

STORE PRODUCTS in accordance with manufacturer's instructions, maintaining sensitive materials within temperatures and humidity ranges required by the manufacturer. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering, with ventilation to avoid condensation. Arrange storage to provide access for inspection.

EXTRA STOCK: After completion of the Work, furnish replacement finishes (including points) of at least 5% of the quantity installed of each type, color and material provided, exclusive of accessory components. Deliver extra stock to Owner's designated store, properly packaged (paper wrapped) and identified.
SECTION 01 73 00 - GENERAL EXECUTION REQUIREMENTS

INSTALLER'S INSPECTION OF SUBSTRATE CONDITIONS: Before installation, inspect substrate material and the conditions under which the Work will be performed. Do not proceed with installation until unsatisfactory conditions have been corrected. Report all substrate conditions and conditions to work installed by others constituting acceptance of that Work and assumption of responsibility for satisfactory installation. Inspect each item of material or equipment immediately prior to installation. Reject damaged and defective items.

PERFORM INSTALLATION WORK by persons qualified to produce workmanship of specified quality, in accordance with manufacturer's printed installation recommendations and requirements. Install Work during conditions of temperature, humidity, exposure, forecasted weather, and status of the project completion which will ensure the best possible results for each unit of work.

PROVIDE ATTACHMENT AND CONNECTION devices and methods for securing the work properly as it is installed, true to line and level. Isolate each unit of work from non-compatible work, as required to prevent deterioration. Make allowance for expansion, contraction, and building movements. Coordinate closing-in of work with required inspections and tests, so as to minimize the necessity of uncovering completed work.

BRACE PARTITIONS, suspend ceilings or soffits, and brace platforms, suspended items or similar construction only to structural elements - even if not specifically noted. Do not brace elements to the roof deck, plumbing / sprinkler pipes, ductwork, electrical conduit or similar elements.

AT PROJECTIONS OF FINISHED SURFACES, including pilasters or thickened walls, return all exposed surface finishes back to the primary surface even if not specifically noted.

ALIGN SURFACES of new finishes with existing finishes and match existing finish-surface conditions except as otherwise indicated. Patch existing surfaces and refinish to match adjacent existing surfaces, as applicable.

VISUAL EFFECT Provide uniform joint widths in exposed work, organized for the best possible visual effect. Recheck measurements and dimensions of the work, as an integral step of starting each installation. Refer questionable visual-effect choices to Owner for final decision of acceptability.

MOUNTING HEIGHTS: Where mounting heights are not indicated within the Drawings, mount at industry-recognized standard mounting heights for applications indicated. Refer questionable mounting height choices to Owner's representative for final decision.

AFTER INSTALLATION, provide coverings to protect installed products from damage from traffic and construction operations. Remove when no longer required. Repair and replace damaged items, at no additional cost to the Owner. Additional time required to secure replacements and to make repairs will not be considered as justification for an extension of time to complete the Work.

SECTION 01 73 29 - CUTTING & PATCHING

DO NOT cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio. Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety. Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Owner's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visibly unsatisfactory manner.

USE MATERIALS that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

TAKE ALL PRECAUTIONS necessary to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them. Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

CUT existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition. Cut existing construction using methods least likely to damage elements to be retained or adjoining construction.

PATCH with durable seams that are as invisible as possible. Comply with specified tolerances. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. 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.

SECTION 01 77 00 - CLOSOUT PROCEDURES

FINAL CLEANING:

PRIOR TO OWNER OCCUPANCY, clean all surfaces including fixtures and equipment, for use by the Owner. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

CLEAN EXPOSED SURFACES to a dust-free condition, free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to their original reflective condition. Vacuum carpeted surfaces. Damp wipe walls, fixtures and equipment to be dust-free without stains, films and other distracting substances.

CLEAN TRANSPARENT MATERIALS, including mirrors and glass in doors and windows and plumbing fixtures to a polished condition without noticeable streaks. Remove putty and other substances which are noticeable as vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

MECHANICAL AND ELECTRICAL EQUIPMENT must be wiped clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

CLEAN THE PROJECT SITE, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas to a broom clean condition. Remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor ploriated, to a smooth even-textured surface.

SUBSTANTIAL COMPLETION PROCEDURES:

SET ALL TIME CLOCKS, thermostats and similar devices to the current local time. Provide a printed list of names, addresses and phone numbers of all sub-contractors and material suppliers used.

AFTER final cleaning operations have been completed, and when the Project is ready for owner occupancy, obtain an occupancy permit on behalf of the Owner, and approval by any other governmental authorities having jurisdiction over the Project.

SUBMIT a written request for inspection, stating that the Work is Substantially Complete and ready for the Owner's beneficial use and occupancy. Accompany notice with a listing of all items to be completed or corrected.

OWNER'S ACTION: Following observation of the Work, the Owner will either prepare the certificate of substantial completion, or will advise the Contractor of work which must be performed before the certificate will be issued. Results of the observation report will form the initial "punch-list" for final acceptance.

PREREQUISITES TO FINAL COMPLETION:

COMPLETE ALL WORK ITEMS as expeditiously as possible, providing labor at times when the facility is not in operation, if necessary. Coordinate with the Owner's representative and perform the Work so that it will not interfere with the Owner's operations.

COMPLETE FINAL TESTING of systems, and instruct Owner's personnel in the operation, adjustment, maintenance of all mechanical, plumbing, fire protection, monitoring and electrical systems.

REMOVE TEMPORARY FACILITIES and controls, and temporary utility services from the project site, along with construction tools, field offices, mock-ups and similar elements.

TOUCH-UP AND REPAIR or restore remainder exposed finishes. Deliver spare parts, tools, extra stock of materials and similar physical items.

INSTRUCTION OF OWNER'S PERSONNEL: Arrange for each installation, arrangement or equipment that requires regular or continuing maintenance, to meet at the site with the Owner's personnel. Provide instructions, training and information for proper operation and maintenance of the entire Work. Where installers have not experienced required procedures, include instruction by the manufacturer's representatives.

OPERATION AND MAINTENANCE DATA: Include the following types of information in operation and maintenance manuals: emergency instructions, spare parts listings, copies of warranties, wiring diagrams, inspection procedures, shop drawings and product data.

FINAL CLOSEOUT SUBMITTALS:

ELECTRONIC CLOSEOUT SUBMITTALS: In addition to 1 set of paper originals of the documents indicated below, provide Operation and Maintenance Data, Warranties, and the list of sub-contractors and material suppliers, in electronic media (CD) at close-out. Provide jewel-case covers and label each CD and cover with the printed title "OPERATION AND MAINTENANCE MANUAL". Project name, and subject matter of contents, as appropriate. Provide two (2) sets of electronic documents to the Owner.

SUBMIT FINAL OCCUPANCY PERMIT, and other legal releases necessary for the Owner's complete and unrestricted use.

SUBMIT WARRANTIES, guarantees, maintenance bonds, maintenance agreements, final product certifications and similar documents.

SUBMIT MARKED-UP RECORD DRAWINGS, operations and maintenance manuals, damage or settlement survey, extra copies of drawings and specifications, and similar final record information. Provide one set of half-size drawings at the Project Site for the Owner's use.

(Specifications continued in next column)

SUBMIT A FINAL LISTING of all sub-contractors and material suppliers used on the project.

SUBMIT AN UPDATED FINAL STATEMENT accounting for additional changes (additions and deductions) to the Contract Sum. Identify amounts for change orders, liquidated damages (additional or deduction), deductions for uncorrected work, deductions for re-inspection payments, and previous payments.

SUBMIT FINAL PAYMENT REQUEST with final unconditional lien releases from all sub-contractors and material suppliers, and other supporting documentation not previously submitted or accepted.

SUBMIT FINAL LIEN RELEASE, contingent only upon receipt and bank clearance of final payment amount.

SUBMIT THE PUNCH-LIST(s) with the Contractor's signed statement indicating that all items have been completed or otherwise resolved for acceptance.

SUBMIT EVIDENCE OF CONTINUING INSURANCE COVERAGE complying with requirement of the Contract Documents. Include certificates of insurance for products and completed operations when required.

SUBMIT WRITTEN CERTIFICATION that: (1) the Contract Documents have been reviewed, (2) the Work has been inspected for compliance with the Contract Documents, (3) the Work has been completed in accordance with the Contract Documents, (4) equipment and systems have been tested in the presence of the Owner's representative and are operational, and (5) the Work is completed and ready for final inspection.

OWNER'S ACTION: Following final inspection, the Owner will either prepare the certificate of final acceptance, or will advise the Contractor of work which must be performed before the certificate will be issued.

REINSPECTION FEES: Should the Owner or Architect perform re-inspections (for either Substantial Completion or for Final Completion) due to the failure of the Work to comply with the claims of status of completion made by the Contractor, the Owner will compensate the Architect for such additional services and will deduct the amount of such compensation and the Owner's direct costs from the final payment to the Contractor.

SECTION 02 22 00 - EXIST. CONDITIONS ASSESSMENT

REVIEW EXISTING FLOOR SUBSTRATE elevations and conditions to verify if any of the following exist:

- Variation of over 1/2" inch or more over entire floor area
- Slopes of over 1/8th inch in 10 feet in any area
- Rough or un-stable flooring substrates requiring extensive repair

REVIEW CONDITIONS of other existing construction elements to be reused in the new construction, and verify that they will provide an acceptable substrate for new materials and finishes indicated.

REPORT all un-acceptable substrate or existing materials to the Owner in writing before proceeding with new construction Work.

SECTION 02 41 19 - SELECTIVE DEMOLITION

WORK INCLUDES removal and legal disposal of existing construction items specified to be removed herein, noted to be removed within the Drawings, or as otherwise required to be removed to facilitate construction activities. The Work includes all items indicated on the drawings to be removed or not intended to be reused, except the following, as applicable:

- Storefront and sign façade
- Existing ceilings, ceiling and noise platforms
- Existing casework and countertops
- HVAC, plumbing & electrical systems not utilized in remodeled building

EXISTING CONDITIONS: The Owner assumes no responsibility for the actual condition of items or structures to be demolished.

SALVAGEABLE ITEMS of value must be removed from the site as work progresses - storage or sale of removed items on site is not permitted. The Owner reserves the right to retain any salvageable items.

PROTECTION: Provide temporary barricades and other forms of protection to assure safe passage of persons around area of demolition work, and to protect people from injury.

INSPECT areas in which work will be performed prior to commencement of demolition work.

LOCATE, IDENTIFY, STUB OFF, AND DISCONNECT existing utility and service lines that are not to remain. Provide bypass connections as required to maintain continuity of service to other areas of the building, if necessary.

PERFORM demolition work in a systematic manner. Use such methods as required to complete the work required in accordance with requirements governing regulations. Provide shoring, bracing, or support to prevent movement, settlement or collapse of adjacent construction to remain. Conduct operations by means and methods to prevent injury to persons or damage to adjacent buildings, structures, other facilities. Repair damage caused to adjacent construction at no cost to the Owner.

CUT EXISTING CONCRETE SLABS only with masonry or concrete saws (pneumatic jacks-hammers are not permitted to be used unless written permission is obtained from Landlord).

IF UNANTICIPATED utilities, structural elements, or hazardous materials are encountered, investigate and measure both notes and extent the conflict. Submit reports to the Owner in writing, accurate detail. Pending receipt of directive from the Owner, rearrange selective demolition schedule as necessary to continue overall job progress without delay.

EXISTING RESILIENT FLOOR COVERINGS: Comply with Recommended Work Practices for the Removal of Resilient Floor Coverings, as published by the Resilient Floor Covering Institute. Existing resilient floor covering materials that contain asbestos fibers that are not readily identifiable. Do not sand, dry scrape, beat, or mechanically pulverize existing resilient flooring, backing, or lining felt.

CLEAN UP: Upon completion of demolition work, remove tools, equipment and demolition materials from the site.

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PROVIDE concrete for new floor slabs (where required), for patching existing floor slabs where installation of new plumbing and electrical lines require removal of existing concrete materials, and for concrete curbs where shown on the drawings.

CONCRETE MATERIALS: ASTM C-150, Type I, Portland cement, with ASTM C-33 and crushed-stone aggregates, mixed to provide 3000 PSI minimum compressive strength at 28 days.

WELDED WIRE FABRIC: ASTM A-185 welded steel wire fabric, min. 6 x 6 - W1.4

MOISTURE BARRIER: 10 mil thick sheet meeting ASTM E 1745 - Class A.

SELF-LEVELING FLOOR TOPPING: Provide a level floor on all floor surfaces too rough or too un-even to finish with the indicated finishes. Install leveling in accordance with manufacturer's directions.

INSTALLATION: Comply with ACI 308.4 Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete, and as herein amended. Install concrete Work to match and meet existing adjoining surfaces.

LEVEL FINISH: Apply level finish to slab surfaces that are to be exposed to view and to slab surfaces that are to be installed within masonry assemblies, carpet, ceramic or quarry tile, wood flooring or other floor finishes. Provide finished-surface plane tolerance not exceeding 1/8" in ten (10) feet, in two different angles.

PROTECT the freshly placed concrete from premature drying from wind, excessive cold and hot temperature, and maintain for a period of time necessary for hydration of cement and proper hardening.

CURBS: Where concrete curbs are indicated on the Drawings, cast forms while concrete is still green and steel-trowel surfaces to a hard, dense finish with corners, intersections and terminations slightly rounded.

SECTION 04 20 00 - UNIT MASONRY

PROVIDE UNIT MASONRY where indicated on the drawings and as specified herein. Install related materials intended to be installed within masonry assemblies, including but not limited to stone trim units, steel lintels, shelf angles, and steel metal reglets and flashings, as appropriate.

PROTECTION OF MASONRY: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress. Extend cover a minimum of 24 inches down both sides and hold cover securely in place. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.

PREVENT GROUT, MORTAR, AND SOIL FROM STAINING the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry. Protect base of walls from rain-splashed mud and from mortar spatter by coverings spread on ground and over wall surface. Protect sills, ledges, and projections from mortar droppings. Protect surfaces of windows and doors as well as similar products with painted and integral finishes, from mortar droppings. Turn scaffolding boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

COLD-WEATHER REQUIREMENTS: Do not use frozen materials or materials moist or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/MS 602. Use liquid cleaning methods only when air temperature is 40 deg F and above and will remain so until masonry has dried, but not less than 7 days after completing cleaning.

HOT-WEATHER REQUIREMENTS: Protect unit masonry work when temperature and humidity conditions produce excessive evaporation of water from mortar and grout. Provide artificial shade and wind breaks and use cooled materials as required. When ambient temperature exceeds 100 deg F, or 90 deg F with a wind velocity greater than 8 mph, do not spread mortar beds more than 48 inches ahead of masonry. Set masonry units within one minute of spreading mortar.

PRODUCTS

CONCRETE MASONRY UNITS (CMU): Normal weight, (unless otherwise indicated) ASTM C 90 open-ended per allowable shrinkage

(Specifications continued in next column)

rate of C-90 paragraph 5.2, with minimum average net-area compressive strength of 1900 PSI; face size: 8 inches nominal - 7-5/8 inches actual height x 16 inches nominal - 15-5/8 inch actual width, in total nominal wall thickness as indicated in the drawings. Provide manufacturer's standard light-gray colored units with "smooth" (not textured) exposed face surface suitable for painting typically and, provide textured-face units made with gog-grooved aggregates where units are indicated to receive a direct application of plaster or similar material.

PROVIDE SPECIAL SHAPES for lintels, corners, jams, sash, control joints, headers, bonding, and other special conditions. Provide bulruse units for outside corners, unless otherwise indicated. Provide square-edged units for outside corners, unless indicated as bullnose.

PRECAST CMU LINTELS OR BOND BEAMS: Provide either prefabricated concrete lintels or built-in place masonry lintels using bond beam shapes with reinforcing bars indicated and filled with coarse grout. Fabricate from concrete matching CMU color, texture, joint pattern and compressive strength, and with reinforcing bars as required. Cure precast lintels by some method used for the concrete masonry units.

DECORATIVE CONCRETE MASONRY UNITS:

SPLIT-FACED AND SMOOTH-FACED CMU'S: ASTM C-90 or ASTM C-145 Grade N, 8" high x 16" wide units with integral water-repellent admixture, in thickness as indicated on the Drawings. Provide finished face and finished corner end units, chamfered top units with finished top face, and exterior corner units with finished ends, as applicable.

SCORED FACES: Provide 8" x 8" scored faces, where indicated on the Drawings.

COLOR: Provide units with integral color as selected by Architect from manufacturer's full range of color options.

MORTAR AND GROUT MATERIALS

PORTLAND CEMENT: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated. (masonry cement is not permitted).

HYDRATED LIME: ASTM C 207 Type S

PORTLAND CEMENT-LIME MIX: Packaged blend of Portland cement complying with ASTM C 150, Type I or Type III, and hydrated lime complying with ASTM C 207, Type S

COLORED CEMENT: Provide packaged blend made from Portland cement and lime and mortar pigments, all complying with specified requirements, and containing no other ingredients. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors. Pigments shall not exceed 10 percent of Portland cement by weight.

AGGREGATE FOR MORTAR: ASTM C 144. For mortar exposed to view, use washed aggregate consisting of natural sand or crushed stone. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve. Provide natural white sand if necessary to produce required mortar color.

AGGREGATE FOR GROUT: ASTM C 404.

COLD-WEATHER ADMIXTURE: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494, Type C, and recommended by the manufacturer for use in masonry mortar of composition indicated. Available products include: Accelergrout 80; Euclid Chemical Co.; Marselred; W. R. Grace & Co., Construction Products Division; Trimix-NA; Sonneborn, Div. of ChemRx, Inc.

WATER-REPELLENT ADMIXTURE: Liquid water-repellent mortar admixture intended for use on concrete masonry units, containing integral water repellent by some manufacturer. Available products include: Mortar Tite; Admixture, Inc.; Dry-Block Mortar Admixture; W. R. Grace & Co., Construction Products Division; Rheplast; Master Builders.

WATER: Potable.

MASONRY-CELL INSULATION: ASTM C-578 Type III, rigid, molded, expanded polystyrene insulation units specially shaped for installing in cores of masonry units: "Kortik" Concrete Block Insulating System's "Omni Core" by Shelter Enterprises Inc, or equal.

REINFORCING STEEL: Uncoated steel reinforcing bars: ASTM A 615/A 615M, ASTM A 616/A 616M, including Supplement 1; or ASTM A 617/A 617M, Grade 60 (Grade 60).

JOINT REINFORCEMENT: ASTM A-618 hot-dip galvanized, carbon-steel wire for both interior and exterior walls, with W2.8 or 1.58-inch diameter for interior cross-roads. Provide in lengths of not less than 10 feet, with preformed outer end tie, as indicated. For single-wythe masonry, provide either ladder or truss tie with single end tie and cross rod spaced not more than 16 inches o.c. At multi-wythe masonry, provide ladder tie with single end tie and cross rod spaced at 16 inches o.c. and 1 side rod for each face shell of hollow masonry wythe more than 4 inches (in width, plus 1 side rod for each wythe of masonry 4 inches (or less in width).

HOT-DIP GALVANIZED GENERAL: ASTM A-82 hot-dip galvanized carbon-steel wire with ASTM A 153, Class B-2 coating; ASTM A-660 hot-dip galvanized steel wire for welding to steel; and ASTM A-36 steel plates, steels, and bars with G60 hot-dip galvanized coating.

BENT WIRE TIE: Rectangular units with closed ends and not less than 4 inches wide. Z-shaped ties with ends bent 90 degrees to provide hooks not less than 2 inches long may be used for masonry constructed from solid units or hollow units laid with cells horizontal. Fabricated from 3/16-inch-diameter, hot-dip galvanized steel wire.

ADJUSTABLE ANCHORS FOR CONNECTING TO STEEL FRAME: Two-piece assemblies that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall. Fabricate anchor section of crimped 1/4-inch-diameter, hot-dip galvanized steel wire for welding to steel. Fabricate tie section of triangular-shaped 0.1875-inch diameter hot-dip galvanized steel wire, sized to extend within 1 inch of masonry face.

ANCHORS FOR CONNECTING TO CONCRETE: Two-piece assemblies that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall. Fabricate dovetail anchor section from 0.0985-inch-thick, steel sheet, galvanized after fabrication. Fabricate tie section from triangular-shaped 0.1875-inch-diameter, hot-dip galvanized steel wire, sized to extend within 1 inch of masonry face, made from.

ADJUSTABLE MASONRY-VENEER ANCHORS: Two-piece assemblies that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall. Fabricate anchor section of withstanding a 100-lb load in both tension and compression without deforming or developing ply in excess of 0.05 inch. Fabricate anchor section from rib-siffened, 0.0677-inch-thick steel metal plate galvanized after fabrication with screw holes top and bottom, 2.34 inches wide with projecting tabs having slotted holes for inserting vertical legs of wire tie specially formed to fit anchor section. Fabricate wire-tie section from triangular-shaped 0.1875-inch-diameter hot-dip galvanized steel wire tie sized to extend at least halfway through veneer but with at least 5/8-inch cover on outside face.

STEEL DRILL SCREWS FOR STEEL STUDS: No 10 diameter minimum ASTM C 954 except manufactured with hex washer head and neoprene washer, length required to penetrate steel stud flange by not less than 3 exposed threads, and with organic polymer coating with salt-spray resistance to red rust of more than 600 hours per ASTM B 117.

DRI-Fix; Eka industries, Inc. Trox; ITW-Bulfinch.

ANCHOR BOLTS: Headed type steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts end, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153, Class C; of diameter and length indicated.

THRU-WALL MASONRY FLASHING SYSTEM: Provide an fully integrated thru-wall masonry flashing system throughout the project or manufactured by "Hlinia Products Corporation" (HPC), phone: 800-383-8163, website: www.hliniaproducts.com or equivalent system as manufactured by "Polyguard Products Inc, phone: 800-541-4994, website: www.polyguardproducts.com, including the following components:

- Solvent based rubber flashing primer.
- 30-mil self-adhesive rubberized asphalt flashing composite
- Pre-formed flashing corners and end-doms
- 3/8" (exposed) x 0.015 x 1'-5/8-inch deep sheet metal drip-edge
- Stainless steel at light colored masonry, or
- Copper sheet metal at dark colored masonry units
- Pre-formed inside and outside drip-edge corners
- 15 mil (28 gage) Type 304 stainless steel cavity bridges, and
- Rubberized asphalt flashing mastic, to sealing edges of flashing

COMPRESSIBLE FILLER: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 50 percent; of width and thickness indicated; formulated from neoprene urethane or PVC.

PREFORMED CONTROL-JOINT GASKETS: Material as indicated below, designed to fit standard sash block and to maintain lateral stability in masonry wall, size and configuration as indicated.

STYRENE-BUTADIENE-RUBBER COMPOUND: ASTM D 2000, Designation M2AA-805.

PVC: ASTM D 2287, Type PVC-65406.

BOND-BREAKER STRIPS: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).

RECTANGULAR PLASTIC WEEP/VENT TUBING: Clear butyrate, 3/8 by 1-1/2 by 3-1/2.

CAVITY DRAINAGE MATERIAL: 1-inch-thick, free-draining mesh; made from polyethylene strands and shaped to avoid being clogged by mortar droppings.

REINFORCING BAR POSITIONERS: Wire units designed to fit into mortar bed joints spanning masonry unit cells with loops for holding reinforcing bars in center of cells. Units are formed from 0.142-inch diameter wire, hot-dip galvanized after fabrication. Provide units with either two loops or four loops as needed for number of bars indicated.

MASONRY CLEANER: Provide standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by manufacturer of masonry units being cleaned.

(Specifications continued in next column)

MORTAR AND GROUT MIXES

DO NOT USE admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated. Do not use calcium chloride in mortar or grout.

ADD COLD-WEATHER ADMIXTURE (IF USED) at the same rate for all mortar, regardless of weather conditions, to ensure that mortar color is consistent.

PREBLENDED, DRY MORTAR MIX: Furnish dry mortar ingredients in the form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

MORTAR FOR UNIT MASONRY: Comply with ASTM C 270, Properly Specification.

For masonry below grade, in contact with earth, and where indicated, use Type M. For reinforced masonry and where indicated, use Type S. For brick masonry veneer and where otherwise indicated, use Type N.

GROUT FOR UNIT MASONRY: Comply with ASTM C 476, and provide material with 2,000 PSI compressive strength when tested at 28 days, unless noted otherwise. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that complies with Table 5 of ACI 530.1/ASCE 6/MS 602 for dimensions of grout spaces and pour height. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143.

EPOXY POINTING MORTAR: Mix epoxy pointing mortar to comply with mortar manufacturer's directions.

INSTALLATION:

VERIFY that foundations are within tolerances specified and that rebar and dowels are properly placed. Examine rough-in and built-in construction to verify actual locations of piping, conduits, and recessed installation only after unsatisfactory conditions have been corrected.

THICKNESS: Build cavity and composite walls and other masonry construction to the full thickness shown. Build single-wythe walls to the actual widths of masonry units, and joint widths indicated.

BUILD CHASES AND RECESSES to accommodate items specified in this Section and in other Sections of the Specifications.

LEAVE OPENINGS FOR EQUIPMENT TO BE INSTALLED in masonry completing masonry. After installing equipment, complete masonry to match the construction immediately adjacent to the opening.

CUT MASONRY UNITS and mortar-drip saws to provide clean, sharp, unchipped edges. Cut units as required to provide a continuous mortar bed and full adjoining construction. Where possible, use full-size units without cutting. Allow units cut with water- or solvent-saved or dry-cut edges to be replaced, unless wetting of units is specified. Install cut units with cut surfaces end, where applicable, toward the exterior face.

SELECT AND BRIDGE UNITS for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or bins as they are placed.

AT EXISTING MASONRY, match coursing, bonding, color, and texture of existing materials.

SETTING OF BRICK: Wet brick before laying if the initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested per ASTM C 67. Allow units to absorb so they are damp but not wet at the time of laying.

INSTALL MASONRY-CELL INSULATION units into masonry unit cells before laying units.

CONSTRUCTION TOLERANCES

COMPLY WITH TOLERANCES in ACI 530.1/ASCE 6/MS 602 and the following:

FOR CONSPICUOUS VERTICAL LINES, such as external corners, door jams, reveals, and expansion and control joints, do not vary from plumb by more than 1/4 inch in 20 feet, nor 1/2 inch maximum.

FOR VERTICAL ALIGNMENT OF EXPOSED HEAD JOINTS, do not vary from plumb by more than 1/4 inch in 10 feet, nor 1/2 inch maximum.