

**675 West Main St. Rochester, NY 14611**

**Renovations and Alterations to:**

**Units 16, 36 & 60 Bronson Court Rochester, New York 14608**

**Single Prime Contract**



**Architect’s Project No. 101-23 August 12, 2023**



**Peter L. Morse & Associates – Architects AIA**

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DIVISION 00 -PROCUREMENT AND CONTRACTING REQUIREMENTS 00 0000 by RHA

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**DIVISION 09 -FINISHES**

|  |  |
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# GENERAL

* 1. **RELATED DOCUMENTS**
     1. Drawings and general provisions of the Contract, including the General and Supplementary Conditions apply to this Section.

# SUMMARY

1. This Section includes the following:
   1. Work covered by the Contract Documents.
   2. Type of the Contract.
   3. Work phases.
   4. Work under other contracts.
   5. Products ordered in advance.
   6. Use of premises.
   7. Owner's occupancy requirements.
   8. Work restrictions.
   9. Specification formats and conventions.

# WORK COVERED BY CONTRACT DOCUMENTS

1. Project Identification:
   1. Project Location: Owner: Rochester Housing Authority
   2. Project Location: 36 & 60 Bronson Ct., Rochester, NY 14608
   3. Owner's Representative: Julie Fox – Project Manager, RHA.
2. Architect: Peter L. Morse & Associates – Architects AIA
3. In paragraph and first subparagraph below, include an abbreviated summary of the Work for Project described above. See Evaluations.
4. The Work consists of the following:
   1. The Work includes
      1. Complete interior remodel work area per drawings and specs, of the first floor of the Kitchen and Bathroom of the residence with preservation of existing incoming electrical, plumbing, with modifications for new connections as noted on plans.

# TYPE OF CONTRACT

* + 1. Project will be constructed under a single contract.
       1. Construction’ with all new Mechanical/ Plumbing/ Electrical systems as specified.

# WORK PHASES

* + 1. Before commencing Work of each phase, submit a schedule showing the sequence, commencement and completion dates, and move-out and -in dates of RHA's personnel for all phases of the Work.

# WORK UNDER OTHER CONTRACTS

* + 1. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.

# USE OF PREMISES

* + 1. General: Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
    2. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
       1. Limits: Confine constructions operations to fifty feet around the perimeter of the work area.
       2. Owner Occupancy: Allow for RHA’s staff and the Architect’s representative inspection of Project site. Keep general public away from the Project site by securing the site with temporary fencing.
       3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
          1. Schedule deliveries to minimize use of driveways and entrances.
    3. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

# OWNER'S OCCUPANCY REQUIREMENTS

* + 1. Full Owner Occupancy: RHA will occupy this home only after construction has been completed and to the satisfaction of the staff. Cooperate with RHA during construction operations for inspections of the work.
       1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from RHA and authorities having jurisdiction.
       2. Provide not less than 24 hours’ notice to RHA of activities that will affect RHA operations.
    2. Subparagraphs below describe procedures and requirements necessary before partial occupancy of portions of Project.
       1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
       2. Obtain a Certificate of Occupancy from authorities having jurisdiction before occupancy.
       3. Before partial Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of building.
       4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

# WORK RESTRICTIONS

* + 1. On-Site Work Hours: Work shall be generally performed inside the existing building during normal business working hours of 7 a.m. to 5 p.m., Monday through Friday except otherwise indicated.
       1. Weekend Hours: With RHA approval.
       2. Early Morning Hours: 7 am.
       3. Hours for Utility Shutdowns: as necessary.
    2. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
       1. Notify the RHA representative not less than four days in advance of proposed utility interruptions.
       2. Do not proceed with utility interruptions without their written permission.

# SPECIFICATION FORMATS AND CONVENTIONS

* + 1. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
       1. Section Identification: The Specifications use Section numbers and titles to help cross- referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
       2. Division 1: Section 1 in Division 1 govern the execution of the Work of all Sections in the Specifications.
    2. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
       1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
          1. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

# MISCELLANEOUS PROVISIONS PART 2 - PRODUCTS (Not Used)

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION 011000**

**UNIT PRICES SECTION 01 2200**

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Measurement and Payment.
     2. Related Sections:
        1. Individual specification sections.
  2. UNIT PRICES
     1. Provide unit prices for items listed, for inclusion in Contract, guaranteed to apply for duration of Project.
     2. Take measurements and compute quantities.
     3. Payment includes full compensation for all required labor, Products, tools, equipment, plant, transportation, services, and incidentals, and for erection, application, or installation of an item of the Work.
     4. Adjustments to Contract Sum will be made by Change Order based on net cumulative change for each item of the Work.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

* 1. UNIT PRICE SCHEDULE
     1. The Contractor shall provide the UNIT PRICES for items below with the bid submission. Include in the amount of the UNIT PRICES, all labor, material, products, tools, equipment, plant and facilities, transportation, services and incidentals, erection, application or installation of the item of work, overhead and profit. The Base Bid of the contract shall include all work associated with the assumed quantities indicated below. If it is determined that quantities less than total replacement are required at the end of the contract, then the contract amount shall be reduced in accordance with the associated unit prices via a change order.

Unit Prices The unit prices will be used to determine the actual value of the work that may or may not be necessary to complete the project and not for awarding the contract.

* + 1. Unit Price No. 1 – T/B/D 1

END OF SECTION

# SECTION 01 2500

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Product Substitution Procedures.
  2. GENERAL
     1. Definition: Proposal by Contractor to use manufacturer, product, material, or system different from one required in Contract Documents.
     2. Do not substitute Products unless a substitution request has been approved by Architect.
     3. Substitutions during Bidding: Not allowed.
     4. Architect will consider substitution requests within 5 days after award of Contract. After the initial 5 day period, substitutions requests will not be considered.
     5. In case of non-availability of a specified Product notify Architect in writing as soon as non-availability becomes apparent.
  3. SUBSTITUTION REQUESTS
     1. Submit substitution requests on copy of form bound into Project Manual.
     2. Document specified product and proposed substitution with complete data, including:

1. Product identification, including name and address of manufacturer.
2. Product description, performance and test data, and reference standards.
3. Sample, if requested.
4. Description of any anticipated effect that acceptance of proposed substitution will have on Progress Schedule, construction methods, or other items of Work.
5. Description of any differences between specified product and proposed substitution.
6. Difference in cost between specified product and proposed substitution.
   * 1. Burden of proof for substantiating compliance of proposed substitution with Contract Document requirements remains with Contractor.

# SECTION 01 2500

* + 1. A request constitutes a representation that the Contractor:

01 2500-1

1. Has investigated the proposed Product and determined that it meets or exceeds the quality level of the specified Product.
2. Will provide the same warranty for the substitution as for the specified Product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to RHA.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
   * 1. Substitutions will not be considered if:
5. They are indicated or implied on Shop Drawings or other submittals without submittal of a substitution request.
6. Approval will require substantial revision of Contract Documents without additional compensation to Architect.
   * 1. Submit one paper bound copy and one electronic in Adobe PDF format.
     2. Architect will notify Contractor of approval or rejection of each Substitution Request. Approved Substitutions will be incorporated into Contract by Change Order or Construction Change Directive.

# PART 2 PRODUCTS

Not used

# PART 3 EXECUTION

Not used

END OF SECTION

# SECTION 01 2500

**01 2519-2**

DOCUMENT 01 2519 -SUBSTITUTION REQUEST FORM

DATE:

TO:

ATTENTION:

PROJECT:

We submit for your consideration the following product as a substitution for the specified product: Section No. Paragraph

Specified Product

Proposed Substitution:

Reason for Substitution:

Product Data: Attach complete technical data for both the specified product and the proposed substitution. Include information on changes to Contract Documents that the proposed substitution will require for its proper installation. Samples: Attached Will be furnished upon request Does the substitution affect dimensions shown on Drawings? No Yes (explain)

# SECTION 01 2519-2

Effects of proposed substitution on other Work:

01 2519-1 Substitution Request Form

Manufacturer's warranties of the proposed substitution are: Same Different (explain)

Maintenance service and spare parts are available for proposed substitution from

Previous installations where proposed substitution may be seen: Project: Project:

Owner: Owner: Architect: Architect: Date Installed: Date Installed:

Cost savings to be realized by RHA, if proposed substitution is approved: Change to Contract Time, if proposed substitution is approved: No Change Add days Deduct

days

Submittal constitutes a representation that Contractor has read and agrees to the provisions of Section 01 2500.

Submitted by Contractor:

Signature

Firm

# SECTION 01 2519-2

Substitution Request Form 01 2519-2 For Use by Architect:

Based on the information supplied by the Contractor, the Architect has reviewed the proposed substitution on the basis of design concept of the Work and conformance with information given in Contract Documents.

Approved Approved as Noted Rejected

Submit Additional Information:

By: Date:

# SECTION 01 2519-2

**SECTION 012600 - CONTRACT MODIFICATION PROCEDURES PART 1 - GENERAL**

* 1. **SUMMARY**
     1. Section includes administrative and procedural requirements for handling and processing Contract modifications.

# MINOR CHANGES IN THE WORK

* + 1. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions" or similar form.

# PROPOSAL REQUESTS

* + 1. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
       1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
       2. Within time specified in Proposal Request or 7 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
          1. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
          2. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
          3. Include costs of labor and supervision directly attributable to the change.
          4. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
          5. Quotation Form: Use forms acceptable to Architect.
    2. Contractor-Initiated Work Change Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
       1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
       2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
       3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

|  |  |  |
| --- | --- | --- |
|  | | 1. Include costs of labor and supervision directly attributable to the change. 2. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time. 3. Comply with requirements in this section if the proposed change requires substitution of one product or system for product or system specified. 4. Work Change Proposal Request Form: Use form acceptable to Architect. |
| **1.4** |  | **CHANGE ORDER PROCEDURES** |
|  | A. | On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701. |
| **1.5** |  | **CONSTRUCTION CHANGE DIRECTIVE** |
|  | A. | Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.  1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time. |
|  | B. | Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.  1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract. |

# PART 2 - PRODUCTS (Not Used) PART 3 - EXECUTION (Not Used)

**END OF SECTION 012600**

**PART 1 GENERAL**

* 1. **SUMMARY**

A. Section Includes:

1. Project coordination.
2. Administrative and Supervisory Personnel.
3. Coordination drawings.
4. Preconstruction conference.
5. Project meetings.

# B: Related Sections: Asbestos and PCB report by RHA

* 1. **PROJECT COORDINATION**

1. All submittals shall be made upon contract award. No work shall start without shop drawings and submittals made and approved.
2. Coordinate scheduling, submittals, and work of various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
3. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
4. Coordinate space requirements and installation of mechanical and electrical items that are indicated diagrammatically on Drawings.
   1. Follow routing shown as closely as practical; place runs parallel with building lines.
   2. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
5. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
6. Coordinate completion and cleanup of work of separate Sections in preparation for Substantial Completion.
7. After Owner occupancy, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

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# ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. The contractor shall provide a full time project superintendent for the duration of the project. No work by a subcontractor shall be performed without the prime contractor’s superintendent on site.

# COORDINATION DRAWINGS

A. MEP Coordination Drawings: Not applicable.

# PROJECT MEETINGS

1. RHA will schedule and administer the preconstruction conference. Pre-installation conferences are the responsibility of the contractor.
2. All meetings will be held at the project site, with the exception of the preconstruction meeting, which will be held at 495 Upper Falls Boulevard.
3. The Architect will record significant proceedings and decisions at each meeting; reproduce and distribute copies to parties in attendance and others affected by proceedings and decisions made.

# PRECONSTRUCTION CONFERENCE

1. The preconstruction conference will be scheduled by the RHA, at which time, the notice to proceed will be issued. It will be held at RHA, 495 Upper Falls Boulevard.
2. Attendance:
   1. Prime contractor.
   2. RHA Procurement Department.
   3. RHA Construction Manager.
3. Review and Discuss:
   1. Relation and coordination of various parties, and responsible personnel for each party.
   2. Use of premises, including office and storage areas, temporary controls, and security procedures.
   3. Construction schedule and critical work sequencing.
   4. Processing of:
      1. Contract modifications.
      2. Shop Drawings, Product Data, and Samples.
      3. Applications for Payment.
      4. Substitutions.
      5. Other required submittals.
   5. Adequacy of distribution of Contract Documents.
   6. Procedures for maintaining contract closeout submittals.
   7. Installation and removal of temporary facilities.
   8. Notification procedures and extent of testing and inspection services.

# PROGRESS MEETINGS

1. Schedule for progress meetings will be every other week.
2. Location: At the project site.
3. Attendance:
   1. Contractor.
   2. Owner.
   3. Architect and consultants as appropriate to agenda.
   4. Subcontractors and suppliers as appropriate to agenda.
   5. Others as appropriate to agenda.
4. Review and Discuss:
   1. Work progress since previous meeting, including:
      1. Field observations, deficiencies, conflicts, and problems.
      2. Schedule, progress and completion date.
      3. Corrective measures needed to maintain quality standards, progress, and completion date.
   2. Status of:
      1. Requests for information.
      2. Submittals.
      3. Contract modifications.
   3. Coordination between various elements of Work.
   4. Maintenance of Project Record Documents.

# PRE-INSTALLATION CONFERENCES

1. Where required in individual specification Section, convene a pre-installation conference at project site or other designated location.
2. Require attendance of parties directly affecting or affected by work of the specific Section.
3. Review conditions of installation, preparation and installation procedures, and coordination with related work.

# PART 2 PRODUCTS

Not used

# PART 3 EXECUTION

Not used

END OF SECTION

# PART 1 GENERAL

* 1. SUMMARY

1. Section Includes:
   1. Submittal procedures, **Procore management software.**
   2. Proposed Products list.
   3. Submittal schedule.
   4. Shop Drawings.
   5. Product Data.
   6. Samples.
   7. Quality control submittals.
2. Related Sections:
   1. Section 01 4000 - Quality Requirements.
   2. SUBMITTAL PROCEDURES
3. Number each submittal with Project Manual section number and a sequential number within each section. Number re-submittals with original number and an alphabetic suffix.
4. Identify Project, Contractor, Subcontractor or supplier, pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.
5. Submit all submittals in Adobe PDF format using:
   1. Procore management software.
6. Architect will not review incomplete submittals.
7. Apply Contractor’s stamp, signed or initialed certifying that:
   1. Submittal was reviewed.
   2. Products, field dimensions, and adjacent construction have been verified.
   3. Information has been coordinated with requirements of Work and Contract Documents.
8. Schedule submittals to expedite the Project and deliver to Architect. Coordinate submittal of related items.
9. For each submittal, allow 5 days for Architect’s review, excluding delivery time to and from Contractor.
10. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.
11. Revise and resubmit submittals when required; identify all changes made since previous submittal.
12. Distribute copies of reviewed submittals to concerned parties and to Project Record

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Documents file. Instruct parties to promptly report any inability to comply with provisions.

# PROPOSED PRODUCTS LIST

1. Within 7 days after date of Notice to Proceed, submit a complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
2. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
3. Submit electronically in Adobe PDF format.

# SUBMITTAL SCHEDULE

1. Within 7 days after date of Notice to Proceed, submit all shop drawings and submittals, including submittals listed as:
   1. Submittals for Review.
   2. Quality Control Submittals.
   3. Closeout Submittals.
2. Include for each submittal:
   1. Specification section number.
   2. Description of submittal.
   3. Type of submittal.
   4. Anticipated submittal date.
   5. For submittals requiring Architect’s review, date reviewed submittal will be required from Architect.
3. Submit electronically in Adobe PDF format.

# SHOP DRAWINGS

1. Present information in clear and thorough manner.
2. Identify details by reference to sheet and detail numbers or room numbers shown on Drawings.
3. Submit required project submittals electronically in Adobe PDF format using **Procore management software.**

# PRODUCT DATA

1. Mark to identify applicable products, models, options, and other data.
2. Supplement manufacturers' standard data to provide information unique to this Project.
3. Submit electronically in Adobe PDF format using **Procore management software.**

Architect will reply in kind.

# SAMPLES

1. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
2. Where so indicated, submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Architect's selection.
3. Include identification on each sample, with full Project information. Unless otherwise specified in individual specifications, submit two (2) of each sample.
4. Architect will notify Contractor of approval or rejection of samples, or of selection of color, texture, or pattern if full range is submitted.

# QUALITY CONTROL SUBMITTALS

A. Quality control submittals specified in Section 01 4000 are for information and do not require Architect’s responsive action except to require re-submission of incomplete or incorrect information.

# PART 2 PRODUCTS

Not used

# PART 3 EXECUTION

Not used

END OF SECTION

# SECTION 014000 - QUALITY REQUIREMENTS PART 1 - GENERAL

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

# DEFINITIONS

* + 1. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
    2. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
    3. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
    4. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
    5. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
    6. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
       1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
    7. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project;

being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

# CONFLICTING REQUIREMENTS

* + 1. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
    2. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

# REPORTS AND DOCUMENTS

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

payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

* 1. QUALITY ASSURANCE
     1. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
     2. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
     3. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
     4. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
     5. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
     6. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
        1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
     7. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
        1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
        2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
     8. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
     9. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
        1. Contractor responsibilities include the following:
           1. Provide test specimens representative of proposed products and construction.
           2. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
           3. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
           4. When testing is complete, remove test specimens, assemblies, and mockups; do not reuse products on Project.
        2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

# QUALITY CONTROL

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

# SPECIAL TESTS AND INSPECTIONS

* + 1. Special Tests and Inspections: Owner will engage a qualified testing agency and special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
       1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
       2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
       3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
       4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
       5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
       6. Retesting and reinspecting corrected work.

# PART 2 - PRODUCTS (Not Used) PART 3 - EXECUTION

* 1. **TEST AND INSPECTION LOG**
     1. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
        1. Date test or inspection was conducted.
        2. Description of the Work tested or inspected.
        3. Date test or inspection results were transmitted to Architect.
        4. Identification of testing agency or special inspector conducting test or inspection.
     2. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.
  2. REPAIR AND PROTECTION
     1. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
        1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
     2. Protect construction exposed by or for quality-control service activities.
     3. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

# END OF SECTION 014000

**SECTION 01 5000**

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:

1. Temporary utilities.
2. Field offices and sheds.
3. Temporary controls.
4. Protection of installed Work.
5. Security.
6. Progress cleaning.
7. Water, erosion, sediment, dust, and mold and mildew control.
8. Access roads and parking areas.
9. Removal.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

* 1. TEMPORARY ELECTRICITY
     1. The existing electrical system may be used during construction. Take care to prevent excess use. Excess use or waste will be billed back to the contractor.
     2. Provide temporary power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
     3. Maintain distribution s-system and provide routine repairs.
  2. TEMPORARY LIGHTING
     1. Provide temporary lighting for construction and security purposes.
     2. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
     3. Maintain lamps and provide routine repairs.

# SECTION 01 5000

* + 1. Provide portable lights when required to provide minimum lighting levels necessary for specific work.
  1. TEMPORARY HEAT
     1. Use of existing furnaces will be allowed during construction up to substantial completion. Cleaning of duct shall be done at that time when the contract furnace is provided. Do not install the contract furnace until 5 days before substantial completion.
     2. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless otherwise indicated in individual specification sections.
  2. TEMPORARY VENTILATION
     1. Ventilate enclosed areas to facilitate curing of materials, disperse humidity, and prevent accumulations of dust, fumes, vapors, or gases.
     2. Provide temporary fan units as required to maintain clean air for construction.
     3. Existing ventilation equipment may not be used during construction.
  3. TEMPORARY TELEPHONE, FACSIMILE, AND COMPUTER SERVICES
     1. Contractor shall be accessible during normal business hours via mobile telephone with voice mail or an answering service.
     2. Provide plain paper facsimile machine in Contractor’s field office [on separate telephone line from Contractor’s field telephone.
  4. TEMPORARY WATER
     1. Use of existing water will be allowed during construction. Excess use or waste will be billed back to the contractor.
     2. Protect from freezing.
  5. TEMPORARY SANITARY FACILITIES
     1. Provide chemical toilets for use during construction.

# SECTION 01 5000

* + 1. Existing toilets may not be used during construction.
    2. Permanent toilets may not be used during construction.
  1. FIELD OFFICES AND SHEDS
     1. Field offices are not required.
     2. Do not unreasonably encumber site or premises with excess materials or equipment.
     3. Temporary Structures:

1. Portable or mobile buildings, structurally sound, weathertight, with floors raised above ground.
2. Thermal transmission resistance: Compatible with occupancy and storage requirements.
3. Provide connections for utility services when required.
4. Provide steps and landings at entrances.
   1. BARRIERS
      1. Provide barriers to prevent unauthorized entry to protect construction operations.
      2. Provide barricades required by governing authorities for public right-of-ways and for public access to existing facilities.
      3. Fencing (as/if required):
5. Provide temporary fencing for construction operations.
6. Construction: Commercial grade chain link.
7. Height: 6 feet.
8. Locate to protect construction operations, materials, and equipment.
9. Provide vehicular and pedestrian gates.
   * 1. Tree and Plant Protection:
        1. Provide as required for existing trees and plantings.

# SECTION 01 5000

* 1. EXTERIOR CLOSURES
     1. Provide temporary weathertight closures for exterior openings to provide acceptable interior working conditions, to allow for temporary heating and maintenance of ambient temperatures required in individual specification sections, to protect the Work, and to prevent entry of unauthorized persons.
     2. Provide access doors with locking hardware.
  2. PROTECTION OF INSTALLED WORK
     1. Protect installed work from construction operations; provide special protection when required in individual specification sections.
     2. Minimize traffic, storage, and construction activities on roof surfaces. If traffic, storage, or activity is necessary, obtain recommendations for protection from roofing manufacturer.

01 5000-3 Temporary Facilities and Controls

* + 1. Prohibit traffic from landscaped areas.
  1. SECURITY
     1. Provide a project security program, to:

1. Protect the Work, stored products, and construction equipment from theft and vandalism.
2. Prevent entry by unauthorized persons.
   1. PROGRESS CLEANING
      1. Maintain areas free from waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
      2. Provide containers for collection of waste materials, debris, and rubbish; remove and dispose of off-site as required by construction activities.
      3. Periodically clean interior areas to provide suitable conditions for finish work.
   2. TEMPORARY CONTROLS
      1. Water Control: N/A

# SECTION 01 5000

* + 1. Erosion and Sediment Control: N/A
    2. Dust Control:
       1. Provide dust control materials and methods to minimize dust from construction operations. Prevent dust from dispersing into atmosphere.
  1. ACCESS ROADS AND PARKING AREAS
     1. Existing roads designated by Owner may be used for construction purposes. Do not allow heavy vehicles or construction equipment in parking areas.
     2. Provide for access by emergency vehicles.
     3. Keep fire hydrants and water control valves free from obstruction and accessible for use.
     4. Provide parking facilities for construction personnel. When parking needs exceed on site capacity, provide additional off-site facilities.
     5. Maintain existing construction and restore to original or specified condition at completion of Work.

Temporary Facilities and Controls 01 5000-4

* 1. REMOVAL
     1. Remove temporary utilities, equipment, facilities, and services when construction needs can be met by use of permanent construction or upon completion of Project.
     2. Remove foundations and underground installations; grade site as indicated.
     3. Clean and repair damage caused by installation or use of temporary work.
     4. Restore existing and permanent facilities used during construction to original or to specified condition.

END OF SECTION

# SECTION 01 5000

**PART 1 - GENERAL**

* 1. **SUMMARY**
     1. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

# DEFINITIONS

* + 1. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
       1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
       2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
       3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
    2. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

# ACTION SUBMITTALS

* + 1. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
       1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
          1. Form of Approval: As specified in Section 013300 "Submittal Procedures."
          2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
    2. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

# QUALITY ASSURANCE

* + 1. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

# PRODUCT DELIVERY, STORAGE, AND HANDLING

* + 1. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
    2. Delivery and Handling:
       1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
       2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
       3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
       4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
    3. Storage:
       1. Store products to allow for inspection and measurement of quantity or counting of units.
       2. Store materials in a manner that will not endanger Project structure.
       3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
       4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
       5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
       6. Protect stored products from damage and liquids from freezing.

# PRODUCT WARRANTIES

* + 1. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
       1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
       2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
    2. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
       1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
       2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
       3. Refer to other Sections for specific content requirements and particular requirements for submitting special warranties.
    3. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

# PART 2 - PRODUCTS

* 1. **PRODUCT SELECTION PROCEDURES**
     1. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
        1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
        2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
        3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
        4. Where products are accompanied by the term "as selected," Architect will make selection.
        5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
     2. Product Selection Procedures:
        1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
        2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
        3. Products:
           1. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered unless otherwise indicated.
           2. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
        4. Manufacturers:
           1. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered unless otherwise indicated.
           2. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
        5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
     3. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
        1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
     4. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

# COMPARABLE PRODUCTS

* + 1. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
       1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
       2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
       3. Evidence that proposed product provides specified warranty.
       4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
       5. Samples, if requested.

# PART 3 - EXECUTION (Not Used)

**END OF SECTION**

**PART 1 - GENERAL**

* 1. **SUMMARY**
     1. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
        1. Construction layout.
        2. Installation of the Work.
        3. Progress cleaning.
        4. Starting and adjusting.
        5. Protection of installed construction.
        6. Correction of the Work.

# INFORMATIONAL SUBMITTALS

* + 1. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
    2. Certified Surveys: Submit two copies signed by land surveyor.

# QUALITY ASSURANCE

* + 1. Land Surveyor Qualifications: If required, a professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land- surveying services of the kind indicated.

# PART 2 - PRODUCTS

* 1. **MATERIALS**
     1. General: Comply with requirements specified in other Sections.

# PART 3 - EXECUTION

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

# PREPARATION

* + 1. Existing Utility Information: Furnish information to local utility to Moziac that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
    2. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
    3. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
    4. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

# CONSTRUCTION LAYOUT

* + 1. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
    2. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
       1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
       2. Establish limits on use of Project site.
       3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
       4. Inform installers of lines and levels to which they must comply.
       5. Check the location, level and plumb, of every major element as the Work progresses.
       6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
    3. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
    4. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

# INSTALLATION

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

items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

* + 1. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
    2. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

# PROGRESS CLEANING

* + 1. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
       1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
       2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
       3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    2. Site: Maintain Project site free of waste materials and debris.
    3. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
       1. Remove liquid spills promptly.
       2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
    4. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
    5. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
    6. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
    7. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
    8. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
    9. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
    10. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

# STARTING AND ADJUSTING

* + 1. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
    2. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
    3. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
    4. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements"

# PROTECTION OF INSTALLED CONSTRUCTION

* + 1. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
    2. Comply with manufacturer's written instructions for temperature and relative humidity.

# END OF SECTION

**PART 1 - GENERAL**

* 1. **DESCRIPTION**

1. Contractor and their subcontractors shall be responsible for doing his own cutting and patching.
2. Execute cutting, fitting or patching work as required to:
   1. Make several parts fit properly.
   2. Uncover work to provide for installation of ill-timed work.
   3. Remove and replace defective work.
   4. Remove and replace work not conforming to requirements of Contract Documents.
   5. Remove samples of installed work as specified for testing.
   6. Install specified work in existing construction.
   7. Removed sample to verify existing conditions and or materials to be replaced.
3. In addition to Contract Requirements, upon written instructions of Architect:
   1. Uncover work to provide for Architect’s observation of covered work.
   2. Remove samples of installed materials for testing.
   3. Remove work to provide for alteration of existing work.
4. Do not endanger any work by cutting or altering work or any part of it.
5. Do not cut, or alter work of another contractor, or subcontractor without permission of said contractor or written consent or architect, or unless otherwise noted in the contract documents.

# SUBMITTALS

1. Prior to cutting which affects structural safety or Project or work of another contractor, submit written notice to architect requesting consent to proceed with cutting, including:
   1. Identification of Project
   2. Description of affected work.
   3. Necessary for cutting.
   4. Effect on other work, on structural integrity of Project.
   5. Description of proposed work; designate:
      1. Scope of cutting and patching.
      2. Products proposed to be used.
      3. Extent of refinishing.
2. Prior to cutting and patching done on instruction of architect, submit cost estimate if work in not a part of the contract agreement.

# PART 2 - PRODUCTS

**2.01 MATERIALS**

1. For replacement of work removed, comply with specifications for type of work to be done.
2. Where no materials for replacement are specified, submit to architect written notice of similar and/or compatible material which contractor intends to use for approval prior to commencement of the work.

# PART 3 - EXECUTION

* 1. **INSPECTION**

1. Inspect existing conditions of work, including elements subject to movement or damage during cutting and patching.
2. After uncovering work, inspect conditions affecting installation of new products.

# PREPARATION

1. Prior to cutting:
   1. Provide shoring, bracing, and support as required to maintain structural integrity of project.
   2. Provide protection for other portions of the project.
   3. Provide protection from the elements.

# PERFORMANCE

1. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances and finishes.
2. Execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation of repairs and new work.
3. Restore work which has been cut or removed; install new products to provide complete work in accordance with requirements of Contract Documents.
4. Refinish entire surfaces, to the nearest intersections.

# END OF SECTION

**PART 1 - GENERAL**

|  |  |  |
| --- | --- | --- |
| **1.1** |  | **RELATED DOCUMENTS** |
|  | A. | Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section. |
| **1.2** |  | **SUMMARY** |
|  | A. | This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following: |
|  |  | 1. Inspection procedures. 2. Warranties. 3. Final cleaning. |
| **1.3** |  | **SUBSTANTIAL COMPLETION** |
|  | A. | Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request. |
|  |  | 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete. 2. Advise Owner of pending insurance changeover requirements. 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents. 4. Obtain and submit releases permitting RHA unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases. 5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs damage or settlement surveys, property surveys, and similar final record information. 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable. 7. Make final changeover of permanent locks and deliver keys to RHA. Advise RHA personnel of changeover in security provisions. 8. Complete startup testing of systems. 9. Submit test/adjust/balance records. 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements. |

* + 1. Submit changeover information related to RHA's occupancy, use, operation, and maintenance.
    2. Complete final cleaning requirements, including touchup painting.
    3. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
  1. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
     1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
     2. Results of completed inspection will form the basis of requirements for Final Completion.

# FINAL COMPLETION

* + 1. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
       1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
       2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
       3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
       4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
    2. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, the Contractor, RHA or the Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
       1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

# LIST OF INCOMPLETE ITEMS (PUNCH LIST)

* + 1. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
       1. Organize list of spaces in sequential order,
       2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
       3. Include the following information at the top of each page:
          1. Project name.
          2. Date.
          3. Name of Architect
          4. Name of Contractor.
          5. Page number.

# WARRANTIES

* + 1. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
    2. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
    3. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
       1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
       2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
       3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
    4. Provide additional copies of each warranty to include in operation and maintenance manuals.

# PART 2 - PRODUCTS

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

# PART 3 - EXECUTION

* 1. **FINAL CLEANING**
     1. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
     2. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
        1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
           1. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
           2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
           3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
           4. Remove tools, construction equipment, machinery, and surplus material from Project site.
           5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
           6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
           7. Sweep concrete floors broom clean in unoccupied spaces.
           8. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
           9. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
           10. Remove labels that are not permanent.
           11. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.

* + - * 1. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
        2. Replace parts subject to unusual operating conditions.
        3. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
        4. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
        5. Clean ducts, blowers, and coils if units were operated without filters during construction.
        6. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
        7. Leave Project clean and ready for occupancy.
    1. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

# END OF SECTION

**SECTION 017839 - PROJECT RECORD DOCUMENTS PART 1 - GENERAL**

|  |  |  |
| --- | --- | --- |
| **1.1** |  | **SUMMARY** |
|  | A. | Section includes administrative and procedural requirements for project record documents, including the following:   1. Record Drawings. 2. Record Specifications. 3. Record Product Data. |
| **1.2** |  | **CLOSEOUT SUBMITTALS** |
|  | A. | Record Drawings: Comply with the following: |

* + - 1. Number of Copies: Submit copies of record Drawings as follows:
         1. Submit PDF electronic files of scanned record prints and three set(s) of paper prints.

1. Record Specifications: Submit one paper copy of Project's Specifications, including addenda and contract modifications.
2. Record Product Data: Submit PDF electronic files of scanned record product data and one set of paper copy.

# PART 2 - PRODUCTS

* 1. **RECORD DRAWINGS**
     1. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
        1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
           1. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
           2. Record data as soon as possible after obtaining it.
           3. Record and check the markup before enclosing concealed installations.
        2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
        3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
        4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
     2. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
        1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
        2. Identification: As follows:
           1. Project name.
           2. Date.
           3. Designation "PROJECT RECORD DRAWINGS."
           4. Name of Architect.
           5. Name of Contractor.

# RECORD SPECIFICATIONS

* + 1. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
       1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
       2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
       3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
       4. Note related Change Orders, record Product Data, and record Drawings where applicable.

# RECORD PRODUCT DATA

* + 1. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
       1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
       2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
       3. Note related Change Orders, record Specifications, and record Drawings where applicable.

# MISCELLANEOUS RECORD SUBMITTALS

* + 1. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

# PART 3 - EXECUTION

* 1. **RECORDING AND MAINTENANCE**
     1. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
     2. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

# END OF SECTION 017839

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Removal of designated building construction and roofing.
     2. Related Sections:

1. Division 01 -Administrative, procedural, and temporary work requirements.
2. Division 01 -Cutting and Patching.
3. Drawings - For additional requirements.
   1. SUBMITTALS
      1. Submittals for Review:
4. Shop Drawings: Indicate areas for demolition, removal sequence and location of salvageable items, and location and construction of temporary work.
5. Certifications of lead renovators’ compliance using Procore management software.
   1. REGULATORY REQUIREMENTS
      1. Conform to applicable code for demolition work, safety of structure, and dust control.
      2. Obtain required permits from authorities.
      3. Notify affected utility companies before starting work and comply with their requirements.
      4. Conform to applicable codes when hazardous or contaminated materials are discovered.
      5. Do not close or obstruct exits.
      6. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.

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* + 1. Comply with EPA’s Lead Renovators Certification Rules and Regulations.
  1. PROJECT CONDITIONS
     1. Minimize interference with streets, walks, public right-of-ways, and adjacent facilities.
     2. Asbestos containing materials are being removed prior to the start of construction. If asbestos or hazardous materials are discovered, notify the RHA and Architect and await instructions.
     3. If any of the following conditions are encountered, cease work immediately, notify Architect, and await instructions:

1. Structure is in danger of movement or collapse.
2. Materials or conditions encountered differ from those designated in the Contract Documents.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

* 1. PREPARATION
     1. Erect temporary partitions, barricades, warning devices, and controls.
     2. Provide protective coverings, shoring, bracing, and supports for construction designated to remain.
     3. Temporarily or permanently disconnect utilities as required.
  2. DEMOLITION
     1. Remove existing construction to extent indicated and as necessary for the installation of new work. Coordinate requirements with new construction. Do not remove more than is necessary to allow for new construction.
     2. Do not damage work designated to remain.
     3. Minimize noise and spread of dirt and dust.
     4. Assign work to trades skilled in procedures involved.
     5. Plug ends of disconnected utilities with threaded or welded caps.
     6. Protect and support active utilities designated to remain. Post warning signs showing location and type of utility and type of hazard.
     7. Store items designated to remain property of Owner where directed by Owner.
     8. Remove and dispose of waste materials off site on a daily basis.
  3. SALVAGED MATERIALS
     1. Remove and salvage the following:
        1. Existing window sash and screens (8 total) as directed by the RHA.
     2. Remove and re-install the following:
        1. Not applicable.

END OF SECTION

# SECTION 024200

**DISPOSAL OF NON- HAZARDOUS WASTE**

**PART 1 GENERAL**

* 1. **REFERENCES**
     1. Remove, and dispose of the materials in accordance with all applicable local and state governmental agency codes, rules, and regulations.

# DESCRIPTION

* + 1. Removal of all construction debris materials from the work area on a daily basis.
    2. Remove construction debris via Dumpster/ Roll off on a weekly basis.

# SUBMITTALS

* + 1. Detailed step by step procedure indicating how the Work is to be accomplished.

# QUALITY ASSURANCE

* + 1. Before the Work of this Section is scheduled to commence an RHA Representative shall discuss and review the Work procedures.

# PROJECT CONDITIONS

* + 1. Environmental Requirements:
       1. Comply with all applicable governmental agency codes, rules, and regulations for handling non-hazardous industrial, commercial and non- industrial waste.

# END OF SECTION

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# FRAMING AND SHEATHING

**PART 1 GENERAL**

* 1. **SUMMARY**
     1. Section Includes:
        1. Wall framing.
        2. Wood blocking and furring.
        3. Subfloor.
        4. Underlayment.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. See drawings for roof deck.

# REFERENCES

* + 1. American Wood Protection Association (AWPA) (www.awpa.com) U1 - Use Category System -User Specification for Treated Wood.
    2. ASTM International (ASTM) (www.astm.org):

1. A153/A153M -Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. A653/A653M -Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
3. E84 -Standard Test Method for Surface Burning Characteristics of Building Materials.
4. F593 -Standard Specification for Stainless Steel Bolts, Hex Cap Screws and Studs.
5. F1554 -Standard Specification for Anchor Bolts, Steel, 36, 55 and 105 KSI Yield Strength.
   * 1. Engineered Wood Association (APA) (www.apawood.org) PRP-108 -Performance Standards and Qualification Policy for Structural-Use Panels.
     2. Forest Stewardship Council (FSC) (www.fscus.org) STD-40-004 -Chain of Custody Standard.
     3. National Institute of Standards and Technology (NIST) (www.nist.gov) -Product Standard PS 20 -American Softwood Lumber Standard.
     4. Northeastern Lumber Manufacturers Association (NELMA) (www.nelma.org) -

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# FRAMING AND SHEATHING

Standard Grading Rules for Northeastern Lumber.

* + 1. National Lumber Grades Authority (NLGA) (www.nlga.org) -Standard Grading Rules for Canadian Lumber.
    2. Redwood Inspection Service (RIS) (www.calredwood.org) -Standard Specifications for Grades of California Redwood Lumber.
    3. Southern Pine Inspection Bureau (SPIB) (www.spib.org) -Standard Grading Rules for Southern Pine Lumber.
    4. West Coast Lumber Inspection Bureau (WCLIB) (www.wclib.org) -Standard Grading Rules for West Coast Lumber.
    5. Western Red Cedar Lumber Association (WRCLA) (www.wcrla.org) -Grading Rules.
    6. Western Wood Products Association (WWPA) (www.wwpa.org) G-5 -Western Lumber Grading Rules.

# SUBMITTALS

* + 1. Shop drawings or “written lists” indicating requirement for, and approximate locations of rough carpentry items, including furring, hanging strips, concealed blocking and reinforcing specified and as required by other Sections. Coordinate with, and provide as required, for toilet accessories, cabinetry, handrails, etc...

# QUALITY ASSURANCE

* + 1. Lumber Grading Agency: Certified to NIST PS 20.
    2. Identify lumber and panel products by official grade mark.
    3. Fire Retardant Treated Products: Bear label of recognized independent testing laboratory indicating flame spread rating of 25 or less, tested to ASTM E84.

# DELIVERY, STORAGE AND HANDLING

**FRAMING AND SHEATHING**

* + 1. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.
    2. Do not store seasoned or treated materials in damp location.
    3. Protect edges and corners of sheet materials from damage.

# PART 2 PRODUCTS

* 1. **MANUFACTURERS**
     1. N/A.

# MATERIALS

* + 1. Dimension Lumber:
       1. Grading rules: National Forest Products Association’s (NFPA) National Design Specifications (NDS).
       2. Species: #2 Hem-Fir. 3 Fb = 850 psi.

4 Fv = 150 psi.

5 E = 1,300 ksi.

1. Surfacing: Surfaced four sides (S4S) [unless otherwise indicated].
2. Maximum moisture content: 19 percent.
   * 1. Panel Products (Subfloor for patch only):

1 Type: APA Plywood.

* + - 1. Panel grade:
         1. Floor sheathing: APA Rated Sheathing.
      2. Exposure:
         1. Interior applications: Exposure 1.
      3. Thickness: 3/4-inch (Verify thickness at patch area).
    1. Panel Products (For underlayment):

1. Type: APA Plywood.
2. Panel grade:
   1. Floor sheathing: APA Rated Sheathing.
3. Exposure:

# FRAMING AND SHEATHING

* 1. Interior applications: Exposure 1.

1. Thickness: 1/4inch.

# ACCESSORIES

* + 1. Anchor Bolts: ASTM F1554.
    2. Fasteners:

1 Type and size: As required by conditions of use.

1. Exterior locations and treated products: Hot-dip galvanized steel, ASTM A153/A153M, G90 coating class or Stainless steel, ASTM F593, Type 304 or 316.
2. Other interior locations: Plain steel.
   * 1. Subflooring Adhesive:

1. Waterproof, water based, air cure type, in cartridge dispensers.

* + 1. Sill Gasket: N/A.
    2. Termite Shield: N/A.

# FABRICATION

* + 1. Preservative Treatment:

1. Treat lumber and panel products in accordance with AWPA U1:
   1. Interior locations protected from moisture sources: Category UC1 Interior/Dry.
   2. Interior locations subject to sources of moisture: Category UC2 Interior/Damp.
   3. Exterior locations above ground: Category UC3A -Above Ground/Protected.
   4. Exterior locations in contact with ground: Category UC4A -Ground Contact/General Use.
2. Treatment process: Type CCA - Chromated Copper Arsenate.
   * 1. Fire Retardant Treatment: N/A.

# FRAMING AND SHEATHING

**PART 3 EXECUTION**

* 1. **INSTALLATION**
     1. Set members level, plumb, and rigid.
     2. Make provisions for erection loads, and for temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
     3. Place beams, joists, and rafters with crown edge up.
     4. Construct load bearing framing members full length without splices.
     5. Sills: N/A.
     6. Joist Framing: N/A.
     7. Stud Framing:
        1. Provide single bottom plate and double top plates for load bearing partitions.
        2. Provide single bottom and top plates for non-load bearing partitions.
        3. Anchor bottom plates to concrete structure with anchor bolts, expansion fasteners or power-driven fasteners.
        4. Triple studs at corners and partition intersections.
        5. Anchor studs abutting masonry or concrete with toggle or expansion bolts.

6. Frame openings with double studs and headers. Space short studs over and under opening to stud spacing.

* + 1. Rafter Framing: N/A.
    2. Beams: N/A.
    3. Lumber and Composite Wood Decking: N/A.
    4. Roof Sheathing: N/A.
    5. Wall Sheathing: N/A.
    6. Floor Decking: N/A.

# FRAMING AND SHEATHING

* + 1. Subflooring (For patch only):

1. Install flooring underlayment after dust and dirt generating activities have ceased and prior to application of finished flooring.
2. Install building felt between floor decking and subflooring.
3. Apply perpendicular to decking, stagger joints of underlayment in adjacent rows.
4. Leave 1/8-inch expansion space at panel ends and edges.
5. Secure to supports with adhesive and screws spaced maximum 6 inches on center along edges and maximum 8 inches on center in field of panels.
   * 1. Underlayment (Throughout):
6. Nail or screw all subfloor which squeaks prior to start of underlayment.
7. Install flooring underlayment after dust and dirt generating activities have ceased and prior to application of finished flooring.
8. Apply perpendicular to subfloor, stagger joints of underlayment in adjacent rows.
9. Leave 1/8 inch expansion space at panel ends and edges.
10. Secure to supports with adhesive and screws spaced maximum 6 inches on center along edges and maximum 8 inches on center in field of panels.
11. Panel fasteners shall be 3d ring or screw shank nails.
12. Install per “APA Selection and Installation of Plywood Underlayment”.
    * 1. Provide blocking, nailers, grounds, furring, and other similar items required to receive and support work. Coordinate with, and provide as required, for toilet accessories, cabinetry and shelving.
      2. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.

# TOLERANCES

* + 1. Framing and Sheathing A. Framing Members: 1/8 inch from true position, maximum.
    2. Surface Flatness of Floor: 1/8 inch in 10 feet maximum.

END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Interior wood trim.
        2. Shop finishing (priming).
     2. Related Sections / Drawings:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Drawings: For trim and railing components.
   1. REFERENCES
      1. American Wood Protection Association (AWPA) (www.awpa.com) U1 - Use Category System -User Specification for Treated Wood.
      2. Architectural Woodwork Institute/Architectural Woodwork Manufacturers of Canada/Woodwork Institute (AWI/AWMAC/WI) (www.awinet.org) (www.awmac.com) (www.woodworkinstitute.com) -Architectural Woodwork Standards.
      3. ASTM International (ASTM) (www.astm.org) E84 -Standard Test Method for Surface Burning Characteristics of Materials.
      4. Forest Stewardship Council (FSC) (www.fscus.org) STD-40-004 -Chain of Custody Standard.
   2. SUBMITTALS
      1. Submittals for Review:
3. Shop Drawings:
   1. Include dimensioned plans, sections, elevations, and details, including interface with adjacent work.
   2. Designate wood species and finishes.
4. Samples: 6-inch-long samples of each profile.
   1. QUALITY ASSURANCE
      1. Mockups: Not applicable.

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* + 1. Pre-Installation Conference: Not applicable.
  1. DELIVERY, STORAGE AND HANDLING
     1. Do not deliver materials until proper protection can be provided, and until needed for installation.
  2. PROJECT CONDITIONS
     1. Environmental Requirements: Maintain following conditions in building for minimum 7 days prior to, during, and after installation of interior trim:

1. Temperature: 60 to 80 degrees F.
2. Humidity: 25 to 55 percent.

PART 2 PRODUCTS

* 1. MATERIALS
     1. Interior Trim:
        1. Grade and Species:
           1. Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 3 requirements for quality grade specified, average moisture content of 6 percent.
           2. Pine species, finger-jointed, of quality suitable for opaque finish.
        2. Style:
           1. Door Casing: Colonial, WM356, 11/16" x 2-1/4-inches.
           2. Window Apron: Colonial, WM356, 11/16" x 2-1/4-inches.
           3. Floor Base: Colonial, WM620, 9/16" x 4-1/4-inches.
           4. Handrail: See drawings.
  2. ACCESSORIES

1. Fasteners: Type and size as required by conditions of use; plain steel for interior use; hot dip galvanized steel for exterior use.
2. Adhesives:
   1. Waterproof type, compatible with trim materials.

2 FABRICATION

1. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 6, Custom Grade.
2. Where field fitting is required, provide ample allowance for cutting.

C Groove back of trim applied to flat substrate, except do not groove exposed ends.

1. Preservative Treatment: N/A.
2. Fire Retardant Treatment: N/A.
   1. FINISHES
      1. Factory Finishing: N/A.
         1. Provide manufacturers’ standard high hide water-based primer.
         2. Field prime all cut surfaces and back prime all concealed surfaces.

PART 3 EXECUTION

* 1. PREPARATION
     1. Prior to installation, condition wood to average humidity that will prevail after installation.
     2. Back prime all interior and exterior wood trim prior to installation.
  2. INSTALLATION
     1. Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.
     2. Install in longest practical lengths.
     3. Set plumb and level.
     4. Miter ends, corners, and intersections.
     5. Scribe to adjacent construction with maximum 1/8-inch gaps.
     6. Fasten to supporting construction. END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Batt insulation in walls, ceiling and roof assemblies.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 07 2119 -Foamed-In-Place insulation for wall insulation.
3. Refer to Insulation Schedule on Drawings for R-values.
   1. REFERENCES
      1. ASTM International (ASTM) (www.astm.org):
4. C665 -Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings.
5. E84 -Standard Test Method for Surface Burning Characteristics of Building Materials.
6. E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C.
   1. SUBMITTALS
      1. Quality Control Submittals:
         1. Certificates of Compliance: Certification from an independent testing laboratory that insulation meets fire hazard classification requirements.
   2. QUALITY ASSURANCE
      1. Fire Hazard Classification:
7. Noncombustible, tested to ASTM E136.
8. Flame spread/smoke developed rating of 25/50 or less, tested to ASTM E84.
   1. DELIVERY, STORAGE AND HANDLING
      1. Store insulation in clean, dry, sheltered area, off ground or floor, until used. Protect against wetting and moisture absorption.
   2. PROJECT CONDITIONS

A. Do not install insulation until building is substantially water and weather tight.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Owens Corning. (www.owenscorning.com)
        2. Johns Manville. (www.jm.com)
        3. Knauf Insulation. (www.knaufusa.com)
        4. Or approved equal.
  2. MATERIALS
     1. Thermal Batt Insulation:

1. Type: ASTM C665, glass fiber composition.
2. Unfaced: Friction fit, size per stud and bottom cord of truss spacing.
3. Faced: Kraft paper vapor barrier on one side with stapling flanges on both edges.
4. Thermal resistance:
   1. 3-1/2 (faced) in bottom cord and 12-inch thick (unfaced) on top of bottom cord of trusses. See drawing details.
   2. 3-1/2 (unfaced) in tenant separation wall.
   3. Refer to Schedule for high density (HD) type insulations.
   4. Refer to Schedule for R-values.
   5. ACCESSORIES
      1. Fasteners: Hot-dip galvanized steel staples, type best suited to application, minimum 5/8 inch penetration into framing.
      2. Attic Vents / Baffles: Raft-R-Mate attic rafter vent by Owens Corning or Durovent or approved equal.
      3. Vapor-Retarder Tape: Pressure-sensitive tape of type recommended by vapor retarder manufacturer for sealing joints and penetrations in vapor retarder.
      4. Impale Fasteners: Not applicable.
      5. Wire: Provide as/if required to support horizontal applications of friction fit insulation.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Butt insulation to adjacent construction. Butt ends and edges.
     2. Carry insulation around pipes, wiring, boxes, and other components.
     3. Ensure complete enclosure of spaces without voids.
     4. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor retarders with vapor-retarder tape to create an airtight seal between penetrating objects and vapor retarder. Repair any tears or punctures in vapor retarders immediately before concealment by other work. Cover with vapor-retarder tape or another layer of vapor retarder.
     5. Provide rafter vents / baffles in each rafter space around the perimeter of each building. Install in accordance with manufacturer’s instructions.

END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:

1. Foamed-in-place insulation in framed walls.
2. Foamed-in-place insulation at basement rim board to achieve a thermal and air seal.
   * 1. Related Sections:
        1. Division 01: Administrative, procedural, and temporary work requirements.
   1. REFERENCES
      1. ASTM International (ASTM) (www.astm.org):
3. C177 -Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
4. D5116 -Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products.
5. E84 -Standard Test Method for Surface Burning Characteristics of Building Materials.
   1. SUBMITTALS
      1. Submittals for Review:
         1. Product Data: Provide product description, insulation properties, and preparation requirements.
      2. Quality Control Submittals:
         1. Certificates of Compliance: Certification from an independent testing laboratory that insulation meets fire hazard classification requirements.
   2. QUALITY ASSURANCE
      1. Applicator Qualifications: Minimum 5 years documented experience in work of this Peter L Morse & Associates Rochester Housing Authority

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Section.

* + 1. Fire Hazard Classification: Maximum flame spread/smoke developed rating of 25/450, tested to ASTM E84.
  1. PROJECT CONDITIONS
     1. Do not install insulation when ambient temperature is below 70 degrees F.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Core Foam. (www.cfifoam.com)
        2. Demilec USA (www.demilecusa.com)
        3. NCFI Polyurethanes. (www.ncfi.com)
        4. Polymaster, Inc. (www.polymaster.com)
        5. Thermal Corp. of America. (www.thermcofoam.com)
        6. Or approved equal.
  2. MATERIALS
     1. Foamed-In-Place Insulation:

1. Type: Two component, plastic resin and catalyst, cold setting foam, closed cell.
2. R-value: Minimum 6.8 per inch at 75 degrees F, tested to ASTM C177 or ASTM C518.
3. No CFC or HCFC emissions and total formaldehyde emissions less than 1 percent, cured for 7 days and tested to ASTM D5116 for 24 hours.
   1. ACCESSORIES
      1. Thermal Barrier:

1. 1/2-inch gypsum wallboard.

PART 3 EXECUTION

* 1. PREPARATION
     1. Protect adjacent surfaces from accidental application.
  2. APPLICATION
     1. Apply insulation in accordance with manufacturer's instructions.
     2. Apply insulation by froth method, to uniform monolithic density without voids.
     3. Apply insulation to maximum lift thickness recommended by manufacturer, then allow heat to dissipate before applying additional lifts.
     4. Apply foamed-in-place insulation at basement rim boards to a thickness not-to-exceed

3-1/4-inch.

* 1. ADJUSTING
     1. Patch damaged areas.
  2. FIELD QUALITY CONTROL
     1. Testing and Inspection Services:
        1. Visually inspect installed insulation for:
           1. Uniform application.
           2. Adhesion.
           3. Shrinkage.
           4. Gaps, voids, and physical damage.

1. Perform thickness testing using calibrated probe, with minimum of one test per 500 square feet.
2. Take core samples at rate of one sample per 3000 square feet.

END OF SECTION

# SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Metal flashings and trim.
        2. Gutters and downspouts.
        3. Flashings at shingle roofing.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 07 3113 -Fiberglass-Based Asphalt Shingles.
3. Section 07 4633 -Plastic Siding.
4. Section 07 9200 -Joint Sealers.
   1. REFERENCES
      1. American Architectural Manufacturers Association (AAMA) (www.aamanet.org):
5. 611 -Voluntary Specification for Anodized Architectural Aluminum.
6. 621 -Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
7. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
8. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
   * 1. American National Standards Institute/Single Ply Roofing Institute (ANSI/SPRI) (www.spri.org) ES-1 -Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
     2. ASTM International (ASTM) (www.astm.org):
9. A653/A653M -Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
10. A666 -Standard Specification for Annealed or Cold-Worked Austenitic Stainless-Steel Sheet, Strip, Plate, and Flat Bar.
11. A755/A755M -Standard Specification for Steel Sheet, Metallic Coated by the Hot- Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed

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# SHEET METAL FLASHING AND TRIM

Building Products.

1. A792/A792M -Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy- Coated by the Hot-Dip Process.
2. B32 -Standard Specification for Solder Metal.
3. B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
4. B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
5. B506 - Specification for Copper-Clad Stainless-Steel Sheet and Strip for Building Construction.
6. B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.
   * 1. Copper Development Association (CDA) (www.copper.org) -Contemporary Copper, A Handbook of Sheet Copper Fundamentals, Design, Details and Specifications.
     2. Sheet Metal and Air Conditioning Manufacturer’s Association International (SMACNA) (www.smacna.org) -Architectural Sheet Metal Manual.
   1. SUBMITTALS
      1. Submittals for Review:

1 Shop Drawings: Show locations, types and thicknesses of metal, profiles, dimensions, fastening methods, provisions for expansion and contraction, and joint details.

* + - 1. Samples:
         1. Each flashing and trim profile, minimum 12-inches long. Include corners where applicable.
         2. 3 x 3 inch prefinished metal samples in specified color.
  1. QUALITY ASSURANCE
     1. Fabricator and Installer Qualifications: Minimum 5-years documented experience in work of this Section.
     2. Mockup: N/A

PART 2 PRODUCTS

* 1. MATERIALS
     1. Aluminum Sheet:

# SHEET METAL FLASHING AND TRIM

* + - 1. ASTM B209, alloy 3003, temper H14, 0.024-inch thick.
      2. Finish: Polyester enamel coating, color to be selected from manufacturer's full color range.
  1. ACCESSORIES
     1. Solder: ASTM B32.
     2. Fasteners: Aluminum, same material and finish as sheet metal.
     3. Joint Sealers: Specified in Section 07 9200.
  2. FABRICATION
     1. Fabricate components in accordance with [SMACNA Manual.] [CDA Handbook.]
     2. Profiles:

1. Gutters: “Ogee” Style.
   1. .032 gauge.

b. 3-1/2-inch by 5-1/2-inch.

1. Continuous type formed from aluminum rolls.
2. Concealed fastening system with screws.
3. Manufacturer standard end caps.
4. Strainers shall be wire basket type.
5. Downspouts: Rectangular shape.
   1. .019 gauge.
   2. 2-inch by 3-inch.
   3. U-clip supports.
   4. Elbows shall be .016 to match downspouts.
6. Base, Roof to Wall, Step and Other Flashings:
   1. .032 gauge.
   2. Hem all exposed edges.
   3. Size per drawing dimensions.
      1. Fabricate end caps, downspout outlets and headers, straps, brackets, and downspout strainers in profile to suit gutters and downspouts.
      2. Color to match existing at Bronson Court.
      3. Fabricate corners in single units with minimum 18-inch-long legs.
      4. Fabricate vertical faces with bottom edge formed outward 1/4-inch and hemmed to form

# SHEET METAL FLASHING AND TRIM

drip.

* + 1. Form sections accurate to size and shape, square and free from distortion and defects.

1. Provide for thermal expansion and contraction in sheet metal:
   1. Place expansion joints at maximum 50 feet on center.
   2. Locate expansion joints between downspouts; prevent water flow over joint.
2. Other sheet metal:
   1. Provide expansion joints in sheet metal exceeding 15 feet in running length.
   2. Place expansion joints at 10 feet on center maximum and maximum 2 feet from corners and intersections.
3. Joint width: Consistent with types and sizes of materials, minimum width 1/4- inch.
   * 1. Fabricate cleats and starter strips of same material as sheet metal.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Install flashing and sheet metal as indicated and in accordance with SMACNA Manual.
     2. Secure flashings with concealed fasteners where possible.
     3. Apply plastic cement between metal and bituminous flashings.
     4. Fit flashings tight, with square corners and surfaces true and straight.
     5. Seam and seal field joints.
     6. Separate dissimilar metals with bituminous coating or non-absorptive gaskets.
     7. Reglets: N/A
     8. Gutters: Secure with concealed fasteners spaced maximum 24-inches on center and within 12-inches of ends.

# SHEET METAL FLASHING AND TRIM

* + 1. Downspouts:
       1. Secure with straps spaced maximum 8-feet on center and within 2-feet of ends and elbows.
       2. Flash downspouts into gutters and fasten.
       3. Flash upper sections into lower sections minimum 2-inches at joints; fasten sections together.
    2. Apply joint sealers as specified in Section 07 9200.
  1. CLEANING

A. Clean sheet metal; remove slag, flux, stains, spots, and minor abrasions without etching surfaces.

END OF SECTION

# FIRESTOPPING

**PART 1 GENERAL**

* 1. **SUMMARY**
     1. Section Includes:
        1. Firestopping perimeter of and penetrations through fire and smoke rated assemblies.
     2. Related Sections:

1. Division 01: Summary of Work for individual Prime Contract requirements.
2. Division 01: Administrative, procedural, and temporary work requirements.

# REFERENCES

* + 1. ASTM International (ASTM) (www.astm.org):

1. E814 - Standard Test Method for Fire Tests of Through-Penetration Firestops.
2. E1966 -Standard Test Method for Fire-Resistive Joint Systems.
3. E2307 -Standard Test Method for Determining Fire Resistance of Perimeter Fire
4. Barrier Systems Using Intermediate-Scale, Multi-Story Test Apparatus.
   * 1. Underwriters Laboratories, Inc. (UL) (www.ul.com):
5. 1479 - Fire Tests of Through-Penetration Firestops.
6. 2079 - Fire Resistance of Building Joint Systems.

# SYSTEM DESCRIPTION

* + 1. Provide continuous protection against passage of heat, fire, smoke, and gases at perimeter of and penetrations through rated assemblies.

# SUBMITTALS

* + 1. Submittals for Review:
       1. Product Data:
          1. Firestopping schedule; prepare in tabular format and identify:

Type of assembly receiving firestop and required fire rating.

Type of penetrating item.

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# FIRESTOPPING

Proposed firestop system.

* + - * 1. Include UL or equivalent details for each firestop system.
      1. Test Reports: Indicate conformance with ASTM E814, ASTM E1966, ASTM E2307, UL 1479, or UL 2079.
    1. Quality Control Submittals:
       1. Certificates of Compliance: Indicate conformance of installed systems with specified requirements.

# QUALITY ASSURANCE

* + 1. Applicator Qualifications: Minimum 5 years’ experience in work of this Section.
    2. Firestopping: Fire resistance rating of 1 hour (unless otherwise indicated), tested to ASTM E814, ASTM E1966, ASTM E2307, UL 1479, or UL 2079.
    3. Mockups: N/A.
    4. Pre-Installation Conference: N/A.

# PROJECT CONDITIONS

* + 1. Do not apply sealants, mortars, or putties when temperature of substrate material and surrounding air is below 40 degrees F or is anticipated to drop below that temperature within 24 hours after installation.

# PART 2 PRODUCTS

* 1. **MANUFACTURERS**
     1. Acceptable Manufacturers:

1. Hilti, Inc. (www.us.hilti.com)
2. 3M Fire Protective Products. (www.3m.com)

# FIRESTOPPING

1. Nelson Firestop Products. (www.nelsonfirestop.com)
2. Rectorseal. (www.rectorseal.com)
3. Specified Technologies, Inc. (www.stifirestop.com)
4. Tremco, Inc. (www.tremcosealants.com)
5. Or approved equal.

# MATERIALS

* + 1. Firestopping: One or more of the following:
       1. Silicone elastomer compound: Single or multiple components, low modulus, moisture curing silicone sealant.
       2. Ceramic sealant: Single component, moisture curing ceramic sealant.
       3. Intumescent sealant: Single component, water based intumescent sealant.
       4. Acrylic sealant: Single component acrylic sealant, suitable for painting.
       5. Putty: Single component ceramic fiber base putty or intumescent elastomer putty that expands on exposure to surface heat gain.
       6. Mortar: Hydraulic cementitious mortar.
       7. Pillows or blocks: Formed intumescent or mineral fiber pillows or blocks.
       8. Intumescent strips: Solvent free intumescent wrap strips.
       9. Mechanical devices: Incombustible fillers or silicone elastomer covered with sheet stainless steel jacket, joined with collars, penetration sealed with flanged stops.
       10. Cast-in-place devices: Containing intumescent material and smoke/water seals.

# ACCESSORIES

* + 1. Forming and Damming Materials: As recommended by firestopping manufacturer for intended use.

1. Permanent: Mineral fiber board, mineral fiber matting, or mineral fiber putty.
2. Temporary: Plywood, particle board, or other.

PART 3 EXECUTION

* 1. PREPARATION
     1. Prepare openings to receive firestopping as directed by manufacturer:
        1. Remove incidental and loose materials from penetration opening.
        2. Remove free liquids and oil from involved surfaces and penetration components.

# FIRESTOPPING

* + - 1. Install damming materials to accommodate and ensure proper thickness and fire rating requirements and provide containment during installation.
      2. Remove combustible materials and materials not intended for final penetration seal system.

# INSTALLATION

* + 1. Install firestopping at perimeter of and penetrations through fire and smoke rated assemblies.
    2. Apply materials in accordance with manufacturer's instructions.
    3. Apply firestopping material in sufficient thickness to achieve required ratings.
    4. Compress fibered material to achieve a density of 40 percent of its uncompressed density.
    5. Place foamed material in layers to ensure homogenous density, filling cavities and spaces. Place sealant to completely seal junctions with adjacent dissimilar materials.
    6. Place intumescent coating in sufficient coats to achieve rating required.
    7. Remove dam material after firestopping material has cured.
    8. Finish exposed surfaces to smooth, flush appearance.

END OF SECTION

# FIRESTOPPING

**PART 1 - GENERAL**

* 1. **RELATED DOCUMENTS**

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

# SUMMARY

1. Section Includes:
   1. Silicone joint sealants.
   2. Urethane joint sealants.
   3. Latex joint sealants.
   4. Fire Stop Caulk

# ACTION SUBMITTALS

1. Product Data: For each joint-sealant product indicated.
2. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

# QUALITY ASSURANCE

1. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
2. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
3. Product Testing: T joint sealants using a qualified testing agency.
   1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.
   2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.

# PROJECT CONDITIONS

1. Do not proceed with installation of joint sealants under the following conditions:
   1. When ambient and substrate temperature conditions are outside limits permitted by joint- sealant manufacturer or are below 40 deg F.
   2. When joint substrates are wet.
   3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
   4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

# WARRANTY

1. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.
2. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Five years from date of Substantial Completion.
3. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
   1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
   2. Disintegration of joint substrates from natural causes exceeding design specifications.
   3. Mechanical damage caused by individuals, tools, or other outside agents.
   4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

# PART 2 - PRODUCTS

* 1. **MATERIALS, GENERAL**

1. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
2. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
3. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
4. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

# SILICONE JOINT SEALANTS

1. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use NT.
   1. Products: Subject to compliance with requirements, provide the following:
      1. Dow Corning Corporation; 756 SMS.
2. Mildew-Resistant, Single-Component, Acid-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
   1. Products: Subject to compliance with requirements, provide the following:
      1. Dow Corning Corporation; 786 Mildew Resistant.

# URETHANE JOINT SEALANTS

1. Single-Component, Pourable, Traffic-Grade, Urethane Joint Sealant: ASTM C 920, Type S, Grade P, Class 25, for Use T.
   1. Products: Subject to compliance with requirements, provide the following:
      1. BASF Building Systems; Sonolastic SL 1.

# LATEX JOINT SEALANTS

1. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
   1. Products: Subject to compliance with requirements, provide one of the following:
      1. BASF Building Systems; Sonolac.
      2. Bostik, Inc.; Chem-Calk 600.
      3. Tremco Incorporated; Tremflex 834.

# 5 FIRESTOP SEALANT.

1, Joint-Sealant Application: Equal to: 3M. Corp. Mfr. Model # CP-25WB+10. install all around pipes in Utility Room, Kitchen and Bathroom piping.

# JOINT SEALANT BACKING

1. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
2. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
3. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

# MISCELLANEOUS MATERIALS

1. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
2. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
3. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

# PART 3 - EXECUTION

* 1. **EXAMINATION**

1. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint- sealant performance.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

# PREPARATION

1. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
   1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
   2. Clean, porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
      1. Concrete.
      2. Masonry.
      3. Drywall.
   3. Remove laitance and form-release agents from concrete.
   4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

5.

* + 1. Metal.
    2. Glass.
    3. Porcelain enamel.
    4. Glazed surfaces of ceramic tile.

1. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint- sealant bond; do not allow spillage or migration onto adjoining surfaces.
2. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

# INSTALLATION OF JOINT SEALANTS

1. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.
2. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
3. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
4. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
5. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
6. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
   1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
   3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
   4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
      1. Use masking tape to protect surfaces adjacent to recessed tooled joints.
7. Acoustical Sealant Installation: At sound-rated assemblies and elsewhere as indicated, seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations.

# CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

# PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

# JOINT-SEALANT SCHEDULE

1. Joint-Sealant Application: Exterior joints in horizontal traffic surfaces.
   1. Joint Locations: at exterior door.
      1. Isolation and contraction joints in cast-in-place concrete slabs.
      2. Joints between plant-precast architectural concrete paving units.
      3. Tile control and expansion joints.
      4. Joints between different materials listed above.
      5. Other joints as indicated.
   2. Urethane Joint Sealant: Single component, pourable, traffic grade.
2. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal non-traffic surfaces.
   1. Joint Locations:
      1. Control and expansion joints in unit masonry.
      2. Joints between different materials listed above.
      3. Perimeter joints between materials listed above and frames of doors, windows, and louvers.
      4. Control and expansion joints in ceilings and other overhead surfaces.
   2. Silicone Joint Sealant: Single component, nonsag, neutral curing, Class 50**.**
3. Joint-Sealant Application: Interior joints in horizontal traffic surfaces.
   1. Joint Locations:
      1. Isolation joints in cast-in-place concrete slabs.
      2. Control and expansion joints in tile flooring.
      3. Other joints as indicated.
   2. Urethane Joint Sealant: Single component, pourable, traffic grade.
4. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces.
   1. Joint Locations:
      1. Control and expansion joints on exposed interior surfaces of exterior walls.
      2. Perimeter joints of exterior openings where indicated.
      3. Vertical joints on exposed surfaces of interior unit masonry walls and partitions.
      4. Perimeter joints between interior wall surfaces and frames of interior doors, and windows.
      5. Other joints as indicated.
   2. Joint Sealant: Latex.
5. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces.
   1. Joint Sealant Location:
      1. Joints between plumbing fixtures and adjoining walls, floors, and counters.
      2. Tile control and expansion joints where indicated.
   2. Joint Sealant: Single component, nonsag, mildew resistant, acid curing.

# END OF SECTION

**STAMPED METAL DOORS**

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:

1. Stamped metal doors in existing frames.
2. Aluminum storm doors.
   * 1. Related Sections:
3. Division 01: Administrative, procedural, and temporary work requirements.
4. Section 08 7100 -Door Hardware.
   1. REFERENCES
      1. American National Standards Institute (ANSI)/Steel Door Institute (SDI) (www.steeldoor.org):
         1. A250.3 -Test Procedure and Acceptance Criteria for Factory Applied Finished Painted Steel for Steel Doors and Frames.
         2. A250.4 -Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frame Anchors and Hardware Reinforcing’s.
         3. A250.8 -Recommended Specifications for Standard Steel Doors and Frames.
         4. A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
         5. A250.11 - Recommended Erection Instructions for Steel Frames.
      2. ASTM International (ASTM) (www.astm.org):
5. A653/A653M -Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
6. A924 -Standard Specification for General Requirements for Steel Sheet, Metallic- Coated by the Hot-Dip Process.
7. A1008/A1008M -Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
8. E413 - Classification for Rating Sound Insulation.
   * 1. Steel Door Institute (SDI) (www.steeldoor.org) 117 -Manufacturing Tolerances for

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# STAMPED METAL DOORS

Standard Steel Doors and Frames.

* 1. SUBMITTALS
     1. Submittals for Review:

1. Shop Drawings: Show locations, elevations, dimensions, model designations, thermal ratings, preparation for hardware, and anchoring details.
2. Product Data: Show elevations, dimensions, gages of metal, hardware reinforcing gages and locations, and anchor types.
   * 1. Quality Control Submittals:

1. Certificates of Compliance: Certification that products furnished comply with ANSI/SDI A250.3, ANSI/SDI 250.4, and ANSI/SDI A250.10.

* 1. DELIVERY, STORAGE AND HANDLING
     1. Ship door frames with removable angle spreader; do not remove until frame is installed.
     2. Store doors upright in protected, dry area, off ground or floor, with at least 1/4-inch space between individual units.
     3. Do not cover with non-vented coverings that create excessive humidity.
     4. Remove wet coverings immediately.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Manufacturer (Entry doors):

1. Therma-Tru Doors, Model TS-296. ( www.thermatru.com)
2. Or approved equal.
   * 1. Manufacturer (Storm doors):

# STAMPED METAL DOORS

1. EMCO. (www.emco.com)
2. Or approved equal.
   1. ENTRY DOORS (MATCH EXISTING)
3. Doors: Provide 1-3/4-inch, 24 gauge, 6 panel door with deep embossed / stamped face design as indicated on drawings. Coordinate door preparation with existing frames.
   1. Door Core: Foamed-in-place polyurethane insulation, CFC-free, density 2.0 pcf minimum, with a K-factor of 0.15 for minimal thermal transmittance.

2 STORM DOORS

1. Storm door consisting of two adjustable glass panels and self-storing full screen.
2. Features:
   1. 1-inch solid core frame with aluminum exterior.
   2. Fully tempered glass.
   3. Heavy duty hinges and keyed deadbolt.
   4. Adjustable speed closer.
   5. Size: Match entry door.
   6. Color: White with matched handles.
   7. Model: E2TTE32WH and E2TTE36WH, Field verify.
   8. Warranty: 5-year limited.
   9. ACCESSORIES
      1. Glass, Glazing Sealers, and Accessories.
   10. FABRICATION
       1. Fabricate doors and frames in accordance with ANSI/SDI A250.8.
       2. Fabricate exterior doors and frames from galvanized steel sheet.
       3. Design Clearances:
3. Between door and frame: Maximum 1/8 inch.
   1. Between meeting edges of pairs of doors:

a. Non-fire rated doors: 3/16 inch plus or minus 1/16 inch.

* 1. Undercut:
     1. Non-fire rated doors: Maximum 3/4 inch.

# STAMPED METAL DOORS

1. Between face of door and stop: 1/16 to 3/32 inch.
   1. FINISHES
      1. Dress tool marks and surface imperfections to smooth surfaces.
      2. Touch up damaged metallic coatings.
      3. Apply manufacturer's standard rust inhibiting primer paint, air-dried or baked on, meeting requirements of ANSI/SDI A25010.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Set plumb and level.
     2. Secure to adjacent construction using fastener type best suited to application.
     3. Install hardware in accordance with Section 08 7100.
  2. ADJUSTING

A. Touch up minor scratches and abrasions in primer paint to match factory finish.

END OF SECTION

# STAMPED METAL DOORS

**SECTION 08 1412**

**PART 1 GENERAL**

* 1. **SECTION INCLUDES**
     1. Passage and Bi-Pass Doors.

# SUBMITTALS

* + 1. Submit under provisions of Section 01 3300 -Submittal Procedures.
    2. Product Data: Submit door manufacturer current product literature, including installation instruction.
    3. Samples: Provide finish samples for all products.
    4. Quality Assurance Submittals.
       1. Manufacturer Instructions: Provide manufacturer’s written installation instructions.
    5. Closeout Submittals: Refer to Section 01 7700 -Closeout Procedures

# DELIVERY, STORAGE AND HANDLING

* + 1. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
    2. Deliver and store assembly materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact. Protect from damage.

# WARRANTY

* + 1. Manufacturer's Standard Warranty: Assemblies will be free from defects in materials and workmanship from the date of manufacture for the time periods indicated below:

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**SECTION 08 1412**

* + - 1. Owner-Occupied Single-Family Residence and Commercial Limited Warranty
         1. Door – 6 Panel: 5 years
         2. Door Frames: 1 year.
         3. All other products, components, prefinishes and options as listed above: Coverage is the same as owner-occupied single-family residences as listed above.

PART 2 PRODUCTS

* 1. MANUFACTURER
     1. JELD-WEN, Inc.; 440 South Church Street, Suite 400, Charlotte, NC 28202; Toll Free Tel: 800-535-3936; Tel: 541-850-2606; Fax: 541-851-4333; Email: mailto:architectural\_inquiries@jeld-wen.com; Web: [http://www.jeld-wen.com.](http://www.jeld-wen.com/)
     2. Masonite; [www.residential.masonite.com.](http://www.residential.masonite.com/)
     3. Or approved equal.
  2. MATERIALS AND CONSTRUCTION
     1. Solid core; Composite pine core with pine veneer exterior.
  3. PASSAGE
     1. Door Style:
        1. Thickness: 1-3/8 inch.
        2. Door Type: All Panel.
        3. Door Shape: Flat Top.
        4. Panel Pattern: Six panel.
        5. Sticking Profile: Manufacturer’s standard Ovolo Sticking.
     2. Hardware:

1. Hinges: See prehung systems.
2. Prep door for specified lockset.
3. Face Bore: 2-1/8-inch Standard.
4. Backset: 2-3/8 inch.
5. Edge Bore: 1-inch with mortise for 1-inch by 2-1/4-inch latch faceplate with 1/4”

# SECTION 08 1412

radius corners.

* + 1. Hardware Finish: Oil-Rubbed Bronze.
  1. PREHUNG SYSTEMS
     1. Profile: Single Door.
     2. Jambs

1. Profile: Solid Rabbeted.
2. Width: 4-9/16 inch.
   * 1. Trim Options:

1. Interior Casing and Stop: Colonial, WM356.

* + 1. Hinges:

1. Size: 4 by 4-inch with 1/4-inch radius corners.
2. 5 knuckle, plain bearing, .085-inch steel.
3. Quantity: Provide 3 per door.
4. Finish: Oil-Rubbed Bronze.
   1. DOOR FINISHES
5. Finish: Sanded for field finish. Refer to Section 09 9100. Note that all doors shall be sealed / finished on all six sides.
6. Wood Species:
   1. Stain grade southern yellow pine veneer.

# 2 GLAZING

1. Not applicable.

# PART 3 EXECUTION

* 1. **GENERAL**
     1. Install doors in accordance with manufacturer’s installation guidelines and recommendations.

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* 1. **EXAMINATION**
     1. Inspect door prior to installation.
     2. Inspect rough opening for compliance with door manufacturer recommendations. Verify rough opening conditions are within recommended tolerances.

# PREPARATION

* + 1. Prepare door for installation in accordance with manufacturer’s recommendations.

# INSTALLATION

* + 1. Place door unit into opening and level hinge side of jamb. Use shims fastened through jamb and stop to level and temporarily secure in place.
    2. Undercut doors as indicated on door schedule.
    3. Level latch side of jamb. Use shims fastened through jamb and stop to level and temporarily secure in place.
    4. Verify spacing between jamb and door is uniform on all sides. Adjust as necessary.
    5. Shim top of jamb in center of opening and fasten with nail.
    6. Re-check for square, level and even spacing around door. Nail securely in place through stop, jamb, shims and into studs every 12 inches.
    7. Set nails.
    8. Install trim on both sides using nails every 12 to 16 inches.

END OF SECTION

# SECTION 08 1412

**ACCESS DOORS AND PANELS**

**SECTION 08 3100**

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Access doors and frames for wall and ceiling surfaces.
     2. Related Sections:
        1. Division 01: Administrative, procedural, and temporary work requirements.
  2. REFERENCES
     1. ASTM International (ASTM) (www.astm.org):

1. A653/A653M -Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy- Coated (Galvannealed) by the Hot-Dip Process.
2. A1008/A1008M -Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
   * 1. Underwriters Laboratories (UL) (www.ul.com) 10B -Standard for Fire Tests of Door Assemblies.
   1. SUBMITTALS
      1. Submittals for Review:
         1. Product Data: Provide sizes, types, finishes, scheduled locations, and details of adjoining work.
   2. QUALITY ASSURANCE
      1. Fire Door Construction: N/A.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Babcock-Davis Hatchways, Inc. (www.babcockdavis.com)
        2. J.L. Industries. (www.jlindustries.com)
        3. Karp Associates, Inc. (www.karpinc.com)
        4. Milcor. (www.milcorinc.com)
        5. Nystrom Building Products, Inc. (www.nystrom.com)
        6. Or approved equal.
  2. MATERIALS
     1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Quality.
  3. FABRICATION
     1. Fabricate door frame of galvanized steel sheet:

1. Wall and ceiling doors 20 x 30 inches: Minimum 14 gage.
2. Fabricate frames with exposed flanges.
   * 1. Fabricate non-rated door panels of minimum 14 gage galvanized steel sheet.
     2. Weld, fill, and grind joints to flush and square appearance.
     3. Hardware:
3. Continuous steel hinges, 175-degree opening.
4. Keyed cylinder latch. Key doors alike. Furnish two (2) keys per door.
   * 1. Model: DSC-214M by Karp or approved equal.
   1. FINISHES
      1. Interior Doors: Hot dip galvanized, G90 coating class.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Install units in accordance with manufacturer’s instructions.
     2. Install plumb and level in openings. Secure rigidly in place.
     3. Position units where indicated or where required to provide convenient access to concealed work requiring maintenance.

END OF SECTION

# SECTION 08 7100

**DOOR HARDWARE**

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Hardware for steel and wood doors.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. 08 1113 -Stamped Metal Doors and Frames.
3. 08 1412 -Wood Interior Doors.
   1. REFERENCES
      1. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA) (www.buildershardware.com):
4. A156.2 -Bored and Preassembled Locks and Latches.
5. A156.18 - Materials and Finishes.
   * 1. National Fire Protection Association (NFPA) (www.nfpa.org):
6. 80 -Standard for Fire Doors and Windows.
7. 105 -Installation of Smoke Control Door Assemblies.
   1. SUBMITTALS
      1. Submittals for Review:
8. Shop Drawings: Schedule hardware by door type and location; show door size, hand, thickness, edge bevel, hardware components and quantities, keying, and finishes.
9. Product Data: Manufacturer's descriptive data for each component.
10. Samples: One sample of each hardware item, if requested. [Samples will be returned for installation on Project.]
11. Warranty: Sample warranty form.
    * 1. Closeout Submittals:
12. Copy of approved hardware schedule.
13. Keying list.
14. Keys; tag with mark corresponding to keying schedule.
    1. QUALITY ASSURANCE
       1. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
       2. Conform to applicable accessibility code for locating hardware and for door opening force requirements.
       3. Pre-Installation Conference:

supplier.

1. Convene at site prior to ordering permanent cylinders for Project.
2. Attendance: Architect, RHA, Contractor, Construction Manager, and hardware
3. Review, discuss, and finalize Owner’s keying requirements.
   1. DELIVERY, STORAGE AND HANDLING
      1. Pack hardware items separately, with fasteners, installation instructions, and templates.
      2. Mark containers with item number corresponding to hardware schedule.
   2. WARRANTIES
      1. Furnish manufacturer’s 2-year warranty for locksets and latch sets.
   3. MAINTENANCE
      1. Extra Materials: N/A.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers -Locksets, Latch sets, Deadbolts, and Cylinders:

1. Best Access Systems. (www.bestaccess.com)
2. Or approved equal.
   1. MANUFACTURED UNITS
      1. Locksets, Latch sets, Deadbolts, and Cylinders:
         1. Locksets and latch sets:
            1. Type: ANSI/BHMA A156.2, Grade 1 and 2, cylindrical, key-in-lever handles. See schedule.
         2. Deadbolts:
            1. Type: ANSI/BHMA A156.5, cylindrical type with 1 inch bolt throw.
            2. Functions: As scheduled.

|  |  |  |
| --- | --- | --- |
| protect door | 1  2 | Strike plates: curved lip, minimum lip projection necessary to frame and trim and to conceal edges of strike cutout.  Cylinders: Seven pin, solid brass, removable core type. |
|  | 3 | Keys: Solid brass or nickel silver. |
|  | 4. | Keying: |
|  | | a. Shall be compatible with Owner’s master key system. |
| b. Construction key locks. |
| c. Key locks to existing master key system. |
| d. Key alike, cross key, or otherwise key as directed by Owner. |
| e. Provide four keys for each lock and 6 master keys. |
| f. Inscribe keys with lock manufacturer and notation DO NOT |

* + - 1. DUPLICATE.

1. Provide 1.25-inch-wide bow surface for access by the physically

handicapped.

* + 1. Doorstops: Door and wall mounted, aluminum housing with resilient bumper.
    2. Kick Plates: N/A.
    3. Flush Bolts: N/A.
    4. Weatherstripping: N/A.
    5. Threshold: Provide with pre-hung entry unit.
    6. Rain Drip: N/A.
    7. Smoke Seals: N/A.
    8. Sound Seals: N/A.
  1. FINISHES
     1. Finishes: To ANSI/BHMA A156.18.
     2. Thresholds and Door Seal Housings: Provide with pre-hung entry unit.
     3. Finish: No. 613, Oil-Rubbed Bronze, unless otherwise indicated.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Install hardware in accordance with approved hardware schedule and manufacturer's instructions.
     2. Install mortise items flush with adjacent surfaces.
     3. Install locksets, closers, and trim after finish painting.
     4. Set thresholds in mastic and secure.
     5. Mount closers so that closers and closer arms are not visible on corridor or public side of doors or on exterior of building.
     6. Mounting Heights -Finished Floor to Center Line of:

1 Locksets: 38 inches.

1. Dead locks: 48 inches.

2 PROTECTION

A. Remove or protect hardware until painting is completed.

* 1. ADJUSTING
     1. Test and adjust hardware for quiet, smooth operation, free from binding and rattling.
     2. Adjust doors to operate with maximum opening forces as follows:
        1. Interior non-fire rated doors: 5.0 pounds.
        2. Exterior doors: 8.5 pounds.

DOOR HARDWARE SCHEDULE SET NO. QUANTITY DESCRIPTION

1. Entry

1 Only Lockset, BEST 9K (Entrance) 14D Handle, Grade 1 w/ 2-3/4" backset.

1 Only Spring Doorstop (mounted on door), Stanley 756258, Antique Brass, or equal.

1 Only Door Viewer, 160-degree wide angle, Stanley, Oil Rubbed Bronze, or equal.

1. Bedroom 1 Only 1 Only

Lockset, BEST 7KC (Passage), Grade 2 w/ 2-3/8" Backset. 14D Handle, or equal. (See 08 1412 for Hinges on Pre-Hung Units) Spring Doorstop, Stanley 756257, or equal.

12

Bathroom 1 Only 1 Only

Lockset, BEST 7KC (Privacy), Grade 2 w/ 2-3/8" Backset. 14D Handle, or equal. (See 08 1412 for Hinges on Pre-Hung Units) Spring Doorstop, Stanley 756257.

13

Basement / Closet 1 Only 1 Only

Lockset, BEST 7KC (Passage), Grade 2 w/ 2-3/8" Backset. 14D Handle, or equal. (See 08 1412 for Hinges on Pre-Hung Units) Spring Doorstop, Stanley 756257, or equal.

14 Closet 1 Only

Bi-Pass Hardware, STANLEY BP 150N, or equal. Provide complete package with track as required by width of opening and aluminum fascia. Hardware shall Antique Brass.

END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Acoustical insulation.
        2. Gypsum board.
        3. Taping and bedding of gypsum board.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 07 9200 -Joint Sealers.
3. Section 09 3000 -Tile, for Cementitious Backer Board.
   1. REFERENCES
      1. American National Standards Institute (ANSI) (www.ansi.org):
4. A108.11 - Interior Installation of Cementitious Backer Units.
5. A118.9 -Test Methods and Specifications for Cementitious Backer Units.
   * 1. ASTM International (ASTM) (www.astm.org):
6. C475 -Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
7. C514 -Standard Specification for Nails for the Application of Gypsum Wallboard.
8. C665 -Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings.
9. C1002 -Standard Specification for Steel Drill Screws for the Application of Gypsum Board.
10. C1047 -Standard Specifications for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
11. C1178 -Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel.
12. C1396 -Standard Specification for Gypsum Board.
13. C1629 -Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.
14. D3273 -Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.

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* + 1. Gypsum Association (GA) (www.gypsum.org):

1. GA-214 -Levels of Gypsum Board Finish.
2. GA-216 -Recommended Specifications for the Application and Finishing of Gypsum Board.
3. GA-600 -Fire Resistance Design Manual.
   * 1. Underwriters Laboratories, Inc. (UL) (www.ul.com) - Fire Resistance Directory.
   1. SUBMITTALS
      1. Submittals for Review:

1. Product Data: Illustrate panel product types, thicknesses, and locations; acoustical insulation; and accessories.

* 1. QUALITY ASSURANCE
     1. Fire Resistance Ratings:

1. Construct assemblies to achieve fire resistance ratings indicated on Drawings, in accordance with referenced UL design number.
2. If requirements of assembly numbers referenced conflict with Contract Document requirements, conform to assembly requirements.
   1. PROJECT CONDITIONS
      1. Do not install gypsum board until building is substantially weathertight.
      2. Maintain temperature in spaces in which work is being performed above 50 degrees F during and after installation.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers -Gypsum Panels:
        1. CertainTeed Gypsum, Inc. (www.certainteed.com)
        2. GP Gypsum Corporation. (www.gp.com)
        3. National Gypsum Co. (www.nationalgypsum.com)
        4. Temple-Inland. (www.templeinland.com)
        5. USG Corporation. (www.usg.com)
        6. Or approved equal. American Brands only.
  2. MATERIALS - GYPSUM PANELS
     1. Regular Gypsum Board: ASTM C1396; 48 inches wide x thickness indicated, maximum practical length, tapered edge.
     2. Fire Resistant Gypsum Board: ASTM C1396, Type X; 48 inches wide x thickness indicated, maximum practical length, tapered edge; apply to fire rated assemblies.
     3. Impact-Resistant Gypsum Board: N/A.
     4. Fire Rated, Impact-Resistant Gypsum Board: N/A.
     5. Water Resistant Gypsum Board (At Bathrooms): ASTM C1396; 48 inches wide x thickness indicated, maximum practical length, water resistant; apply to walls in Bathrooms.
     6. Fire-Resistant, Water-Resistant Gypsum Board: N/A.
     7. Gypsum Backing Board: N/A.
     8. Fire Resistant Gypsum Backing Board: N/A.
     9. Shaft Wall Liner: N/A.
  3. MATERIALS - CEMENTITIOUS PANELS
     1. Cementitious Panels: N/A.
  4. ACCESSORIES
     1. Fasteners: ASTM C1002, Type S screws, minimum 5/8-inch penetration into framing.
     2. Acoustical Insulation:

1. ASTM C665, Type I, glass fiber composition, unfaced.

* + 1. Adhesive:

1. Type recommended by gypsum panel manufacturer.

* + 1. Trim Accessories: ASTM C1047.

|  |  |  |
| --- | --- | --- |
| expanded | 1 | Material: Formed steel, minimum 26 gage core steel, hot dip galvanized finish,  flanges. |
|  | 2 | Corner reinforcement: GA-216, Type CB-100 x 100. |
|  | 3 | Casing: GA-216, Type LC. |
|  | 4 | Control joint. |

* + 1. Acoustical Sealer: Specified in Section 07 9200.
    2. Joint Treatment Materials:

1. Reinforcing tape and joint compound; ASTM C475.

PART 3 EXECUTION

* 1. INSTALLATION OF GYPSUM PANELS
     1. Install panels and accessories in accordance with ASTM C754, GA-216, and manufacturer's instructions.
     2. Accurately cut panels to fit around openings and projections. Do not tear face paper or break gypsum core.
     3. Apply panels [at non-fire-rated assemblies] in most economical manner, with ends and edges occurring over supports.
     4. Apply panels at fire-rated assemblies as required by design assembly.
     5. Stagger joints on opposite sides of partitions.
     6. Do not locate joints to align with edges of openings.
     7. Mechanically fasten single layer panels to framing. Place fasteners minimum 3/8 inch from edges of panels; drive heads slightly below surface. Stagger fasteners at abutting

edges.

* + 1. Apply face layer of double layer applications with joints offset from those in base layer; secure with mechanical fasteners to framing or with adhesive to base layer.
    2. At deflection compensating head tracks, cut panels 1/2 inch short of structure at head; do not secure panels to top runner channel.
    3. Treat cut edges and holes in moisture resistant gypsum board with joint sealer.
    4. Where recessed items occur in fire rated partitions, box item on all sides with gypsum board as required to maintain continuity of fire rating.
  1. INSTALLATION OF ACCESSORIES
     1. Install in accordance with manufacturer's instructions.
     2. Install corner reinforcement at outside corners. Use single lengths where length of corner does not exceed standard length.
     3. Install casings where indicated and where gypsum board abuts dissimilar materials or stops with edge exposed.
        1. Treat joints and fasteners in gypsum board in accordance with GA-

214.

* + 1. Level of Finish:
       1. Surfaces to receive paints and wall coverings: Level 4 finish.

END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Resilient wall base (at cabinets) and edgings.
     2. Related Sections:
        1. Division 01: Administrative, procedural, and temporary work requirements.
  2. REFERENCES
     1. ASTM International (ASTM) (www.astm.org) F1861 -Standard Specification for Resilient Wall Base.
     2. Resilient Floor Covering Institute (RFCI) (www.rfci.com) -Floor Score Certification Program.
  3. SUBMITTALS
     1. Submittals for Review:
        1. Samples: 4-inch-long samples showing available colors.
  4. MAINTENANCE
     1. Extra Materials: 10 linear feet of each profile and color.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers -Base:
        1. Johnsonite, Inc. (www.johnsonite.com)
        2. Or approved equal.
     2. Acceptable Manufacturers -Installation Materials:

1. BASF Corporation. (www.buildingsystems.basf.com)
2. Or approved equal.
   1. MATERIALS
      1. Resilient Base:
3. Type: ASTM F1861, thermoplastic vinyl.
4. Thickness: 0.125 inch.
5. Profile: Coved at resilient sheet flooring.
6. Height: 4-inch per schedule.
7. Length: Continuous rolls.
8. Color: To be selected from manufacturer's full color range.
9. Finish: Matte (verify in submittals).
10. End units and outside corners: Preformed of profile, size, and color to match base or formed from linear base.
    1. ACCESSORIES
       1. Adhesive: Water based, waterproof, recommended by base manufacturer.
       2. Edgings: Provide preformed rubber, profile as required to suit conditions.

1. Color: To be selected from manufacturer's full color range.

PART 3 EXECUTION

* 1. PREPARATION
     1. Prepare surfaces to receive base:
        1. Remove materials that could interfere with adhesion.
        2. Fill low spots with patching compound, finish flush with adjacent surface.
        3. Remove high spots, ridges and nibs.
  2. INSTALLATION
     1. Provide at all exposed kitchen and bath base cabinets, and as scheduled.
     2. Apply adhesive continuously to back of base.
     3. Maintain top edge true to line and bottom edge in continuous contact with floor. Butt

joints tight; butt base tight to adjacent construction.

* + 1. Do not install pieces less than 8 inches long.
    2. Miter and butt inside corners. At outside corners” V” cut back of base to 2/3 of its thickness and bend around corner.
    3. At exposed ends, install premolded units or form from linear base.
    4. Scribe to door frames and other interruptions.

END OF SECTION

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Luxury vinyl tile / plank (LVP).
        2. Rubber stair treads.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 06 1100: Framing and Sheathing for Plywood Underlayment.
3. Section 09 6513: Resilient Base for base at luxury vinyl tile.
4. Section 06 4600: Wood Trim for floor base at luxury vinyl tile.
   1. REFERENCES
      1. ASTM International (ASTM) (www.astm.org):
5. D2047 -Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
6. E648 - Standard Test Method for Flooring Radiant Panel Test.
7. F710 -Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
8. F1869 -Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
9. F1913 -Standard Specification for Vinyl Sheet Floor Covering Without Backing.
10. F2034 -Standard Specification for Sheet Linoleum Floor Covering.
    1. SUBMITTALS
       1. Submittals for Review:

seams.

1. Shop Drawings: Indicate room or space dimensions, flooring layout, and locations of
2. Product Data: Provide data on specified products, describing physical and

performance characteristics.

1. Samples:
   1. Flooring: Samples in each color and pattern.
      1. Quality Control Submittals:

1. Certificates of Compliance: Certification from an independent testing laboratory that flooring meets fire hazard classification requirements.

* 1. QUALITY ASSURANCE
     1. Installer Qualifications: Minimum 3 years documented experience in work of this Section.
  2. PROJECT CONDITIONS
     1. Maintain temperature in spaces to receive flooring between 70- and 90-degrees F for 24 hours before, during, and for minimum 48 hours after installation.
  3. MAINTENANCE
     1. Extra Materials: 100 square feet of each color and pattern.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers -next floor:
        1. next floor. (nextfloor.net)
        2. Or approved equal.
        3. All components of the Design Standard product shall match the manufacturer’s system. This also applies to “Or equal” products.
  2. MATERIALS
     1. Luxury Vinyl Plank: “Colorado 417” Heavy Commercial LVT by next floor.

1. Style: Colorado 417.
2. Selection: To be made by RHA.

3 Form (Plank): 7.25" x 48” x 2.5 mm.

1. Wear Layer: 20 mil.
2. Edge Treatment: Beveled.
3. Installation: Full spread adhesive.
4. Testing:
   1. Critical Radiant Flux ASTM E648 CLASS 1
   2. Surface Flammability DOC FF 1-70 Passed
   3. Static Load Limit ASTM F970 1200 LBS
   4. Floor Score Certified
   5. Phthalate Free
   6. Reference Specs: ASTM F 1700 Class III, Type B -Embossed Surface.
5. Warranty: 25 years commercial, Lifetime residential.
   * 1. Stair Treads:
6. Type: Non-Slip Safety Rib by Roppe, or approved equal.
7. Composition: Rubber.
8. Thickness: 1/8-inch.
9. Nose profile: Square at basement stair.
10. Nose profile: Round at first/second floor.
11. Color: To be selected from manufacturer's full color range.
    1. ACCESSORIES
       1. Leveling Compound: Provide white, premixed, latex based as required.
       2. Adhesive: Water based, waterproof, recommended by flooring manufacturer.
       3. Edgings and transition strips: Provide as required by field conditions.

PART 3 EXECUTION

* 1. EXAMINATION
     1. Verify that wood underlayment is suitable for installation.
  2. PREPARATION
     1. Clean substrate: remove loose and foreign matter that could impede adhesion or performance of flooring.
     2. Fill cracks, voids, and depressions in substrate with leveling compound.
     3. Test substrate for moisture content to ASTM F1869; do not install flooring until moisture emission level is acceptable to flooring manufacturer.
  3. INSTALLATION OF PLANK
     1. Install in accordance with manufacturer's instructions.
     2. Mix materials from multiple containers to ensure shade variations are consistent when flooring is placed.
     3. Spread only enough adhesive to permit installation of flooring before initial set.
     4. Lay flooring with joints parallel to building lines to produce symmetrical pattern.
     5. Install flooring to pattern directed by Architect. Allow minimum half-size units at room or area perimeter.
     6. Set flooring in place; press with heavy roller to attain full adhesion.
     7. Scribe flooring to walls, columns, cabinets, and other appurtenances to produce tight joints. Ensure that base, trim, plates, or escutcheons will completely cover cut edges.
     8. Extend flooring into recesses and under equipment.
     9. Terminate flooring at centerline of door openings where adjacent floor finish is dissimilar.
  4. INSTALLATION OF REDUCER STRIPS
     1. Install where tile stops with edge exposed; set in adhesive.
     2. Center strips under doors where flooring terminates at door openings.
     3. Install in longest practical lengths; butt ends tight.
     4. Scribe to abutting surfaces.
  5. INSTALLATION OF STAIR TREADS
     1. Apply adhesive uniformly over substrate; remove adhesive that has dried or filmed over.
     2. Provide tread nose compound as required by the manufacturer.
     3. Accurately cut to required sizes and profiles without gaps.
     4. Fit tight to treads, risers, and stringers.
  6. ADJUSTING
     1. Correct tiles that are not seated; replace damaged tiles.
  7. CLEANING

A. Clean flooring and machine buff in accordance with manufacturer's instructions.

* 1. PROTECTION
     1. Do not allow traffic on flooring until adhesive has set.
     2. Cover areas subject to traffic with protective covering.

END OF SECTION

# PAINTING

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Surface preparation and field application of paints.
        2. Texturing of gypsum board.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.

* 1. REFERENCES
     1. ASTM International (ASTM) (www.astm.org):

1. D4442 -Standard Test Method for Direct Moisture Content Measurement of Wood and Wood-B base Materials.
2. D6886 -Standard Test Method for Speciation of the Volatile Organic Compounds (VOCs) in Low VOC Content Waterborne Air-Dry Coatings by Gas Chromatography.
   * 1. Green Seal, Inc. (GS) (www.greenseal.org) 11 -Standard for Paints and Coatings.
     2. Master Painters Institute (MPI) (www.mpi.net) -Architectural Painting Specifications Manual.
     3. Society for Protective Coatings (SSPC) (www.sspc.org) -Painting Manual.
     4. South Coast Air Quality Management District (SCAQMD) ( www.aqmd.gov) Rule 1113 - Architectural Coatings.
   1. SUBMITTALS
      1. Submittals for Review:
3. Product Data: Manufacturer's data on materials proposed for use including:
   1. Product designation and grade.
   2. Product analysis and performance characteristics.
   3. Standards compliance.

# PAINTING

* 1. Material content.
  2. Mixing and application procedures.

1. Samples:
   1. 3 x 6-inch samples of each coating system on representative substrate. Step back successive coats so that all coats remain exposed. Indicate type of material used for each coat.
   2. 12 x 12-inch texture samples on gypsum board backing.
2. Paint Schedule: Indicate types and locations of each surface, paint materials, and number of coats to be applied.
   1. QUALITY ASSURANCE
      1. Applicator Qualifications: Minimum five years documented experience in work of this Section.
      2. Materials, Preparation, and Workmanship: Conform to MPI Painting Manual.
      3. Mockup: Not applicable.
   2. DELIVERY, STORAGE AND HANDLING
      1. Container Labels: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage rates, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
      2. Paint Materials: Store at ambient temperature from 45 to 90 degrees F in ventilated area, or as required by manufacturer's instructions.
   3. PROJECT CONDITIONS
      1. Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by paint manufacturer.
      2. Maintain ambient and substrate temperatures above manufacturer’s minimum

# PAINTING

requirements for 24 hours before, during. and after paint application.

* + 1. Do not apply materials when relative humidity is above 85 percent or when dew point is less than 5 degrees F different than ambient or surface temperature.
    2. Provide lighting level of 30 footcandles at substrate surface.
  1. MAINTENANCE
     1. Extra Materials: 1 gallon of each color and sheen.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Richards Paint Mfg. Co., Inc. ww.richardspaint.com
        2. Rust-Oleum Brands. [www.rustoleum.com](http://www.rustoleum.com/)
        3. Or equal.
  2. MATERIALS
     1. Paints:

1. As scheduled at end of Section, or approved substitute.
2. Free from all forms of lead and mercury.
   * 1. Maximum Volatile Organic Compound (VOC) Content for interior paints, coatings, and accessories: In accordance with GS-11 and SCAQMD 1113.
     2. Gloss Ratings:

Gloss Designation Units at 60 Degrees Units at 85 Degrees

Flat 0 to 5 Maximum 10

Eggshell 10 to 25 10 to 35

Satin 20 to 35 Minimum 35

# PAINTING

Semigloss 35 to 70

Gloss 70 to 85

High Gloss Minimum 85

* 1. ACCESSORIES
     1. Accessory Materials: Paint thinners and other materials required to achieve specified finishes; commercial quality.
     2. Patching Materials: Latex filler.
     3. Fastener Head Cover Materials: Latex filler.
  2. MIXES
     1. Deliver paints pre-mixed and pre-tinted.
     2. Uniformly mix to thoroughly disperse pigments.
     3. Do not thin in excess of manufacturer's recommendations.
     4. Re- mix paint during application; ensure complete dispersion of settled pigment and uniformity of color and gloss.

PART 3 EXECUTION

* 1. EXAMINATION
     1. Test shop applied primer for compatibility with subsequent coatings.
     2. Measure moisture content of surfaces using electronic moisture meter. Do not apply coatings unless moisture content of surfaces is below following maximums:
        1. Gypsum board and plaster: 12 percent.
        2. Masonry and concrete: 12 percent.

# PAINTING

* + - 1. Wood: 15 percent, measured to ASTM D4442.
      2. Concrete floors: 8 percent.
  1. PREPARATION
     1. General:

1. Protect adjacent and underlying surfaces.
2. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
3. Correct defects and clean surfaces capable of affecting work of this section.
4. Seal marks that may bleed through surface finishes with waterborne stain blocker.
   * 1. Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow to dry.
     2. Gypsum Board:
5. Fill minor defects with filler compound. Spot prime defects after repair.
6. Apply light stipple texture in accordance manufacturer's instructions.
   * 1. Concrete and Masonry:
7. Remove dirt, loose mortar, scale, salt and alkali powder, and other foreign matter.
8. Remove oil and grease with solution of trisodium phosphate; rinse and allow to dry.
9. Remove stains caused by weathering of corroding metals with solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
   * 1. Concrete Floors (Existing):

1. Scrape, shop vac and spot prime with primer noted in the paint schedule.

* + 1. Plaster:

1. Fill hairline cracks, small holes, and imperfections with latex patching plaster. Finish smooth and flush with adjacent surfaces.
2. Wash and neutralize high alkali surfaces.
   * 1. Galvanized Steel: SSPC Method SP1 - Solvent Cleaning.
     2. Aluminum: SSPC Method SP1 - Solvent Cleaning.
     3. Uncoated Ferrous Metals: SSPC Method SP2 -Hand Tool Cleaning or Method SP3 -

# PAINTING

Power Tool Cleaning.

* + 1. Shop Primed Ferrous Metals:

1. SSPC Method SP2 -Hand Tool Cleaning or Method SP3 -Power Tool Cleaning.
2. Feather edges to make patches inconspicuous.
3. Prime bare steel surfaces.
   * 1. Interior Wood:
4. Wipe off dust and grit.
5. Seal knots, pitch streaks, and sappy sections with sealer.
6. Fill nail holes and cracks after primer has dried, sand between coats.
   * 1. Interior Wood Doors:
7. Wipe off dust and grit.
8. Lightly sand.
9. Finish shall be applied to all six sides.
10. Tint stain to color to be selected by RHA.
    * 1. Exterior Wood:
11. Remove dust, grit, and foreign matter.
12. Seal knots, pitch streaks, and sappy sections.
    * 1. Existing Surfaces:
13. Remove loose, flaking, powdery, and peeling paints.
14. Lightly sand glossy painted surfaces.
15. Fill holes, cracks, depressions and other imperfections with patching compound; sand flush with surface.
16. Remove oil, grease, and wax by scraping, solvent wash and thoroughly rinse.
17. Remove rust by wire brushing to expose base metal.
    1. APPLICATION
       1. Apply paints in accordance with manufacturer’s instructions and MPI Painting Manual, Custom Grade finish requirements.
       2. Apply primer or first coat closely following surface preparation to prevent

# PAINTING

recontamination.

* + 1. Do not apply finishes to surfaces that are not dry.
    2. Apply coatings to minimum dry film thickness recommended by manufacturer.
    3. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
    4. Apply coatings to uniform appearance without laps, sags, curtains, holidays, and brush marks.
    5. Allow applied coats to dry before next coat is applied.
    6. When required on deep and bright colors apply an additional finish coat to ensure color consistency.
    7. Continue paint finishes behind wall-mounted accessories.
    8. Sand between coats on interior wood and metal surfaces.
    9. Match final coat to approved color samples.
    10. Where clear finishes are specified, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface.
    11. Prime concealed surfaces of exterior wood and interior wood in contact with masonry or cementitious materials with one coat primer paint.
    12. Mechanical and Electrical Components:

1. Paint factory primed equipment.
2. Remove unfinished and primed louvers, grilles, covers, and access panels, paint separately.
3. Paint exposed and insulated pipes, conduit, boxes, ducts, hangers, brackets, collars, and supports unless factory finished.
4. Do not paint name tags or identifying markings.
5. Paint exposed conduit and electrical equipment in finished areas.
6. Paint duct work behind louvers, grills, and diffusers flat black to minimum of 18 inches or beyond sight line.

# PAINTING

* + 1. Do not Paint:

1. Surfaces indicated on Drawings or specified to be unpainted or unfinished.
2. Surfaces with factory applied finish coat or integral finish.
3. Architectural metals, including brass, bronze, stainless steel, and chrome plating.
   1. ADJUSTING
      1. Touch up or refinish disfigured surfaces.
   2. CLEANING
      1. Remove paint from adjacent surfaces.
   3. PAINT SCHEDULE
      1. Types of paint listed herein are set forth as standard of quality and type of coating required for each type of surface.
4. Paint exposed surfaces of types listed in Paint Schedule.
5. Paint other exposed surfaces not specifically listed with not less than two coats of appropriate type of coating.
   * 1. Prime coat consists of touch up on shop primed [and existing] surfaces with intact coatings.

|  |  |  |  |
| --- | --- | --- | --- |
| SUBSTRATE | MANUFACTURER | PRIMER | TOPCOATS |
| Exterior Surfaces |  |  |  |
| Wood, Opaque Finish | Rust Oleum / | 307109 | 1250 or 1200 DTM |
|  | Richards | Multipurpose Primer | Enamel Semi or Gloss |
| Interior Surface |  |  |  |

# PAINTING

|  |  |  |  |
| --- | --- | --- | --- |
| Gypsum Board, Alkyd Enamel Finish | Richards | 306 Drywall Primer | 1000 Series Alkyd Enamel Gloss |
| Ferrous and Galvanized Metals | PPG / Richards | 4020-1000 Pittech Plus DTM Primer | 1250 or 1200 DTM  Enamel Semi or Gloss |
| Masonry, Fire stained walls prior to gypsum | Zinsser | B-I-N Advanced Synthetic Shellac |  |
| board |  | Primer |  |
| Masonry, Alkyd Enamel Finish (Basement) | Richards | N/A |  |
| Existing Concrete Floors | Seal Krete / Richards | Lock-Down Concrete Bonding |  |
|  |  | Primer |  |
| Wood, Opaque, Latex Enamel Finish | Rust Oleum / Richards | 307109  Multipurpose Primer |  |
| Wood, Opaque, Alkyd Enamel Finish | Rust Oleum / Richards | 307109  Multipurpose Primer |  |
| Wood Doors, Transparent Finish | Richards | 40 Series Penetrating Wood |  |
|  |  | Stain (Tint to color RHA) |  |

1000 Series Alkyd DTM Enamel Gloss

Deck Guard 100% Acrylic #4200 Series 6550 Series Interior Semi-Gloss

1000 Series Alkyd DTM Enamel Gloss

# PAINTING

**APPLIANCES**

**SECTION 11 3100**

PART 1 GENERAL

* 1. SUMMARY

1. Section Includes:
   1. Ranges and cords.
   2. Safety Controls.
   3. Range hoods.
   4. Refrigerators.
   5. Connection to utilities.
2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.

1. Division 26: Electrical for utility connections. .
   1. SUBMITTALS
      1. Submittals for Review:
         1. Shop Drawings: Show locations of appliances, dimensions, required clearances, rough-in requirements, power requirements, and wiring diagrams.
         2. Product Data: Provide product data on appliances showing materials, finishes, characteristics, limitations, and electrical characteristics.
         3. Warranty: Sample warranty form.
      2. Closeout Submittals:

1. Operation and Maintenance Data including identification / serial number and their location.

* 1. QUALITY ASSURANCE
     1. Appliances: Energy Star Rated.
  2. DELIVERY, STORAGE AND HANDLING
     1. Deliver appliances with manufacturer’s protective coverings in place; do not remove until just prior to installation.
  3. WARRANTIES

Peter L Morse & Associates Rochester Housing Authority

August 12, 2023 1 16, 36 & 60 Bronson Ct.

A. Furnish manufacturer’s standard warranty providing coverage against all defects.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Frigidaire. (www.frigidaire.com)
        2. GE Appliances. (www.geappliances.com)
        3. Or approved equal.
  2. MANUFACTURED UNITS
     1. Appliances: Scheduled at end of Section.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Install appliances in accordance with manufacturer’s instructions and approved shop Drawings.
     2. Set plumb, level, and aligned.
     3. Connect to power supply.
     4. Provide 4 “safety burners” per range, at every range.
  2. ADJUSTING
     1. Adjust appliances for proper operation.

|  |  |  |
| --- | --- | --- |
| 3.3 SCHEDULE |  | |
| Appliance / Description Manufacturer | Model | Finish |
| Range and Cord Frigidaire | FFEF 3016L W/B | White |
| Safety Burners Pioneering Technologies | Safe-T-element | N/A |
| Range Hood Frigidaire | F30WR01ES | White |
| Refrigerator Frigidaire | FFTR1614TW | White |

END

PART 1 GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Horizontal slat louver blinds.
        2. Operating hardware.
     2. Related Sections:

1. Division 01: Administrative, procedural, and temporary work requirements.

* 1. SUBMITTALS
     1. Submittals for Review:

1. Product Data: Describe blind construction and finishes.
2. Samples: 3-inch-long slat samples showing available colors.
   1. PROJECT CONDITIONS
      1. Do not install blinds until painting and finishing work is complete.

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Acceptable Manufacturers:
        1. Century Blinds Inc. (www.centuryblinds.com)
           1. Product: Faux wood Wood Tones (Design Standard).
        2. Or approved equal.
  2. COMPONENTS
     1. Louver Slats: 2 inches wide, extruded PVC horizontal slats with radiused corners.
     2. Slat Support: Woven polypropylene ladders.
     3. Head Rail: Prefinished, formed aluminum or steel box, internally fitted for hardware, pulleys, and bearings for blind operation.
     4. Cord: Braided nylon or polypropylene.
     5. Control Wand: Hollow extruded plastic, height of window opening less 12 inches.
     6. Support Brackets: Suitable for wall or soffit mounting, formed metal to match head rail, allowing removal of head rail for maintenance without removing bracket.
     7. Valance: Manufacturer’s standard.
     8. Operation: Full range lift locking.
  3. FABRICATION
     1. Fabricate blinds to fit openings with uniform edge clearance of 1/4 inch.
     2. At openings requiring multiple blind units, provide separate blind assemblies with space of 1/4 inch between assemblies, occurring at window mullion centers.
  4. FINISHES
     1. Slats: Integrally colored, wood tone to be selected from manufacturer's full color range.
     2. Head Rails and Brackets: Static-reducing, Baked enamel, color to be selected from manufacturer's full color range.
     3. Ladders and cords: Dyed to closely match slats.
     4. Control Wands: Clear.

PART 3 EXECUTION

* 1. INSTALLATION
     1. Install blinds in accordance with manufacturer's instructions.
     2. Secure with concealed fasteners.
     3. Fasten to wood jambs or trim only. Do not attach to windows.
     4. Place intermediate head supports at maximum 36 inches on center.
     5. Installation Tolerances:
        1. Maximum gap at window opening perimeter: 1/4 inch.
        2. Maximum offset from level: 1/8 inch.
        3. ADJUSTING. Adjust blinds for proper operation.

END OF SECTION

# RESIDENTIAL WOOD CASEWORK

PART 1 GENERAL

* 1. SECTION INCLUDES
     1. Wood kitchen and vanity cabinets.
     2. Countertops and vanity tops.
  2. REFERENCE STANDARDS
     1. BHMA A156.9 -American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.9).
     2. ANSI/KCMA A161.1 -Performance and Construction Standard for Kitchen and Vanity Cabinets; Kitchen Cabinet Manufacturers Association; 2000 (R2006).
     3. KCMA (DIR) -Directory of Certified Cabinet Manufacturers; Kitchen Cabinet Manufacturers Association; current edition, online.
  3. SUBMITTALS
     1. Product Data: Provide component dimensions and construction details.
     2. Shop Drawings: Indicate casework locations, large scale plans, elevations, clearances required, rough-in and anchor placement dimensions and tolerances.
     3. Samples: Submit two cabinet doors, not less than 12 x 12 inch in size, illustrating each color of finish to be used on the Project.
  4. QUALITY ASSURANCE
     1. Products: Complying with KCMA A161.1 and KCMA Certified.
     2. Manufacturer: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.
  5. MOCK-UP
     1. Not applicable.

# RESIDENTIAL WOOD CASEWORK

* 1. WARRANTY
     1. Manufacturer's Warranty: Provide manufacturer's material and workmanship warranty.
        1. Warranty shall include the following:
           1. Defects in cabinet construction.
           2. Defects in drawer construction. c Failure of drawer guides

d. Failure of door hinges.

* + - 1. Warranty Duration: 5 years

PART 2 PRODUCTS

* 1. MANUFACTURERS
     1. Residential Wood Casework:
        1. Wolf "Classic Cabinets" [www.wolfhomeproducts.com](http://www.wolfhomeproducts.com/)
           1. Impact Series, Somerset.
        2. Or approved equal.
  2. WOOD CABINET STANDARD CONSTRUCTION
     1. Cabinet Construction:

1. Cabinet shall be constructed of hardwood plywood or solid wood components; the use of particleboard is not acceptable.
2. Cabinets shall be full assembled prior to shipping.
3. The use of unassembled cabinets with locking screw cams will not be acceptable.
4. Cabinets shall be made in America using 60% or more American contents.
   * 1. Cabinet Fronts: Constructed from solid Maple.
5. Cabinet Front: 3/4-inch solid Maple finished to match doors and drawer fronts.
6. Cabinet fronts shall be pocket drilled and screwed.
7. Corner Blocks: 11 ply hardwood plywood, or solid maple blocking.

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* + 1. Door and Drawer Fronts:

1. Hudson: Solid Maple.
2. Saginaw: Maple with raised veneer center panel.
3. Dartmouth and York: Center panels shall be MDF mounted in solid maple frame and finished to match cabinet front.
   * 1. Drawer Box Construction:
4. Drawer Box: Front sides and backs constructed of 5/8-inch solid wood with clear finish and dovetail jointing.
5. Drawer Bottom: 1/4-inch plywood captured in dado on all four sides.
   * 1. Cabinet Side Panels:
6. Constructed of 1/2 inch, 7 ply, hardwood plywood with vinyl finish to match cabinet exterior.
7. Glued and stapled into 1/2-inch dado in cabinets front frame.
   * 1. Cabinet Back Panels:

1 Constructed of 1/2 inch, 7 ply, hardwood plywood finished on the interior of the cabinet with vinyl.

2. Glue and nailed in 1/2-inch dado stapled to the hanging rail and cabinet bottom.

* + 1. Hanging Rail Construction: 1/2-inch, 7 ply, hardwood plywood.
    2. Shelves: 3/4-inch, hardwood plywood with bullnosed front edge, held in place with an adjustable self-locking clip.
    3. Wall Cabinet Tops: 1/2-inch-thick hardwood plywood with vinyl finish on top and bottom surfaces.
    4. Base Cabinet Toe Kick Panel: 1/2-inch-thick hardwood plywood.
       1. Typical Toe Kick: 4 inch high.
  1. STANDARD HARDWARE FOR SOMERSET CABINETS
     1. Hardware: BHMA A156.9, Types as recommended by the manufacturer for items listed.
     2. Door and Drawer Pulls:
        1. Metal Bar Pull: Arched 3-inch pull by Liberty, Model #P22667C with a Bronze

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finish, or approved equal.

* + 1. Soft Close Drawer Glides: Grass full extension, undermount glides with soft close, rated for 75 lbs.
    2. Door Hinges: Grass six-way adjustable hidden metal hinges with self-close feature.
  1. STANDARD FINISHES
     1. Standard Painted Finish by Cabinet Style: Cabinets shall be painted and finished with a post-catalyzed lacquer clear coat.
        1. Standard color for Somerset cabinets.
     2. Finish shall be applied to all exposed surfaces except toe kick panel.
  2. FABRICATION
     1. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
     2. Fabricate corners and joints without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
     3. Door and Drawer Miters: Tongue and groove, mitered and glued.
  3. COUNTERTOPS
     1. Plastic Laminate Countertops: ANSI A161.2.
        1. Type: Post-formed with integral backsplashes.
           1. Front Edges: No-drip
           2. Backsplashes: Minimum 4-inches high with cove beveled molding with Type A curved top and scribe edge.
           3. Provide backsplashes at juncture of countertop with back and side walls.
        2. Materials: High pressure plastic laminated to 3/4-inch-thick exterior plywood.
           1. Particleboard, flakeboard, fiberboard, or hardboard not allowed.
        3. Plastic Laminate: NEMA LE) 3, Type PF42, 1.1 mm (0.042 inch) thickness.
           1. Colors, patterns, finishes as selected from manufacturers standard, by Wilsonart or equal.

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* + - 1. Perimeter of Bottom of Countertops and Sink Cut-outs: Sealed with varnish.
    1. Cultured Marble Countertops: ANSI Z124.3 and HUD UM 73a.

1. Cast in molds with integral lavatory bowls to achieve required shape and configuration in coordination with vanity cabinets and plumbing trim.
2. Integral Lavatory Bowls: Recessed oval shape.
3. Holes for Plumbing Trim: Coordinate with plumbing requirements.
4. Provide radius corners and edges.
5. Backsplashes: Provide where counters meet walls including at back and at sides.
6. Finish: Polished.

PART 3 EXECUTION

* 1. EXAMINATION
     1. Verify adequacy of support framing.
  2. INSTALLATION
     1. Install casework, components and accessories in accordance with manufacturer's instructions.
     2. Use anchoring devices to suit conditions and substrate materials encountered.
     3. Set casework items plumb and square, securely anchored to building structure.
     4. Carefully scribe casework abutting other components, with maximum gaps of 1/32-inch. Use filler strips, not additional overlay trim for this purpose.
  3. ADJUSTING
     1. Adjust doors, drawers, hardware, fixtures, and other moving or operating parts to function smoothly.
  4. CLEANING
     1. Clean casework, countertops, shelves, and hardware.
  5. PROTECTION

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* + 1. Do not permit finished casework to be exposed to continued construction activity.

END OF SECTION