.
- G. Gutters shall be installed to direct water and debris to the downspout drain. Provide screen protection accessories at all gutter as loose fit installations, to enable gutter access.

3.3 CLEANING

- A. Following installation, clean all exposed surfaces of flashing and sheet metal Work of excess solder, flux, and dirt. Remove grease and oil with appropriate solvent.
- B. Collect all metal scrap and dispose/recycle in accordance with Section 01 74 19.

END OF SECTION

SECTION 07 92 00 - JOINT SEALANTS

PART 1 - GENERAL

1.1 REFERENCES

- A. ASTM International (ASTM):
 - 1. C 920 - "Specification for Elastomeric Joint Sealants."

1.2 SUBMITTALS

- A. Manufacturer's data on materials, and application equipment and procedures.

1.3 QUALITY ASSURANCE

- A. Qualifications: Applicator shall have a minimum of 3 years experience in the satisfactory installation of joint sealants of the types specified.

1.4 WARRANTY

- A. Furnish 2 year special warranty.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Exterior Sealant: Dow Corning 795 silicone; no substitutions, single component, gun-grade, non-sag, silicone sealant, with movement capability of plus or minus 12-1/2 percent. Color: clear.
- B. Interior Sealant: Tremco, Pecora Corporation, Sonneborn Building Products, single component, gun-grade, paintable, acrylic-latex, water-base sealant. Color as selected. At exterior wall conditions: Proscor, R-Guard Air Dam or approved equal.
- C. Sanitary Sealant: Dow-Corning, General Electric, single component, gun-grade, silicone rubber sealant, with movement capability plus or minus 25 percent.
- D. Acoustical Sealer: Tremco, Pecora Corporation, permanently plastic, non-skinning, non-bleeding, non-staining sealant, for use in concealed spaces.
- E. Glazing Sealant: As specified in Section 08 80 00.
- F. Joint Backing: Closed cell neoprene or polyethylene, compatible with sealant materials, of sizes and shapes as recommended by the joint sealant manufacturer.
- G. Primers, Solvents, and Cleaning Materials: Non-staining and non-injurious to exposed surfaces, of types as recommended by the joint sealant manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Preparation:
1. Thoroughly clean and dry surfaces prior to installation.
 2. Clean metals with manufacturer's recommended solvent, wipe clean.
 3. Remove any dust, dirt, oil, grease, and any other foreign substances from surface areas to receive sealant.
 4. Prime surfaces as recommended by sealant manufacturer. Prime all concrete substrates, regardless of manufacturer's requirements.
 5. Mask off any adjacent surfaces which are not to receive sealant.

3.2 EXAMINATION

- A. Verify products have been stored, and will be installed, in accordance with manufacturers recommendations.

3.3 APPLICATION

- A. General: Comply with sealant manufacturer's installation instructions. Provide bond breaker tape as required to prevent sealant adhesion to backing. Joint depth 1/2 joint width, but not less than 1/4 inch nor more than 1/2 inch, unless otherwise specified by sealant manufacturer.
- B. Joint Backing: Install as recommended by sealant manufacturer to prevent sealant from adhering to rigid, inflexible materials or joint surfaces where such adhesion would result in sealant failure. Sealant shall bond two opposing joint surfaces.
- C. Sealant Application:
1. Do not install sealants during rainfall or very windy conditions when windborne contaminants can become embedded in uncured sealant.
 2. Apply materials with hand gun, powered gun, or trowel to completely fill voids and joints, free of wrinkles and skips.
 3. Observe temperature control in accordance with sealant manufacturer's written recommendations.
 4. Do not allow any air entrapment in sealant.
 5. Extrude sealant fully into joint to be sealed, tool sealant to press into joint, assuring full adhesion to sides of joint surfaces, resulting in a uniformly smooth concave profile.
 6. Tool sealant using only materials recommended by sealant manufacturer.
 7. Remove masking tape immediately after sealant application to produce clean, sharp line.
 8. Do not seal weeps or drainage provisions in sill channels.
 9. Allow sealants to cure adequately prior to covering with other Work.
 10. Coordinate sealant installation with concrete, masonry, and flashing applications.
 11. Apply sand to wet sealant surfaces to match finish of adjacent concrete and masonry conditions.

3.4 CLEANING

- A. Remove all empty containers, materials, and debris from the site. Dispose off site in accordance with applicable regulations.
- B. Remove any sealant spills, masking materials, and similar items from all surfaces not intended for their application.
- C. Clean and repair surfaces soiled or damaged by sealant Work.
- D. Dispose of all waste material in compliance with project's Waste Management Plan in accordance with Section 01 74 19 - Construction Waste Management and Disposal.

END OF SECTION

