01 10 00 - SUMMARY

A. Section 01 00 00 General Requirements govern the Work of the entire Contract, including work shown on HVAC, plumbing, fire protection and electrical Drawings.

B. Contractor's Review of Documents:
1. Drawings and specifications are complementary, and what appears in one shall be interpreted as if it appeared in both.
2. Verify existing conditions in the field prior to demolition or installation of new construction. Report discrepancies to the Architect immediately.
3. Do not scale drawings; use written dimensions. Where dimensions are not provided, consult the architect.

C. Definitions:
1. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
2. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
3. "Provide": Furnish and install, complete and ready for the intended use.

D. Owner-Furnished, Contractor-Installed Items: The following items will be furnished by the Owner for installation by the Contractor:
1. Demountable partitions.
2. System Furniture.
3. Lab equipment and furniture.

01 30 00 - ADMINISTRATIVE REQUIREMENTS

A. Administrative Submittals:
1. Schedule of Values: Submit prior to first Application for Payment.
2. Submittal Schedule: Submit prior to first Application for Payment.
3. Daily Construction Reports and Field Condition Reports: Compile and submit monthly.

B. Changes to the Work:
1. Initiating Changes: Provide proposed change order when requested by the Architect for a change to the contract documents. Upon encountering unforeseen conditions, prepare a PCO substantiating increased costs necessary to address the condition.
2. Proposed Change Order (PCO): Provide detailed accounting of labor, materials, equipment rentals and subcontracting costs necessary to complete the proposed work. Indicate: base labor rate and detail of markups for direct personnel expense; subcontractors' costs; quantities and unit costs of materials and equipment; and mark-up for overhead and profit. Include proposed changes to project schedule. Require subcontractors to include same level of detail.
3. Approved PCOs will be incorporated into a Change Order prepared by the Architect.

C. Requests for Information:
1. Upon discovery of information required from the Architect, submit a written RFI to the Architect. Provide space on form for Architect's response.
2. Thoroughly describe information requested, including specific drawing and specification references. Include Contractor's proposed resolution.
3. Maintain detailed log of RFIs and distribute copy at project meetings.

D. Project Management:
1. Project meetings: Conduct weekly progress meetings, take minutes, and distribute within 3 days of meeting.
2. Construction Progress Schedule: Prepare schedule indicating start and stop dates, and project milestones. Update as work progresses. Submit prior to starting work, twice per month, and when schedule changes.

E. Coordination Drawings: Prepare Coordination Drawings for HVAC, plumbing, fire protection and electrical work, to resolve location and dimension conflicts prior to fabricating and installing the work.
1. Show actual existing dimensions and conditions, dimensions of equipment, ductwork, piping, conduit, lighting fixtures, sprinkler heads and other elements. Indicate ceiling heights.
2. Resolve conflicts. Submit sketches to Architect describing proposed resolution.
3. Where multiple components are hung from the same overhead structural members, assess the combined loads and possible conflicts in support locations. Make adjustments required to ensure that allowable loads on building structural members are not exceeded.

F. Action Submittals: Prepare and submit Shop Drawings, Product Data, and Samples indicated. Improperly prepared submittals will be returned by the Architect without action for resubmittal.
1. Assign each submittal a unique submittal number. Indicate Project name, Contractor's name, name of subcontractor or supplier who prepared the submittal, Specification Section number, and Drawing number or detail references if applicable. Provide space for Architect's action stamp.
2. Contractor's Review: Affix Contractor's stamp indicating that the Submittal has been reviewed and approved by Contractor and coordinated with other Work.
3. Deviations: Highlight, circle, or otherwise specifically identify deviations from the Contract Documents. Failure to indicate deviations shall not relieve Contractor of obligation to provide work as indicated on Contract Documents.
4. Copies: Three for printed matter. One for samples; or one set showing range of choices when selection by Architect is required.
5. Distribution: Distribute copies of approved submittals to Owner, subcontractors and suppliers, and maintain one copy at project site.

G. Informational Submittals: Coordination drawings, qualification data, certifications and test reports are required for information only and do not require action by the Architect. Prepare submittals as indicated for action submittals, except provide two copies. Architect will not return informational submittals.

01 40 00 - QUALITY REQUIREMENTS

A. Mockups: Before installing Work requiring mockups, build mockups using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
3. Demonstrate the proposed range of aesthetic effects and workmanship.
4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work. Approved mockups may remain part of completed Work.

01 50 00 - TEMPORARY FACILITIES AND CONTROLS

A. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
1. Supervise welding operations according to requirements of authorities having jurisdiction. Provide and pay for fire-watch when required.
2. If it is necessary to temporarily shut-down existing fire-detection or fire protection systems, provide temporary safeguards acceptable to the local fire department.

B. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction.

01 60 00 - PRODUCT REQUIREMENTS

A. Substitutions: Where specific products are named, furnish the products specified or submit a formal request for substitution. When requesting a substitution, provide sufficient, detailed information about proposed substitution to permit Architect to make an informed evaluation. As a minimum:
1. Explain why substitution is being proposed.
2. Submit detailed product and performance data for specified product and proposed substitution, to facilitate comparison.
3. Compare the properties of the proposed substitution with specified products.
4. Compare cost of proposed substitution with specified products. Cost savings shall be credited to the Owner.
5. Describe effect of substitution on adjacent and connected work. Describe changes required in other work to accommodate proposed substitution.
6. Describe effect of substitution on construction schedule.
7. Submit samples, if requested.
8. Identify instances of successful installation of the proposed substitution.

B. If the request for substitution is accepted by Architect and Owner, coordinate the work affected by substitution so necessary modifications to adjacent and interconnected work will be made at no additional cost to the Owner.

01 73 00 - EXECUTION

A. Acceptance of Conditions: Examine substrates, areas, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance.
1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
3. Examine walls and floors for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

B. General Execution Requirements:
1. Comply with manufacturer's printed instructions and with current, generally accepted industry standards.
2. Take field measurements before fabricating work to ensure that components fit together properly.
3. Install work in locations shown, accurately in aligned to indicated lines and levels.
4. 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.
5. Coordinate locations of exposed wall mounted mechanical and electrical devices, such as light switches, thermostats, and receptacles, to align devices horizontally and vertically. When in doubt, submit drawing showing proposed locations to the architect for comment.

C. Blocking and Attachment: Provide suitable concealed blocking or metal strapping for each item attached to wall and ceiling surfaces regardless of whether blocking is indicated on drawings. Provide blocking and fastening sufficient to sustain loads imposed by attached item.

4. 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.
5. Coordinate locations of exposed wall mounted mechanical and electrical devices, such as light switches, thermostats, and receptacles, to align devices horizontally and vertically. When in doubt, submit drawing showing proposed locations to the architect for comment.

C. Blocking and Attachment: Provide suitable concealed blocking or metal strapping for each item attached to wall and ceiling surfaces regardless of whether blocking is indicated on drawings. Provide blocking and fastening sufficient to sustain loads imposed by attached item.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.

D. Cutting and Patching: Perform cutting and patching necessary to make the work fit together with existing construction and with new work.
1. Provide temporary support of Work to be cut.
2. Provide materials and products which comply with requirements for new work specified in other Sections.
3. Use cutting methods least likely to damage elements retained or adjoining construction. Use hand or small power tools designed for sawing and grinding, not hammering and chopping.
4. Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable.
5. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

E. Cleaning: Clean work areas daily. Remove and dispose of packing materials, excess construction materials, trash and debris. Dispose of waste materials lawfully.

01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

A. Salvage/Recycle Goals: Owner's goal is to salvage and recycle as much nonhazardous construction and demolition waste as possible.

B. Develop and enforce a construction waste management plan that will recover at least 75% of demolition and construction waste materials that would otherwise go into landfill. Reporting method and level of detail shall satisfy the Owner.

C. Separate recyclable waste from other waste materials, trash, and debris to the maximum extent practical. Coordinate with recyclers and materials suppliers who accept materials for recycling.

D. Metals: Separate metals by type.

E. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.

F. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.

G. Separate suspension system, trim, and other metals from panels and tile and sort with other metals.

H. Carpet: Roll large pieces tightly after removing debris and trash. Stack tiles on pallets. Store in closed container or trailer as required by recycler.

01 77 00 - CLOSEOUT procedures

A. Substantial Completion Procedures:
1. Start equipment and test operation, including controls and safeties. Adjust and lubricate.
2. Prepare punch list of items still to be completed or corrected and submit to the Architect.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain occupancy permits, certificates of inspection, and operating certificates that permit Owner to occupy and use the building. Submit copies to Architect.
5. Clean the work.
6. Touch up and otherwise repair and restore marred exposed finishes.
7. Submit a written request for inspection for Substantial Completion to the Architect.
8. If Architect finds the work to be Substantially Complete, in accordance with the Contract Documents, and available for Owner's occupancy, the Architect will prepare a Certificate of Substantial Completion, and attach a punch list of work still be completed or corrected.

B. Preparation of Record Drawings: Mark Record Prints to show actual installation. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
1. Architect will furnish Contractor one set of CAD Drawings of the Contract Drawings for use in recording information. Architect makes no representations as to the accuracy or completeness of CAD Drawings as they relate to the Contract Drawings. Contractor shall complete Architect's standard CAD data release form.

C. Closeout Submittals:
1. Record Drawings: Submit one set of marked-up Record Prints. After approval, prepare full set of corrected drawings indicating changes prepared with CAD software and submitted on disk.
2. Operation and Maintenance Manuals: Submit one copy of each manual for Architect's review of format and completeness. Correct or modify to comply with Architect's comments. Submit 3 copies of corrected manuals.
3. Deliver spare parts and extra materials to location designated by Owner. Label with manufacturer's name and model number.
4. Product Warranties: Organized into binders.

D. Demonstration: Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

E. Final Completion: Submit the following:
1. Final Application for Payment.
2. Copy of Architect's punch list with certification from the Contractor that each item has been completed or otherwise resolved for acceptance.
3. Evidence of final, continuing insurance coverage complying with insurance requirements.
4. Written request for final inspection by the Architect.

02 41 20 - SELECTIVE DEMOLITION

A. Definitions:
1. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
2. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
3. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
4. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

B. Existing Warranties: Do not void existing warranties.

C. Existing Services and Systems: Maintain services and systems indicated to remain and protect them against damage during selective demolition operations. Where mechanical or electrical systems are indicated to be selectively demolished, locate, identify, disconnect, and seal or cap off indicated utility services in concealed location.

D. Demolish and remove existing construction only to the extent required by new construction and as indicated. Cut work neatly, without damaging adjacent surfaces.

E. Removed and Salvaged Items: Clean and package items and deliver to location indicated by Owner. Remove and salvage items as requested by Owner.

F. Removed and Reinstalled Items: Protect from damage until reinstallation. Clean and reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated. Remove and reinstall items listed below, and as requested by Owner:
1. Fire extinguishers.
2. Light fixtures.
3. Demountable partitions.
4. Workstation cubicles.

G. Disposal: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and dispose of them legally.

H. Cleaning and Repair: Remove dust, dirt, and debris caused by selective demolition operations. Restore damaged surfaces which are indicated to remain.

I. Ceilings: Remove existing ceiling panels, suspension grid and hangers, light fixtures, diffusers and other ceiling mounted items.

J. Floors: Completely remove existing finish material and adhesives.

05 50 00 - MISCELLANEOUS METALS

A. Work Included: Miscellaneous metal fabrications shown on drawings or required to support other work, including support for the following items:
1. Countertops not supported by casework.

B. Delegated Design: Provide engineering design of metal fabrications to support loads of attached items, prepared by a registered professional engineer licensed in the jurisdiction where project is located.

C. Submittals: Shop drawings, including engineering calculations.

D. Quality Assurance: Certified welders, with processes in accordance with WAS D1.1 Structural Welding Code - Steel.

E. Materials: Steel plates, shapes and bars; ASTM A 36. Steel tubing: ASTM A 500 or A 501. Steel pipe: ASTM A 53, standard weight.

F. Fabrication: Per approved shop drawings. Apply shop primer complying with Section 09 91 00 - Painting.

G. Installation: Attach to building structure in accordance with approved shop drawings.

06 10 53 - MISCELLANEOUS ROUGH CARPENTRY

A. Work Included:
1. Blocking, nailers and furring for support of other work.
2. Plywood backing panels for electrical and communications equipment.

B. Miscellaneous Lumber: Construction or No. 2 grade lumber of any species; free of mildew; kiln-dried to 19 percent by weight. Provide lumber in longest practical lengths. Use single length pieces wherever possible.

C. Plywood Backing Panels: APA Performance-Rated sheathing, C-D Plugged, Exposure 1, fire-retardant treated. For backing panels for telephone and electrical equipment, provide panels 5/8 in. thick.

D. Fire-Retardant Treatment: AWPA Standard U1, use category UCFA (interior). Kiln dried after treatment to a maximum moisture content of 15 percent for plywood and 19 percent for lumber. Mark treated wood with U.L. classification marking.
1. Application: Treat wood blocking concealed in walls and other items indicated.

E. Installation:
1. Securely attach rough carpentry work to substrate by anchoring and fastening.
2. Countertore for bolt heads, nuts, and washers where required to avoid interference with other materials.
3. Install wood blocking in wall and ceiling assemblies as required to properly attach wall-mounted and ceiling-mounted items, such as casework, counters, shelving, registers, diffusers and exit signs. Provide blocking of size required to support load and not less than 3/4 inch thickness.
4. Electrical and Telephone Backing Panels: Screw to metal framing, or to wood blocking or metal strapping in walls.

06 40 00 - ARCHITECTURAL WOODWORK

A. Work Included: Plastic laminate-clad casework; wood paneling; wood trim; and countertops.

B. Submittals:
1. Product data for solid surfacing, hardware and finish materials.
2. Shop drawings.
3. Samples of finish materials and colors.
4. Stain color samples on selected species of wood, with transparent finish applied.
5. Qualification data for fabricators and installers.

C. Quality Assurance:
1. Comply with Architectural Woodwork Institute's (AWI), "Architectural Woodwork Quality Standards."
2. Fabricator and Installer Qualifications: Experienced in fabrication and installation of architectural woodwork similar to that indicated for this Project. Able to assume responsibility for fabrication, finishing, and installation. Able to demonstrate successful completion of at least three projects similar in scope and quality to that required for this project.

D. Take field measurements where work has to fit to other construction; show field measurements on shop drawings.

E. Wood Species and Cut for Transparent Finish: To match existing

F. Wood Species for Opaque Finish: Any closed-grain hardwood.

G. Wood Panels:
1. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
2. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.
3. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
4. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1.

H. Decorative Finishes:
1. High Pressure Decorative Laminate (HPDL): NEMA LD 3, grade to meet AWI standard, unless indicated otherwise.

I. Cabinet Hardware:
1. Hinges: 135 degree opening, concealed, self-closing, hinge arm adjustable in 3 directions.
2. Drawer Slides: Full-extension slide rated for 100 lb load, side mounting, epoxy-coated steel with polymer rollers.
3. Pulls: Satin-finish stainless steel wire pulls; 4 inches long, 5/16 inch diameter.
4. Pulls: Matte chrome finish zinc knobs; Hafele #133.90.400.
5. Locks: BHMA A156.11, for drawers and doors indicated.
6. Shelf supports: KV #345 or #346 shelf supports, for holes in case.
7. Leveler Feet. Manufacturer's standard.

J. Miscellaneous Materials:
1. Anchors: Select material, type, size, and finish required by each substrate for secure anchorage.
2. Adhesives: Do not use adhesives that contain urea formaldehyde.
3. Grommets: Doug Mockett or equal; molded plastic grommets; 2-inch diameter unless otherwise shown; with cap. Color as selected by Architect from manufacturer's full color range.

K. Fabrication and Installation of Trim:
1. For transparent-finished trim items wider than available lumber, use veneered construction. Do not glue for width.
2. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
3. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of trim.
4. Installation: Use minimum joints possible. Scarf running joints. Fill gap at top of base and wall with plastic wood filler and finish to match.

L. Fabrication and Installation of Wood Paneling: AWI Grade: Premium.
1. Lumber Trim and Edges: At fabricator's option, trim and edges indicated as solid wood may be either lumber or veneered construction compatible with grain and color of veneered panels.
2. Matching of Adjacent Veneer Leaves: To match existing wood paneling.
3. Veneer Matching within Panel Face: To match existing wood paneling.
4. Panel-Matching Method: In each separate area, use premanufactured sets used full width.
5. Fire-Retardant-Treated Paneling: Provide panels in indicate location where fire-retardant treatment is required consisting of wood veneer and fire-retardant particleboard or fire-retardant medium-density fiberboard.
6. Backpriming: Apply two coats of sealer, compatible with finish coats, to back surface of paneling.

M. Fabrication and Installation of Cabinets, General:
1. Fabricate to dimensions, profiles, and details indicated. Fabrication in shop to maximum extent possible.
2. Provide allowance for scribing, trimming, and fitting at site, if site fitting is required. Shop cut openings to extent possible.
3. Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation.

N. Fabrication of Laminate-Clad Cabinets: AWI Grade: Premium.
1. AWI Type of Cabinet Construction: Flush overlay.
2. Laminate Pattern Direction: Vertically for drawer fronts, doors, and fixed panels.
3. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate as follows:
a. Horizontal Surfaces Other Than Tops: Grade HGS.
b. Vertical Surfaces: Grade HGS; edges: Same as surface.
c. Materials for Semiexposed Surfaces Other Than Drawer Bodies: High-pressure decorative laminate.
d. Drawers: sides and backs, Thermoset decorative panels; bottoms, thermoset decorative panels.

O. Fabrication of Plastic-Laminate Countertops: AWI Grade: Premium.
1. High-Pressure Decorative Laminate Grade: HGS.
2. Edge Treatment: Same as laminate cladding on horizontal surfaces.

P. Transparent Finish: AWI Premium Grade, conversion varnish. To match existing.
1. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

Q. Installation, General:
1. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
2. Install architectural woodwork plumb, level, true to a tolerance of 1/8 inch in 96 inches. Scribe and fit to adjoining work.
3. Anchor woodwork to anchors or blocking built-in or directly attached to substrates.

07 84 13 - THROUGH-PENETRATION FIRESTOPPING

A. Work Included: Through-penetration firestopping with F- and T-ratings per ASTM E 814; for penetrations through fire-resistance-rated constructions, including empty openings and openings containing penetrating items.

B. Submittals:
1. Penetration Schedule: Review project conditions to determine types of fire-rated assemblies penetrated and types of penetrating items. Provide schedule indicating through-penetration firestopping to be used in each condition.
2. Shop drawings for each proposed through-penetration firestopping system.

C. Single Source: Provide fire-resistive joint systems from a single manufacturer. Engage a single installer to install joint systems.

D. Materials: Provide fire-resistive joint systems compatible with joint substrates, under conditions of service and application, as demonstrated by fire-resistive joint system manufacturer based on testing and field experience. Provide complete systems including accessories as recommended by the manufacturer.

E. Installation: Install fire-resistive joint systems to comply with joint system manufacturer's written installation instructions and published drawings for products and applications indicated.

07 84 46 - FIRE-RESISTIVE JOINT SYSTEMS

A. Work Included: Fire-resistive joint systems tested per UL 2079 and with assembly ratings equaling or exceeding the fire-resistance ratings of construction that they join.

B. Submittals:
1. Joint System Schedule: Review project conditions to determine types of joints in fire-rated assemblies. Provide schedule indicating fire-resistive joint systems to be used in each condition.
2. Shop drawings for each proposed fire-resistive joint system.

C. Single Source: Provide fire-resistive joint systems from a single manufacturer. Engage a single installer to install joint systems.

D. Materials: Provide fire-resistive joint systems compatible with joint substrates, under conditions of service and application, as demonstrated by fire-resistive joint system manufacturer based on testing and field experience. Provide complete systems including accessories as recommended by the manufacturer.

E. Installation: Install fire-resistive joint systems to comply with joint system manufacturer's written installation instructions and published drawings for products and applications indicated.

07 92 00 - JOINT SEALANTS

A. Work Included: Sealing of interior joints to make them airtight, water-resistant or to fill visible gaps, as applicable to the condition.

B. Submittals: Product data; samples of exposed sealants for selection of colors. Provide additional samples of sealant installed between actual samples of substrates, when requested by the Architect.

C. Paintable Latex Sealant: ASTM C 834, Type OP, Grade NF:
1. Products: BASF Building Systems, Sonolac; Pecora, AC-20+; Tremco, Tremflex 834.
2. Applications: For the following joints: Between walls and door and sidelight frames, and perimeter of acoustic partitions.

D. Polyurethane: ASTM C 920 Type S (single component), Grade NS (nonsag), Class 25; for Use T (traffic exposure). Provide joint backing and primer as recommended by manufacturer.
1. Products: BASF Building Systems, Sonolastic NP1; Sika Corporation, Sikaflex-1a; Tremco, Vulkem 116.
2. Applications: For the following location: Expansion and control joints in tile floors; perimeters of exterior windows; construction abutting exterior windows.

E. Color: As selected by Architect from manufacturer's full range.

F. Accessory Materials: Provide sealant backings and primers where indicated, and as recommended by the sealant manufacturer for compatibility:
1. Primers, as recommended by joint-sealant manufacturer to promote adhesion of sealants.
2. Joint Backing: Backer Rod, ASTM C 1330 Type C or B; or bond breaker tape based on depth of joint.

G. Installation: Per ASTM C 1193, manufacturer's instructions, as and follows:
1. Clean joint substrates and prime where recommended by manufacturer. Install joint backing when indicated or recommended by manufacturer to prevent adhesion to back of joint.
2. Tool sealant immediately after application and before the sealant begins to cure or form a skin. Tool to smooth surface with concave profile, or flat profile on floors.

H. Provide sealant at dissimilar materials.

08 11 00 - HOLLOW METAL FRAMES

A. Work Included: Hollow steel frames.

B. Submittals: Product data; and frame schedule.

C. Sidelight Frames: Full profile welded frames, fabricated from closed tubular members with no visible face seams or joints; butt weld at crossings and at jambs.

D. Fire-Rated Assemblies: Provide listed and labeled products that comply with NFPA 80 for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252. Provide temperature-rise rated doors at vertical exit enclosures and exit passageways.

E. Hollow Metal Frames: ANSI A250.8, heavy duty, fabricated from 0.053 inch thick (16 ga.) cold-rolled steel to dimensions and profiles shown on Drawings.
1. Frames: Fabricate as face welded.
3. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcement plates from same material as frames. Provide door silencers on stops.
4. Finish: Factory primed for field-painted finish.
5. Stops and Moldings: Fabricate from same material as frame or door face.

B. Frame Installation: Comply with ANSI/ASI A250.11. Solidly pack frames with mineral-fiber insulation. Install frames within 1/16 inch of square, plumb, alignment, twist.

08 14 16 - FLUSH WOOD DOORS

A. Work Included: Solid-core doors.

B. Submittals: Product data; door schedule; factory-finishing data; samples of face veneer and finish.

C. Fire-Rated Assemblies: Provide listed and labeled products that comply with NFPA 80 for fire-protection ratings indicated, based on testing at as close to neutral pressure as possible according to NFPA 252. Provide temperature-rise rated doors at vertical exit enclosures and exit passageways.

D. Quality Standard: Comply with the Architectural Woodwork Institute's (AWI) "Architectural Woodwork Quality Standards."

E. Door Construction: AWI PC-5, Premium Grade.

F. Face, Opaque Finish: Medium density overlay.

G. Face, Transparent Finish: To match existing

H. Manufacturers: Algoma Hardwoods Inc., Eggers Industries; Marshfield Door Systems, Inc. or VT Industries Inc.

I. Factory machine doors for hardware and fit. Cut and trim openings in factory.

J. Light Frames: Wood beads, flush with door face.

K. Finish: To match existing.

L. Installation: Install doors to comply with manufacturer's written instructions, referenced quality standard, and approved Door Schedule. Align each door in its frame for uniform clearance at each edge.

08 41 26 - ALL-GLASS ENTRANCES

A. Work Included: Manual-swinging all-glass entrance doors and sidelights.

B. Submittals: Product data, including hardware; shop drawings and finish samples.

C. All Glass Doors and Sidelights: Continuous extruded aluminum top and bottom rails.
1. Height: Top and bottom rails, 3-1/2 inches, with square top and 60 degree beveled on bottom rail.
2. Cladding: Type 304 stainless steel, with No. 4 finish to match existing
3. Finish: Clear anodic finish, Class II.
4. Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), per ASTM C 1048, and 16 CFR 1201 for Category II materials.
a. Edges: Machine grind and polish exposed edges.
5. Tubing: Extruded aluminum tubing, finished to match top and bottom rails.

D. Swinging Door Hardware: BHMA Grade 1.
1. Concealed Floor Closers: Double-acting, center pivot with hold-open, and requiring less than 5 lbf to open door.
2. Push-Pull: To match existing.
3. Lock: Bottom rail-mounted deadbolt with key outside and thumbturn inside. Provide cylinder as specified in 08 71 00 Door Hardware.

E. Fabrication: Fully temper glass using horizontal (roller-hearth) process, and fabricate so that when glass is installed, roll-wave distortion is parallel with bottom edge of door or lite.

F. Installation:
1. Install according to manufacturer's written instructions.
2. Set units level, plumb, and true to line, with uniform joints. Maintain uniform clearances between adjacent components. Set, seal, and grout floor closer cases as required to suit hardware and substrate indicated.
3. Lubricate hardware and other moving parts according to manufacturer's written instructions.

08 71 00 - DOOR HARDWARE

A. Work Included: Door hardware.

B. Submittals: Product data; door hardware schedule. Provide samples of hardware items when requested by Architect; approved samples may be incorporated into the finished work.

C. Quality Assurance:
1. BHMA Standards: Comply with BHMA A156 series standards, Grade 1.
2. Supplier Qualifications: Employs a qualified DHI Architectural Hardware Consultant.
3. Templates: Obtain and distribute templates for doors and frames which are to be factory prepared for installing door hardware.
4. Accessibility: Provide door hardware so door operation complies with current ADAAG (Americans with Disabilities Act Architectural Guidelines).

D. Special Warranty: For door closers: 10 years from date of Substantial Completion.

E. Fire-Rated Assemblies: Provide listed and labeled products that comply with NFPA 80 for doors with fire-protection ratings.

F. Keying: Provide temporary construction cores for locksets. Just prior to the inspection at the time of Substantial Completion, remove construction keying device to allow function of permanent key system.

G. Door Hardware: Match existing hardware, including functions, trim style and finish.

H. Hardware Sets: Refer to the Drawings for hardware sets.

I. Door Hardware:
1. Butt Hinges: Building standard
a. Product: To match existing or equal.
2. Cylindrical Locks and Latches: To match existing.
a. Product: To match existing.
b. Functions: Obtain requirements from Owner for each opening.
3. Surface-Mounted Closers: ANSI A156.4 Grade 1; non-handed; adjustable backcheck, stop, closing and latching speeds; no pressure relief valve; cast iron body; plastic cover.
a. Product: LCN 4030, Super Smoother, or Sargent 281.
b. Size of Units: Per manufacturer's recommendation based on size and weight of door. Factory-preset, field adjustable.
4. Flush Bolts, Wood Doors: ANSI/BHMA A115.16. Product: Ives, FB358; Hager, 282D; or DCI, 780 F.
5. Kick Plates: To match existing.
6. Floor Stops: To match existing.
7. Silencers: To match existing.
8. Push/Pulls: To match existing.
9. Roller Catch, Head Mounted: Ives, RL30.
10. Wall Stops: To match existing

J. Installation:
1. Mounting Heights: Comply with recommendations of DHI.
2. Closers: Adjust sweep period to comply with Accessibility Design Guidelines.
3. Stops: Provide floor stops in typical locations. If floor stop presents tripping hazard, provide wall stop with approval of the Architect.

08 80 00 - GLAZING

A. Work Included: Glass.

B. Submittals: Product data for fire-rated glazing products; and decorative surface film.

C. Quality Assurance:
1. Safety Glazing Label: Permanently mark glazing with SGCC certification label.
2. Comply with testing requirements in 16 CFR 1201.
3. Comply with recommendations of Glass Association of North America's (GANA) "Glazing Manual."

D. Clear Glass: Unless otherwise noted, provide ASTM C 1048; Type I; Quality-Q3; Class I (clear); Condition A (uncoated); Kind FT (fully tempered).

E. Laminated Glass: ASTM C 1172, and complying with testing requirements in 16 CFR 1201 for Category II materials; with PVB interlayer.

F. Fire-Protection-Rated Glazing: Where installed in a fire-rated door opening, and elsewhere as indicated, provide film-faced or laminated ceramic glazing complying with testing requirements in 16 CFR 1201 for Category II materials.

G. Decorative Glazing Film: Cast PVC film, 2 mm thick; 3M Consumer Safety and Light Management; Fasara, Sagano.

H. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S (single component), Grade NS (nonsag), Class 50, Use NT; color, clear.
1. Products: BASF Building Systems, Omniplus 50; Dow Corning, 795 Silicone Building Sealant; Tremco, Spectrem 2.
2. Applications: For channel glazing, and joints between butt-glazed glass.

I. Glazing Accessories: Comply with GANA recommendations. At fire-rated openings, provide glazing accessories tested and approved for indicated rating.

09 22 00 - NON-STRUCTURAL METAL FRAMING

A. Work Included: Steel framing for partitions.

B. Submittals: Shop drawings and calculations for delegated design. For suspended ceilings, shop drawing indicating spacing, type and size of hangers, runners and furring in compliance with ASTM C 754.

C. Delegated Design: Provide engineered design of non-structural metal framing for drywall partitions, prepared by a professional engineer licensed in the jurisdiction where the project is located, for the specific conditions indicated; other conditions do not require engineered design. Provide designs with maximum deflection of L/240 at 5 psf loads.

D. Steel Framing: Provide studs, runners, and framing components which comply with ASTM C 645; with ASTM A 653, G40, hot-dip galvanized coating; minimum base metal thickness for studs, runners, Z-shaped furring and other components of 18 mils (0.0179 inch). Provide 30-mil- (0.0312-inch-) thick flat strap and backing plate.

E. Framing Installation: Comply with ASTM C 754.
1. Partition Framing: Extend partitions full height to structure above, unless otherwise indicated.
2. Openings: Provide 30-mil- (0.0312-inch-) thick studs at each jamb.

F. Suspended Ceilings:
1. Hanger Attachments to Concrete: Anchors or power-actuated fasteners, size with a factor of safety of at least 5 for anchors and 10 for fasteners.
2. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 0.0538 inch, a minimum 1/2-inch-wide flange, in depth indicated.
3. Suspended Ceiling Framing: Hang from building structure. Provide trapezes where ducts or other construction interfere with spacing of hangers.

G. Section Includes: Shaft-wall and chase enclosures.

H. Product Data: For each gypsum board shaft-wall assembly, indicate UL or GA assembly number.

I. Fire-Resistance Ratings: Provide materials and construction identical to those of assemblies with fire-resistance ratings determined according to ASTM E 119 by a testing and inspecting agency.
1. Fire-Resistance Rating: As indicated.

J. Framing Members: Comply with ASTM C 754 for conditions indicated.
1. Studs: Manufacturer's standard profile. Depth: [As indicated] [2-1/2 inches] [4 inches] [6 inches].
2. Runner Tracks: J-profile track with long-leg minimum 2 inches long; depth matching studs.

K. Gypsum Liner Panels: ASTM C 442/C 442M; 1-inch-thick, Type X.

L. Provide gypsum panels faces, joint treatment[, acoustic treatment] and trim per Section 09 29 00 - Gypsum Board.

M. Installation: Comply with requirements of fire-resistance-rated assemblies indicated, manufacturer's written installation instructions, and ASTM C 754 for installing steel framing.
1. Maintain fire-resistance rating of shaft-wall assembly at penetrations by installing steel framing around perimeter of penetration, and fire protection behind boxes containing wiring devices and similar items.

09 29 00 - GYPSUM BOARD

A. Gypsum Wallboard: ASTM C 36, in thickness indicated and with long edges tapered. Provide Type X where indicated for fire-rated partitions. Provide panels in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Trim Accessories: ASTM C 1047.
1. Cornerbead: Use at outside corners.
2. LC-Bead: Use at exposed panel edges, and when abutting other construction.
3. Control Joint: V-shaped with removable strip.

C. Joint Treatment Materials: ASTM C 475; paper tape; setting type joint compound for prefilling and for embedding tape, flanges of trim accessories and fastener heads; drying type, all-purpose joint compound for second and third coats.

D. Auxiliary Materials: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
1. Steel Drill Screws: ASTM C 1002; except ASTM C 954 for fastening panels to cold-formed steel framing members more than 0.033-inch-thick (usually at exterior walls).
2. Sound Attenuation Blankets: ASTM C 665, Type I (without membrane facing), mineral fiber.
3. Acoustic Sealant: Paintable Latex Sealant complying with ASTM C 834, Type OP, Grade NF. Products: BASF Building Systems, Sonolac; Pecora, AC-20+; Tremco, Tremflex 834.

E. Acoustic Partition Installation: Where partitions are indicated as either acoustic or sound-rated, construct as follows:
1. Fill framing cavity with sound attenuation batt, fit snugly between studs.
2. Seal partition at perimeter, around penetrating items including electrical boxes, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant, applied on both faces of partition. Delete sealant at head of fire-rated partitions to receive fire-resistive joint system.

F. Gypsum Panel Installation: Comply with ASTM C 840. Secure boards to steel studs with steel drill screws.
1. Control Joints: Provide where indicated; if not otherwise indicated, provide control joints at 30 ft o.c. Align joints as much as practicable with openings and other breaks in construction. Obtain Architect's approval of proposed locations.

G. Finishing: Unless otherwise noted, provide Level 4 Finish for exposed surfaces and Level 2 Finish on areas concealed above ceilings.

09 51 00 - ACOUSTICAL CEILINGS

A. Work Included: Acoustic ceiling panels and suspension systems, including the following where indicated on Drawings:

A. Provide new suspension grid and acoustical ceiling panels.

B. Submittals: Product data; samples for verification; maintenance data.

C. Extra Materials: Full-size acoustical ceiling panels and exposed grid components equal to [2] percent of quantity installed.

D. Acoustical Panels: Provide products as indicated on finish schedule:

A. Type ACP-1; To match existing

B. Edge Molding: Stepped profile which creates a reveal matching the appearance of the tile edge; finished to match grid.

E. Installation: Comply with ASTM C 636, manufacturer's written instructions and CISCA's "Ceiling Systems Handbook." Comply with CISCA's "Recommendations for Direct-Hung Acoustical Tile and Lay-in Panel Ceilings--Seismic Zones 0-2," for zone 2.

A. Suspend ceiling from building structure. Where construction above ceiling interferes with location of hangers, use trapezes or equivalent devices.

B. Install grid level and square. Install edge moldings at perimeter and around penetrations to conceal edges of acoustical panels. Miter corners accurately and connect securely.

C. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.

9 65 13 - RESILIENT BASE AND ACCESSORIES

A. Submittals: Product data; samples for verification.

B. Resilient Base: ASTM F 1861, Type TS (rubber, vulcanized thermoset) or Type TP (rubber, thermoplastic); 1/8 inch thick and 4 inches high. Cove at resilient flooring, toeless at carpet.

C. Lengths and Corners: Coils; preformed outside corners; job formed inside corners.

D. Transition Strips: Rubber transition strips for use where dissimilar flooring materials abut. Provide product designed for specific thicknesses of abutting materials. Color as selected by the Architect.
1. Carpet to Resilient Flooring: Johnsonite; Slim Line Transitions Series SLT-XX.
2. Resilient Flooring to Floor: Johnsonite; Reducers Series RRS-XX.

E. Installation:
1. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
2. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.

09 65 00 - RESILIENT FLOORING

A. Work Included: Marmoleum tile

B. Submittals: Samples for verification; product data; substrate condition test reports, maintenance data.

C. Extra Materials: Resilient flooring equal to 2 percent of quantity installed.

D. Products: As indicated on Finish Schedule.

E. Accessory Products:
1. Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation approved by manufacturer for applications indicated.
2. Adhesives: Water-resistant type recommended by manufacturer to suit flooring and substrate conditions indicated.
3. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

F. Substrate Testing:
1. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
2. Moisture Testing: Perform tests recommended by floor covering manufacturer and as follows. Proceed with installation only after substrates pass testing.
a. Perform anhydrous calcium chloride test, 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.

G. Preparation:
1. Prepare per ASTM F 710. Remove old adhesives, coatings, curing compounds, sealers, and hardeners that are incompatible with adhesives using mechanical methods recommended by manufacturer. Do not use solvents.
2. Fill cracks, holes, and depressions in substrates with leveling compound and remove bumps and ridges to produce a uniform and smooth substrate.

H. Installation, General:
1. Comply with manufacturer's recommendations.
2. Extend resilient flooring into toe spaces, door reveals, closets, and similar openings. Extend resilient flooring to center of door openings.

I. Resilient Tile Installation:
1. Layout: Lay out floor tiles from center 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.
2. Lay tiles with grain direction alternating in adjacent tiles (basket-weave pattern).

J. Cleaning and Polishing: Clean in accordance with manufacturer's instructions. Apply minimum of two coats of polish as recommended by the flooring manufacturer.

09 68 00 - CARPETING

A. Work Included: carpet tile

B. Submittals: Product data; samples for verification; shop drawings; warranty.

C. Quality Assurance: Comply with Carpet and Rug Institute's CRI 104, Standard for Installation Specification of Commercial Carpet, for storage and handling, preparation and installation.

D. Extra Materials:
1. Carpet Tiles: Full-size units equal to 5 percent of amount installed for each type, but not less than 10 sq. yd.

E. Products: As indicated on Finish Schedule.

F. Accessory Products:
1. Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation approved by manufacturer for applications indicated.
2. Adhesives: Water-resistant type recommended by manufacturer to suit substrate conditions indicated.

G. Subfloor Preparation:
1. Remove old adhesives to provide a clean, dry substrate. Level floor surface and fill small depressions with latex-based patching compound.
2. Transitions: Slope and feather compound as required at transitions to adjust elevations for smooth transition, at maximum slope of 1 in 20.

H. Installation, General: Comply with CRI 104 and manufacturer's written instructions. Extend carpet into door reveals, closets, open-bottomed obstructions, alcoves, and similar openings. At doorways, center seams under door.

I. Installation of Carpet Tile: Orient pattern in accordance with approved shop Drawings, and with pattern parallel to walls and borders, unless otherwise shown.

09 72 00 - WALL COVERINGS

A. Work Included: Vinyl wall coverings.

B. Submittals: Product data; shop drawings; samples; product test reports; maintenance data, warranty.

C. Quality Assurance:
1. Fire-Test-Response Characteristics: Identify products with appropriate markings of applicable testing agency. Comply with the following:
a. Surface-Burning Characteristics Per ASTM E 84: flame-spread index, 25 or less; smoke-developed index, 450 or less.

D. Extra Materials: Wall covering equal to 5 percent of amount installed.

E. Products: As indicated on Finish Schedule.
1. Provide rolls of each type of wall covering from same print run or dye lot.

F. Adhesive: Mildew-resistant, nonstaining, strippable adhesive, for use with specific wall covering and substrate application; as recommended in writing by wall-covering manufacturer; and with VOC content of 50 g/L or less.

G. Preparation
1. Clean substrates of substances that could impair bond of wall covering, including dirt, oil, grease, mold, mildew, and incompatible primers.
2. Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.
3. Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

H. Installation: Comply with manufacturers printed installation instructions.
1. Acclimatize wall-covering materials by removing them from packaging in the installation areas not less than 24 hours before installation.
2. Cut wall-covering strips in roll number sequence. Change roll numbers at partition breaks and corners.
3. Install reversing every other strip.
4. Install wall covering with no gaps or overlaps, no lifted or curling edges, and no visible shrinkage.
5. Install seams vertical and plumb at least 6 inches from outside corners and 6 inches from inside corners unless a change of pattern or color exists at corner. No horizontal seams are permitted.
6. Fully bond wall covering to substrate. Remove air bubbles, wrinkles, blisters, and other defects.
7. Trim edges and seams for color uniformity, pattern match, and tight closure. Butt seams without any overlay or spacing between strips.
8. Remove excess adhesive at finished seams, perimeter edges, and adjacent surfaces.
9. Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

09 91 00 - PAINTING

A. Submittals: Product data; schedule of products and surfaces; color samples for verification of color and sheen.

B. VOC Limits: Provide paints that comply with U.S. EPA and Massachusetts EPA limits for VOC content.

C. Products: Provide products included on the current Master Painter's Institute (MPI) "Approved Products List" for each type finish. Products indicated are included for convenience.
1. Primers: Per MPI system indicated in system schedule.
2. Colors: Match colors indicated on Finish Schedule.
3. MPI #143: Latex, Interior, Institutional Low Odor/VOC, Flat (MPI Gloss Level 1); flat:
a. Moore: Pristine Eco Spec, Interior Latex Flat, W219.
b. PPG: Pure Performance, Interior Flat Latex, 9-100.
c. SW: Harmony, Interior Latex Flat, B5W951.
4. MPI #144: Latex, Interior, Institutional Low Odor/VOC, (MPI Gloss Level 2); low-luster:
a. Moore: Pristine Eco Spec, Interior Latex Eggshell Enamel, W223.
b. PPG: Interior Eggshell White Pastel Base; CP-5184.
c. SW: Harmony, Interior Latex Eg-Shel, B9W951.
5. MPI #147: Latex, Interior, Institutional Low Odor/VOC, Semi-Gloss (MPI Gloss Level 5); semi-gloss:
a. Moore: Pristine Eco Spec, Interior Latex Semi-Gloss Enamel, W224.
b. PPG: Pure Performance, Interior Semi-Gloss Latex, 9-500.
c. SW: Harmony, Interior Latex Semi-Gloss, B10W951.

. Preparation: Clean and prepare surfaces to be painted according to manufacturer's written recommendations for each substrate condition. Clean galvanized surfaces with nonpetroleum-based cleaner as recommended by manufacturer to remove mill oil and chromate passivation.
1. Remove hardware and attached items prior to painting, and reattach after topcoats are fully dry.
2. Patch and sand holes, drips and defects in substrates prior to painting.

E. Extent of Work: Paint exposed surfaces as follows:
1. Provide prime coat and two topcoats on surfaces indicated in the Room Finish Schedule.
2. Paint access panels and electrical raceway and panelboard covers installed on walls or ceilings scheduled to be painted. Match finish adjacent surface.
3. Spot prime patched and spackled areas to provide even suction and uniform topcoat finish.
4. Prime coats may be omitted on shop-primed and existing painted surfaces with the approval of the Architect if intermediate and topcoat can be demonstrated to completely cover existing finishes.
5. Prime surfaces scheduled to receive wallcovering.

B. Mix and apply paints in accordance with manufacturer's instructions, including recommended minimum film thickness. Provide a smooth, opaque finish of uniform color, appearance, and coverage.
1. Apply paint to hollow metal frames by spray.

G. If undercoats or substrates show through topcoat, apply additional coats until paint has a uniform finish, color, and appearance.

H. Schedule of Systems: Provide the following MPI systems:
1. Hollow Metal Frames: Institutional Low-Odor/VOC Latex System, MPI INT 5.1S; Gloss Level 5.
2. Gypsum Board Walls: Institutional Low-Odor/VOC Latex System: MPI INT 9.2M; Gloss Level 2.
3. Gypsum Board Ceilings: Institutional Low-Odor/VOC Latex System: MPI INT 9.2M; Gloss Level 1.
4. Painted Wood: Institutional Low-Odor/VOC Latex System, MPI INT 6.3V; Gloss Level 5.

10 00 00 - MISCELLANEOUS SPECIALTIES AND EQUIPMENT

A. Remove existing specialties and equipment and install in new locations indicated on Drawings. Prior to reinstallation, clean each item and verify proper operation.

B. Signage: Plastic panel signs with raised contrasting color graphics; including Braille, text and symbol; which comply with ADA requirements. Colors and text as selected by the Architect.
1. Provide in locations adjacent to the following: Restroom doors

C. Fire Extinguisher Cabinets: Larsen's Manufacturing Co.; Architectural Series, Vertical Duo door, acrylic glazing, with white finish and vertical black lettering. Provide fully-recessed units; except provide semi-recessed units where wall thickness is insufficient for fully recessed.
1. Coordinate size with specified fire extinguishers.
2. Where installed in fire-rated assembly, provide fire rated cabinet suitable for rating of wall.

12 24 13 - ROLLER WINDOW SHADES

A. Work included: Roller shades.

B. Submittals: Samples for verification; product data; maintenance data.

C. Products: As indicated on finish schedule.

D. Installation:
1. Install level, plumb, and aligned with adjacent units according to manufacturer's written instructions, and located so shade band is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.
2. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.
3. Clean roller shade surfaces after installation, according to manufacturer's written instructions.

SMMA
SYMMES MAINI & MCKEE ASSOCIATES

1000 Massachusetts Avenue
Cambridge, Massachusetts 02138
617.547.5400 Fax 617.354.5758

OWNER REVIEW

NAME DATE

NO.	DATE	DESCRIPTION
1	2/5/2010	PERMIT SET

ISSUE LOG

△ = CLOUDED CHANGE

TD BANK

TENANT RENOVATION

1 PORTLAND SQUARE
PORTLAND, ME 04112

SPECIFICATIONS

SCALE	NTS
DRAWN BY	AAB
CHECKED BY	
PROJ. ARCH. / ENGR.	AAB
PROJ. MGR.	SKD
JOB NO.	09063/ 09063.01

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