

DOCUMENT 00 91 13.02 – ADDENDUM 2

1.01 PROJECT INFORMATION

- A. Project Identification: Five Points Phase 4.
 - 1. Project Location: 400 McConnell Street, Knoxville, Tennessee 37915.
- B. Owner: Knoxville Community Development Corporation, 901 Broadway, N.E., Knoxville, Tennessee 37917-6699.
- C. Architect: BarberMcMurry architects, 505 Market Street, Suite 300, Knoxville, TN 37902-2175. Phone: 865-934-1915. Fax: 865-546-0242.
- D. Architect Project Number: 177700
- E. Date of Addendum: 09 January 2019.



1.02 NOTICE TO BIDDERS

- A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
- B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.
- C. The date for receipt of bids is unchanged by this Addendum, at same time and location.
 - 1. Bid Date: 2:00 PM on 15 January 2018.

1.03 ATTACHMENTS

- A. This Addendum includes the following attached Documents and Specification Sections:
 - 1. Section 01 23 00 – Alternates, dated 09 January 2019, new.
 - 2. Section 07 46 33 – Plastic Siding, dated 09 January 2019, new.
 - 3. Section 08 71 00 – Door Hardware, dated 09 January 2019, reissued.
 - 4. Section 09 65 16 – Resilient Sheet Flooring, dated 09 January 2019, new.
 - 5. Section 09 65 19 – Resilient Tile Flooring, dated 09 January 2019, reissued.
 - 6. Section 12 35 30.13 – Plastic-Laminate-Clad Residential Casework, dated 09 January 2019, new.
- B. This Addendum includes the following attached Sheets:
 - 1. Mechanical Sheet M001, revised 9 January 2019, reissued
 - 2. Mechanical Sheet A-M101, revised 9 January 2019, reissued
 - 3. Mechanical Sheet B-M101, revised 9 January 2019, reissued

4. Mechanical Sheet C-M101, revised 9 January 2019, reissued
5. Mechanical Sheet D1-M101, revised 9 January 2019, reissued
6. Mechanical Sheet D2-M101, revised 9 January 2019, reissued
7. Mechanical Sheet E-M101, revised 9 January 2019, reissued
8. Mechanical Sheet F-M101, revised 9 January 2019, reissued
9. Mechanical Sheet G1-M101, revised 9 January 2019, reissued
10. Mechanical Sheet G2-M101, revised 9 January 2019, reissued
11. Mechanical Sheet H1-M101, revised 9 January 2019, reissued
12. Mechanical Sheet H2-M101, revised 9 January 2019, reissued
13. Plumbing Sheet P0.0, revised 9 January 2019, reissued
14. Plumbing Sheet B-P102, revised 9 January 2019, reissued
15. Electrical Sheet ES2.1, revised 9 January 2019, reissued
16. Electrical Sheet ES3.1, revised 9 January 2019, reissued
17. Electrical Sheet E001, revised 9 January 2019, reissued
18. Electrical Sheet A-E101, revised 9 January 2019, reissued
19. Electrical Sheet B-E101, revised 9 January 2019, reissued
20. Electrical Sheet B-E102, revised 9 January 2019, reissued
21. Electrical Sheet C-E101, revised 9 January 2019, reissued
22. Electrical Sheet D1-E101, revised 9 January 2019, reissued
23. Electrical Sheet D1-E102, revised 9 January 2019, reissued
24. Electrical Sheet D2-E101, revised 9 January 2019, reissued
25. Electrical Sheet D2-E102, revised 9 January 2019, reissued
26. Electrical Sheet E-E101, revised 9 January 2019, reissued
27. Electrical Sheet F-E101, revised 9 January 2019, reissued
28. Electrical Sheet F-E102, revised 9 January 2019, reissued
29. Electrical Sheet G1-E101, revised 9 January 2019, reissued
30. Electrical Sheet G1-E101, revised 9 January 2019, reissued
31. Electrical Sheet H1-E101, revised 9 January 2019, reissued
32. Electrical Sheet H2-E101, revised 9 January 2019, reissued

END OF DOCUMENT 00 91 13.021

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.02 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.03 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other work of the Contract.
- C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Plastic-Laminate-Clad Residential Casework.
 - 1. Base Bid: Provide wood cabinets specified in Section 12 35 30 – Residential Casework.
 - 2. Alternate: Provide Plastic-Laminate-Clad Residential Casework specified in Section 12 35 30.13 – Plastic-Laminate-Clad Residential Casework.
- B. Alternate No. 2: Plastic Siding.
 - 1. Base Bid: Provide fiber-cement siding, soffits and trim specified in Section 07 46 00 – Siding.

2. Alternate: Provide plastic siding, soffits and trim as specified in Section 07 46 33 – Plastic Siding.
- C. Alternate No. 3: Vinyl Composition Tile in lieu of Vinyl Luxury Tile.
1. Base Bid: Provide Luxury Vinyl Tile (LVT) where noted on the Finish Plans.
 2. Alternate: Provide Vinyl Composition Tile (VCT) in lieu of Luxury Vinyl Tile (LVT) where noted on the Finish Plans.
- D. Alternate No. 4: Sheet Vinyl in lieu of Ceramic Tile.
1. Base Bid: Provide Ceramic Tile where noted on the Finish Plans.
 2. Alternate: Provide Sheet Vinyl in lieu of Ceramic Tile where noted on the Finish Plans.

END OF SECTION 01 23 00

SECTION 07 46 33 - PLASTIC SIDING

PART 1 - GENERAL

1.01 SECTION REQUIREMENTS

- A. Submittals: Product Data, Samples, and ICC-ES evaluation reports.
- B. Warranties: Manufacturer's standard from in which siding manufacturer agrees to repair or replace siding that fails in materials or workmanship within 10 years. Failures include, but are not limited to, cracking, deforming, fading, or otherwise deteriorating beyond normal weathering.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Vinyl Siding: ASTM D 3679, integrally colored.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Alside.
 - b. CertainTeed Corporation.
 - c. Exterior Portfolio; Crane.
 - d. Gentek Building Products, Inc.
 - e. Heartland Siding; a ProVia company.
 - f. Kaycan Ltd.
 - g. Mastic Home Exteriors; PLY GEM Siding Group.
 - h. Mitten Inc.
 - i. Norandex Building Materials Distribution, Inc.
 - j. RMC Siding.
 - k. Royal Building Products.
 - l. Variform, Inc.
 - 2. Horizontal Pattern: 10-inch exposure in plain, double, 5-inch-board style.
 - 3. Nominal Thickness: 0.044 inch.
 - 4. Texture: Wood grain.
 - 5. Minimum Profile Depth (Butt Thickness): 5/8 inch.
- B. Vinyl Soffit: ASTM D 4477, integrally colored.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Alside.
 - b. CertainTeed Corporation.
 - c. Exterior Portfolio; Crane.
 - d. Gentek Building Products, Inc.
 - e. Heartland Siding; a ProVia company.
 - f. Kaycan Ltd.
 - g. Mastic Home Exteriors; PLY GEM Siding Group.
 - h. Mitten Inc.
 - i. Norandex Building Materials Distribution, Inc.
 - j. RMC Siding.

- k. Royal Building Products.
 - l. Variform, Inc.
 - 2. Pattern: 12-inch exposure in V-grooved, double, 6-inch-board style.
 - 3. Ventilation: Provide unperforated soffit.
 - 4. Minimum Profile Depth: 5/8 inch.
 - C. Siding Accessories, General: Provide starter strips, edge trim, outside and inside corner caps, and other items as recommended by siding manufacturer for building configuration.
 - 1. Provide accessories made from same material as adjacent siding unless otherwise indicated.
 - D. Decorative Accessories: Provide the following vinyl decorative accessories as indicated:
 - 1. Corner posts.
 - 2. Door and window casings.
 - 3. Entrance and window head pediments.
 - 4. Pilasters.
 - 5. Louvers.
 - 6. Lattice.
 - 7. Fasciae.
 - 8. Moldings and trim.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install vinyl siding and soffit and related accessories according to ASTM D 4756.
 - 1. Install fasteners for horizontal vinyl siding no more than 16 inches o.c.

END OF SECTION 07 46 33

SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Mechanical door hardware for the following:
 - a. Swinging doors.
 - b. Folding doors.
 - 2. Cylinders for door hardware specified in other Sections.

1.02 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction and installation details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Other Action Submittals:
 - 1. Door Hardware Schedule: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - a. Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
 - b. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents.
 - c. Content: Include the following information:
 - 1) Identification number, location, hand, fire rating, size, and material of each door and frame.
 - 2) Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
 - 3) Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
 - 4) Fastenings and other pertinent information.
 - 5) Explanation of abbreviations, symbols, and codes contained in schedule.
 - 6) Mounting locations for door hardware.
 - 7) List of related door devices specified in other Sections for each door and frame.
 - 2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.03 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedule.

1.04 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Door Hardware:
 - a. Provide one of each type of lock and latchset.
 - b. Provide one of each deadbolt.
 - c. Provide 200 key blanks.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and an Architectural Hardware Consultant who is available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
 - 1. Warehousing Facilities: In Project's vicinity.
 - 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
- B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project.
- C. Source Limitations: Obtain each type of door hardware from a single manufacturer.
- D. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C, unless otherwise indicated.
- E. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meet requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. at the tested pressure differential of 0.3-inch wg of water.
- F. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- G. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines, ICC/ANSI A117.1, and HUD's "Fair Housing Accessibility Guidelines".
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
 - 2. Comply with the following maximum opening-force requirements:

- a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbf applied parallel to door at latch.
 - c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 - 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.
 - 4. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.
- H. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." In addition to Owner Contractor, and Architect, conference participants shall also include Installer's Architectural Hardware Consultant. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:
- 1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2. Preliminary key system schematic diagram.
 - 3. Requirements for key control system.
 - 4. Requirements for access control.
 - 5. Address for delivery of keys.
- I. Preinstallation Conference: Conduct conference at Project site.
- 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Inspect and discuss preparatory work performed by other trades.
 - 3. Review required testing, inspecting, and certifying procedures.
- 1.06 DELIVERY, STORAGE, AND HANDLING
- A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.
 - B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
 - C. Deliver keys to Owner by registered mail or overnight package service.
- 1.07 COORDINATION
- A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
 - B. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

- C. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.08 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection, cracking, or breakage.
 - b. Faulty operation of doors and door hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
 - 2. Warranty Period: Three years from date of Substantial Completion, unless otherwise indicated.
 - a. Manual Closers: 10 years from date of Substantial Completion.

1.09 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.01 SCHEDULED DOOR HARDWARE

- A. Provide door hardware for each door as scheduled in Part 3 "Door Hardware Schedule" Article to comply with requirements in this Section.
 - 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and products complying with BHMA designations referenced.
- B. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in Part 3 "Door Hardware Schedule" Article. Products are identified by using door hardware designations, as follows:
 - 1. Named Manufacturers' Products: Manufacturer and product designation are listed for each door hardware type required for the purpose of establishing minimum requirements. Manufacturers' names are abbreviated in Part 3 "Door Hardware Schedule" Article.
 - 2. References to BHMA Designations: Provide products complying with these designations and requirements for description, quality, and function.

2.02 HINGES

- A. Hinges: BHMA A156.1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.]
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Bommer Industries, Inc.

- b. Hager Companies.
- c. McKinney Products Company; an ASSA ABLOY Group company.
- d. PBB, Inc.
- e. Stanley Commercial Hardware; Div. of The Stanley Works.

2.03 SELF-CLOSING HINGES AND PIVOTS

- A. Self-Closing Hinges and Pivots: BHMA A156.17.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Baldwin Hardware Corporation.
 - b. Bommer Industries, Inc.
 - c. Hager Companies.
 - d. McKinney Products Company; an ASSA ABLOY Group company.
 - e. PBB, Inc.
 - f. Stanley Commercial Hardware; Div. of The Stanley Works.

2.04 MECHANICAL LOCKS AND LATCHES

- A. Lock Functions: As indicated in door hardware schedule.
- B. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
 - 1. Bored Locks: Minimum 1/2-inch (13-mm) latchbolt throw.
 - 2. Mortise Locks: Minimum 3/4-inch (19-mm) latchbolt throw.
 - 3. Deadbolts: Minimum 1-inch bolt throw.
- C. Lock Backset: 2-3/4 inches, unless otherwise indicated.
- D. Lock Trim:
 - 1. Description: Levers matching Neptune design as manufactured by Schlage.
 - 2. Levers: Cast.
 - 3. Escutcheons (Roses): Wrought.
 - 4. Dummy Trim: Match lever lock trim and escutcheons.
 - 5. Operating Device: Lever with escutcheons (roses).
- E. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.
- F. Bored Locks: BHMA A156.2; Grade 1 and 2 as scheduled; Series 4000.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Best Access Systems; Stanley Security Solutions, Inc.
 - c. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
 - d. SARGENT Manufacturing Company; ASSA ABLOY.
 - e. Yale Security Inc; an ASSA ABLOY Group company.
 - f. Stanley Commercial Hardware; Div. of The Stanley Works.

- G. Roller Latches: BHMA A156.16; Grade 1; rolling plunger that engages socket or catch, with adjustable roller projection.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Architectural Builders Hardware Mfg., Inc.
 - b. Baldwin Hardware Corporation.
 - c. Don-Jo Mfg., Inc.
 - d. Door Controls International, Inc.
 - e. IVES Hardware; an Ingersoll-Rand company.
 - f. Rockwood Manufacturing Company.
 - g. Stanley Commercial Hardware; Div. of The Stanley Works.

2.05 AUXILIARY LOCKS

- A. Bored Auxiliary Locks: BHMA A156.5: Grade 2; with strike that suits frame.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Best Access Systems; Stanley Security Solutions, Inc.
 - c. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
 - d. SARGENT Manufacturing Company; ASSA ABLOY.
 - e. Yale Security Inc; an ASSA ABLOY Group company.
 - f. Stanley Commercial Hardware; Div. of The Stanley Works.

2.06 LOCK CYLINDERS

- A. Lock Cylinders: Interchangeable type, constructed from brass or bronze, stainless steel, or nickel silver.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Best Access Systems; Stanley Security Solutions, Inc.
 - b. Stanley Commercial Hardware; Div. of The Stanley Works.
- B. Standard Lock Cylinders: BHMA A156.5; Grade 2 permanent cores; face finished to match lockset.
 - 1. Core Type: Interchangeable.
- C. Construction Cores: Provide construction cores that are replaceable by permanent cores. Provide 10 construction master keys.

2.07 KEYING

- A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference.
 - 1. Grand Master Key System: Change keys, a master key, and a grand master key operate cylinders.
 - 2. Keyed Alike: Key all cylinders to same change key.
- B. Keys: Brass.
 - 1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:

- a. Notation: "DO NOT DUPLICATE."
2. Quantity: In addition to one extra key blank for each lock, provide the following:
 - a. Master Keys: Five.
 - b. Grand Master Keys: Five.

2.08 KEY CONTROL SYSTEM

- A. Key Control Cabinet: BHMA A156.5; metal cabinet with baked-enamel finish; containing key-holding hooks, labels, 2 sets of key tags with self-locking key holders, key-gathering envelopes, and temporary and permanent markers; with key capacity of 150 percent of the number of locks.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. American Key Boxes and Cabinets.
 - b. GE Security, Inc.
 - c. HPC, Inc.
 - d. Lund Equipment Co., Inc.
 - e. MMF Industries.
 - f. Tri Palm International.
 2. Wall-Mounted Cabinet: Cabinet with hinged-panel door equipped with key-holding panels and pin-tumbler cylinder door lock.

2.09 SURFACE CLOSERS

- A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. LCN Closers; an Ingersoll-Rand company.
 - b. Norton Door Controls; an ASSA ABLOY Group company.
 - c. Rixson Specialty Door Controls; an ASSA ABLOY Group company.
 - d. SARGENT Manufacturing Company; an ASSA ABLOY Group company.
 - e. Yale Security Inc.; an ASSA ABLOY Group company.

2.10 MECHANICAL STOPS AND HOLDERS

- A. Wall- and Floor-Mounted Stops: BHMA A156.16; polished cast brass, bronze, or aluminum base metal.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Architectural Builders Hardware Mfg., Inc.
 - b. Baldwin Hardware Corporation.
 - c. Burns Manufacturing Incorporated.
 - d. Cal-Royal Products, Inc.
 - e. Don-Jo Mfg., Inc.
 - f. Door Controls International, Inc.
 - g. Hager Companies.
 - h. Hiawatha, Inc.

- i. IVES Hardware; an Ingersoll-Rand company.
- j. Rockwood Manufacturing Company.
- k. Stanley Commercial Hardware; Div. of The Stanley Works.
- l. Trimco.

2.11 DOOR GASKETING

- A. General: Provide continuous gasketing on exterior doors, provide noncorrosive fasteners for exterior applications and elsewhere as indicated.
 - 1. Perimeter Gasketing: Apply to head and jambs, forming a seal between door and frame.
 - 2. Door Sweeps and Door Shoes: Apply to bottom of door, forming a seal with threshold when door is closed.
 - 3. Door Corner Pads: Apply to door jambs at threshold,
- B. Air Leakage: None at jambs and head. Not to exceed 0.50 cfm per foot of crack length for gasketing as tested according to ASTM E 283 at sweep.
- C. Aluminum Seal Retainers and Replaceable Seal Inserts.
 - 1. Provide only aluminum seal retainers that mechanically accept barbed, foam inserts for easy replacement.
 - a. Seal Retainers shall be 1 1/4" X 3/8", T 3 aluminum. Tolerance +/- .001". Seal Retainers shall be designed to not allow "oil-canning" during installation.
 - 2. Provide only open-celled, passive, Replaceable Seal Foam Inserts with polyethylene liner and are readily available from stocks maintained by manufacturer.
 - a. Foam Inserts shall be 1 1/4" deep when in un-retracted shape.
 - b. Foam Inserts shall have a U/L Fire Rating rated at 90 minutes.
 - c. Foam Inserts polyethylene liner shall contain chemical additives making them UL and paint resistant.
 - d. Foam Inserts shall be CFC free.
 - e. Foam Inserts shall exceed 702.
- D. Corner Pads:
 - 1. Provide only non-wicking open celled wedges with polyethylene liner. {Required.} Door Sweeps and Door Shoes.
- E. Door Sweeps:
 - 1. Provide Type 6 nylon brushes that are locked in to a steel channel and retained in an aluminum extrusion.
- F. Testing:
 - 1. Water infiltration: Passed water penetration tests at 25 mph {40 km/ h} and 34 mph {55 km/ h} ASTM E331 standard test method.
 - 2. Water Absorption: No visible effects in degradation; water absorption negligible after being submerged in water 24 hours then frozen for 1 week. Compressed 50% upon removal from freezer.
 - 3. Performance Testing: Tested in accordance with ASTM E 273 on "real life" test. Results reduced total cfm 17% on one door. Results will vary according to door condition.

- G. Adjustment:
 - 1. Adjust and check the operating system of the door to ensure proper function of hardware. Due to the passive nature of the Seal Inserts, hardware adjustment is not required if installed according to directions.
- H. Warranty:
 - 1. Insert Seals are Lifetime Warranted to function, This warranty applies to function, not to wear.
- I. ACCEPTABLE MANUFACTURERS
 - 1. Storm Strips Corp., 224 Diamond Valley Pass, Canton, GA 30114.
 - 2. Green Seal USA, Inc., Marietta, GA.

2.12 THRESHOLDS

- A. Thresholds: BHMA A156.21; fabricated to full width of opening indicated.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Hager Companies.
 - b. National Guard Products.
 - c. Pemko Manufacturing Co.; an ASSA ABLOY Group company.
 - d. Reese Enterprises, Inc.
 - e. Zero International.

2.13 FOLDING DOOR HARDWARE

- A. Sliding Door Hardware: BHMA A156.14; consisting of complete sets including rails, hangers, supports, bumpers, floor guides, and accessories indicated.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Cox, Arthur, & Sons, Inc.
 - b. Hager Companies.
 - c. Henderson, PC Inc.
 - d. Johnson, L. E., Products, Inc.
 - e. Stanley Commercial Hardware; Div. of The Stanley Works.

2.14 AUXILIARY DOOR HARDWARE

- A. Auxiliary Hardware: BHMA A156.16.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Baldwin Hardware Corporation.
 - b. Cal-Royal Products, Inc.
 - c. Don-Jo Mfg., Inc.
 - d. Hager Companies.
 - e. Rockwood Manufacturing Company.
 - f. Stanley Commercial Hardware; Div. of The Stanley Works.
 - g. Trimco.

2.15 FABRICATION

- A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rated labels and as otherwise approved by Architect.
 - 1. Manufacturer's identification is permitted on rim of lock cylinders only.
- B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.
- C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.
 - 1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
 - 2. Fire-Rated Applications:
 - a. Wood or Machine Screws: For the following:
 - 1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
 - 2) Strike plates to frames.
 - 3) Closers to doors and frames.
 - 3. Fasteners for Wood Doors: Comply with requirements in DHI WDHS.2, "Recommended Fasteners for Wood Doors."
 - 4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.16 FINISHES

- A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
- B. Wood Doors: Comply with DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."

3.03 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
 - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- C. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- D. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- E. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- F. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

- G. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- H. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.04 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 30 degrees.
 - 2. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately six months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.05 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.
- D. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

3.06 DOOR HARDWARE SCHEDULE

- A. For each opening where scheduled, provide the following:

Hardware Set No. 1

Each to have:

3	Hinges	Hager BB1279, 4.5" X 4.5", US26D
1	Passage Set	Schlage ND10S – Neptune, US26D
1	Door Closer	LCN 4011/4111 X Sprayed Aluminum
1	Door Stop	Hager 236W OR 241F, US26D
1	Threshold	NGP 884V
1	Weatherstripp	Stormstrips

Hardware Set No. 2

Each to have:

6	Hinges	Hager BB1263 – 4.5" x 4.5", US26D
2	Auto Flush Bolts	Hager 296W US26D
1	Dust Proof Strike	Hager 280X US26D
1	Storeroom Set	Schlage ND80PM – Neptune, US26D
1	Interchangeable Core	
1	Latch Protector	Don-Jo LP-111, US32D
2	Silencers	Ives SR64

Hardware Set No. 3:

Each to have:

2	Spring Hinges	Hager 1250, 4.5.x 4.5, US26D
1	Hinge	Hager BB1279, 4.5 x 4.5, US26D
1	Passage Set	Schlage AL10S, Neptune, US26D
1	Deadbolt	Schalge BC160P,US26D
1	Interchangeabe Core	
1	Viewer	Rockwood 622, US26D
1	Threshold	NGP 425, Mill.
1	Door Sweep	Stormstrips
1 set	Weatherstripping	Stormstrips
1	Door Stop	

Hardware Set No. 4

Each to have:

3	Hinges	Coordinate with door supplier
1	Passage Set	Schlage AL10S, Neptune, US26D
1	Door Stop	Rockwood 525

Hardware Set No. 5

Each to have:

1 set	Folding Door Hardware	L.E. Johnson FS100 Series, Length as required.
-------	-----------------------	--

Hardware Set No. 6

Each to have:

3	Hinges	Coordinate with door supplier
1	Privacy Set	Schalge AL40S, Neptune, US26D
1	Door Stop	Rockwood 525

Hardware Set No. 7

Each to have:

3	Hinges	Coordinate with door supplier
1	Lockset	Schalge AL53PD, Neptune US26D
1	Door Stop	Rockwood 525

Hardware Set No. 8

Each to have:

- 6 Hinges
- 2 Dummy Trim
- 2 Roller Latches
- 2 Door Stops

Coordinate with door supplier
Schlage AL170, Neptune, US26D
Rockwood 594

END OF SECTION 08 71 00

SECTION 09 65 16 - RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.01 SECTION REQUIREMENTS

- A. Submittals: Product data and Samples.
- B. Extra Materials: Deliver to Owner at least 50 linear feet, in roll form and in full roll width, for each type and color of resilient sheet flooring installed.

PART 2 - PRODUCTS

2.01 VINYL SHEET FLOORING WITH BACKING

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Armstrong World Industries, Inc.
- B. Basis of Design Product: Duality Premium, manufactured by Armstrong World Industries, Inc.
- C. Vinyl Sheet Floor Covering with Backing: ASTM F 1303, Type I, minimum binder content of 90 percent, Grade 2.
- D. Wearing Surface: Smooth.
- E. Sheet Width: 12 feet.
- F. Seamless-Installation Method: Chemically bonded.

2.02 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement- or blended-hydraulic-cement-based formulation provided or approved by flooring manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit floor covering and substrate conditions indicated.
 - 1. Low-Emitting Materials: Comply with Sustainable Design Requirements - LEED 2008 For Homes.
- C. Chemical-Bonding Compound: Manufacturer's product for chemically bonding seams.
- D. Floor Polish: Protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Prepare concrete substrates according to ASTM F 710. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
- B. Unroll sheet floor coverings and allow them to stabilize before cutting and fitting.
- C. Maintain uniformity of resilient sheet flooring direction, and match edges for color shading at seams.
- D. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in substrates.
- E. Seamless Installation:
 - 1. Chemically Bonded Seams: Bond seams with chemical-bonding compound to permanently fuse sections into a seamless flooring.
- F. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor covering before applying liquid floor polish.
 - 1. Apply three coats.

END OF SECTION 09 65 16

SECTION 09 65 19 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Solid vinyl floor tile.
 - 2. Vinyl composition tile.

1.02 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For each type of floor tile. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
 - 1. Show details of special patterns.
- C. Samples for Verification: Full-size units of each color and pattern of floor tile required.
 - 1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.
- D. Product Schedule: For floor tile. Use same designations indicated on Drawings.

1.03 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.04 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish one box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.
- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockups for floor tile including resilient base and accessories.
 - a. Size: Minimum 100 sq. ft. for each type, color, and pattern in locations directed by Architect.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store floor tiles on flat surfaces.

1.07 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following time periods:
 1. 48 hours before installation.
 2. During installation.
 3. 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor tile installation.
- D. Close spaces to traffic for 48 hours after floor tile installation.
- E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For resilient tile flooring, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
- B. FloorScore Compliance: Resilient tile flooring shall comply with requirements of FloorScore certification.
- C. Low-Emitting Materials: Flooring system shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.02 SOLID VINYL FLOOR TILE

- A. Product: Patcraft, Timber Grove 1323V, Color: Thicket 00729, 12 mil wear layer, 5.96" X 48",
- B. Tile Standard: ASTM F 1700.
- C. Seamless-Installation Method: Chemically bonded.

- D. Colors and Patterns: As indicated by manufacturer's designations.

2.03 VINYL COMPOSITION FLOOR TILE

- A. Products: Subject to compliance with requirements, provide the following:
 - 1. Armstrong World Industries, Inc., Excelon VCT.
- B. Tile Standard: ASTM F 1066, Class 2, through-pattern tile.
- C. Wearing Surface: Smooth.
- D. Thickness: 0.125 inch.
- E. Size: 12 by 12 inches.
- F. Colors and Patterns: As selected by Architect from manufacturer's full range.

2.04 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
 - 1. Adhesives shall comply with the following limits for VOC content:
 - a. Vinyl Composition Tile Adhesives: 50 g/L or less.
 - b. Rubber Floor Adhesives: 60 g/L or less.
- C. Seamless-Installation Accessories:
 - 1. Chemical-Bonding Compound: Manufacturer's product for chemically bonding seams.
 - a. Bonding compound shall have a VOC content of 350 g/L or less.
- D. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
 - 4. Moisture Testing: Proceed with installation only after substrates pass testing according to floor tile manufacturer's written recommendations, but not less stringent than the following:
 - a. Perform anhydrous calcium chloride test according to ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes according to ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level.
- C. Access Flooring Panels: Remove protective film of oil or other coating using method recommended by access flooring manufacturer.
- D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- E. Do not install floor tiles until they are the same temperature as the space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
- F. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.03 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
 - 1. Lay tiles in pattern indicated.
- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles in pattern of colors and sizes indicated.
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.
- G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- H. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- I. Seamless Installation:
 1. Chemically Bonded Seams: Bond seams with chemical-bonding compound to permanently fuse sections into a seamless flooring. Prepare seams and apply compound to produce tightly fitted seams without gaps, overlays, or excess bonding compound on flooring surfaces.

3.04 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 1. Remove adhesive and other blemishes from exposed surfaces.
 2. Sweep and vacuum surfaces thoroughly.
 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish for VCT: Remove soil, visible adhesive, and surface blemishes from floor tile surfaces before applying liquid floor polish.
 1. Apply three coats.
- E. Cover floor tile until Substantial Completion.

END OF SECTION 09 65 19

SECTION 12 35 30.13 – PLASTIC-LAMINATE-CLAD RESIDENTIAL CASEWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Kitchen cabinets.
 - 2. Vanity cabinets.
 - 3. Plastic-laminate countertops and backsplashes.
- B. Related Sections:
 - 1. Section 113100 "Residential Appliances" for appliances.

1.02 DEFINITIONS

- A. Exposed Surfaces of Cabinets: Surfaces visible when doors and drawers are closed, including visible surfaces in open cabinets or behind glass doors.
- B. Semiexposed Surfaces of Cabinets: Surfaces behind opaque doors or drawer fronts, including interior faces of doors and interiors and sides of drawers, and bottoms of wall cabinets.
- C. Concealed Surfaces of Cabinets: Surfaces not usually visible after installation, including sleepers, web frames, dust panels, bottoms of drawers, ends of cabinets installed directly against and completely concealed by walls or other cabinets, and tops of wall cabinets and utility cabinets.

1.03 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Cabinets.
 - 2. Plastic-laminate countertops.
 - 3. Cabinet hardware.
- B. Sustainable Design Submittals:
 - 1. For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
 - 2. Chain-of-custody certificates indicating that wood used to produce cabinets and countertops complies with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product.
 - 3. For adhesives and composite wood products, documentation indicating that product contains no urea formaldehyde.
 - 4. For adhesives and composite wood and agrifiber products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of

Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- C. Shop Drawings: For cabinets and countertops. Include plans, elevations, details, and attachments to other work. Show materials, finishes, filler panels, hardware, edge and backsplash profiles, methods of joining countertops, and cutouts for plumbing fixtures.
- D. Samples for Initial Selection: For each type of material exposed to view.

1.04 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified manufacturer.
- B. Product Certificates: For casework, from manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Obtain cabinets from a manufacturer that is certified for chain of custody by an FSC-accredited certification body.
- B. Source Limitations for Cabinets: Obtain cabinets from single source from single manufacturer.
- C. Product Options: Drawings indicate size, configurations, and finish material of cabinets by referencing designated manufacturer's catalog numbers. Other manufacturers' cabinets of similar sizes and door and drawer configurations, same finish material, and complying with the Specifications may be considered. See Section 01 60 00 "Product Requirements."

1.06 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install casework until building is enclosed, wet work is complete and dry, and temporary HVAC system is operating and maintaining temperature and humidity conditions at occupancy levels during the remainder of the construction period.
- B. Established Dimensions: Where casework is indicated to fit to other construction, establish dimensions for areas where casework is to fit. Coordinate construction to ensure that actual dimensions correspond to established dimensions. Provide fillers and scribes to allow for trimming and fitting.
- C. Field Measurements: Where casework is indicated to fit to existing construction, verify dimensions of existing construction by field measurements before fabrication and indicate measurements on Shop Drawings. Provide fillers and scribes to allow for trimming and fitting.
- D. Field Measurements for Countertops: Verify actual dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

1.07 COORDINATION

- A. Coordinate layout and installation of blocking and reinforcement in partitions for support of casework.
- B. Coordinate locations of utilities that will penetrate countertops or backsplashes.

PART 2 - PRODUCTS

2.01 CABINETS

- A. Basis of Design Product: The design for cabinets is based on Merillat Classic Fusion. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
 - 1. Grandview Products Co. Inc
 - 2. MasterBrand Cabinets, Inc.
- B. Quality Standard: Provide cabinets that comply with KCMA A161.1.
 - 1. KCMA Certification: Provide cabinets with KCMA's "Certified Cabinet" seal affixed in a semiexposed location of each unit and showing compliance with the above standard.
- C. Face Style: Flush overlay; door and drawer faces cover cabinet fronts with only enough space between faces for operating clearance.
- D. Cabinet Style: Face frame.
- E. Door and Drawer Fronts: Solid-wood stiles and rails, 3/4 inch thick, with 1/4-inch- thick, veneer-faced plywood center panels.
- F. Face Frames: 3/4-by-1-5/8-inch solid wood with glued mortise and tenon or doweled joints.
- G. Exposed Cabinet End Finish: Wood veneer, or plastic laminate as selected by Architect.
- H. Factory Finishing: Finish cabinets at factory. Defer only final touchup until after installation.

2.02 CABINET MATERIALS

- A. General:
 - 1. Certified Wood Materials: Fabricate cabinets with wood and wood-based products produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
 - 2. Adhesives and Composite Wood and Agrifiber Products: Do not use products that contain urea formaldehyde.
 - 3. Adhesives: Use adhesives that comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

4. Composite Wood and Agrifiber Products: Products shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
 5. Hardwood Lumber: Kiln dried to 7 percent moisture content.
 6. Softwood Lumber: Kiln dried to 10 percent moisture content.
 7. Hardwood Plywood: HPVA HP-1, made with adhesive containing no urea formaldehyde.
 8. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde.
 - a. Recycled Content: Not less than 25 percent preconsumer or postconsumer recycled content.
 9. Particleboard: Straw-based particleboard complying with requirements in ANSI A208.1, Grade M-2, except for density.
 10. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
 - a. Recycled Content: Not less than 25 percent preconsumer or postconsumer recycled content.
 11. Hardboard: ANSI A135.4, Class 1 Tempered.
 - a. Recycled Content: Not less than 25 percent preconsumer or postconsumer recycled content.
- B. Exposed Materials:
1. Exposed Wood Species: Maple
 - a. Select materials for compatible color and grain. Do not use two adjacent exposed surfaces that are noticeably dissimilar in color, grain, figure, or natural character markings.
 - b. Staining and Finish: As selected by Architect from manufacturer's full range.
 2. Solid Wood: Clear hardwood lumber of species indicated, free of defects.
 3. Plywood: Hardwood plywood with face veneer of species indicated, with Grade A faces and Grade C backs of same species as faces.
 - a. Edge band exposed edges with veneer edging of same species as face veneer.
- C. Semiexposed Materials: Unless otherwise indicated, provide the following:
1. Solid Wood: Sound hardwood lumber, selected to eliminate appearance defects. Same species as exposed surfaces or stained to be compatible with exposed surfaces.
 2. Plywood: Hardwood plywood with Grade C faces and not less than Grade 3 backs of same species as faces. Face veneers of same species as exposed surfaces[or stained to be compatible with exposed surfaces].
 3. Vinyl-Faced Particleboard: Medium-density particleboard with embossed, wood-grain-patterned vinyl film adhesively bonded to particleboard.
 - a. Provide vinyl film on both sides of shelves, dividers, drawer bodies, and other components with two semiexposed surfaces and on semiexposed edges.
 - b. Colors, Textures, and Patterns: As selected by Architect from cabinet manufacturer's full range.
- D. Concealed Materials: Solid wood or plywood, of any hardwood or softwood species, with no defects affecting strength or utility; particleboard; medium-density fiberboard; or hardboard.

2.03 CABINET HARDWARE

- A. General: Manufacturer's standard units complying with BHMA A156.9, of type, size, style, material, and finish as selected by Architect from manufacturer's full range.
- B. Pulls: Wire pulls.
- C. Hinges: Concealed butt hinges.
- D. Drawer Guides: Epoxy-coated-metal, self-closing drawer guides; designed to prevent rebound when drawers are closed; with nylon-tired, ball-bearing rollers; and complying with BHMA A156.9, Type B05011 or B05091.

2.04 PLASTIC-LAMINATE COUNTERTOPS

- A. Quality Standard: KCMA A161.2.
- B. Configuration: Provide countertops with the following front, cove (intersection of top with backsplash), backsplash, and endsplash style:
 - 1. Front: No drip (raised marine edge with rolled front).
 - 2. Cove: Cove molding (one-piece postformed laminate supported at junction of top and backsplash by wood cove molding).
 - 3. Backsplash: Curved or waterfall shape with scribe.
 - 4. Endsplash: None.
- C. Plastic-Laminate Substrate: Particleboard not less than 3/4 inch thick.
 - 1. For countertops at sinks and lavatories, use Grade M-2-Exterior-Glue particleboard or exterior-grade plywood.
 - 2. Build up countertop thickness to 1-1/2 inches at front, back, and ends with additional layers of particleboard laminated to top.
- D. Paper Backing: Provide paper backing on underside of countertop substrate.

2.05 COUNTERTOP MATERIALS

- A. Plastic Laminate: High-pressure decorative laminate complying with NEMA LD 3.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following as indicated on the finish legend:
 - a. Nevamar.
 - b. Wilsonart International.
 - 2. Grade: HGS.
 - 3. Grade for Backer Sheet: BKL.
 - 4. Colors, Textures, and Patterns: As indicated by manufacturer's designations.
- B. Certified Wood Materials: Fabricate countertops with wood and wood-based products produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Composite Wood and Agrifiber Products: Products shall comply with the testing and product requirements of the California Department of Health Services' "Standard

Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- D. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.
 - 1. Recycled Content: Not less than 25 percent preconsumer or postconsumer recycled content.
- E. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.
- F. Adhesives: Do not use adhesives that contain urea formaldehyde.
- G. Adhesives: Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install cabinets with no variations in flushness of adjoining surfaces; use concealed shims. Where cabinets abut other finished work, scribe and cut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match cabinet face.
- B. Install cabinets without distortion so doors and drawers fit openings, are aligned, and are uniformly spaced. Complete installation of hardware and accessories as indicated.
- C. Install cabinets and countertop level and plumb to a tolerance of 1/8 inch in 8 feet.
- D. Fasten cabinets to adjacent units and to backing.
 - 1. Fasten wall cabinets through back, near top and bottom, at ends and not less than 24 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips.
 - 2. Fasten wall cabinets through back, near top and bottom, at ends and not less than 24 inches o.c., with toggle bolts through metal backing behind gypsum board.
- E. Fasten plastic-laminate countertops by screwing through corner blocks of base units into underside of countertop. Form seams using splines to align adjacent surfaces, and secure with glue and concealed clamping devices designed for this purpose.
 - 1. Provide cutouts for sinks and lavatories, including holes for faucets and accessories.
 - 2. Seal edges of cutouts by saturating with varnish.

3.02 ADJUSTING AND CLEANING

- A. Adjust cabinets and hardware so doors and drawers are centered in openings and operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.
- B. Clean casework on exposed and semiexposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

END OF SECTION 12 35 30