

TOLLGATE FARMHOUSE INTERIOR RENOVATION

**Si View Metropolitan Park District
North Bend, Washington**

Specifications

February 25, 2019

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

000101 PROJECT TITLE PAGE
000110 TABLE OF CONTENTS
001116 BID SOLICITATION
004100 BID FORM
007200 GENERAL CONDITIONS

DIVISION 01 – GENERAL REQUIREMENTS

011000 SUMMARY
011110 SUMMARY OF HAZARDOUS MATERIALS WORK
012300 BASE BID AND BID ALTERNATES
012500 SUBSTITUTION PROCEDURES
012600 CONTRACT MODIFICATION PROCEDURES
013100 PROJECT MANAGEMENT AND COORDINATION
013216 CONSTRUCTION PROGRESS DOCUMENTATION
013300 SUBMITTAL PROCEDURES
014100 REGULATORY REQUIREMENTS
014200 REFERENCES
014500 QUALITY CONTROL
015000 TEMPORARY FACILITIES AND CONTROLS
016000 PRODUCT REQUIREMENTS
017400 CLEANING AND WASTE MANAGEMENT
017700 CLOSEOUT PROCEDURES
017836 WARRANTIES

DIVISION 02 – EXISTING CONDITIONS

024100 DEMOLITION

DIVISION 03 – CONCRETE

031100 CONCRETE FORMING
032000 CONCRETE REINFORCING
033000 CAST-IN-PLACE CONCRETE

DIVISION 04 – MASONRY

NO WORK THIS DIVISION

DIVISION 05 – METALS

NO WORK THIS DIVISION

DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

061000 ROUGH CARPENTRY
062000 FINISH CARPENTRY
064100 ARCHITECTURAL WOOD CASEWORK

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

072100 THERMAL INSULATION
072500 WEATHER BARRIERS
073113 COMPOSITION SHINGLE ROOFING
074623 WOOD SIDING
079200 JOINT SEALANTS

DIVISION 08 – OPENINGS

081400 WOOD DOORS
085000 WINDOWS
087100 DOOR HARDWARE
089100 LOUVERS

DIVISION 09 – FINISHES

092900 GYPSUM BOARD
093000 TILING
096400 WOOD FLOORING
099000 PAINTING AND COATING

DIVISION 10 – SPECIALTIES

101400 SIGNAGE
102500 TOILET, BATH, AND LAUNDRY ACCESSORIES
104400 FIRE PROTECTION SPECIALTIES

DIVISION 11 - EQUIPMENT

113100 RESIDENTIAL APPLIANCES

DIVISION 12 – 21

NO WORK THESE DIVISIONS

DIVISION 22 – PLUMBING

SEE SHEETS P0.1, P0.2, P1.1, P2.1

DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING

SEE SHEETS M1.1, M2.1

DIVISION 24 - 25

NO WORK THESE DIVISIONS

DIVISION 26 – ELECTRICAL

SEE SHEETS E2.00, E3.00

DIVISION 31 – EARTHWORK

312000 GRADING AND EXCAVATION

DIVISION 32 – EXTERIOR IMPROVEMENTS

321300 PAVING

END OF TABLE OF CONTENTS

Project: Tollgate Farmhouse Interior Renovation
Project Number: RFP 2019-02
Date: March 4, 2019

Si View Metropolitan Park District
400 SE Orchard Drive
North Bend, WA 98045
(425) 831-1900

Description of Work:

You are invited to submit a proposal on a General Contract for the interior renovation of the historic Tollgate Farmhouse, including selective demolition of existing finishes, new interior wall, ceiling and floor finishes, wood trim, casework, interior doors and hardware, new addition with restroom and covered porch, plumbing, mechanical and electrical upgrades, and exterior grading and paving.

Base Bid: All work including refinishing and repairing existing wood wall paneling.

Bid Alternate: Remove and replace existing wood wall paneling with matching new wood paneling.

Time of Completion:

Project to be substantially completed within one hundred twenty (120) calendar days from the date of the award of the Contract.

Optional Pre-bid Meeting:

An optional meeting will be conducted at Tollgate Farmhouse – 901 Bendigo Boulevard N, North Bend, Washington 98045. Meeting will be held on Tuesday, March 12, 2019 at 10:00 AM. Bidders are not required to attend the Pre-bid Meeting.

Bid Opening:

The Owner will receive proposals until 2:00 PM on Thursday, March 28, 2019, at the office of Si View Metropolitan Park District, 400 SE Orchard Drive, North Bend, WA 98045. Proposals received after this time will not be accepted. Proposals will be opened and recorded immediately after specified closing time.

Examination and Procurement of Documents:

Bidding Documents may be examined at the Owner's office and at:

<https://www.siviewpark.org/contracting-process.phtml>

Bid Security:

Bid Security in the amount of five percent (5%) of the Bid must accompany each Bid in accordance with the Instructions to Bidders.

Owner's Right to Reject Bid:

The Owner reserves the right to waive any irregularities and to reject proposals.

END OF SECTION

Proposal For: Tollgate Farmhouse Interior Renovation

Proposal To: Si View Metropolitan Park District

Proposal From: _____

I have received the documents titled "Tollgate Farmhouse Interior Renovation" and these include the following:

Specifications, dated February 25, 2019.
Drawings, Sheets G1.1, A1.1, A3.1, A3.2, A3.3, A7.1, A7.2, A8.1, A8.2, A9.1, A9.2, A10.1, M0.1, M0.2, M1.1, M2.1, P0.1, P0.2, P1.1, P2.1, E2.00, E3.00; dated February 25, 2019.

I have also received Addenda numbered _____

and have included their provisions in my proposal. I have examined both the Documents and the site and submit the following proposal:

In submitting this proposal I agree:

To hold my proposal open for thirty (30) calendar days.
To enter into and execute a Contract and to furnish all required bonds and insurance.
To accomplish the work in accordance with the Contract Documents.
To complete the work by the time stipulated in the Agreement.

I will construct the project for the following stipulated sum:

BASE BID: \$ _____.

BID ALTERNATE: \$ _____.

Signed: _____ Date: _____

Title: _____

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Work Covered by Contract Documents
 2. Summary of Contracts
 3. Work Sequence
 4. Access to Site
 5. Use of Site
 6. General Information

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. This contract includes work as described below. The description is summarized and may not include specific reference to all incidental work elements required to complete the contract. Include all labor, materials, equipment and incidentals required for completion of the work as shown on the Drawings and specified herein.
1. Interior renovation of the historic Tollgate Farmhouse, including selective demolition of existing finishes, refinishing or replacing wall paneling, new interior wall, ceiling and floor finishes, wood trim, casework, interior doors and hardware, plumbing, mechanical and electrical upgrades, and exterior grading and paving.
 2. Exterior addition including restroom and covered porch.

1.3 SUMMARY OF CONTRACTS

- A. General Contract: There will be one Contract for the project, which includes the Work described in the Project Manual and Drawings. The Contractor shall provide all items, articles, materials, operations or methods listed, noted or scheduled on the Drawings and/or Project Manual, including all labor, equipment and incidentals necessary and required for proper and timely completion of the Work. The Contractor shall use new materials unless specifically noted or directed.
- B. Technical Specifications are enumerated in the Table of Contents of the Project Manual. The numbering of Sections is for identification only and may not be consecutive. The Contractor shall check his/her copies of the Specifications with the Table of Contents to verify that they are complete. The Contractor shall notify the Architect of incomplete copies.

1.4 WORK SEQUENCE

- A. Fencing: Work area shall be fenced and secured prior to undertaking major construction components.
- B. Protection: Required protection for existing trees and shrubs shall be in place prior to undertaking major construction components.
- C. Temporary Erosion and Sedimentation Control: Erosion and sedimentation control elements shall be in place prior to undertaking major construction components.

1.5 ACCESS TO SITE

- A. Access: The Contractor and his subcontractors will be allowed on site only during the working period. The Contractor shall use the designated location for site access.
- B. Parking: Contractor may use on-site driveway area for parking and staging.
- C. Public and Private Access: Maintain public access to the trail system. Maintain private access to sheds and equipment for the property leasee.

1.6 USE OF SITE

- A. Hours of Work: The contractor shall limit their work to between the hours of 7 am and 6 pm., Monday through Friday except City holidays. Any other times of work shall be by approval of the Owner.
- B. Keys: The Owner will provide keys to the driveway gate and the entry door for supervisory personnel only.

1.7 GENERAL INFORMATION

A. Title of Drawings and Specifications

- 1. Project Name: Tollgate Farmhouse Interior Renovation
Project Number: RFP _____
Title of Drawings and Project Manuals: Tollgate Farmhouse Interior Renovation

B. Owner and Architect:

- 1. Owner: Si View Metropolitan Park District
400 SE Orchard Drive
North Bend, WA 98045

Project Manager: Dave Dembeck
E-mail: ddembeck@siviewpark.org
Phone: (425) 831-1900
Fax: (425) 831-1442

- 2. Architect: Hoshide Wanzer Architects
100 NE Northlake Way, Suite 150
Seattle, WA 98105

Representative: Bob Hoshide
E-mail: bob@hw-architects.com
Phone: (206) 325-6441
Fax: (206) 325-8256

- 3. The Owner, the Architect, and various consultants shall be given access to the Work insofar as their interests are concerned.

C. The Sub-Consultants involved with the Architect in preparation of the Contract Documents are:

- 1. Mechanical Engineer: Sider+Byers
192 Nickerson, Suite #300
Seattle, WA 98109

Representative: Andy Johnston
E-mail: andy@siderbyers.com
Phone: (206) 285-2966

- 2. Electrical Engineer: Travis Fitzmaurice & Associates
1200 Westlake Avenue N., Suite 509
Seattle, WA 98109

Representative: Kevin Wartelle
E-mail: kevin@travisfitzmaurice.com
Phone: (206) 285-7228

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Hazardous Materials Consultant:
1. EHS – International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, WA 98134
Phone: (206) 381-1128
Fax: (206) 254-4279
Contact: Derica Escamilla

1.2 WORK COVERED BY CONTRACT DOCUMENTS-HAZARDOUS MATERIALS

- A. The Work shall include the providing of all supplies, tools, equipment, transportation, utilities, services, superintendence, labor, and the furnishing of all materials, items and accessories needed for the impact of Asbestos-Containing Materials (ACM), Lead Containing Paint (LCP), and Lead Containing Material (LCM), in strict conformance with the Contract Documents and all applicable regulations.

1.3 ASBESTOS-CONTAINING MATERIALS (ACMs)

- A. Presence of Asbestos: Si View Metropolitan District (SVMD) Tollgate Farmhouse has been surveyed with the objective of identifying the presence of ACMs. ACMs present are included in the Abatement Contractor's work under contract to the Contractor as indicated in the Limited Hazardous Materials Survey Report Summary (attached to this Section).
- B. No ACMs or assumed ACMs are expected to be impacted by the planned work. If the work scope changes and identified ACMs will be impacted, then a certified asbestos sub-contractor, working directly for the Contractor, will remove all ACMs expected to be impacted by the Work prior to commencement of that portion of the Work. If identified ACMs or suspect materials not identified by the survey report as having been sampled will be impacted by the Work during the project, stop prior to impacting the identified/suspect materials and contact the Owner and the hazardous materials consultant, prior to proceeding with work. The contractor will have an asbestos abatement contractor available on an on-call basis to remove any new identified/suspect materials. All asbestos-containing materials removed shall be prepared for disposal and disposed of per WISHA and EPA regulations. No claim for delay of work or additional scope will be allowed for incidental non-friable asbestos removal by the Contractor.
- C. Damage of Asbestos by the Contractor: Damage to asbestos-containing materials caused by the Contractor shall be removed/repared at the Owner's choice to the satisfaction of the Owner by the Contractor using certified asbestos workers, at the expense of the Contractor.
- D. Asbestos-related work
1. Any asbestos related work must be accomplished by a certified asbestos contractor.
- E. Work Occurring near ACMs
1. All personnel performing work in such locations shall be trained and certified to have completed Class IV asbestos training ({e.g., working in close proximity to ACM, but not disturbing it} - two-hour awareness training) as dictated by Washington Department of Labor and Industries Division of Occupational Safety and Health (DOSH) regulations and according to these specifications.
- F. Non-ACM requiring special precautions
1. The selective demolition of <1% asbestos-containing materials is within the scope of this project. Based on EPA guidance, the Puget Sound Clean Air Agency (PSCAA) considers that these materials to be non-asbestos materials (see "Good Faith Inspection Report" attached as appendix to this Section). Therefore, disturbance and demolition of these materials with <1% asbestos is not considered an asbestos project; however, L&I DOSH requires special worker exposure precautions and qualifications when dealing with this detectable level of asbestos

(refer to L&I DOSH regulations, and WISHA Regional Directives). Note: Debris from demolition of building materials with <1% asbestos may be disposed with normal construction debris.

- G. Materials with <1% asbestos impacted by other trades
 - 1. All personnel performing work in such locations shall be trained and certified to have completed Class IV asbestos training (e.g., working in close proximity to ACM, but not disturbing it) - two-hour awareness training) as dictated by DOSH regulations and according to these specifications.
- H. The Contractor shall ensure that copies of the Limited Hazardous Materials Survey Report are made available to, and are retained on the Project site by all Subcontractors.
- I. Off-Limit Areas: Non-asbestos certified personnel shall not enter any building areas/crawl spaces marked by "Danger Asbestos Hazard" signs or outside of the cleaned area without appropriate training.

1.4 LEAD RELATED ACTIVITIES

- A. The Owner's consultant has conducted limited lead x-ray fluorescence analyzer (XRF) and bulk paint sampling investigations of the areas of impact at SVMD Tollgate Farmhouse. Detectable levels of lead in painted surfaces were identified at the property within the proposed work areas.
- B. The work requires the disturbance and disposal of lead containing materials from So Tollgate Farmhouse as specified herein. The lead work shall be performed in accordance with all current applicable lead regulations and these specifications. These work activities are identified as specified in Section 02 83 00.
 - 1. Interior and exterior paint surface tests and other lead-containing materials (LCM) (e.g., ceramic tiles) using and XRF measured at a variety of lead levels with results ranging from 33.9 milligrams per square centimeter (mg/cm²) to less than the detectable level. In addition lead-containing paint (LCP) and LCM bulk QA samples indicate analytical results that range from 35 weight percent lead (wt % Pb) down to 7.7 wt% Pb. The lead sampling data is included in the Hazardous Material Survey Report which is provided as an appendix to this Specification Section.
 - 2. Based on the specified work scope that includes limited demolition, the Contractor will as a minimum:
 - a. Accomplish initial exposure assessments for each category of lead work (disturbance) in accordance with WAC 296-155-176.
 - b. Accomplish dust control using wet methods or as required in accordance with WAC 296 155-176.
 - c. Accomplish waste stream sampling as needed for hazardous lead concentrations in accordance with WAC 173-303.
 - 3. All construction work will potentially generate fugitive dust. It is the responsibility of the Contractor to control the release of all fugitive dust and to comply with the most recent regulations concerning respirable dust from the State of Washington Department of Labor and Industries and the Olympic Region Clean Air Agency and any applicable federal, state and local government agencies. The Contractor is responsible for cleaning all areas affected by any fugitive dust from the proposed contract work.

1.5 CONTRACTOR'S USE OF PREMISES

- A. No work impacting ACM's, or Lead Containing materials is to occur at The SVMD Tollgate Farmhouse, except during the contract period.
 - 1. Refer to Section 01 1100, Summary of Work for additional requirements related to the Contractor's use of the premises.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

Appendix A

Abridged Limited Hazardous Materials Survey Report for The SVMD Tollgate Farmhouse

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for alternate bids or proposals.
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry

1.2 GENERAL INFORMATION

- A. Definition: An alternate is an amount proposed by bidders and stated on the Bid Form for certain construction activities defined in the bidding Requirements that may be added to or deducted from Base Bid amount and/or the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.
- B. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.
- C. Notification: Immediately following the award of the contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates.
- D. Schedule: A "Schedule of Alternates" is included in this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.
 - 1. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.
 - 2. Each alternate is defined by abbreviated language, recognizing that the drawings and specification sections document the requirements.
 - 3. Each bidder shall submit his proposal for performing the work as outlined below and described in the technical sections.

1.3 SCHEDULE OF ALTERNATES

- A. BID ALTERNATE: Remove and Replace Existing Wood Wall Paneling with Matching New Wood Wall Paneling

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Product Substitution Procedures
 2. Execution Substitution Procedures
- B. Related Sections:
1. Section 08 14 00 – Wood Doors
 2. Section 09 90 00 – Painting and Coating
- C. Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents.
1. "Products" are items purchased for incorporation in the Work, regardless of whether they were specifically purchased for the Project or taken from the Contractor's previously purchased stock.
 2. "Named Products" are products identified by use of the manufacturer's name for a product, including such items as a make or model designation, as recorded in published product literature, of the latest issue as of the date of the Contract Documents.
 3. "Materials" are products that must be cut, shaped, 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, and in particular, a product that requires service connections such as wiring or piping.
 5. References to equipment, material, articles or patented processes by trade name, make or catalog number are presumed to set a standard of quality so as to encourage competition. The term "equal" is presumed and need not be repeated in the specifications.
 - a. The terms "or approved equal" or "or other acceptable" requires Contractor to follow the requirements for a Product Substitution.

1.2 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
 2. Standard Products: Where available, provide standard products of type and manufacturer used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by Contract Documents and governing regulations. Procedures governing product selection include the following:
1. Performance Specifications: Where specifications set a standard of quality, provide product options complying with or exceeding the provisions of the Contract Documents and which are recommended by a manufacturer for the applications indicated. No Substitution Request is required. Owner may request and Contractor shall provide the documentation of the manufacturers recommendations for a particular products application. Performance specifications may be;
 - a. A single named reference without the terms "or approved equal" or "or other acceptable".
 - b. No manufacturer is specified and requirements are specified by performance specifications may be: descriptive requirements, design requirements, performance requirements, reference standards and codes.
 2. Closed Proprietary Specifications: Products by one or more manufacturers are specified and specification section does not allow for approval of other products by Substitution Request. No other product options will be accepted. Provide products and work as specified.
 3. Open Proprietary Specifications: Products by one or more manufacturers are specified, and specification section allows for approval of other products by Substitution Request. Submit

- Substitution Request for other products to Owner under provisions of this section.
4. Visual Matching: Where matching an established sample is required, the Owner's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where there is no product available within the specified product category which matches satisfactorily and also complies with other specified requirements, comply with the provisions of the Contract Documents concerning substitutions for the selection of a matching product in another product category.
 5. Visual Selection: Where specified product requirements include the phrase "...as selected from the manufacturer's standard colors, patterns, textures..." or similar phrases, select a product and manufacturer that complies with other specified requirements. Owner will select the color, patterns and texture from the product line selected.

1.3 PRODUCT SUBSTITUTION

- A. General: If a bidder or Contractor desires approval of some material or product other than that required by the Contract Documents it must submit a written request for approval of the substitute item in accordance with the following requirements:
 1. No request for approval will be considered unless submitted in accordance with this Section.
 2. 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 equal or superior to the specified product.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Requests for Information
 - 2. Change Orders

1.2 REQUEST FOR INFORMATION (RFI)

- A. When field conditions or Contract Document contents require clarification or verification by the A/E or A/E's sub consultants, a written RFI is to be submitted. Identify the nature and location of each clarification/verification and provide as a minimum the following information:
 - 1. Project name and number
 - 2. Date
 - 3. Date response required by
 - 4. RFI number
 - 5. Subject
 - 6. Initiator of the question
 - 7. Indication of costs, if known
 - 11. Descriptive text
 - 12. Space for reply on same page as questions
- B. Clarifications: May only be discussed on-site or by telephone with A/E or A/E's Consultant, with concurrence of Owner. Incorporate the essence of the discussion onto an RFI form.

1.3 CHANGE ORDERS

- A. Preparation of a Change Order
 - 1. Owner or Architect may initiate changes by submitting a Proposal Request to the Contractor containing the proposed change. Request will include:
 - a. Detailed description of the change, products and location of the change in the Project.
 - b. Revised Drawings and Specifications.
 - c. Such request is for information only, and is neither an instruction to execute the changes nor to stop work in progress.
 - 2. The Contractor may propose a change in the Work by submitting a Proposal Request to the Architect and a statement of the reason for making the changes. It shall include documentation supporting any change in Contract Sum or Contract Time.
 - 3. A proposal shall be submitted by the General Contractor within seven calendar days of the issuance of each proposal request.
- B. Documentation of Change in Contract Sum and Contract Time
 - 1. The Contractor shall submit the following support for a lump-sum proposal, sufficient substantiating data to allow Architect to evaluate the quotation.
 - a. Labor required
 - b. Equipment required
 - c. Products required:
 - (1) Recommended source of purchase and unit cost
 - (2) Quantities required
 - d. Taxes, insurance and bonds
 - e. Overhead and profit
 - f. Justification for any change in Contract Time
 - 2. Support each claim for additional costs and for work done on a time-and-material basis, with documentation as required for a lump-sum proposal, plus additional information:
 - a. Time record, summary of hours worked, and hourly rates paid
 - b. Receipts and invoices for:
 - (1) Equipment used, listing dates and times of use

- (2) Products used, listing quantities
- (3) Subcontracts

C. Correlation with Contractor's Submittals:

1. Application of Payment forms shall record each Change Order as a separate item of work. Do not include a Change Order on the applications until the fully executed Change Order is received from the Owner with the adjusted Contract Sum.

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Coordination of the Work
 - 2. Project Communication
 - 3. Project Meetings
 - a. Pre-construction conference
 - b. Progress meetings

1.2 COORDINATION OF THE WORK

- A. GENERAL COORDINATION
 - 1. The Contractor shall be in charge of this Contract and the Site, as well as directing and scheduling of all Work. Final responsibility for performance, interface, and completion of Work and Project shall be the Contractor's.
- C. JOB SITE FIELD MEASUREMENTS AND TEMPLATES:
 - 1. Obtain field measurements required for accurate fabrication and installation of Work included in this Contract. Exact measurements are the Contractor's responsibility.
 - 2. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Verify in field.

1.3 PROJECT COMMUNICATION

- A. GENERAL COMMUNICATION
 - 1. The Project Manager shall act as the Owner's Representative for this project.
 - 2. Telephone communication and correspondence shall be between Contractor's Representative and Owner's Representative.
 - 3. Subcontractors: Do not contact members of the design team directly. Transmit problems or questions in writing using the Request for Information form (RFI) through General Contractor to Owner's Representative.

1.4 GENERAL MEETING REQUIREMENTS

- A. The Architect shall take the Meeting minutes. Copies shall be distributed to the Owner and General Contractor and to other appropriate parties.
- B. All those attending meetings shall be authorized to act on behalf of the entity each represents.

1.5 PRE-CONSTRUCTION CONFERENCE

- A. Architect shall schedule and administer a general pre-construction meeting within 15 days after date of Notice to Proceed.
- B. The following parties shall be present:
 - 1. Owner's representative
 - 2. Architect and his consultant(s)
 - 3. Contractor's superintendent
 - 4. Major subcontractors and suppliers
- C. Agenda:
 - 1. Introduce major subcontractors and suppliers
 - 2. Review Construction Schedules
 - 3. Establish major product deliveries and priorities
 - 4. Discuss project coordination:
 - a. Designation of responsible personnel

- b. Line of communications
- 5. Establish procedures for the following:
 - a. Field decisions
 - b. Change Orders
 - c. Applications for Payment
 - d. Use of premises
 - e. Location of temporary utilities
 - f. Outline safety, first-aid, and security procedures
 - g. Housekeeping procedures
- 8. Review site visits and job meeting procedures
- 9. Review Shop Drawing submittal procedures

1.6 PROGRESS MEETINGS

- A. Architect shall schedule and administer site meetings at the project field office of Contractor.
The following parties shall be present:
 - 1. Owner's representative
 - 2. Architect and consultant(s)
 - 3. Contractor's superintendent
 - 4. Subcontractors and suppliers as appropriate.
- B. Suggested Agenda:
 - 1. Transmit documents
 - 2. Discuss changes to the scope of work
 - 3. Review the construction schedule
 - 4. Discuss previous items
 - 5. Discuss old business
 - 6. Discuss new items of business and establish field observation needs
 - 7. Conduct field observation with contractor's superintendent

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Construction Progress Schedule

1.2 PROGRESS SCHEDULE

- A. Prior to first application for payment prepare and submit a Construction Progress Schedule. Show complete sequence of construction by activity, including but not limited to:
 - 1. Date for Notice to Proceed;
 - 2. Date for Substantial Completion;
 - 3. Date for Final Completion;
 - 4. Dates on which Contractor plans to start and finish major portions of the Work, including but not limited to:
 - a. Work activities;
 - b. Shop Drawings and other submittals and approvals;
 - c. Materials and equipment ordering and delivery to job site;
- B. Normal holidays and weather conditions over the duration of the contract shall be accounted for within the duration for each activity.

1.3 SUBMITTAL AND REVISIONS TO THE SCHEDULES

- A. Initial Progress Schedule and Submittal Schedule must be submitted fifteen (15) days prior to first application for payment.
- B. The Progress Schedule shall be kept current, representing the actual progress of the Work and shall be updated every thirty (30) days.

PART 2 -PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
1. General Submittal Requirements
 2. Shop Drawings, Product Data and Samples
- B. Related Sections:
1. Section 06 20 00 – Finish Carpentry
 2. Section 06 41 00 – Architectural Wood Casework
 3. Section 07 21 00 – Thermal Insulation
 4. Section 07 31 13 – Asphalt Shingle Roofing
 5. Section 07 46 23 – Wood Siding
 6. Section 08 14 00 – Wood Doors
 7. Section 08 50 00 – Windows
 8. Section 08 71 00 – Door Hardware
 9. Section 09 29 00 – Gypsum Board
 10. Section 09 30 00 – Tiling
 11. Section 09 64 00 – Wood Flooring
 12. Section 09 65 00 – Resilient Flooring
 13. Section 09 90 00 – Painting and Coating
 14. Section 10 14 00 – Signage
 15. Section 10 28 00 – Toilet, Bath, and Laundry Accessories
 16. Section 11 31 00 – Residential Appliances
 17. P-Series Sheets – Plumbing Fixtures
 18. M-Series Sheets – Mechanical Equipment
 19. E-Series Sheets – Light Fixtures

1.2 GENERAL SUBMITTAL PROCEDURES

- A. Coordination:
1. Coordinate the preparation and processing of submittals with the performance of the work. Coordinate each separate submittal with other submittals and related activities such as testing, purchasing, fabrication, delivery and similar activities that require sequential activity.
- B. Review Time: Allow 7 days from receipt of submittals by the Architect.
- C. Reviews prior to transmittal to Architect
1. Verify field conditions, stamp, and sign each submittal to certify Contractor's review of actual installation conditions.
 2. Notify Architect of deviations from the Contract Documents.
- D. Review and Approval of Submittals:
1. Do not begin work in advance of approval of the Submittals.
 2. Should discrepancies become evident, immediately notify Architect before proceeding with the work.
 3. Submittals will be approved by the Architect for conformance to the design concept.
 4. Review and approval of submittals by the Architect shall not relieve the Contractor from responsibility for the proper fitting, finishing, quantities, and erection of the work in strict accordance with the Contract documents.
 5. Review and approval of submittals by the Architect shall not relieve the Contractor from the responsibility for providing work not indicated on approved submittals, but otherwise required for the completion of the work.

1.3 SHOP DRAWINGS

- A. Shop drawings are technical drawings and data prepared by Contractor that are specially required by the Specifications or the performance of the Work for this project include, but not limited to the following items.
1. Fabrication and installation drawings.
 2. Setting diagrams.
 3. Shop work manufacturing instructions.
 4. Templates
 5. Other relevant information.
- B. Procedures:
1. Illustrate the requirements of the Contract Documents. Show quantities, materials, methods of assembly, and all data required for fabrication, erection, and installation.
 2. Show the relationship to adjoining work, field conditions and dimensions.
- C. Number of Copies: Submit four (4) copies. Shop Drawings will be reviewed by the Architect for conformance to the design concept, only.

1.4 PRODUCT DATA

- A. Product data includes standard printed information on manufactured products that has not been specially-prepared for this project, including, but not limited to, the following items:
1. Standard color charts.
 2. Catalog cuts.
 3. Roughing-in diagram and templates.
 8. Standard products operating and maintenance manuals.
 9. Other relevant information.
- B. Procedures:
1. Clearly mark all copies to identify the item being reviewed.
 2. Modify documents to delete information which is not applicable.
 3. Supplement standard information to provide sufficient information for review.
- C. Number of Copies: Submit four (4) sets of data sheets. Architect will retain one set.

1.5 SAMPLES

- A. Samples are physical examples of work including, but not limited to, the following items:
1. Paint color brush-outs.
- B. Number of Items: Submit three samples of each. Architect will retain one sample item.

PART 2 - PRODUCTS

Not Applicable

PART 3- EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes
1. Codes and Laws
 2. Rules
 3. Permits and Fees

1.2 CODES AND LAWS

- A. The project shall be built to the requirements of applicable codes, regulations and laws and to the satisfaction of all authorities having jurisdiction. Work shall be performed accurately to the adopted edition of the following:
1. International Building Code
 2. City of North Bend Zoning Ordinances.

1.3 RULES

- A. The Contractor shall call for all inspections required by public agencies having jurisdiction in the area. Final payment will not be made until the appropriate officials have made a final inspection and all deficiencies have been corrected.
- B. Regulations affecting working conditions and procedures that are enforced by the Department of Labor and Industries are to be followed.

1.4 PERMITS AND FEES

- A. The Owner has paid for the building permit. The Contractor shall pay for all other permits, inspections, and approvals that are necessary to complete the Work.
- B. The building permit has been issued and transmitted to the Contractor. The Contractor shall secure all other permits and approvals from the authority having jurisdiction that are necessary to complete the Work.

PART 2 - PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Abbreviations and Acronyms
 - 2. Definitions
 - 3. Reference Standards
 - 4. Specification Format and Content Explanation

1.2 ABBREVIATIONS AND ACRONYMS

- A. The following pages contain abbreviations that are standard with the Architect. Some may not appear on this set of Drawings. Certain commonly used abbreviations are not shown on this list and appear on the Drawings.

A.B.	Anchor Bolt	AL.	Aluminum
ACOUS.	Acoustical	ALT.	Alternate
ACRYL.	Acrylic	ANCH.	Anchor
A.C.T.	Acoustical Ceiling Tile	APPROX.	Approximate
A.D.	Area Drain	ARCH.	Architectural
ADJ.	Adjustable	ASPH.	Asphalt
AGGR.	Aggregate	AVG.	Average
BD.	Board	BM.	Beam
B.F.	Bi-Fold	BOT.	Bottom
BITUM.	Bituminous	BRG.	Bearing
BLDG.	Building	BRK.	Brick
BLK.	Block	BTWN.	Between
BLKG.	Blocking		
CAB.	Cabinet	CONC.	Concrete
C.B.	Catch Basin	CONN.	Connection
CEM.	Cement	CONSTR.	Construction
CER.	Ceramic	CONT.	Continuous
C.F.C.I.	Contractor Furnished, Contractor Installed		
C.F.O.I.	Contractor Furnished, Owner Installed		
C.I.	Cast Iron	CORR.	Corridor
CLG.	Ceiling	CPT.	Carpet
CLKG.	Caulking	C.R.	Cold Rolled
CLO.	Closet	CRNR.	Corner
CLR.	Clear	C.S.	Cut Stone
C.M.U.	Concrete Masonry Units	C.T.	Ceramic Tile
CNTR.	Counter	CTR.	Center
C.O.	Clean Out	CTSK.	Countersunk
COL.	Column		
DBL.	Double	DISP.	Dispenser
DECID.	Deciduous	DN.	Down
DET.	Detail	DP.	Deep
D.FIR.	Douglas Fir	DR.	Door
DIA.	Diameter	DS.	Downspout
DIAG.	Diagonal	DWG.	Drawing

DIM.	Dimension	DWR.	Drawer
DIS.	Disposal		
E.	East	EQ.	Equal
EA.	Each	EQPT.	Equipment
E.E.	Each End	EQUIV.	Equivalent
E.F.	Each Face	E.S.	Each Side
E.J.	Expansion Joint	E.W.	Each Way
EL.	Elevation	EXIST.	Existing
ELEC.	Electrical	EXP.	Expansion
EN.	Enamel	EXPO.	Exposed
E.P.	Electrical Panelboard	EXT.	Exterior
FA.	Face	F.O.C.	Face Of Concrete
F.B.	Flat Bar	F.O.F.	Face Of Finish
F.D.	Floor Drain	F.O.M.	Face Of Masonry
FDN.	Foundation	F.O.S.	Face Of Studs
F.F.	Factory Finish	FRM.	Frame
FIN.	Finish	F.S.	Full Size
FL.	Floor	FT.	Foot or Feet
FL. EL.	Floor Elevations		
FTG.	Footing		
FLASH.	Flashing		
FURR.	Furring		
FLUOR.	Fluorescent		
FUT.	Future		
F.O.B.	Face Of Brick		
GA.	Gauge	G.L.B.	Glue Laminated Beam
GALV.	Galvanized	GND.	Ground
G.B.	Grab Bar	GR.	Grade
G.I.	Galvanized Iron	G.W.B.	Gypsum Wallboard
GL.	Glass	GYP.	Gypsum
H.	High	HGR.	Hanger
H.B.	Hose Bibb	H.M.	Hollow Metal
H.C.	Hollow Core	HOL.	Hollow
HDR.	Header	HORIZ.	Horizontal
HDW.	Hardware	HT.	Height
HDWD.	Hardwood		
H.W.T.	Hot Water Tank		
IBC	International Building Code	INST.	Installation
I.D.	Inside Diameter	INSUL.	Insulation
IND.	Indicated	INT.	Interior
INSP.	Inspection		
JSTS.	Joists		
JT.	Joint		
K.D.	Kiln Dried		
KIT.	Kitchen		
L.	Left	LDG.	Landing

LAM.	Laminated	L.L.	Live Load
LAV.	Lavatory	LOC.	Location
LB.	Pound	LT.	Light
MACH.	Machine	MFR.	Manufacturer
MAS.	Masonry	MIN.	Minimum
MAT.	Material	MIR.	Mirror
MAX.	Maximum	MISC.	Miscellaneous
M.B.	Machine Bolt	M.O.	Masonry Opening
M.C.	Medicine Cabinet	M.T.	Marble Tile
M.D.O.	Medium Density Overlay	MTD.	Mounted
MECH.	Mechanical	M.U.	Masonry Unit
MEMB.	Membrane	MUL.	Mullion
MET.	Metal		
N.	North	NOM.	Nominal
N.I.C.	Not In Contract	N.T.S.	Not To Scale
NO.	Number	#	Number
O.A.	Overall	OFF.	Office
OBS.	Obscure	OPNG.	Opening
O.C.	On Center	OPP.	Opposite
O.D.	Outside Diameter	OZ.	Ounce
O.F.C.I.	Owner Furnished, Contractor Installed		
O.F.O.I.	Owner Furnished, Owner Installed		
P.	Paint	PR.	Pair
PERF.	Perforated	PRCST.	Precast
PL.	Plate	P.S.F.	Pound Per Square Foot
PLA.	Plastic	PT.	Point
P.LAM.	Plastic Laminate	P.T.	Preservative Treated
PLAS.	Plaster	P.T.D.	Paper Tower Dispenser
PLYWD.	Plywood	PTN.	Partition
P.P.	Power Pole		
Q.T.	Quarry Tile		
R.	Riser	REQ.	Required
R.A.	Return Air	RESIL.	Resilient
RAD.	Radius	RGTR.	Register
R.B.	Rubber Base	RM.	Room
R.BAR.	Reinforcing Bar	R.O.	Rough Opening
R.D.	Roof Drain	R.P.	Radius Point
REF.PT.	Reference Point	R.S.	Rough Sawn
REFR.	Refrigerator	R.W.L.	Rain Water Leader
REINF.	Reinforced		
S.	South	SPEC.	Specification
SAN.	Sanitary	SPKR.	Sprinkler
S.B.	Sandblast	SQ.	Square
S.C.	Solid Core	S.& R.	Shelf and Rod
SCHED.	Schedule	S.S.K.	Service Sink
S.D.	Soap Dish	SST.	Stainless Steel
SEAL.	Sealant	ST.	Stone

SECT.	Section	STD.	Standard
SH.	Shelf	STL.	Steel
SHR.	Shower	STOR.	Storage
SHT.	Sheet	STR.	Stirrup
SIM.	Similar	STRL.	Structural
SLD.	Slider	SUBFL.	Subfloor
S.M.	Sheet Metal	SUSP.	Suspended
S.O.G.	Slab On Grade	S.V.	Stain and Varnish
SOL.	Solid	SYM.	Symmetrical
T.	Top	T.O.F.	Top of Footing
T.B.	Towel Bar	T.O.S.	Top of Slab
T. & B.	Top and Bottom	T.P.	Top of Pavement
T. & G.	Tongue and Groove	T.P.D.	Toilet Paper Dispenser
TEL.	Telephone	TRD.	Tread
TEMP.	Tempered	T.V.	Television
THK.	Thick	T.W.	Top of Wall
THR'D.	Threshold	TYP.	Typical
T.O.C.	Top of Concrete		
UNF.	Unfinished	U.N.O.	Unless Noted Otherwise
U.G.	Underground	UPR.	Upper
V.	Vinyl	VEST.	Vestibule
V.C.T.	Vinyl Composition Tile	V.T.O.	Vent To Outside
VERT.	Vertical	V.T.R.	Vent To Roof
W.	West	W/O	Without
W/	With	WP.	Waterproof
W.C.	Water Closet	WSCT.	Wainscot
WD.	Wood	WT.	Weight
WDO.	Window	W.W.M.	Welded Wire Mesh
W.F.	Wide Flange		

1.3 DEFINITIONS

- A. General: The section further describes basic Contract definitions and meaning of word clarifications defined in the General Conditions of the Contract.
- B. Approval and Selected: "Approved" means "approved by the Architect," "for approval" means "for the Architect's approval," and "selected" means "selected by the Architect". Where the words "or equal" are used, the Architect is the sole judge of the quality and suitability of the proposed substitutions.
- C. Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. Locations is not limited.
- D. Directed: Terms such as directed, requested, authorized, selected, approved, required, and permitted mean directed by the Architect, requested by the Architect, and similar phrases.
- E. Accepted: The term accepted, when used in conjunction with the Architect's duties and responsibilities as stated in the conditions of the Contract.

-
- E. Regulations: The term regulations includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction (AHJ) , as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
 - F. 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, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. Trades: 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.
 - G. 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. Certain construction activity may extend beyond the project site.
 - H. Furnish: Supply and deliver to Project Site, ready for unloading, unpacking, assembly, installation, and similar subsequent requirements.
 - I. Install: Operations at Project Site to place in position for service or use including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protection, cleaning, and similar requirements.
 - J. Provide: Furnish and install, complete and ready for intended use.
 - K. Concealed: Spaces out of sight. For example, above ceilings; below floor; between double walls; furred-in areas; pipe and duct shafts; and similar spaces.
 - L. Exposed: Open to view. For example, pipe installed in a walkway tunnel or pipe installed in a room and not covered by other construction.

1.4 INDUSTRY STANDARDS

- A. Applicability of Standards: 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. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with 2 or more standards are specified and where the standards may establish, different or conflicting requirements for minimum quantities or quality levels, the Contractor shall promptly report to the Architect, in writing, requesting a decision before proceeding with the Work.
 - 1. 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 the requirements.
- D. Copies of Standards: 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 within the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in Contract Documents are defined to mean the recognized name of the trade association. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as of the bid date of the Contract Documents. The following list may not be complete, refer to the "Encyclopedia of Associations" published by Thomson Gale available in most libraries.

1.5 SYMBOLS

A. The symbols shown on the Title Sheet are standard with the Architect. Some may not appear on this set of Drawings. Certain common symbols have not been included on the legend.

1.6 REFERENCE STANDARDS

- A. Referenced directly in contract documents or by governing regulations have precedence over non-referenced standards which are recognized in industry for applicability to work.
- B. Applicable construction industry standards have the same force and effect as if copied directly into contract documents, or as if published copies were bound herewith. They are made a part of the contract documents by reference.
- C. Provide where needed for proper performance of the work; obtain directly from publication sources.
- D. The following acronyms or abbreviations as referenced in contract documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of contract documents.

AAMA	Architectural Aluminum Manufacturers Association 35 E. Wacker Drive, Chicago, IL 60601; 312/782-8256
AAN	American Association of Nurserymen, Inc. 230 Southern Bldg., Washington, DC 20005; 202/737-4060
ACI	American Concrete Institute Box 19150, Redford Stat., Detroit, MI 48219; 313/532-2600
ANSI	American National Standards Institute 1430 Broadway, New York, NY 98401; 212/354-3300
APA	American Plywood Association P.O. Box 2277, Tacoma, WA 98401; 206/272-2283
ARI	Air Conditioning and Refrigeration Institute 815 N. Fort Myer Dr., Arlington, VA 22209; 703/524-8800
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning 345 East 47th St., New York, NY 10017; 212/644-7940
ASME	American Society of Mechanical Engineers 345 East 47th St., New York, NY 10017; 212/644-7722

ASTM	American Society for Testing and Materials 1916 Race St., Philadelphia, PA 19103; 215/299-5400
AWI	Architectural Woodwork Institute 5055 S. Chesterfield Rd, Arlington, VA 22206; 703/671-9100
AWS	American Welding Society, Inc. 2501 NW 7th St., Miami, FL 33125; 305/642-7090
BHMA	Builders Hardware Manufacturers Association 60 East 42nd St., New York, NY 10017; 212/682-8142
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle St., Chicago, IL 60601; 312/372-5059
CS	Commercial Standard of NBS (U.S. Dept. of Commerce) Government Printing Office; Washington, D.C. 20402
DHI	Door and Hardware Institute 1815 N. Ft. Myer, Arlington, VA 22209; 703/527-2060
FGMA	Flat Glass Marketing Association 3310 Harrison, Topeka, KS 66611; 913/255-7013
FM	Factory Mutual Engineering Corp. 1151 Boston-Providence Turnpike, Norwood, MA 02062; 617/762-4300
FS	Federal Specification (General Services Admin.) Bldg. 197, Washington Navy Yard SW, Washington, DC 20407
GA	Gypsum Association 1603 Orrington Ave., Evanston, IL 60201; 312/491-1744
LPI	Lightning Protection Institute 48 N. Ayer St., Harvard IL 60038; 815/943-7211
MCA	Mechanical Contractors Association of America, Inc. 5530 Wisconsin Ave., Washington, DC 20015; 301/654-7960
MIA	Marble Institute of America P.O. Box 8156, West Palm Beach, FL 33407; 305/832-2577
MLSFA	Metal Lath/Steel Framing Association 221 N. LaSalle St., Chicago, IL 60601; 312/346-1862
NAAMM	The National Association of Architectural Metal Mfrs. 100 S. Marion St., Oak Park, IL 60302; 312/383-7725
NEC	National Electrical Code (by NFPA)
NECA	National Electrical Contractors Association, Inc. 7315 Wisconsin Ave., Washington, DC 20014; 301/657-3110
NEII	National Elevator Industry, Inc.

	600 Third Ave., New York, NY 10016; 212/986-1545
NEMA	National Electrical Manufacturers Association 2101 L. St. NW, Washington, DC 20037; 202/457-8400
NFPA	National Fire Protection Association 470 Atlantic Ave., Boston, MA 02210; 617/482-8755
OSHA	Occupational Safety and Health Administration (U.S. Department of Labor) Government Printing Office, Washington, DC. 20402
RFCI	Resilient Floor Covering Institute 1030 15th St. NW, Washington, DC 20005; 202/833-2635
SIGMA	Sealed Insulating Glass Manufacturers Association 3310 Harrison St., Topeka, KS 66611; 913/266-7036
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc. 8224 Old Courthouse Rd., Vienna, VA 22180; 703/790-9890
TCA	Tile Council of America, Inc. P.O. Box 326, Princeton, NJ 08540; 609/921-7050
UL	Underwriters' Laboratories, Inc. 207 East Ohio St., Chicago, IL 60611; 312/642-6969
WCLB	West Coast Lumber Inspection Bureau (Grading Rules) P.O. Box 23145, Portland, OR 97223; 503/639-0651
WWPA	Western Wood Products Association (Grading Rules) 1500 Yeon Bldg., Portland, OR 97204; 503/244-3930

1.7 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specification Institute's (CSI) format.
1. Title: The Specifications are divided into division and section for the convenience of writing and using. The titles of these are not intended to imply a particular meaning or to fully describe the work of each division, subdivision, or section and are not an integral part of the text which specifies the requirements.
 2. 3-Part Section: Each section of Specifications has been subdivided into 3 'parts' for uniformity and convenience (Part 1 - General, Part 2 - Products, and Part 3 - Execution). These do not imply a particular meaning and are not an integral part of the text that specifies requirements. Where text for one of the parts is lacking due to project requirements, the part title is included followed by the words, 'Not Used'.
- B. Specification Content: This Specification uses certain conventions regarding the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. The conventions are explained as follows:
1. Abbreviated language: Abbreviated words and meanings used in the Contract Documents shall be interpreted as appropriate. Words implied, but not stated, shall be interpreted as appropriate. Words implied, but not stated, shall be interpreted as the sense requires. Singular

words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicate.

2. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarify to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
 - a. The words 'shall be' are implied wherever a colon (:) is used within a sentence or phrase.

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Field Quality Control Procedures

1.2 FIELD QUALITY CONTROL PROCEDURES

- A. Contractor Quality Control (CQC) shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, fabrication, construction, and operations that comply with the requirements of the Contract Documents. CQC shall cover construction operations, including fabrication both on-site and off-site, and shall be keyed to the Construction Progress Schedule.
- B. The Contractor shall meet with Owner's Representative, and Architect to discuss Contractor's Quality Control procedures for the Project. Items for discussion shall include:
1. Interrelationship of Contractor, Architect and Owner's Representative
 2. Submittals and persons responsible for shop drawing review
 3. Testing, inspections and approvals records
 4. Fabrication and installation procedures, on-site and off-site

PART 2- PRODUCTS

Not Applicable

PART 3- EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Mobilization requirements
 - 2. Temporary utilities:
 - a. Electricity, lighting
 - 3. Construction Facilities
 - a. First Aid Facilities
 - b. Sanitary facilities
 - 4. Construction Aids
 - 5. Vehicular Access and Parking
 - 6. Temporary Barriers and Enclosures
 - 7. Temporary Controls

1.2 MOBILIZATION REQUIREMENTS

- A. Fencing: Work area shall be fenced and secured prior to undertaking major construction components.
- B. Protection: Required protection for existing trees and shrubs shall be in place prior to undertaking major construction components.
- C. Temporary Erosion and Sedimentation Control: Provide erosion and sedimentation control elements as required.

1.3 TEMPORARY UTILITIES

- A. Electricity and Lighting:
 - 1. Provide connections to existing facilities, size to provide service required for power and lighting; Owner will pay the costs of power used.

1.4 CONSTRUCTION FACILITIES

- A. First Aid Facilities
 - 1. Provide first aid station in compliance with laws and regulations.
 - 2. Establish a procedure for transmitting injured personnel to a hospital or doctor's care.
 - 3. Establish a roster of emergency contact phone numbers.
- B. Sanitary Facilities
 - 1. Provide sanitary facilities in compliance with laws and regulations.
 - 2. Service, clean and maintain facilities and enclosures.

1.5 CONSTRUCTION AIDS

- A. Provide construction aids such as scaffolds, staging, ladders, platforms and openings, as required by code and required for the Work.

1.6 VEHICULAR ACCESS AND PARKING

- A. Maintain, as required, vehicular access to site and within site to provide uninterrupted access:
 - 1. To temporary construction facilities, storage and work areas
 - 2. For use by persons and equipment involved in construction of Project
 - 3. For use by emergency vehicles
- B. Remove temporary construction and facilities when no longer needed and restore areas.

1.7 TEMPORARY BARRIERS AND ENCLOSURES

- A. Provide and maintain for duration of work as required all lawful and necessary barricades, warning signs and signals, and take all other precautions as may be required to safeguard persons, the site, and adjoining property, including improvements thereon, against injuries and damage of every nature whatsoever.
- B. Protection of Work In Place
 - 1. Protect all parts of the structure from damage from all causes until building is accepted by Owner. Repair or replace any parts which are damaged to satisfaction of the Architect before final completion.
 - 2. Protect all parts of work in place. Adequate protection is essential and will be strictly enforced.
- C. Security of the Work, including tools and uninstalled materials, shall be the responsibility of the Contractor except as specified herein. Provide and implement a project security program to:
 - 1. Protect Work, stored products, construction equipment, and Owner's property from theft and vandalism.
 - 2. Protect premises from entry by unauthorized persons.

1.8 TEMPORARY CONTROLS

- A. Dust Control
 - 1. Provide positive methods and apply dust control materials to minimize raised dust from construction operations, and provide positive means to prevent airborne dust from dispersing into the atmosphere.
- B. Debris Control
 - 1. Maintain all areas under Contractor's control free of extraneous debris.
 - 2. Schedule periodic collection and disposal of debris to a legal off-site location.
- D. Pollution Control: Provide methods, means and facilities required by law to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.

1.9 PROJECT IDENTIFICATION

- A. Post and maintain all notices, signs, and other safeguards required by law or ordinance.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Product Delivery Requirements
 2. Product Storage and Handling Requirements

1.2 PRODUCT DELIVERY REQUIREMENTS

- A. The Contractor shall use transportation methods that prevent damage to the Product.
- B. Deliver Products in manufacturers' original containers or packaging, with identifying labels intact and legible.
- C. Inspect Products immediately upon receipt to assure that they are undamaged and that they comply with both the Contract Documents and approved submittals.
- D. The Contractor shall use handling methods which prevent damage and soiling of the Product.

1.3 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Storage:
1. Provide space on the site to store the materials and equipment.
 2. Arrange storage to allow easy access for inspection. Make periodic inspections of stored products to assure that products are free from damage or deterioration.
 3. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 4. Contractor is responsible for the security of all the materials stored on the site.
- B. Interior Storage:
1. Store Products subject to damage by the elements in weather- tight enclosures.
 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- C. Exterior Storage:
1. Store fabricated products on blocking or skids, to prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
- D. Protection of Material:
1. Before Installation: Provide protection from damage. Be responsible for the condition of each item at the time of installation.
 2. After Installation: Provide coverings as necessary to protect installed products. Remove when no longer needed.

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Progress Cleaning
 - Final Cleaning
- B. Related Sections:
 - 1. Section 01 50 00 - Temporary Facilities and Controls
 - 2. Section 01 77 00 – Closeout Procedures

1.2 PROGRESS CLEANING

- A. Control the accumulation of waste materials and rubbish; periodically dispose of off-site. Clean interior areas prior to start of the finish work. Maintain the areas free of dust and other contaminants during finishing operations.

1.4 FINAL CLEANING

- A. Perform cleaning prior to inspection for Substantial Completion of the Work.
- B. Perform additional cleaning as necessary upon completion of items on the punch list and prior to Final Completion.
- C. Use materials which will not create hazards to health or property, and which will not damage surfaces.
- D. Use only materials and methods recommended by manufacturer of material being cleaned.
- E. Remove all construction debris and clean all interiors and surfaces exposed to view. Remove all protective films and the like.
 - 1. Remove labels, stains, and foreign substances.
 - 2. Hand dust, clean, and polish transparent surfaces.
- F. Remove all construction debris and materials on the building.
 - 1. Clean the site by sweeping paved areas and raking clean other surfaces.
 - 2. Clean all interior surfaces and architectural trim.
 - 3. Clean and polish glass, metal, and the like.

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Final Closeout Review
 2. Closeout Requirements.

1.2 FINAL CLOSEOUT REVIEW

- A. Final Inspections: The Owner's Representative will schedule the Final Inspection and the Architect will perform the Final Inspections. Upon completing the inspection, the Architect will acknowledge that the Work is complete or advise Contractor of unfulfilled requirements.
- B. Architect's Review of the Work: When he concurs that the Work is acceptable under the Contract Documents and that the submittals have been provided in accordance, he shall establish the date of Final Completion

1.4 CLOSEOUT REQUIREMENTS

- A. The following are required of the Contractor as a prerequisite for Final Completion.
1. Submit Project Record Documents
 2. Submit final Operation and Maintenance Manuals as well as Warranties and Bonds
 4. Deliver extra stock to the Owner.
 5. Complete final cleaning.
 6. Remove all remaining temporary protection and facilities, all construction tools, mock-ups, and construction signage.
 7. Restore all landscaping and repair all damage to the site.
- B. The following documentation will be submitted for Final Acceptance.
1. Final Payment to the Contractor: The Contractor shall submit a Final Statement of Accounting. The Statement will reflect all adjustments to the Contract Sum:
 - a. The original Contract Sum
 - b. Additions and deductions resulting from:
 - (1) Previous Change Orders
 - (2) Other adjustments

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

Not Applicable

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Contractor's Warranty of Construction

1.2 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.
- C. Disclaimers 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, nor does it relieve suppliers, manufacturers, and Subcontractors required to countersign special warranties with the Contractor.

1.3 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. Reinstatement of Warranty: When Work covered by warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written 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, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. The demolition and removal of portions of the building, including lath and plaster, wood paneling, flooring and interior finishes.
- B. Related Sections:
 - 1. Section 01 11 10 – Summary of Hazardous Materials Work
 - 2. Section 06 10 00 – Rough Carpentry
 - 3. Section 06 20 00 – Finish Carpentry

1.2 QUALITY ASSURANCE

- A. The Contractor shall be responsible for protecting the existing building by bracing, shoring, anchoring or by any other means to establish and maintain safe working conditions throughout the project.

1.3 PROJECT AND SITE CONDITIONS

- A. Hazardous Materials: The Owner has determined that there are hazardous materials in certain areas of the building (see Section 01 11 10 – Summary of Hazardous Materials Work).

PART 2- PRODUCTS

2.1 MATERIALS

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.
- B. This is a historic building. Any existing historic fabric that is to be removed shall be removed carefully, protected and salvaged at owner's option.

PART 3- EXECUTION

3.1 PREPARATION

- A. Provide protection to all surrounding spaces. Perform work and provide temporary construction as approved by the local jurisdictional code authorities.
 - 1. Protect existing construction which will not be subject to demolition.
 - 2. Erect weatherproof closures for any exterior openings. Maintain security from unauthorized entry.

3.2 PERFORMANCE

- A. Demolish as required to accommodate new work.
- B. Provide all miscellaneous cutting, drilling and demolition that is required though not specifically shown.
- C. Burning of materials and burying materials on site prohibited.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces. Remove demolished materials, tools and equipment from site upon completion of work.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section, at no cost to the Owner.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Forms for cast-in-place concrete components
 - 2. Concrete accessories
 - 3. Installation of embedded items furnished by other Sections
 - 4. Form removal.
- B. Related Sections:
 - 1. Section 03 20 00 – Concrete Reinforcing
 - 2. Section 03 30 00 – Cast-in-Place Concrete
 - 3. Section 07 92 00 – Joint Sealants
- C. Coordinate the installation of the work in this section with the work of Division 21 through Division 35.

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 - References
 - 1. American Concrete Institute (ACI)
 - a. ACI 301 Specifications for Structural Concrete
 - b. ACI 318 Building Code Requirements for Structural Concrete and Commentary
 - c. ACI 347 Guide to Formwork for Concrete
 - 2. American Plywood Association (APA)
 - a. PS 1 Product Guide / Grades and Specifications

1.3 DEFINITIONS

- A. Architectural Concrete: Concrete elements exposed to view on the exterior and interior portion of the building.

1.4 SYSTEM DESCRIPTION

- A. The structural design and construction of concrete formwork shall be the responsibility of the Contractor, subject to the specified requirements. Design formwork to produce cast-in-place concrete elements in the shapes indicated, unless otherwise approved by the architect.
- B. Proprietary forming systems may be used upon approval by the architect.
- C. Camber: Design formwork for anticipated deflections due to weight and pressure of fresh concrete, and for structural cambers as noted on Drawings, for cast-in-place concrete to tolerances specified.

1.5 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.

- C. Inspections: Formwork may be inspected for conformance to contract requirements as specified in Section 01 45 00 – Quality Control. Notify the Architect at least 48 hours before placement of concrete.
- D. Comply with regulatory agency requirements for erection of formwork.
- E. Formwork panels for architectural concrete shall be stamped or branded by the manufacturer, indicating type of panel, veneer grade, and veneer type.
- F. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.6 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.7 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 16 – Construction Progress Documentation.

1.8 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

- A. Plywood, Architectural Concrete: APA High Density Overlay, Plyform Class 1 Ext.
- B. Plywood, Concealed Surfaces: APA B-B Plyform Class 1 Ext.
- C. Form Release Coating:
 - a. Non-staining release agent guaranteed against interference with bonding of finish materials.
 - b. Spray-applied to all contact surfaces prior to placement of concrete.
 - c. Form Coating as manufactured by Nox-Crete, Burke Release as manufactured by Edoco Burke Construction Chemicals, or approved.
- D. Form Ties:
 - a. High-strength wire snap ties with flattened breakoffs; non-corrosive and non-staining finish.
 - b. Snap Ties as manufactured by Meadow-Burke, Dayton Superior, or approved
- E. Chamfer and Rustication Strips: Plastic or wood as approved; shapes as indicated, maximum practical lengths.
- F. Sealant: One-part silicone type per Section 079200 – Joint Sealants Type 1, or as recommended by the formwork manufacturer and approved.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the architect in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.
- C. Coordinate with Facilities Services Subgroups 21-35 work for access to formwork for installation of embedded pipes and conduits.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that there are sufficient materials are stored on site to complete the construction of the forms.

3.3 FABRICATION AND ERECTION OF FORMS

- A. Fabricate and erect forms in accordance with ACI 347, Chapter 3.
- B. Tolerances: ACI 347, Paragraph 3.3.1.
- C. Edge Forms and Screeds:
 - 1. Set edge forms and intermediate screeds accurately to required elevations and contours of construction to support all applied loads without displacement.
 - 2. Set screeds to required camber to maintain proper concrete thickness and surface contour.
- D. Install accessories and other embedded items in accurate locations, firmly anchored to prevent displacement during concrete pouring.
- E. Conform to ACI 318 for embedment of pipes and conduits.
- F. Shoring: Provide shoring and bracing as required to eliminate stress on curing concrete. Leave shoring in place until concrete being supported has reached adequate strength.
- G. Apply form release agents in accordance with manufacturer's instructions.

3.4 FORMWORK REMOVAL

- A. Maintain formwork in place until concrete has cured sufficiently to support imposed loads without failure or plastic deflection, and so that forms may be removed without damage.

3.5 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Reinforcing steel bars, and welded steel wire fabric for cast-in-place concrete construction.
 2. Support chairs, bar supports, and spacers for reinforcing.
- B. Related Sections:
1. Section 03 11 00 – Concrete Forming
 2. Section 03 30 00 – Cast-in-Place Concrete

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 - References and the following organizations:
1. American Society of Testing and Materials (ASTM)
 - a. ASTM A185 Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
 - b. ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
 - c. ASTM A706 Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
 2. American Concrete Institute (ACI)
 - a. ACI 301 Specifications for Structural Concrete, Chapter 5
 - b. ACI 315 Details and Detailing of Concrete Reinforcement
 - c. ACI 318 Building Code Requirements for Reinforced Concrete and Commentary
 3. Concrete Reinforcing Steel Institute (CRSI)
 - a. MSP-1-76 Manual of Standard Practice
 - b. CRSI 63 Recommended Practice for Placing Reinforcing Bars
 4. Federal Specifications (FS)
 - a. FS QQ-W-461

1.3 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the projection specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
1. The manufacturer shall be regularly engaged in manufacture of steel bar and welded wire fabric reinforcing.
 2. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 3. The field superintendent shall have demonstrated experience producing the work.
 4. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements
- D. Allowable Tolerances:
1. Fabrication: ACI 301-05, Section 5.4.1
 2. Placement: ACI 301-05, Section 5.4.2.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.

- B. Deliver reinforcement to project site in bundles marked with metal tags indicating bar size and length.
- C. Handle and store materials to prevent contamination.
- D. Protection: Use all means necessary to protect reinforcement materials before, during, and after installation and to protect the installed work and materials of all other trades.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 16 – Construction Progress Documentation.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Reinforcing Bars: ASTM A615 Grade 60 Deformed Bars except Grade 40 where noted on plans; free of rust and loose scale at time of delivery. Furnish mill certificates on all foreign steel.
- B. Welded Wire Fabric: ASTM A185, 6 x 6 x W1.4 x W1.4 wire, unless otherwise noted.
- C. Tie Wire: FS QQ-W-461, double annealed steel, black, 16-gauge minimum, galvanized for exposed concrete.
- D. Bar Supports: Conform to "Bar Support Specifications", CRSI Manual of Standard Practice.
- E. Type and Finish: ACI 301, Section 5.5.3, Class A., except Class C where surfaces exposed to weather; place in forms so that no supports are in contact with forms or surfaces of concrete to be exposed.

2.2 FABRICATION

- A. Fabricate all reinforcement in accordance with CRSI Manual of Standard Practice.
- B. Steel Bar Reinforcement: Fabricate and detail to shapes and dimensions indicated on Drawings in accordance with ACI 315.
 - 1. Bending & Straightening: In accordance with ACI 318, Chapter 7, unless otherwise noted on drawings, no bending or straightening of reinforcement will be permitted after partial embedment in concrete; obtain Architect's approval prior to heating of reinforcement will be permitted only if approved.
 - 2. Splices: In accordance with ACI 318, Chapter 7, unless otherwise indicated on drawings; obtain approval of all splices not indicated on drawings or approved on shop drawings.
 - 3. Welding: As noted on the drawings.

PART 3- EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Clean reinforcing steel free from loose rust, mud, oil, and other foreign matter affecting bond. Install supports in accordance with CRSI Manual of Standard Practice, Chapter 3 unless otherwise indicated.
- B. Placement of Steel Bar Reinforcing: In accordance with ACI 318 and CRSI 63.
- C. Steel Adjustment:
 - 1. Move within allowable tolerances to avoid interference with other reinforcing steel, conduits, or embedded items.
 - 2. Do not move bars beyond allowable tolerances without approval of the Architect.
 - 3. Obtain approval of the Architect prior to heating, bending, welding, or cutting bar.
- D. Splices:
 - 1. Lap Splices: Class C unless noted on Plans. Tie securely with wire to prevent displacement of splices during placement of concrete.
 - 2. Do not splice bars except at locations shown on drawings without written approval of Architect.
- E. Wire Fabric: Install in accordance with ACI 315 and ACI 301, Sections 5.5.4 and 5.5.5:
 - 1. Install in longest practicable length.
 - 2. Lap adjoining pieces such that the overlap between outermost cross wires of each sheet is not less than two full meshes of 12" in structural slabs, one full mesh or 6" in slabs on grade. Lay splices with 16-gauge wire.
 - 3. Offset end laps in adjacent widths to prevent continuous laps.
- F. Cleaning: ACI 301, Section 5.5.2.
- G. Prevent displacement in accordance with ACI 301, Section 5.5.3.
- H. Do not displace or damage vapor barrier during work of this Section.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Mixture and placement of concrete for vertical and horizontal applications.
 2. Vapor barrier, joint filler and other accessories.
 3. Curing of cast-in-place concrete.
 4. Sealers for select applications.
- B. Related Sections:
1. Section 03 11 00 – Concrete Forming
 2. Section 03 20 00 – Concrete Reinforcing

1.2 REFERENCES

- A. Comply with the requirements of Section 014200 – References and the following organizations. In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern:
1. American Society for Testing and Materials (ASTM)
 - a. ASTM C33 Concrete Aggregates
 - b. ASTM C94 Standard Specification for Ready-Mixed Concrete
 - c. ASTM C150 Portland Cement
 - d. ASTM C171 Standard Specification for Sheet Materials for Curing Concrete
 - d. ASTM C260 Air Entraining Admixtures for Concrete
 - e. ASTM C494 Chemical Admixtures for Concrete
 - f. ASTM C618 Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
 2. American Concrete Institute (ACI)
 - a. ACI 117 Standard Tolerances for Concrete Construction and Materials.

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's standard literature for the following:
1. Submit mix designs to architect for approval. Do not proceed without architect's written approval.
 2. Submit product data for all admixtures proposed for use.
 3. Records: Retain records of all concrete, including exact mix proportions, slump, air entrainment, test strength, date, time, location of the placement, weather conditions at the time of placement, and the source of concrete. Submit copy to architect and Building Official.

1.4 QUALITY ASSURANCE

- A. Qualifications
1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 2. The field superintendent shall have demonstrated experience producing the work.
 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- B. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements
- C. Inspection and Tests: Testing and inspection shall be in accordance with Section 01 45 00 – Quality Control.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013216 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. Allowable Concrete Temperatures:
 - 1. Cold weather: ASTM C94 and ACI 301.
 - 2. Hot weather: Maximum 90 degrees F (32 degrees C).
- C. Do not place concrete during rain, sleet, or snow unless protection is provided.

PART 2- PRODUCTS

2.1 CONCRETE

- A. General: Equivalent to Ready-Mix Concrete, ASTM C94.
- B. Cement: Type 1, ASTM C150; Type II only when given prior approval.
- C. Admixtures:
 - 1. Air-entraining: ASTM C260.
 - 2. Water reducer: ASTM C494, Type A
 - 3. Fly ash and pozzolan: ASTM C618.
 - 4. Accelerator: ASTM C494, Type C.
 - 5. Color additive: 1-1/2 lb. Lampblack per yard at all exposed concrete.
- D. Coarse Aggregate: Except as otherwise specified, furnish conforming to ASTM C33, maximum size 1/5 of smallest dimension between sides of forms, 1/3 of the depth of slabs, 3/4 of minimum clear spacing between reinforcing bars or bars and forms, in no case exceeding 1-1/2" size. All aggregates for exposed concrete from a single source.
- E. Fine Aggregate: ASTM C33 with deleterious substances not to exceed those in Table I less sub note "a" thereof.
- F. Water: ACI 301-81.

2.2 CONCRETE QUALITY

- A. Assumed Compressive Strength: ACI (301-84), Section 3.2; 5000 psi strength; 5-1/2 sack mix; base strength requirements on 28-day compressive strengths.
- B. Slump: Slump shall be 5" maximum.
- C. Admixtures: Add in accordance with manufacturer's directions:
 - 1. ACI 301, Section 3.7. No admixtures except those shown under "Materials" shall be used without prior approval.

2. If approved, water-reducing retarder may be used when the temperature of concrete, as placed, exceeds 65 degrees F.
3. If approved, accelerator may be used when the temperature of concrete is less than 40 degrees F.
4. Use retarder-densifier in concrete for interior slabs, and when placing other concrete in warm weather conditions or when ambient temperature exceeds 65 degrees F.
5. Use air-entrainment agent in exterior concrete in contact with earth.

2.3 VAPOR BARRIER

- A. Vapor Barrier: 6 mil weight plastic sealed at joints per manufacturer's recommendations.

2.4 BONDING AGENT

- A. 100% solids, high-modulus epoxy adhesive for bonding fresh concrete to hardened concrete
1. Bond strength: ASTM C881, Type 1 min. 2400 psi, Type @ min 1795 psi
 2. Compressive Strength: ASTM C695 10,600 psi
 3. EpoBond as manufactured by L & M Construction Chemicals, or approved.

2.5 GROUT

- A. General Purpose, non-shrinking grout
1. Ready-mixed, non-shrink, non-metallic, high strength structural grout
 2. DuraGrout as manufactured by L & M Construction Chemicals, or approved.

2.6 SEALING MATERIALS

- A. Very appropriate sealant for each specific application.
- B. Sealing Materials:
1. Chemical Hardener and Dustproofers: "Chem Hard" as manufactured by L&M Construction Chemicals, or approved.
 2. Sealer, Densifier, Chemical Hardener: "Seal Hard" as manufactured by L&M Construction Chemicals, or approved.
 3. Acrylic Cure, Sealer and Dustproofers: "Dress & Seal" as manufactured by L&M Construction Chemicals, or approved.

PART 3- EXECUTION

3.1 MIXING CONCRETE

- A. On-site Mixing: Mix concrete in approved batch mixer; operate at speed recommended by manufacturer; mix not less than 1-1/2 minutes after all ingredients are in mixer; discharge mixer completely before reloading and not to exceed 45 minutes after water has been added. There shall be a maximum elapsed time of 1-1/2 hours from batching to completion of placement.
- B. Ready-mixed Concrete: Mix and transport in accordance with ASTM C94; mix only in quantities for immediate use. Indiscriminate addition of water to increase slump is prohibited unless accounted for in approved mix design.
- C. Transit Mixing: Use ready-mixed concrete complying with ASTM C94; mix in transit mixers for at least 10 minutes with at least 3 minutes of mixing immediately prior to discharging at site.
- D. Admixtures: Dispense admixtures in mix using automatic dispenser or similar metering device, weigh or measure powdered admixtures by volume as recommended by admixture manufacturer.

- E. Retempering: Mix concrete in quantities for immediate use; no retempering of concrete which has set will be allowed; no indiscriminate addition of water to increase slump will be allowed.

3.2 CONVEYING CONCRETE

- A. Conform to ACI 301, Paragraph 802. Convey concrete from mixer to place of final deposit by methods preventing separation or loss of materials.

3.3 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the architect in writing of conditions detrimental to the proper and timely completion of the Work.
1. Verify that all reinforcement and embedded items are securely fastened, inspected and approved by the inspector before pouring operations may be started.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.4 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space. .

3.5 DEPOSITING

- A. Conform to ACI 301, Paragraph 803. Deposit concrete in or close to its final position; avoid segregation due to rehandling or flowing. Deposit at rate such that concrete is always plastic and flows readily into spaces between reinforcement. Deposit in one continuous operation until top surface is generally level.

3.6 BONDING CONCRETE

- A. Apply bonding agent to existing hardened concrete to be adhesively bonded to new concrete.
- B. For patching, mix not over 3 parts fine sand to one part bonding agent and apply to fill crack or void leaving level, smooth top surface.
- C. Mix thoroughly and apply strictly in accordance with the manufacturer's directions.
- D. Do not use when ambient temperature is below 50 degrees F.
- E. Place fresh concrete in contact immediately and while bonding agent is still tacky.

3.7 CONSTRUCTION JOINTS

- A. General: Provide at junction of new slab on grade and all concrete wall whether or not shown. Locate so as to not impair strength of structure.
- B. Control Joints: Utilize a stainless steel hand jointer to create a continuous, straight and true joint at the locations shown on the drawings. Groove to be one-fourth of the depth of the slab.

3.8 FINISHES

- A. Repair of Surface Defects:
1. After removal of forms, repair, patch or remove concrete not formed as required, out of alignment or level beyond allowed tolerances or that shows surface defects to condition as approved by architect.

2. Immediately after form removal, patch all repairable defective areas.
- B. Finishing of Formed Surfaces: Finish surfaces within 96 hours after removal of forms, allowing minimum of 24 hours for curing. After removal of forms and immediately following any required repair and patching, finish formed surfaces with one or more of the following finish operations, as indicated for each application:
1. Form Tie Holes: Do not fill form tie holes, except as required for application of waterproof membrane and/or interior finishing.
 2. As-Cast Finish: Completely remove all surface fins by hand or power grinding with stone to approved smoothness. Clean with light wire brushing.
 3. Wall Tops, Horizontal Offsets, Other Uniformed Surfaces: Strike smooth after placing concrete, float to continued uniform texture reasonably consistent with adjacent formed surfaces.
- C. Slab Finishing:
1. Unless otherwise shown, scheduled or specified hereinafter, use the following finishes, as applicable on floor slabs and other flatwork surfaces:
 - a. Steel troweled finish for all interior surfaces, whether left exposed or covered by other finishes.
 - b. Brush finish for concrete sidewalks, light brush finish for concrete stair treads.
 2. Screed all slabs, for whatever finish, to true levels or slopes; work surfaces only to the degree required to produce the desired finish; do no finishing in areas where water has accumulated, drain and rescreed; in no case use cement and sand sprinkling to absorb moisture. Carefully finish all joints and edges with proper tools.
 3. Consolidate placed concrete preferably with power driven floats of impact type except for thin joist slabs; use wood or cork-faced hand floats for surfaces inaccessible to power floats.
 4. Slab Surface Finishes:
 - a. Float Finish: Do not begin floating until bleed water sheen has disappeared or until leveled material has stiffened sufficiently for power floating. After power floating, refloat by hand immediately to uniform, true, smooth granular surface within the specified tolerance.
 - b. Troweled Finish: Do not trowel when bleed water is present on surface. After power floating to trueness within the specified tolerance, power trowel to smooth surface relatively free of defects. After surface has hardened sufficiently, hand trowel to ringing sound, trowel-mark-free smooth surface.
 5. Tolerance (ACI Class BX): Depressions in floors between high spots shall not be greater than 5/16 inch below a 10 foot long straightedge, in accordance with ACI 117 Class BX tolerance.

3.9 CURING

A. General:

1. Protect all freshly placed concrete from premature drying and excessive hot or cold temperature extremes. Maintain curing procedures used for seven days, or three days with Type III cement, at temperatures of 50 degrees F.; if mean daily temperature drops below 40 degrees F. during this period, extend curing period an equal number of days or provide temporary heat or additional protection to maintain specified minimum temperature of air in contact with concrete.
 2. Protect all concrete during curing period from all damaging mechanical disturbances, more especially load stresses, heavy shock and excessive vibration.
 3. Protect finish surfaces from all damage.
 4. Do not load self-supporting structures in a manner to overstress the concrete.
 5. Start curing procedures on slabs during and after finishing operation, keeping concrete continuously moist.
 6. Do not use liquid membrane-forming curing compounds on surfaces to receive additional concrete or for surfaces to receive hardeners.
- B. Curing Walls and Formed Surfaces: Except in freezing weather, cure by continuous sprinkling or covering with absorptive mat or fabric kept continuously wet or use continuous steam (150 degrees F. maximum) or vapor mist bath. In freezing weather, protect as specified for cold water concreting.

- C. Curing Exterior Walks, Curbs, Slabs:
 - 1. Except in freezing weather, cure by keeping concrete continuously moist by ponding or sprinkling, or sand cover kept continuously wet
- D. Curing Interior Slabs for Polished Finish:
 - 1. Damp Cure: ASTM C171, Waterproof Sheet Material
 - 1. ASTM C309 water-based dissipating resin curing compound

3.10 SEALING CONCRETE SLABS

- A. Exposed exterior slabs: Seal with Chemical Hardener and Dustproofer.
- B. Interior Slabs to receive additional finishes: no additional sealant beyond specified acrylic cure, sealer and dustproofer.
- C. Exposed interior slabs to receive sealant only, no polishing: Refer to Section 03 35 00 – Concrete Finishing.

3.11 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wood framing members
 - 2. Preservative treatment for wood
 - 3. Rough hardware, nails, screws and fasteners
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 - References and the following organizations:
 - 1. American Society of Testing and Materials (ASTM)
 - a. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 2. American Plywood Association (APA)
 - a. PS 1 American Softwood Lumber Voluntary Product Standard
 - b. PS 20 American Softwood Lumber Voluntary Product Standard
 - c. PS 51 American Softwood Lumber Voluntary Product Standard
 - 3. Western Wood Products Association (WWPA)
 - 4. American Wood Preservers Association (AWPA)
 - 5. West Coast Lumber Inspection Bureau (WCLIB)
 - a. No. 16 Standard Grading and Dressing Rules, latest edition

1.3 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Grade Marks: Each piece of lumber and plywood to be stamped with grade mark and trademark of association having jurisdiction.
- C. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- D. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements
- E. Surfaced Lumber: All lumber shall be manufactured in accordance with PS 20, and shall be WWPA stamped and graded in accordance with WCLIB grading rules.
- F. Framing shall conform to the requirements of the IBC, with additional requirements in accordance with the local authority having jurisdiction.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.

- B. Store lumber off the ground in a well-drained area. Stack to ensure proper ventilation.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

PART 2- PRODUCTS

2.1 DIMENSION LUMBER

- A. Conform to the current grading and dressing rules of PS 20; official grade marks and mill identification shall appear on each piece of softwood material delivered to the site:
 1. Use species and grade as specified unless shown otherwise on the Drawings.
 2. Maximum moisture content of lumber: 15 percent; grade stamp lumber items "M.C. 15."
 3. Lumber shall be preservative treated or treated with fire retardant as indicated.
- B. Strength shall be as follows:
 1. Light Framing and Studs: Douglas Fir or Hem-Fir No.2

2.2 ACCESSORIES

- A. Nails, Spikes, and Staples: Galvanized for exterior and high humidity locations, and treated wood; plain finish for other interior locations; size and type to suit application.
- B. Bolts, Nuts, Washers, Lags, and Screws: Medium carbon steel; size and type to suit application; galvanized for exterior and high humidity locations, and treated wood; plain finish for other interior locations.
- C. Miscellaneous Fasteners: Expansion shield and lag bolt type for anchorage to solid masonry or concrete.

2.3 WOOD TREATMENT MATERIALS

- A. Preservative Treatment:
 1. Pressure preservative treat all wood materials in contact with roofing, soil, and concrete on grade, and in exposed exterior locations.
 2. Factory pressure treat members with preservatives meeting the requirements of AWPA P-5 and FS-TT-W-550, in accordance with standards C-2 and C-9 as appropriate. Treatment shall conform to American Wood Preservers Bureau of Standards LP-2.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.2 INSTALLATION

- A. Framing: Install new wood stud wall framing and furring as shown on the plans.
- B. Nailing Strips and Plates: Provide and securely fasten in place wood nailing strips, plates, blocking, etc., indicated or required to complete work. Bolt and screw nailing strips in connection with metal work indicated.

- C. Install pressure preservative treated wood in exterior locations, in contact with ground, embedded in concrete or masonry, and in contact with roofing and flashing materials, and where used as plates, blocking, or bucks for openings in exterior walls. Securely bolt into place, unless other fastening method is indicated.

3.3 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior Finish Carpentry
 - a. Door and window casings
 - b. Crown molding
 - c. Wood wall paneling
 - d. General interior trim
- B. Products Installed But Not Furnished Under This Section
 - 1. Section 08 14 00 – Wood Doors
 - 2. Section 08 70 00 – Hardware
- C. Related Sections:
 - 1. Section 01 11 10 – Summary of Hazardous Materials Work
 - 2. Section 02 41 00 – Demolition
 - 3. Section 06 10 00 – Rough Carpentry
 - 4. Section 06 41 00 – Architectural Wood Casework
 - 5. Section 07 92 00 – Joint Sealants
 - 6. Section 08 70 00 – Hardware
 - 7. Section 09 90 00 – Painting and Coating

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. American Society of Testing and Materials (ASTM)
 - a. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 2. American Softwood Lumber Standard (PS 20)
 - 3. Western Wood Products Association (WWPA)
 - 4. American Wood Preservers Association (AWPA)
 - 5. Underwriter's Laboratories, Inc. (UL)
 - 6. West Coast Lumber Inspection Bureau (WCLIB)
 - a. Standard Grading Rules for West Coast Lumber
 - 7. Architectural Woodwork Institute (AWI)
 - a. AWI Quality Standards Illustrated, Current Edition
 - 8. International Council of Building Officials (ICBO)
 - 9. National Lumber Grade Association (NLGA)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Samples: Submit samples of the following:
 - 1. 12" long sample of all crown molding, door and window trim, and base
 - 2. 12" x 12" sample of new wood wall paneling (Bid Alternate)
- C. Mock-up: Prepare a 5'x5' portion of the refinished wood wall paneling with the old paint removed, any patching required, and finish paint for review and approval (Base Bid).

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.

- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

PART 2- PRODUCTS

2.1 INTERIOR WOOD MATERIALS

- A. Wood Trim:
 - 1. Grade: Paint grade
 - 2. Species: Poplar or Hemlock
 - 3. Cut: Smooth, S4S
 - 4. Moisture Content: 8%
- B. Wood Wall Paneling (Bid Alternate):
 - 1. Match existing dimensions and bevel edge of existing wood wall paneling.

2.2 FINISHING

- A. Refer to Section 09 99 00 – Painting and Coating for finishing of finish carpentry.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Take all dimensions and field measurements necessary prior to fabrication and installation
- C. Confirm that sufficient materials are stored on site to complete the work.
- D. See Section 01 11 10 Summary of Hazardous Materials Work and Section 09 90 00 Painting and Coating for refinishing existing wood wall paneling (Base Bid).

3.2 PAINT REMOVAL

- A. Existing wood paneling, trim and base to be refinished (Base Bid):
1. Paint Removal: Sherwin-Williams Peel-Away 1 Heavy Duty Paint Remover. Comply with manufacturer's written instructions.

3.3 INSTALLATION

- A. Trim:
1. General: Install all trim straight, true, level, plumb, and firmly anchored in place in accordance with good trade practice.
 2. Jointing: Make all joints to conceal shrinkage; miter all exterior corners; cope all interior corners, miter or scarf all end-to-end joints; install all trim pieces as long as possible, jointing only where solid support is obtained. Make each continuous run of 8'-0" or less from single piece without joints; locate butt joints no less than 4'-0" from corners or ends of trim.
 3. Fastening:
 - a. Install all items straight, true, level, plumb, and firmly anchored in place; where blocking or backing is required, coordinate as necessary with other trades to ensure placement of all required backing and blocking in a timely manner.
 - b. Use trim head screws or nail trim with finishing nails of proper dimension to hold the member firmly in place without splitting the wood.
 4. Sandpaper all finished wood surfaces thoroughly as required to produce a uniformly smooth surface, always sanding in the direction of the grain; no course grained sandpaper mark, hammer mark, or other imperfections will be accepted.
- B. Wood Paneling and Trim:
1. Refinishing Existing Wall Paneling and Trim (Base Bid): Patch or replace damaged boards or trim. After paint removal sand or repair rough areas to allow a smooth, even final paint coating.
 2. New Wall Paneling and Trim (Bid Alternate): Match the existing pattern and layout of the old paneling and trim.
- C. Installation of Doors and Hardware
1. Confirm that the hardware, door frames, and doors are free from defects, clean and properly prepared for re-installation.
 2. Hardware and Doors:
 - a. Fasteners: Check all conditions and use fastening devices as needed to secure or anchor all hardware as per manufacturer's published templates.
 - b. Install finish hardware in accordance with manufacturer's templates and directions. Conform to regulatory requirements. Insure that door hardware does not touch trim. Do not notch trim.
 - c. Adjust movable parts to operate perfectly at time of final acceptance.
 - d. Make further adjustments required during 1-year guarantee period.
 - e. Replace hardware, which has been damaged by use when damage is caused by faulty installation.
 - f. Mortising: Make mortises accurately to exactly receive hardware. Depth of mortises to be such that hardware is flush with finish surfaces.
 - g. Adjustment and Cleaning: Lubricate moving parts with graphite-type lubricant, unless otherwise recommended by Manufacturer. Replace hardware that cannot be lubricated and adjusted to operate freely and smoothly.
 1. Final adjustment: Make final adjustment and check of hardware during the week immediately prior to acceptance by the Architect.
 2. Clean and lubricate operating items as necessary to restore proper functioning and finish of hardware and doors. Make final adjustment of locksets and closers to compensate for operation of heating and ventilating systems under the supervision of Manufacturer's representative.
 - h. During construction protect all exposed hardware finishes and surfaces from damage.

- D. Installation of Other Items: Install all other items in strict accordance with the Drawings, and the published recommendations of the manufacturer of the item, anchoring firmly in place at the prescribed location, straight, plumb, level, and securely anchored.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Solid wood, sheet materials, veneer materials for architectural wood casework
 - 2. Hardware and accessories for architectural wood casework
 - 3. Fabrication and finishing of architectural wood casework
 - 4. Plastic laminate countertops
 - 5. Stone countertops
- B. Related Sections
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 06 20 00 – Finish Carpentry
 - 3. Section 09 90 00 – Painting and Coating

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. Architectural Woodwork Quality Standards (AWI)
 - a. Architectural Woodwork Quality Standards, latest edition
 - 2. Builder's Hardware Manufacturer's Association (BHMA)
 - 3. American Plywood Association (APA)
 - 4. (WWPA)
 - 5. (NLGA)
 - 6. Hardwood Plywood and Veneer Association (HPVA)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.
- C. Shop Drawings: Submit drawings showing plans, elevations, sections, and details indicating all materials and dimensions.
 - 1. Show layout pattern, fabrication details and attachment methods.
 - 2. Indicate juncture with adjacent materials.
 - 3. Indicate all fixtures and equipment to be incorporated.
- D. Samples: Submit samples of material, color, and finish. Submit additional samples until all products are approved.
 - 1. 12" sample of solid wood with specified finish
 - 2. 12" x 12" sample of sheet materials with specified core, veneer and finish
 - 3. 12" x 12" sample of finished countertop material with specified edge and backsplash
 - 4. Data sheet for each piece of specified hardware

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The cabinetmaker shall be certified by the Architectural Woodwork Institute.
 - 2. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.

3. The field superintendent shall have demonstrated experience producing the work.
4. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.

- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements
- D. Pre-Installation Conference: Prior to initiating the work, convene a meeting with the general contractor, manufacturer, installer, owner's representative, and architect in attendance.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken and handled in accordance with manufacturer's instructions.
- C. Do not deliver custom cabinets to building until "wet work" such as gypsum wallboard work and painting has been completed and cured.
- D. Store materials above ground and in original protective packages. Store in a dry place with adequate air circulation. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation.
1. Acceptable temperature range is 50°F to 90°F.
 2. Maximum humidity is 80%.

PART 2- PRODUCTS

2.1 SOLID WOOD MATERIALS

- A. Solid Wood for Opaque Finish:
1. Grade: AWI Premium Grade
 2. Species: Poplar, yellow birch, or approved
 3. Cut: Plain Sawn
 4. Moisture content: 8%
- B. Miscellaneous Lumber for Concealed Applications:
1. AWI Grade III or better; species Contractor's option, subject to compliance with applicable requirements for fire resistance where treated applications are required.

2.2 SHEET MATERIALS

- A. Sheet Materials:
1. Grade: Graded in accordance with the AWI for the grade of work specified
 2. Core:

- a. Medium Density Fiberboard: Medium density wood fiberboard (MDF) made with formaldehyde free adhesive
 1. Medite II as manufactured by Sierra Pine or approved equal
3. Interior Finish:
 - a. Thermoset Decorative Overlay (Melamine)

2.3 HARDWARE

- A. Drawer Slide:
 1. Manufacturer: Accuride or approved equal
 2. Drawers 24" or less in width (UNO): model #7432
 3. Drawers 24" to 42" in width: model #3640
- D. Wall-mounted Heavy Duty Adjustable shelving standards and brackets:
 1. Manufacturer: Knappe & Vogt or approved equal
 2. Standards: Model 87 Heavy Duty Standards, anochrome finish.
 3. Brackets: Model 187 Heavy Duty Brackets, anochrome finish.
 4. Length: as indicated; install at 16" OC.
- E. Hinges:
 1. Manufacturer: Sugatsune or approved equal
 2. Product: 304B-C46/19 series concealed hinge
- F. Magnetic Catches:
 1. Manufacturer: Sugatsune
 2. Product: model #Super 88 Aluminum
- G. Pulls:
 1. Manufacturer: Epco
 2. Product: model #MC402-4-SS 4" Stainless Steel Pull
- H. Locks:
 1. Manufacturer: Schlage
 2. Product: CL-Series Cabinet Lock
 3. Finish: Stainless Steel

2.4 FABRICATION

- A. Fabricate all work in accordance with AWI Quality Standards, Custom grade.
- B. Shop-assemble cabinetry for delivery to the site in easily handled units and sized to pass through existing openings.
- C. Fit shelves, doors, and exposed edges with matching veneer edging. Use one piece for full length only.
- D. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- E. Provide cutouts for fixtures and fittings. Seal contact surfaces of cut edges.

2.5 FINISHING

- A. Sand work smooth and set exposed nails and screws.
- B. Apply wood filler in exposed nail and screw indentations. Use wood filler that matches surrounding surfaces and that is recommended for applied finishes.

2.6 COUNTERTOP

- A. High Pressure Decorative Laminate (Plastic Laminate)
 - 1. Manufacturer: Nevamar, Formica or approved equal
 - 2. For exposed surfaces:
 - a. Vertical Application: Grade GP-30 (0.030" thick)
 - b. Horizontal Application: Grade GP-50 (0.050" thick)
 - 3. For unexposed surfaces: Manufacturer's standard balancing sheet, 0.020" thick
 - 4. Color and pattern: to be selected by Architect from manufacturer's standard samples
 - 5. Adhesive: Low-VOC as recommended by manufacturer
 - 6. Composition: Plastic Laminate shall contain minimum 20% post-industrial recycled materials
- B. Stone Countertop
 - 1. Soapstone
 - 2. 1-1/4 inch thick slab
 - 3. Eased edge
 - 4. Honed finish
 - 5. Color and pattern: to be selected by Architect
 - 6. Suggested Manufacturers:
 - a. Northwest Granite and Marble, 9289 151st Ave NE, Redmond WA 98052, (425) 329-8832
 - b. Seattle Soapstone, 6834 NE 175th St., Kenmore WA 98028, (425) 483-2053

PART 3- EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the architect in writing of conditions detrimental to the proper and timely completion of the Work.
 - 1. Verify adequacy of backing and support framing.
 - 2. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 CASEWORK INSTALLATION

- A. Install all work in accordance with AWI Quality Standards, Custom grade.
- B. Set and secure materials and components in place, plumb and level.
- C. Scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.
- D. Install hardware in accordance with manufacturer's instructions.
- E. Use fixture attachments in concealed locations for wall mounted components.
- F. Use concealed joint fasteners to align and secure adjoining cabinet units and counter tops.

- G. Secure cabinet and counter bases to floor using appropriate angles and anchorages.
- H. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

3.4 COUNTERTOP INSTALLATION

- A. Plastic Laminate Countertop and Backsplash:
 - 1. Apply plastic laminate in full interrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Locate counter butt joints minimum 2 inches from sink cut-outs.
 - 2. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
 - 3. Cap exposed plastic laminate finish edges with material of same finish and pattern.
 - 4. Plastic laminate countertop edge detail: self-edge
- B. Stone Countertop:
 - 1. Set countertop and backsplash with panel adhesive (Phenoseal).
 - 2. Seal joints with two-part translucent epoxy.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work. Adjust moving or operating parts to function smoothly and correctly. Clean casework, counters, shelves, hardware, fittings, and fixtures.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Faced and un-faced thermal batt insulation
- B. Related Sections:
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 09 29 00 – Gypsum Board

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations. In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - b. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
 - c. ASTM C518 Standard Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
 - d. ASTM C665 Standard Specification for Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.

1.4 QUALITY ASSURANCE

- A. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.

D. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

A. Provide installation conditions in accordance with the manufacturer's recommendations.

B. The work area shall be enclosed, provide properly regulated heat and ventilation

1.8 WARRANTY

A. Provide manufacturer's standard warranty that the insulation is to be free from manufacturing defects caused by faulty materials or workmanship.

PART 2- PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with the requirements of this specification, provide batt insulation by one of the following manufacturers.

1. Johns Manville
2. Knauf
3. Owens Corning

B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

2.2 BATT INSULATION

A. Kraft-Faced Batt Insulation:

1. Description: Lightweight thermal fiber glass insulation made of long, resilient glass fibers bonded with an acrylic thermosetting formaldehyde-free binder, laminated with a kraft facing.
2. Product: Kraft-Faced Formaldehyde-Free Thermal Fiber Glass Insulation as manufactured by Johns Manville or approved
3. Properties:
 - a. ASTM E96 Permeability (Kraft) 1.0 Perm
 - b. ASTM C665 Type II, Class C, Category 1

B. Foil-Faced Batt Insulation:

1. Description: Lightweight flame-resistant thermal fiber glass insulation made of long, resilient glass fibers bonded with an acrylic thermosetting formaldehyde-free binder, laminated with an FSK (foil-scrim-kraft) facing.
2. Product: FSK-25 Faced Formaldehyde-free Thermal Fiber Glass Insulation as manufactured by Johns Manville or approved
3. Properties:
 - a. ASTM E84 Flame Spread 25 or less, Smoke Developed 50 or less
 - b. ASTM E96 Permeability; FSK – 0.05 Perms
 - b. ASTM C665 Type III, Class A, Category 1

2.3 ACCESSORIES

- A. Materials such as fasteners, retainers, and splicing and patching tape, not specifically described but required for a complete installation of building insulation, shall be as recommended by the insulation manufacturer and selected by the Contractor.

PART 3- EXECUTION

3.1 EXAMINATION:

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the architect in writing of conditions detrimental to the proper and timely completion of the Work.
 - 1. Prior to installing insulation, carefully inspect and verify the completion of the installed work of other trades.
 - 2. Verify adjacent materials are dry and that building insulation may be installed in accordance with the original design and the manufacturer's recommendations.
 - 3. Verify that mechanical and electrical services within walls have been installed and tested.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. General: Except as otherwise directed by the architect, install all insulation in accordance with the manufacturer's current installation recommendations.
- B. Thermal Batts: Completely seal off and fill all voids in insulated areas to preclude direct passage of air between interior and exterior spaces.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Weather barrier membrane
 - 2. Seam Tape
 - 3. Flashing
 - 4. Fasteners
- B. Related Sections:
 - 1. Section 061000 – Rough Carpentry
 - 2. Section 074600 – Siding
 - 3. Section 079200 – Joint Sealants

1.2 REFERENCES

- A. Regulatory Requirements:
 - 1. Conform to the requirements of the International Building Code.
- B. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM C920; Standard Specification for Elastomeric Joint Sealants
 - b. ASTM C1193; Standard Guide for Use of Joint Sealants
 - c. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
 - d. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
 - e. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
 - f. ASTM E96; Test Method for Water Vapor Transmission of Materials
 - g. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls
 - h. ASTM E2178; Test Method for Air Permeance of Building Materials

1.3 QUALITY ASSURANCE

- A. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 32 00 – Construction Progress Documentation.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013215 – Construction Schedules.

1.6 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. Review requirements for sequencing of installation of weather barrier assembly with installation of windows, doors, louvers and flashings to provide a weather-tight barrier assembly.

1.7 WARRANTY

- A. Special weather-barrier manufacturer's warranty for weather barrier assembly for a period of ten (10) years from date of final weather barrier installation.
- B. Provide installer's warranty that system has been installed according to the manufacturer's requirements and that the system has been properly installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by the following manufacturer.
 - 1. DuPont
 - 2. Typar

2.2 MATERIALS

- A. Weather Barrier
 - 1. High-performance, spunbonded polyolefin, non-woven, non-perforated, weather barrier
 - 2. DuPont Tyvek CommercialWrap and related assembly components.
- B. Performance Characteristics:
 - 1. Air Penetration: 0.001 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
 - 2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96, Method B.
 - 3. Water Penetration Resistance: 280 cm when tested in accordance with AATCC Test Method 127.
 - 4. Basis Weight: 2.7 oz/yd², when tested in accordance with TAPPI Test Method T-410.
 - 5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
 - 6. Tensile Strength: 38/35 lbs/in., when tested in accordance with ASTM D882, Method A.
 - 7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
 - 8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E 84. Flame Spread: 10, Smoke Developed: 10.

2.3 ACCESSORIES

- A. Seam Tape: 3 inch wide, DuPont™ Tyvek Tape for commercial applications.
- B. Fasteners:
 - 1. Tyvek Wrap Caps, as manufactured by DuPont Building Innovations: #4 nails with large 1-inch plastic cap fasteners.
- C. Sealants
 - 1. Refer to Section 079200 – Joint Sealants
- D. Adhesives:
 - 1. Provide adhesive recommended by weather barrier manufacturer.
 - 2. Products:
 - a. Liquid Nails LN-109

-
- b. Polyglaze SM 5700
 - c. Denso Butyl Liquid
 - d. 3M High Strength 90
 - e. SIA 655
 - f. Adhesives recommend by the weather barrier manufacturer.
- E. Primers:
- 1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.
 - 2. Products:
 - a. 3M High Strength 90
 - b. Denso Butyl Spray
 - c. SIA 655
 - d. Permagrip 105
 - e. ITW TACC Sta' Put SPH
 - f. Primers recommended by the flashing manufacturer
- F. Flashing
- 1. DuPont StraightFlash, as manufactured by DuPont Building Innovations: straight flashing membrane materials for flashing windows and doors, sealing penetrations, at all perimeter connections and where bucking water, etc.

PART 3- EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations.
- B. Install weather barrier prior to installation of windows and doors.
- C. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.
- D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface with subsequent layers installed in a shingling manner to overlap lower layers. Maintain weather barrier plumb and level.
- E. Sill Plate Interface: Extend lower edge of weather barrier over sill plate interface 3-6 inches. Secure to foundation with elastomeric sealant as recommended by weather barrier manufacturer.
- F. Window and Door Openings: Extend weather barrier completely over openings.

- G. Overlap weather barrier
 - 1. Exterior corners: minimum 12 inches.
 - 2. Seams: minimum 6 inches.
- H. Weather Barrier Attachment:
 - 1. Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space 12 -18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.

3.4 SEAMING

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

3.5 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

3.6 PROTECTION

- A. Protect installed weather barrier from damage.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Composition shingle roofing
- B. Related Sections:
 - 1. Section 06 10 00 – Rough Carpentry
- A. Comply with the requirements of Section 01 42 00 - References and the following organizations:
 - 1. Asphalt Roofing Manufacturers Association (AEMA)
 - 2. National Roofing Contractors Association (NRCA)

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for each product to be used.
- C. Samples: Submit samples of material and color to be used.

1.3 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store material off the ground in a well-drained area. Stack to ensure proper ventilation.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

PART 2- PRODUCTS

2.1 SHINGLES

- A. Composition shingle roofing to match existing roof shingles on the main house.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's written instructions.
- B. Install all components and accessories at the ridge, eaves, rakes and vent penetrations.

3.3 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Installation of wood siding.
 - 2. Siding underlayment.
- B. Related Sections:
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 06 20 00 – Finish Carpentry
 - 3. Section 07 92 00 – Joint Sealants
 - 4. Section 09 90 00 – Painting

1.2 REFERENCES

- A. Comply with the requirements of the following organizations:
 - 1. International Building Code (IBC)
 - 2. American Society of Testing and Materials (ASTM)
 - 3. American Plywood Association (APA)
 - 4. American Softwood Lumber Standard (PS 20)
 - 5. Western Wood Products Association (WWPA)
 - 6. American Wood Preservers Association (AWPA)
 - 7. Underwriter's Laboratories, Inc. (UL)
 - 8. West Coast Lumber Inspection Bureau: Standard Grading Rules for West Coast Lumber (WCLIB)
 - 9. National Fire Protection Association (NFPA)

1.3 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Organizations and Standards:
 - 1. No. 16 Standard Grading and Dressing Rules, latest edition by West Coast Lumber Inspection Bureau.
 - 2. American Softwood Lumber Standard (Voluntary Product Standard PS 1)
 - 3. American Softwood Lumber Standard (Voluntary Product Standard PS 20)
 - 4. American Softwood Lumber Standard (Voluntary Product Standard PS 51)
 - 5. ASTM E84--06 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 6. UL FR-S:
 - 7. NFPA 255 Standard Method of Test of Surface Burning Characteristics of Building Materials
 - 8. UL 723 Test for Surface Burning Characteristics of Building Materials
 - 9. AWPA C20/C27
- C. Grade Marks: Each piece of lumber and plywood to be stamped with grade mark and trademark of association having jurisdiction.
- D. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- E. Regulatory Requirements:
 - 1. Conform to the requirements of the International Building Code.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store lumber off the ground in a well-drained area. Stack to ensure proper ventilation.

1.05 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013216 – Construction Progress Documentation.

1.6 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.

PART 2 – PRODUCTS

2.1 WOOD SIDING

- A. Cedar siding to match the dimensions, profiles and quality of the existing replacement wood siding on the house.

2.2 FASTENERS

- A. Provide size, type, material, and finish as indicated and as recommended by applicable standards complying with applicable Federal Standards Specifications for nails, screws, bolts, nuts, washers, and anchoring devices.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.
- C. Condition woodwork to average prevailing humidity condition in installation areas before installing.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Discard units of material with defects which might impair quality of work, and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement.
- B. Install woodwork to comply with AWI Section 1700 for the same grade specified above for type of woodwork involved. Condition woodwork to average prevailing humidity condition in installation areas before installing.
- C. Install woodwork to comply with WIC Section 26 for the same grade specified above for type of woodwork involved.

1. Install woodwork plumb, level, true, and straight with no distortions. Shim as required with concealed shims. Install to a tolerance of 1/8 inch in 96 inches.
2. Scribe and cut woodwork to fit adjoining work and refinish cut surfaces or repair damaged finish at cuts.
3. Material shall show no warp after installation. Install millwork and trim in maximum practical lengths. Fasten finish work with galvanized finish nails. Provide blind nailing where practicable. Set face nails for putty stopping.

3.4 HORIZONTAL BOARD SIDING

- A. Apply siding horizontally in as long lengths as possible. Work each board into edge of previous course. Nail into supports at 24 inches on center with two nails, nail through tongue, no exposed fasteners. Install fasteners without splitting of wood, pre-drill as required.

3.5 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cleaning and preparation of joint surfaces
 - 2. Sealant and backing materials.
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry
 - 2. Section 06 41 00 – Architectural Wood Casework

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations. In case of conflict with published industry standards/specifications and the projection specifications, the one having the more stringent requirements shall govern.
 - 1. ASTM C1193 Standard Guide for Use of Joint Sealants
 - 2. South Coast Air Quality Management District (SCAQMD)
 - 3. Rule #1168 Adhesive and Sealant Applications

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.6 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation.
 - 1. Do not apply sealant when ambient temperatures are below 40 degrees F., or expected to fall below 40 degrees F. before sealant cure in complete.
 - 2. Do not apply sealant to substrates or accessories that are moist.

1.7 WARRANTY

- A. Provide manufacturer's standard warranty that all components are free from manufacturing defects caused by faulty materials or workmanship.
- B. Provide installer's warranty that system has been installed according to the manufacturer's requirements and that the system has been properly installed.

PART 2- PRODUCTS

2.1 GENERAL

- A. All adhesives and sealants used on the interior of the building (inside the weatherproofing system and applied on-site) must comply with SCAQMD Rule #1168.

2.2 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by one of the following manufacturers.
1. Pecora www.pecora.com
 2. Dow Chemical Co. www.dow.com
 3. Bostik www.bostik-usa.com
 4. BASF/Sonneborn www.buildingsystems.basf.com
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.
- C. Furnish sealants of a single listed manufacturer for each type specified. Color shall be selected by Architect from the manufacturer's standard line.

2.3 SEALANTS

- A. Type 1: Glazing and Construction Type Silicone Sealant:
1. 860 Glazing and Construction Silicone, by Pecora Corp.
 2. Dow Corning 795 and 999 by Dow Chemical Co.
- B. Type 2: One part Acrylic Sealant:
1. Chem-Calk 600, by Bostik
 2. Pecora AC-20, by Pecora
 3. Sonolac, by BASF/Sonneborn

2.4 ACCESSORIES

- A. Primer:
1. Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner:
1. Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Foam Backer Rod:
1. Round, closed cell polyethylene foam rod, round profile, 130 percent of normal joint width.
 2. Nomaco SofRod, or approved
- D. Joint Backing:
1. Open-cell Polyethelene foam at sheet waterproofing.
- E. Joint Filler:
1. ASTM D994, Type III; 1/2 inch thick by depth required, asphalt impregnated vegetable fiber and mineral filler board
 2. The Burke Company "Pre-Molded Joint Filler", or approved.
- F. Bond Breaker:

1. Pressure sensitive tape recommended by sealant manufacturer to suit application.
- G. Furnish miscellaneous cleaners, gaskets, fillers, dams, and other accessories as required for proper installation of scheduled sealants.

PART 3- EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the architect in writing of conditions detrimental to the proper and timely completion of the Work.
1. Verify that the sealants are compatible with the substrates and accessory materials provided under other Sections.
 2. Verify joint dimensions, physical and environmental conditions are acceptable to receive work of this Section.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.
- C. Clean and prepare joints in accordance with sealant manufacturer's instructions. Remove loose materials and other matter that might impair adhesion of sealant.
- D. Examine joint dimensions and size materials to achieve required width/depth ratios.
- E. Install backer rods to achieve proper sealant width/depth ratios.
- F. Use bond breaker tape at joints where depth or profile of joint does not permit use of backer rod.
- G. Apply masking tightly around joints to protect adjacent areas from excess sealant.

3.3 INSTALLATION

- A. Install types of sealants scheduled, in colors as approved by the architect, for each location where sealant is required.
- B. Perform work in accordance with ASTM C1193 for solvent release and latex base sealants.
- C. Install backer materials, primers and sealants in accordance with manufacturer's instructions.
- D. Apply sealant within temperature ranges recommended by the sealant manufacturer.
- E. Tool joints concave unless indicated otherwise. Finish free of air pockets, foreign embedded matter, ridges, and sags.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.

- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.
- D. Clean adjacent surfaces free of excess sealant as work progresses. Use cleaning agents recommended by the sealant manufacturer.

3.5 SCHEDULE

- A. Type 1: Construction Type Silicone Sealant: Provide between toilet accessory flanges and walls, at junctions between interior plumbing fixtures and walls, floors, and counter tops, and around casework items anchored to walls. For sealing around recessed and surface mounted fixtures.
- B. Type 2: One Part Acrylic Sealant: Provide at all interior sealant joints, unless otherwise specified or indicated on the Drawings.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior and exterior wood panel doors
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry
 - 2. Section 08 71 00 – Door Hardware
 - 3. Section 09 90 00 – Painting and Coating

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. Architectural woodwork Institute (AWI)
 - a. AWI Quality Standards Illustrated, Current Edition
 - 2. American Society of Testing and Materials (ASTM)
 - a. ASTM E152
 - 3. National Wood Window and Door Association (NWWDA)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, door edge construction and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.
- C. Shop Drawings: Submit drawings showing plans, indication location and size of each door, elevation of each kind of door, details of construction, location and extent of hardware blocking, factory finishing, and details indication all materials and dimensions.
 - 1. Show layout pattern, fabrication details and attachment methods.
 - 2. Indicate dimensions and locations of cutouts for locksets.

1.4 PROJECT CONDITIONS

- A. Field Measurements: Verify all rough openings and existing door frame measurements.

1.5 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.6 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.7 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.8 WARRANTY

- A. Provide manufacturer's standard one (1) year warranty that all components are free from manufacturing defects caused by faulty materials or workmanship.

PART 2- PRODUCTS

2.1 MANUFACTURES

- A. Subject to compliance with the requirements of this specification, provide products by one of the following:
 - 1. Frank Lumber Co.
 - 2. Simpson Door Company
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

2.2 STILE AND RAIL WOOD DOORS

- A. Traditional 5-Panel Door, Douglas Fir, 1-3/8" thick.

2.2 FINISHING

- A. Refer to Section 09 99 00 – Painting and Coating for finishing of wood doors.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Take all dimensions and field measurements necessary prior to fabrication and installation
- C. Confirm that sufficient materials are stored on site to complete the work.

3.2 INSTALLATION

- A. Install doors at locations scheduled and with the hardware scheduled for each door.
- B. Install doors in accordance with Section 06 20 00 – Finish Carpentry.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wood windows with fiberglass composite exterior.
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry
 - 2. Section 09 90 00 – Painting and Coating

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. Architectural Woodwork Institute (AWI)
 - a. AWI Quality Standards Illustrated, Current Edition

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, hardware and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.
- C. Shop Drawings: Submit drawings showing plans, indication location and size of each window, elevation of each kind of window, details of construction, factory finishing, and details indication all materials and dimensions.
 - 1. Show layout pattern, fabrication details and attachment methods.
- D. Samples: Submit samples of the following:
 - 1. Sample color of fiberglass composite exterior

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 WARRANTY

- A. Provide manufacturer's standard warranty that all components are free from manufacturing defects caused by faulty materials or workmanship.
- B. Provide installer's warranty that system has been installed according to the manufacturer's requirements and that the system has been properly installed.

PART 2- PRODUCTS

2.1 MANUFACTURES

- A. Match window manufacturer and series with the existing windows in the house.
- B. Subject to compliance with the requirements of this specification, provide products by one of the following:
 - 1. Anderson Corporation
- C. Suggested Supplier:
 - 1. Windows, Doors & More, Seattle, WA, 206.258.3812

2.1 WOOD WINDOWS

- A. Anderson A-Series Wood Windows with Fiberglass Composite Exterior
- B. Wood Frame and Sash
 - 1. Pine
- C. Exterior Frame and Sash Cladding
 - 1. Fiberglass Composite Exterior, flat trim style
 - 2. Factory paint finish, color White
- D. Interior Components
 - 1. Water repellent wood preservative
- E. Glazing
 - 1. Insulating glass units, 3/4" thick, frosted.
 - 2. Safety glass, fully tempered where indicated or required by code.

2.2 FINISHING

- A. Refer to Section 09 99 00 – Painting and Coating for finishing of wood windows.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Take all dimensions and field measurements necessary prior to fabrication and installation

- C. Confirm that sufficient materials are stored on site to complete the work.

3.2 INSTALLATION

- A. Install windows at locations scheduled.
- F. Install windows in accordance with Section 06 20 00 – Finish Carpentry.

3.3 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Door Hardware
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry
 - 2. Section 08 14 00 – Wood Doors

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. American National Standards Institute (ANSI)
 - 2. Builder's Hardware Manufacturer's Association (BHMA)
 - 3. Door and Hardware Institute (DHI)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions and templates showing rough-in requirements, construction details, and recommended procedures.

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 WARRANTY

- A. Provide manufacturer's standard two (2) year warranty that all components are free from manufacturing defects caused by faulty materials or workmanship or as follows:
 - 1. Locksets: Three (3) year warranty

PART 2- PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products by manufacturers for various products listed below:
1. Butts and Hinges: McKinney, Stanley or approved
 2. Cylinders and Locks: Schlage
 3. Locksets and Latches: Schlage

2.2 FINISH

- A. US 10B Oil-Rubbed Bronze

2.3 HINGES

- A. Provide full-mortise butt, size, weight and quantity in accordance with requirements established for door size, weight, and frequency of use.
1. Hinges: Standard weight, square corners
 2. Pins: Stainless steel

2.4 LOCKS AND LATCHES

- A. Schlage Series F51 STA 613
- B. Provide privacy locks on all restroom doors
- C. Strikes: Wrought box strikes with extended lip for latch bolts.

2.5 CLOSERS

- A. Provide door closers on all restroom doors
1. LCN 4041, Stanley QDC100 Series, or approved equal.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the work.

3.2 INSTALLATION

- A. Hardware Mounting Locations: As recommended by the Door and Hardware Institute.
- B. Install each hardware item to comply with manufacturer's instructions and recommendations.

3.3 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Exterior Metal Louvers

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Shop Drawings: Include details showing dimensions related to existing concrete wall openings, and fastening details.

1.3 PROJECT CONDITIONS

- A. Field Measurements: Verify louver openings by field measurements and indicate dimensions on Show Drawings.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

PART 2- PRODUCTS

2.1 LOUVERS

- A. Description
 - 1. Louvers for kitchen and restroom exhaust vents
 - 2. Include supports, anchorages, and fasteners for complete assembly.

PART 3- EXECUTION

3.1 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Take all dimensions and field measurements necessary prior to fabrication and installation
- C. Confirm that sufficient materials are stored on site to complete the work.

3.2 INSTALLATION

- A. Install louvers in openings properly aligned and level.

3.3 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board and finishing systems
- B. Related Sections
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 09 90 00 – Painting and Coating
- C. Co-ordinate the installation of the work in this section with the work of Division 21 through 28.

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM C36: Standard Specification for Gypsum Wallboard
 - b. ASTM C1396 Standard Specification for Gypsum Board
 - c. ASTM C442: Standard Specification for Gypsum Backing Board
 - d. ASTM C475: Standard Specification for Joint Compound & Joint Tape for Finishing Gypsum Board
 - 2. Gypsum Association (GA)
 - a. GA 216: Application & Finishing of Gypsum Board

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions showing construction details, fire rated assemblies, and recommended procedures.

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications:
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.

- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation
 1. Acceptable temperature range is 70°F to 90°F.
 2. Maximum humidity is 80%.

1.8 WARRANTY

- A. Provide manufacturer's standard one (1) year warranty that all components are free from manufacturing defects caused by faulty materials or workmanship.
- B. Provide installer's warranty that system has been installed according to the manufacturer's requirements and that the system has been properly installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by one of the following manufacturers:
 1. Georgia-Pacific (GP)
 2. United States Gypsum (USG)
 3. Certainteed
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

2.2 GYPSUM BOARD

- A. General:
 1. Furnish boards of maximum permissible length for type of installation indicated
 2. Tapered edge for boards to be exposed, taped and finished; square edge for boards in concealed applications
 3. 1/2" Thickness all locations unless noted otherwise
 4. Cores shall contain recycled gypsum material
- B. Standard Gypsum Board (Interior, Dry Locations)
 1. Noncombustible (ASTM E136) gypsum core with 100% recycled paper facing
 2. Conforms to ASTM C1396
 3. Fire rated where indicated:
 - a. Type "X" reinforced core in conformance with ASTM C36
 - b. Flame Spread/Smoke Developed 15/0 (ASTM E84)
 4. "ToughRock" and "ToughRock Fireguard" as manufactured by Georgia-Pacific or approved equal

- C. Moisture-Resistant Gypsum Board (Interior, Damp Locations)
 - 1. Noncombustible (ASTM E136) gypsum core with special moisture-resistant treatment, 100% recycled paper facing
 - 2. Conforms to ASTM C1396
 - 3. Fire rated where indicated:
 - a. Type "X" reinforced core in conformance with ASTM C36
 - b. Flame Spread/Smoke Developed 15/0 (ASTM E84)
 - 4. "ToughRock Mold-Guard" as manufactured by Georgia-Pacific or approved equal
- D. Gypsum Tile Backer Board
 - 1. Water resistant treated gypsum core with coated glass mat facing
 - 2. Conforms to ASTM C1178
 - 3. Fire rated where indicated:
 - a. Type "X" reinforced core in conformance with ASTM C36
 - 4. "DensShield Tile Backer" and "DensShield Fireguard Tile Backer" as manufactured by Georgia-Pacific or approved equal

2.3 JOINT COMPOUND

- A. All-Purpose Joint Compound
 - 1. Vinyl based, non-asbestos joint compound
 - 2. Conforms to ASTM C475
 - 3. Pre-mixed or powdered at Contractor's option
 - 4. "ToughRock Ready-Mix Joint Compound" and "ToughRock All-Purpose Dry Compound" as manufactured by Georgia-Pacific or approved equal
- B. Setting-Type (Hot) Joint Compound
 - 1. Fast-setting, non-asbestos, powdered joint compound
 - 2. Conforms to ASTM C475
 - 3. "Toughrock Setting Compounds" as manufactured by Georgia-Pacific or approved equal

2.4 TAPE

- A. Paper Tape: ASTM C475
- B. Mesh Tape: ASTM C475 self-adhering fiberglass mesh tape
- C. Paper or mesh tape may be used at Contractor's option; mesh tape shall be used with Setting-Type Compound only

2.5 ACCESSORIES

- A. Trim: Concealed flange screw-on type, metal or PVC at Contractor's option.
- B. Hardware Cloth: 1/2" galvanized wire mesh

PART 3- EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Install gypsum boards of different types in locations as indicated on the Drawings.
- B. Install gypsum board in accordance with GA 216 and fire rated assembly requirements. Install gypsum board with 1/8 inch in 10 feet maximum variation from plane in any direction.
- C. Erect wallboard so that all edges and corners are firmly supported. Use screws to fasten gypsum board to metal furring or framing.
- D. Trim: Use longest practical lengths, with no piece less than two (2) feet long for continuous runs greater than eight (8) feet. Securely fasten and align trim ends at joints.
 - 1. Place concealed flange corner beads at external corners, bent to conform to required angle, where other than 90 degrees.
 - 2. Place concealed flange type L trim where gypsum board abuts dissimilar materials.
 - 3. Use J trim where sealant joint is indicated.
- E. Where indicated, install hardware cloth to studs where indicated behind single layer gypsum board applications. Run horizontally with horizontal joints lapped two (2) inches minimum; lap vertical joints over studs.

3.3 FINISHING

- A. Taping - Drywall:
 - 1. Apply a uniform layer of taping compound to all joints and angles to be reinforced.
 - 2. Apply reinforcing tape immediately centered over the joint and seated into the compound.
 - 3. Skim coat shall follow immediately but shall not function as a fill or second coat.
 - 4. Tape shall be properly folded and embedded in all angles to provide a true angle.
- B. Filling - Drywall:
 - 1. After taping compound has hardened, apply second coat of taping compound, filling the board flush with the surface.
 - 2. The fill coat shall cover the tape and feather out slightly beyond the tape.
- C. Finishing:
 - 1. Fastener Depressions: Apply taping compound to all fastener depressions, leaving all depressions level with the plane of the surface.
 - 2. Apply taping compound to all bead and trim, feathering out from the ground to the plane of the surface as specified for joints.
 - 3. Finish joints with at least 2 coats of taping compound, each coat extending beyond preceding coat.
Joints shall be feathered to 12 inches each side of the joint.
 - 4. Feather the finish coat from the ground to the plane of the surface, with a maximum camber of 1/32 inch.
 - 5. Where necessary to sand, do so without damaging the face of the gypsum board.
 - 6. Provide a smooth surface with joints fully concealed.
- D. Finish Level:
 - 1. Typical areas shall be Level 4: All joints and angles shall have tape bedded in joint compound and have three separate coats of compound. The compound shall be smooth and free of tool marks and ridges.

3.5 ADJUSTING AND CLEANING

- A. After installation and before painting, correct surface damage and defects; leave surfaces clean and smooth.
- B. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse, surplus material and dispose of it properly.
- C. Upon completion of this portion of the work:
 - 1. Clean all trim, beads, and accessories.
 - 2. Clean dust and compound from all items incorporated into the work.
 - 3. Remove debris and surplus material from the site
 - 4. Thoroughly broom clean the work area.
- D. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Glazed wall tile at interior wall applications
 2. Unglazed porcelain floor tile
 3. Mortar, grout and related setting materials
 4. Waterproofing membrane beneath tile
 5. Ceramic accessories and trim
- B. Related Sections:
1. Section 06 10 00 – Rough Carpentry
 2. Section 06 20 00 – Finish Carpentry
 3. Section 07 92 00 – Joint Sealants
 4. Section 09 29 00 – Gypsum Board
- C. Products Installed But Not Furnished Under This Section:
1. Tile backer board as specified under Section 09 29 00 – Gypsum Board
- D. Co-ordinate the installation of the work in this Section with the work of Division 21 through Division 28.

1.2 REFERENCES

- A. Regulatory Requirements:
1. Conform to the requirements of the International Building Code, latest edition.
- A. Comply with the requirements of Section 01 42 00 - References and the following organizations: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern:
1. American National Standards Institute (ANSI)
 - a. ANSI A108.1C, 1999 Specifications for Contractors Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar -or- Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex Portland Cement Mortar.
 - b. ANSI A108.10, 1999 Specifications for Installation of Grout in Tilework.
 - c. ANSI A118.1, 1999 Standard Specification for Dry-Set Portland Cement Mortar.
 2. Tile Council of America (TCA)
 - a. Handbook for Ceramic Tile Installation, Current Edition

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
1. Manufacturer's data sheets on each product to be used, including:
 - a. Preparation instructions and recommendations.
 - b. Storage and handling requirements and recommendations.
 - c. Installation methods.
 2. Maintenance Data: Include recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.
- C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.

- D. Samples: Submit samples of material, color, and finish. Submit additional samples until all products as approved.
1. Submit samples of each type and color of tile and grout. Include representative range of colors and finishes to be expected.
 2. Samples: Mount tile and apply grout on two plywood panels, 12 by 12 inch in size illustrating pattern, color variations, and grout joint size variations.

1.4 QUALITY ASSURANCE

- A. Qualifications
1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 2. The field superintendent shall have demonstrated experience producing the work.
 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- B. Single Source Responsibility:
1. Obtain each type and color of tile from a single source.
 2. Obtain each type and color of mortar, adhesive and grout from the same source.
- C. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.
- E. Protect adhesives and liquid additives from freezing or overheating in accordance with manufacturer's instructions.
- F. Store tile and setting materials on elevated platforms, under cover and in a dry location and protect from contamination, dampness, freezing or overheating.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation
- C. Do not install adhesives in an unventilated environment.
- D. Maintain ambient and substrate temperature of 50 degrees F (10 degrees C) during installation of mortar materials.

- E. Protection: Protect adjoining work surfaces prior to beginning work.

1.8 MAINTENANCE

- A. Extra Stock
1. Furnish one carton of each type of tile. Deliver where directed, in clearly marked sealed cartons. Overage tile which is used to satisfy extra stock requirements shall be free of damage.
 2. Deliver extra stock as directed by the Owner's Representative and secure a written receipt.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by one of the following manufacturers.
1. Wall Tile
 - a. DalTile www.daltile.com
 2. Floor Tile
 - a. DalTile www.daltile.com
 3. Grout
 - a. Custom Building Products www.custombuildinproducts.com
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

2.2 TILE

- A. General: Provide tile that complies with ANSI A137.1 for types, compositions and other characteristics indicated. Provide tile in the locations and of the types, colors and pattern indicated on the Drawings identified in the Finish Legend and Schedule. Tile shall also be provided in accordance with the following:
1. Factory Blending: For tile exhibiting color variations within the ranges selected under Submittal of samples, blend tile in the factory and package so tile taken from one package shows the same range of colors as those taken from other packages.
 2. Mounting: For factory mounted tile, provide back or edge mounted tile assemblies as standard with the manufacturer, unless otherwise specified.
 3. Factory Applied Temporary Protective Coatings: Where indicated under tile type, protect exposed surfaces of tile against adherence of mortar and grout by precoating with a continuous film of petroleum paraffin wax applied hot. Do not coat unexposed tile surfaces.
- B. Special Shapes: Unless otherwise required, furnish special shapes as standard with the tile manufacturer, as detailed, and as required for installation in compliance with the specifications. Include bullnose, corner bullnose, inside and outside corners, butter-flies, pre-mounted cove assemblies, and other special shapes as required for uniform transitions and concealed edges in the finished installation.

2.3 SETTING MATERIALS

- A. Conventional Set Mortar: Portland cement mortar in accordance with ANSI A108.1.
- B. Thinset Mortar: Latex-portland cement in accordance with ANSI A118.4; 100% acrylic latex additive at all locations.
- C. Grout:
1. ANSI A108.10 and ANSI A118.6
 - a. Shrinkage <0.08% at 7 days

- b. Compressive Strength 4650 psi
- c. Tensile Strength 423 psi at 28 days
- 2. Polyblend as manufactured by Custom Building Products or approved equal, sanded or unsanded as recommended by the manufacturer for the specific application
- 3. Furnish color as selected by the Architect

2.4 TILE BACKER BOARD

- A. Refer to Section 09 21 16 – Gypsum Board Assemblies for tile backer board.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
 - 1. Verify that wall surfaces are free of substances which would impair bonding of setting materials, smooth and flat within tolerances specified in ANSI A137.1, and are ready to receive tile.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.
- C. Clean substrate surfaces free of grease, dirt, dust, organic impurities, curing agents, and other materials that would impair bond.
- D. Verify dimensions and condition of setting beds prior to tile installation.
- E. Vacuum clean surfaces and damp clean.
- F. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
- G. Prepare substrate surfaces for adhesive installation in accordance with adhesive manufacturer's instructions.
- H. Prior to commencing installation, notify Architect of all discrepancies which would compromise appearance or durability of final installation. Obtain Architect's approval of corrective measures.

3.3 INSTALLATION OF WALL TILE

- A. Install tile and grout in accordance with applicable requirements of ANSI A108.1 through A108.13, manufacturer's instructions, and TCA Handbook recommendations.
- B. Lay tile to pattern indicated. Arrange pattern so that a full tile or joint is centered on each wall and that no tile less than 1/2 width is used. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.

-
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.
 - E. Sound tile after setting. Replace hollow sounding units.
 - F. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar
 - G. Installation Tolerances, Joint Widths: Install all tiles with joint widths for uniform appearance, as follows:
 - 1. Lay out tile pattern prior to commencing tile installation.
 - 2. Where cut tiles are necessary, position tile such that cut tile at each edge of each rectilinear field is not less than half of a full size unit.
 - 3. Grout Joint Widths: 1/8"
 - H. Except as otherwise indicated, install bullnose tiles at exposed tile edges: Wainscot edges, external corners, and tops of bases.
 - I. Install ceramic tile for square corners at vertical inside corners.

3.4 INSTALLATION OF FLOOR TILE

- A. Install tile and grout in accordance with manufacturer's instructions and TCA Handbook recommendations.
- B. Lay tile to pattern indicated.
- C. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.
- D. Sound tile after setting. Replace hollow sounding units.
- E. Installation Tolerances, Joint Widths: Install all tiles with joint widths for uniform appearance, as follows:
 - 1. Lay out tile pattern prior to commencing tile installation.
 - 2. Grout Joint Widths: 1/8"
- F. Except as otherwise indicated, install bullnose tiles at exposed tile edges: Wainscot edges, external corners, and tops of bases.
- G. Install ceramic tile for square corners at vertical inside corners.

3.5 GROUTING

- A. Allow tile to set for a minimum of 48 hours prior to grouting.
- B. Grout tile joints. Use standard grout unless otherwise indicated.
- C. Mix grout in accordance with manufacturer's instructions.
- D. Grout all joints, except expansion joints, in accordance with the manufacturer's recommendations. Float joints to a slightly concave profile.
- E. Wipe surface clean after grouting. Do not use acid cleaners.

3.6 CURING

- A. Immediately after grouting and cleaning, damp cure installation for a minimum period of 72 hours.

- B. Protect tile surfaces during curing.
- C. After Grout has cured, apply sealer according to the manufacturer's directions.

3.7 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior Wood Flooring
- B. Related Sections
 - 1. Section 062000 – Finish Carpentry

1.2 REFERENCES

- A. Comply with the requirements of Section 014200 – References

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 013300 – Submittals.
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.
- C. Samples: Submit samples of material, color, and finish. Submit additional samples until all products are approved.
 - 1. 12" x 12" sample of the finished floor.

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the projection specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Pre-Installation Conference: Prior to initiating the work, convene a meeting with the general contractor, supplier, manufacturer, installer, owner's representative, and architect in attendance.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 016000 – Produce Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013216 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation
 - 1. Maintain room temperature between 60 degrees F. to 70 degrees F. and provide ventilation to dry all adjacent materials prior to delivery of hardwood. Maintain temperature, ventilation, and safety requirements of finish manufacturer during finishing process.

1.8 WARRANTY

- A. Provide manufacturer's standard two (2) year warranty that all components are free from manufacturing defects caused by faulty materials or workmanship.
- B. Provide installer's two (2) year warranty that system has been installed according to the manufacturer's requirements and that the system has been properly installed.

PART 2 - PRODUCTS

2.1 WOOD FLOORING

- A. Species: White Oak, Select and Better, 3/4" x 2-1/4", Tongue and Groove, end matched.
- B. Sheathing: 30# red rosin sheathing paper.
- C. Fasteners: 2" machine driven fasteners or 8d screw or cut nail.

2.3 FINISH MATERIALS

- A. Filler: Wood flour cement as manufactured by Glitsa American, Inc.
- B. Stain: Glitsa Gold Seal Stain as manufactured by Glitsa American, Inc.
- C. Accessories: Furnish according to the recommendations of the manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
 - 1. Verify condition of substrate. Notify Architect if substrate does not conform to NOFMA standards.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 APPLICATION

- A. Flooring Installation:
1. Install over 30# red rosin sheathing paper at 90 degrees to joists.
 2. Lay flooring in the direction indicated on the Drawings. Provide concealed fasteners as recommended by the manufacturer, no face nailing permitted.
 3. Nail with floor machine nails at 10" -12" o.c., leave 3/8 inch expansion space around perimeter. Cover by base. Machine sand using filler as needed to provide a true, smooth surface. Hand sand areas not accessible by machine.
- B. Finish Application:
1. Apply stain per manufacturer's instructions, color shall be selected by Architect.
 2. Apply two (2) coats of Bacca sealer according to the manufacturer's instructions.
 3. Apply one (1) coat of Glitsa Gold Seal finish, sheen shall be (gloss, semi-gloss, matte) according to the manufacturer's requirements.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Paint
 - 2. Refinishing existing wood wall paneling (Bid Alternate)
- B. Related Sections:
 - 1. Section 01 11 10 – Summary of Hazardous Materials Work
 - 2. Section 06 20 00 – Finish Carpentry
 - 3. Section 08 14 00 – Wood Doors
 - 4. Section 09 29 00 – Gypsum Board

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations. In case of conflict with published industry standards/specifications and the projection specifications, the one having the more stringent requirements shall govern.
 - 1. Master Painter's Institute (MPI)
 - a. MPI Architectural Painting Specification Manual
 - 2. Occupational Safety, Health, and Pollution Regulations (OSHA)
 - a. Conform to governing OSHA regulations including but not limited to City, State and Federal requirements.
 - 3. Green Seal (GS)
 - a. Green Seal Standard GS-11, Paints, 1st edition, May 20, 1993
 - b. Green Seal Standard GC-03, Anti-Corrosive Paints, 2nd edition, January 7, 1997

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description
 - 2. Current color chart, showing the full range of standard colors.
- C. Samples: Submit samples of material, color, and finish. Submit additional samples until all products are approved.
 - 1. 12" x 12" sample of each paint color and sheen.
- D. Mock-up: Provide a 10 sf area of refinished existing wood paneling for approval (Bid Alternate).

1.4 QUALITY ASSURANCE

- A. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- B. Regulatory Requirements: Comply with the requirements of Section 01 41 00 – Regulatory Requirements.
- C. All work "Premium Grade".

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken. Labels shall indicate the following: Product type, Brand name, Color designation, and Mixing and Reducing Instructions.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
 - 1. Take all necessary precautionary measures to prevent fire hazards and spontaneous combustion. Place cotton waste, cloths, and other hazardous materials in containers, and daily remove from site.
 - 2. Store as required by governing Codes and Ordinances.
- D. Handle materials in accordance with manufacturer's instructions and regulatory requirements.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. Site conditions:
 - 1. Acceptable temperature range is 50°F to 90°F.
 - 2. Maximum humidity is 80%.

1.8 MAINTENANCE

- A. Extra Stock
 - 1. Furnish one (1) one-gallon can of each type of finish coat of each color. Furnish each type, sheen, and color of paint taken from the batch mix furnished for the work in completely filled, properly labeled and sealed cans.
 - 2. Deliver extra stock as directed by the Owner's Representative and secure a written receipt.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All paints and coatings shall be low in volatile organic compounds (VOCs.)
- B. All paints and coatings are to be lead-free.

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by one of the following manufacturers.
 - 1. Rodda
 - 2. Sherwin-Williams
 - 3. Kelly-Moore/Preservation Paints
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

- C. Paint Remover: Sherwin Williams "Peel Away Heavy Duty Paint Remover" for removal of old lead-based paint (Bid Alternate).

2.2 MATERIALS

- A. Furnish ready-mixed products except as otherwise specified. Follow Manufacturer's directions for field mixing of pastes and powders, and field-catalyzing components. Fully grind pigments to maintain a soft paste consistency in the vehicle during storage. It is required to be readily and uniformly dispersable by paddle to a completely homogenous mixture, ready for use. It is to have good flowing and brushing properties, dry or cure free of streaks or sags, and yield finish specified.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.

3.2 PREPARATION

- A. Protect surrounding areas and surfaces to preclude damage during work of this Section.
- B. Confirm that sufficient materials are stored on site to complete the space.
- C. As work proceeds, and on completion of work, promptly remove all spilled, splashed, or splattered products by methods not damaging to surfaces.
- D. During work progress, keep premises free from any unnecessary accumulation of tools, equipment, surplus materials, debris, and the like.
- E. Make good any damage caused by failure to provide suitable protection, but not any damage caused by other trades.
- F. Drop Cloths: Provide drop cloths, shields, and protective equipment.
- G. The following receive no finish except as indicated:
 1. Metals as listed: Brass, bronze, copper, plated metals, stainless steel.
 2. Plastic laminate surfacing.
 3. Glass, unless otherwise noted.
 4. Materials having complete factory finish, such as finish hardware and the like.

3.3 PREPARATION OF NEW SURFACES

- A. Wood Products to Receive Paint Finish: Surfaces are required to have been cleaned of dirt and contamination by other trades. Wipe off dust and minor grit prior to prime and subsequent coats. Spot coat knots, pitch streaks and sappy sections with sealer. Fill all nail holes and fine cracks after primer has dried, then apply sand filler smooth, level with surface, ready for finish coats.
- B. Gypsum Wallboard: Surfaces are to be crack-free, properly finished, textured where required and left clean by other trades. Remove any minor subsequent contamination, dust and dirt. If surface defects appear after prime coating, have defects repaired by and at the expense of the drywall trade. After defects are corrected, proceed with finish painting, again using primer over repaired areas.

3.4 PREPARATION OF EXISTING SURFACES

- A. On existing finished wood surfaces to be re-painted, remove all loose, blistered, scaled, or crazed finish to bare base material surface using "Peel Away Heavy Duty Paint Remover". Follow manufacturer's written instructions.

3.5 APPLICATION

- A. All work "Premium" quality. Apply paint and other finish by methods generally accepted by the trade to achieve approved finishes.

3.6 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.
- D. Cleaning: As the work proceeds, and on its completion, promptly remove all spilled, splashed or splattered paint. Remove in such a manner as not to damage surfaces. Thoroughly clean paint and splatters from glass and other such surfaces. Take care not to scratch surfaces. During progress of work, keep premises free from any unnecessary accumulation of tools, equipment, surplus materials, and debris resulting from the work under this Section. At work's conclusion, leave premises neat and clean.

3.6 PAINT AND COATING SCHEDULE

- A. Application Schedule:
1. Interior Gypsum Wallboard
 - a. MPI system: INT 9.2A
 - i. 1 coat latex primer
 - ii. 2 coats latex
 - iii. Gloss level 3, eggshell sheen in dry locations
 - iv. Gloss level 5, semi-gloss in wet locations
 2. Interior Doors, Door Frames, Window Frames, Casings, Trim, Wood Wall Paneling, etc.
 - a. MPI system: INT 6.3B
 - i. 1 coat alkyd primer/sealer
 - ii. 2 coats alkyd
 - iii. Gloss level 5, semi-gloss sheen
- B. Color Schedule:
1. P1:
 - a. Location: Gypsum Board Walls and Ceilings
 - b. Color: To be selected by Architect
 2. P2:
 - a. Location: Interior Doors and Frames, Window Frames, Casings, Trim, Wood Wall Paneling, Casework
 - b. Color: To be selected by Architect

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Gender neutral signage
 - 2. Code required signage

1.2 REFERENCES

- A. Comply with the requirements of the following Reference Standards as the Engineer judges them applicable and as modified and supplemented herein.
 - 1. American Society for Testing and Materials (ASTM)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 013300 – Submittals.
- B. Product Data: Submit manufacturer's product data for each type of signage graphic to be used in the Work.
- C. Shop Drawings: Indicate letter profile and attachment details; include elevation of sign showing locations of attachment points.
- D. Samples: Submit sample of each specified letter style and type showing exact materials and finishes proposed for the Work.

1.4 QUALITY ASSURANCE

- A. Fabricator: Signage manufacturer with three years documented experience in work of similar type and scope.
- B. Qualifications of Installers:
 - 1. Use only skilled and experienced installers for preparation and installation of graphics.
 - 2. Helpers and apprentices shall be supervised at all times by skilled installers.
- C. Regulatory Requirements: Comply with the requirements of Section 014500 - Quality Control.

1.5 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013216 Construction Progress Documentation.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Subject to compliance with the requirements of this specification provide products from the following manufacturers:
1. Trade-Marx Seattle www.trade-marx.com
 2. Creo Everett www.creoindustrialarts.com
 3. InPro SignScape www.inprocorp.com
- B. Other manufacturers offering products which meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 012500 Substitution Procedures.

2.2 SIGN

- A. TYPE A- Gender Neutral Restroom Signs:
1. Use standard gender neutral signage graphic
 2. Face plate – ¼" acrylic sheet. Letters set into plate w/height minimum 1/32". Braille message: dots to be smooth and dome shaped, OFR Braille.
 3. Laminate inset dimensional acrylic letters to engraved panel with very high bond adhesive. Conform to ADA regulations – international white on blue background.
 4. Method of Attachment: Provide holes at each corner for vandal resistant non-corrosive fasteners.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Inspection:
1. Prior to commencing installation, inspect the installed work of all other Sections, and verify that all such work is complete to the point where this installation may properly commence.
 2. Verify that graphics can be installed as indicated on drawings.
 3. Verify locations with the Architect prior to final installation.
- B. Discrepancies:
1. In the event of discrepancy, immediately notify the Architect.
 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 INSTALLATION

- A. Install per manufacturer's instructions and per approved shop drawings. All work must be installed true, level, accurately spaced and cleanly finished.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Toilet accessories
 - 2. Grab bars
 - 3. Attachment hardware
- B. Related Section
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 09 30 00 – Tiling
- C. Co-ordinate the installation of the work in this Section with the work of Division 21 through Division 28.

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 013310 – Submittal Procedures.
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Product description showing construction, components, dimensions, features, and finishes.
 - 2. Installation instructions showing rough-in requirements, construction details, and recommended procedures.

1.3 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the project specifications, the one having the more stringent requirements shall govern.
- B. Qualifications
 - 1. The contractor shall have demonstrated experience and the ability to furnish adequate supervision, equipment and production capacity.
 - 2. The field superintendent shall have demonstrated experience producing the work.
 - 3. The installer shall be a qualified journeyman. Apprentices may work under the direction of a journeyman in accordance with trade regulations.
- C. Regulatory Requirements:
 - 1. Comply with the requirements of Section 014500 - Quality Control
 - 2. Conform to the requirements of the International Building Code, latest edition.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- C. Handle materials in accordance with manufacturer's instructions.

1.5 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 013216 – Construction Progress Documentation.

1.6 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.
- B. The work area shall be enclosed, provide properly regulated heat and ventilation

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide products by the following manufacturers:
 - 1. Bobrick Washroom Equipment Co.
- B. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 012500 – Substitution Procedures.

2.2 COMPONENTS

- A. Materials: Manufacturer's standard for the various units except where specified otherwise.
- B. Attachments: Furnish complete with all anchors, mounting frames and plates required for complete installation. Do not use cement mounting.
- C. Fastenings: Provide concealed type insofar as possible; where design requires exposed fasteners, provide stainless steel, vandal-proof type.
- D. Location and Quantities: Provide accessories in locations and quantities shown on the Drawings, but not less than those following. If not shown, install accessories as directed by Architect.

2.3 ACCESSORIES:

- A. Provide the following:
 - 1. Toilet Paper Dispenser: GP PRO #56748 Compact 4-Roll Quad Coreless High-Capacity, Stainless, 1 per wc.
 - 2. Seat Cover Dispenser: Bobrick Model #B-221 or approved, 1 per wc.
 - 3. Napkin Disposal: Bobrick Model #B-270 Sanitary Napkin Disposal
 - 4. Grab bars: Bobrick Model #B-5806 Series Stainless steel grab bars
 - 5. Soap Dispenser: Bobrick Model #B-26627 Surface Mounted Foam Soap Dispenser
 - 6. Hand Dryer: Bradley Model #2802-280000, 1 per restroom
 - 7. Changing Table: Koala Kare KB2-00-05 Horizontal Wall Mounted, white Granite"

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Engineer in writing of conditions detrimental to the proper and timely completion of the Work.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.
- C. Discrepancies: In the event of discrepancies in other trade's work, immediately notify the Architect, and do not proceed with installation until discrepancies have been corrected.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Install accessories securely anchored to substrate; coordinate with work of other Sections for framing of openings and installation of blocking.
- B. Install accessories after all other adjacent finishes are completed using only workmen skilled in this category to install the various items; exercise care to avoid damage to other trades' work; be responsible for damage during performance of this work.
- C. Mount accessories in locations and elevations as indicated on the Drawings. Where elevation is not indicated, mount at the minimum elevation recommended by the manufacturer.
- D. Install accessories in strict accordance with recommendations of manufacturer, using concealed fasteners insofar as practical.
- E. Install accessories plumb and level; leave in clean and polished condition.

3.4 ADJUSTING AND CLEANING

- A. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- B. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- C. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1- GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Fire extinguishers
 - 2. Fire extinguisher cabinets
 - 3. Accessories
- B. Related Sections
 - 1. 06 10 00 – Rough Carpentry
 - 2. 06 20 00 – Finish Carpentry
 - 3. 09 21 16 – Gypsum Board Assemblies
 - 4. 09 91 00 – Painting

1.2 REFERENCES

- A. Comply with the requirements of Section 01 42 00 – References, and the following organizations:
 - 1. American Society of Testing and Materials (ASTM)
 - 2. National Fire Protection Association (NFPA)
 - 3. Seattle Fire Code
 - 4. Underwriter's Laboratories (UL)
 - 5. National Association of Architectural Metal Manufacturers (NAAM)
 - 6. Americans with Disabilities Act (ADA)
 - 7. (WAC)

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures
- B. Product Data: Submit manufacturer's standard literature for the following:
 - 1. Include rough-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type and materials, trim style, door construction, panel style, and materials.
 - 2. Extinguisher inventory list of all portable fire extinguishers for Owner inventory and Confidence Testing purposes. This list is to identify the type, rating, and location of each fire extinguisher by specific room number and location within the room. For corridors and large rooms, provide a wall orientation or other reference (i.e., Room 423, SE corner, or, Corridor 200k, by Room 211).
- C. Samples: Manufacturer's color charts showing full range of standard colors available for each finish indicated or exposed to view.

1.4 QUALITY ASSURANCE

- A. Standards Precedence: In case of conflict with published industry standards/specifications and the projection specifications, the one having the more stringent requirements shall govern.
- B. Organizations and Standards:
 - 1. ASTM C1048 Standard Specification for Heat-Treated Flat Glass
 - 2. Seattle Fire Code
 - 3. Seattle Fire Department Administrative Ruling 10.302
 - 4. WAC 51-10
 - 5. ADA
 - 6. NFPA 10
- C. Single-Source Responsibility: Obtain fire extinguishers, cabinets and accessories from one source and a single manufacturer.

- D. Regulatory Requirements: Comply with the requirements of Section. 01 41 00 – Regulatory Requirements
- E. Certification: UL Listed Products – Fire extinguishers UL listed and bear UL "Listing Mark" for type, rating, and classification of extinguisher.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Furnish products in accordance with Section 01 60 00 – Product Requirements.
- B. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- C. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.
- D. Handle materials in accordance with manufacturer's instructions.

1.6 SEQUENCING/SCHEDULING

- A. Comply with the scheduling requirements of Section 01 32 00 – Construction Progress Documentation.

1.7 PROJECT/SITE CONDITIONS

- A. Provide installation conditions in accordance with the manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of this specification, provide fire extinguishers by one of the following manufacturers:
 - 1. J.L. Industries
 - 2. Larsen's Manufacturing Company
- B. Subject to compliance with the requirements of this specification, provide fire extinguisher cabinets by one of the following manufacturers:
 - 1. J.L. Industries
 - 2. Larsen's Manufacturing Company
- C. Other manufacturers offering products that meet these requirements may submit product documentation to determine if it is an approved equal. Make submittal in accordance with Section 01 25 00 – Substitution Procedures.

2.2 EXTINGUISHERS

- A. General: Provide fire extinguishers throughout in quantity and type as required by the referenced standards and as indicated herein and on the drawings. Provide fire extinguisher cabinets where indicated. Provide a fire extinguisher for all fire extinguisher cabinets.
- B. Fire Extinguisher: Provide B500 ABC Dry Chemical Type: UL listed with UL listing mark for type and rating of extinguisher. UL-rated 2A – 10BC, 5-lb nominal capacity, in enameled aluminum container, for each cabinet.

2.3 CABINETS

- A. Cabinet Construction: Box with trim, frame, door, and hardware to suite cabinet type, trim style, and door style indicated. Weld joints and grind smooth. Miter and weld perimeter door frames.
 - 1. Fire-Rated Cabinets: UL listed
 - 2. Cabinet Mounting: Semi-recessed.
 - 3. Trim Style: One piece with corners mitered, welded, and ground smooth.
 - 4. Exposed Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge.
- B. Door Material and Construction: manufacturer's standard of material indicated, coordinated with cabinet types and trim.
 - 1. Enameled Steel: Hollow construction with tubular stiles.
 - 2. Door Glazing: Fully tempered float glass complying with ASTM C 1048, Condition A, Type 1, Quality q3, Kind FT, as follows: Class 1 (clear).
 - 3. Identify fire extinguisher in cabinet with "FIRE EXTINGUISHER" lettering applied to door. Provide lettering to comply with authorities having jurisdiction for letter style, color, size, spacing, and location.
- C. Door Style: Manufacturer's standard design.
 - 1. Full-Glass Panel: Float glass, 1/8 inch thick.
 - a. Silk-screen lettering or design.
- D. Door Hardware: Provide door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated. Provide lever handle with cam-action latch, or exposed or concealed door pull and friction latch. Provide concealed or continuous-type hinge permitting door to open 180 degrees.
- E. Cabinet Finishes: Comply with NAAMM "Metal Finishes Manual." Protect exposed finishes from damage by application of temporary strippable covering prior to shipment.
- F. Steel Cabinet Finishes: Solvent-clean surfaces to remove dirt, oil, grease, and other contaminants that could impair paint bond. Remove mill scale and rust from uncoated steel.
 - 1. Baked-Enamel Finish: Immediately after cleaning and pretreatment, apply a two-coat enamel finish consisting of prime coat and thermosetting topcoat. Comply with paint manufacturer's instructions for application and baking to achieve a minimum dry film thickness of 2.0 mils.
 - a. Color and Gloss: Manufacturer's standard COLOR. Paint the Exterior and Interior of cabinet except for surfaces indicated to receive another finish.

2.4 ACCESSORIES

- A. Brackets: Provide brackets for fire extinguishers designed to prevent accidental dislodge of extinguisher, of sizes required for type and capacity of extinguisher required.
- B. Wall Mount Signs:
 - 1. Provide wall mounted metal signs at 80 inches AFF for fire extinguishers in cabinets. Separate wall mounted signs shall be provided for all extinguishers located in cabinet regardless of cabinet signage available from the manufacturer.
 - 2. Sign colors and lettering: Double faced, flanged, aluminum, 12 inches high x 4 inches wide, fire extinguisher symbol, arrow, and red with white letters, which reads, "Fire Extinguisher."
 - 3. Wall mounted signs shall also be provided for other extinguishers in areas where the extinguisher may be obstructed from view during normal use of the facility. Provide permanent aluminum signs as appropriate for the application. Mount 80 inches AFF or as indicated herein.
- C. Service Tag: Provide each fire extinguisher with an identification tag indicating the month and year installed, year hydraulic tested, location of extinguisher, City Certification number, and space for inspector's initials.

PART 3 - EXECUTION

3.1 EXAMINATION:

- A. Prior to starting work, carefully inspect the work of other trades and the installation conditions. Confirm that the conditions meet the installation requirements. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the Work.
 - 1. Prior to installing insulation, carefully inspect and verify the completion of the installed work of other trades.
 - 2. Verify adjacent materials are dry and that building insulation may be installed in accordance with the original design and the manufacturer's recommendations.
- B. Do not begin installation until all unsatisfactory conditions have been resolved. Beginning work constitutes acceptance of conditions as satisfactory.
- C. Discrepancies: In the event of discrepancies in other trade's work, immediately notify the Architect, and do not proceed with installation until discrepancies have been corrected.
- D. Verify that mechanical and electrical services within walls have been installed and tested.

3.2 PREPARATION

- A. Prior to starting work, protect the surrounding areas and surfaces.
- B. Confirm that sufficient materials are stored on site to complete the space.

3.3 INSTALLATION

- A. Follow manufacturer's printed instructions. Install a height indicated, or at height to comply with applicable regulations of governing authorities. Prepare wall recesses for cabinets as required by type and size of cabinet and style of trim and to comply with manufacturer's instructions. Fasten mounting brackets and fire extinguisher cabinets to structure, square, and plumb.
- B. Installation of fire extinguishers at a standard mounting height of 48 inches above the finished floor (AFF) to the top of the extinguisher unless otherwise shown on the drawings. In no case shall the top of an extinguisher be higher than 60 inches AFF or the bottom of an extinguisher closer than 4 inches AFF per NFPA 10.
- C. Furnish fire extinguisher no sooner than 60 days, and no later than 14 days prior to scheduled substantial project completion.
- D. Securely fasten mounting brackets, fire extinguisher cabinets, signs, and other accessories to the structure square, plumb, and in compliance with the manufacturer's instructions.
- E. Install surface-mounted cabinets as indicated on drawings, or as directed herein.

3.4 ADJUSTING AND CLEANING

- B. During the execution of the work keep the premises in a neat, safe, and orderly condition. At the end of each working day, remove all refuse and dispose of it properly.
- C. Upon completion of this portion of the work, thoroughly broom clean all surfaces.
- D. Repair or replace or otherwise restore to new condition all items damaged by work of this section.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Kitchen appliances.
- B. Related Sections:
 - 1. Section 06 41 00 – Architectural Wood Casework

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturers information sheets indicating size, color, features, and operation.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the site in manufacturer's sealed packages with labels intact and seals unbroken.
- B. Store materials above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the requirements of these specifications, provide products by KitchenAid.
- B. Other manufacturers offering products that meet these requirements may submit product documentation for approval.

2.2 APPLIANCES

- A. Range: KitchenAid Model #KSEG950ESS Downdraft Side-In Electric Range
- B. Refrigerator: KitchenAid Model #KBBX104EPA Built-In Bottom Freezer Refrigerator, Panel Ready

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine job conditions and verify correct location of built-in framing, rough-in mechanical and electrical systems, cabinet configuration.
- B. Beginning installation indicates acceptance of existing conditions.

3.2 INSTALLATION

- A. Install appliances secure, plumb and square in accordance with the manufacturer's recommended methods.
- B. Attach securely to walls and cabinetry using appropriate anchorage devices.

3.3 CLEANING

- A. After completion of installation, clean and polish appliances. Replace any damaged parts as directed. Leave all work clean and free from defects.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Selective Clearing
 - 2. Grading
 - 3. Excavation for foundations
- B. Related Sections:
 - 1. Section 03 11 00 – Concrete Forming
 - 2. Section 32 13 00 – Paving

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.

1.3 QUALITY ASSURANCE

- A. Perform archaeological on-site monitoring while excavating for foundations and during any project related ground disturbing activities. Report any archaeological findings to the Owner immediately.

PART 2 - PRODUCTS

2.1 BACKFILL

- A. If on-site soils prove to be insufficient in quality to achieve sub-grade and compaction levels, imported fills may be accepted upon approval by the Owner.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine job conditions and verify correct grading and fill compaction.
- B. Beginning installation indicates acceptance of existing conditions.

3.2 GRADING

- A. Uniformly grade areas shown on the plans including transition areas.
- B. Final surface slope shall be such that no water stands on the surface.

3.3 EXCAVATION

- A. Excavate for the foundations to the depths shown on the plans.

3.3 CLEANING

- A. After completion of installation, clean all paving surfaces. Replace any damaged areas as directed. Leave all work clean and free from defects.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Unit Pavers
 - 2. Crushed Rock Paving

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit supplier's product information sheets for all products in work for this section.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Store materials on pallets or above ground and in original protective packages. Comply with manufacturer's instructions to prevent damage due to moisture, temperature, and contaminants.

PART 2 - PRODUCTS

2.1 CONCRETE PAVERS

- A. 24"x 24" concrete pavers, 2" thick, grey color

2.2 BEDDING SAND

- A. The bedding sand shall conform to the requirements of ASTM C 33 and be clean, naturally occurring sand free from deleterious or foreign materials.

2.3 GRAVEL PAVING

- A. 1/4" minus crushed rock, standard grey, with stabilizer binder blended per the manufacturer's instructions.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine job conditions and verify correct grading and fill compaction.
- B. Beginning installation indicates acceptance of existing conditions.

3.2 PAVER INSTALLATION

- A. Final surface shall be smooth and free from lipping between adjacent pavers, by greater than 1/16 inch.
- B. Final surface slope shall be such that no water stands on the surface.
- C. All joints between pavers shall be completely filled with sand to the bottom level of the chamfers.

3.3 GRAVEL INSTALLATION

- A. Place the crushed rock over the prepared subbase to the elevations shown on the drawings.
- B. Compact to an unyielding surface able to receive foot and wheelchair traffic.

3.3 CLEANING

- A. After completion of installation, clean all paving surfaces. Replace any damaged areas as directed. Leave all work clean and free from defects.

END OF SECTION