

SECTION 400 -- ARCHITECTURAL

A. GENERAL

1. Every Specification Section is required to include in Part 2 (as the first item), “SUBSTITUTIONS: Materials shall be as specified...” (refer to “SECTION 100 -- GENERAL” for the entire statement).
2. Make sure all specification sections are coordinated with the Bureau’s General Conditions, Document 000708.

B. CONCRETE

1. Refer to “SECTION 300 -- STRUCTURAL,” “CONCRETE” article.
2. Require that concrete face panels be same as sample panel for duration of the work. Mock-ups for concrete face panels shall remain in place for the duration of the work. A concrete face panel mock-up including window unit with head flashing, sill detail, etc, may be specified and required.

C. MASONRY

1. Refer to “SECTION 300 -- STRUCTURAL,” “MASONRY” article.
2. Weep holes: Specify honeycomb types, full head height. Do not use rope or tube weeps.
3. Specify and/or require that all through-wall and head flashings be extended beyond surface for proper drip (not cut back). Require all such details on drawings. Provide flashing end-dams where applicable. Provide mesh to fill air-space at through-wall flashing locations.
4. Require that face brick be same as sample panel for duration of the work. Mock-ups shall remain in place for the duration of the work. A masonry mock-up including window unit with head flashing, sill detail, etc, may be specified and required.
5. Brick veneer walls: Specify and require the use of adjustable ties.
6. Exterior sheathing behind masonry: Some products are not waterproof, resulting in moisture damage. Field verify product specifications and warranties for weather exposure prior to installation. Provide water-resistant exterior rated sheathing.
7. Brickwork: Specify and/or require through-wall flashing and weeps at maximum three story intervals unless otherwise required or recommended by code or design guidelines. Provide complete drawing details for all masonry flashings.
8. Provide drawing details of all caulking at lintels, window and door frames, miscellaneous wall penetrations, horizontal joints, flashings, etc., and enforce their use in the field. Show control joints in the drawings; on floor plans and elevations.
9. Mock-up panels for concrete and masonry or other exterior walls may be combined as one unit and are to remain on-site for the duration of the work.

D. METALS

1. Refer to "SECTION 300 -- STRUCTURAL," "METALS" article.
2. Specify fire rating systems where required for structural and miscellaneous steel.

E. WOOD, PLASTICS, AND COMPOSITES

1. Refer to "SECTION 300 -- STRUCTURAL," "WOOD" article.
2. Finger-jointed exterior woodwork and trim is not permitted.
3. Wood studs are not permitted in partitions that are greater than ten-foot (10') height.
4. Provide stainless steel fasteners for exterior wood siding and trim.
5. Provide head, sill, and jamb drawing details at all openings. Refer to "SECTION 400 -- ARCHITECTURAL," "THERMAL AND MOISTURE PROTECTION" article for insulation requirements at openings.
6. Provide drawing details showing welded door frame connections to studs.
7. Provide solid-through color plastic laminate counter-tops.
8. Adhere to standard details and materials for courthouse judge's benches. Standards will be provided by the Bureau.
9. Provide minimum two-inch (2") wood or three-quarter inch (3/4") plywood wall blocking for stair anchors, toilet partitions, toilet accessories, and other items as required.
10. Provide preservative treated wood for wood to concrete connections and indicate thus on all applicable drawing details. Consider preservative treatment effect on adjacent materials including fasteners.

F. THERMAL AND MOISTURE PROTECTION

1. Include requirements for special inspections for the following items as required in the State Building Code.
 - a. Sprayed fire-resistant materials.
 - b. Mastic and intumescent fire-resistant coatings.
 - c. Exterior insulation and finish systems (EIFS), except where exempted in the building code.
2. Penetration Firestopping: Provide penetration firestopping in fire-resistance-rated walls, horizontal assemblies, and smoke barriers in accordance with building and fire code requirements. Firestop systems will be UL Classified to ASTM E814 (UL 1479). Submittals are required, including for product data, product schedule, qualification data, and product test reports (with locations).
 - a. Projects with Architect: Firestopping specifications are required in Division 7. Include requirement for firestopping in fire sprinkler, plumbing, hvac, electrical, and communications specification sections with reference to the firestopping specification located in Division 7.

- b. Projects with Engineer (and no Architect): For fire sprinkler, plumbing, hvac, electrical, and communication projects where there is no Architect involved in the project, firestopping specifications are required and may be located in and are required to be coordinated with all corresponding specification sections.
3. Fire-Resistive Joint Systems: Provide fire-resistive joint systems including those installed in or between fire-resistance walls, floor or floor-ceiling assemblies in accordance with building and fire code requirements.
 - a. Specification section is required in Division 7 where the building or fire code requires fire-resistive joint systems in the project.
 - b. Fire-resistive joint systems shall be UL Classified to ASTM E1966 (UL 2079).
 - c. Submittals are required, including for product data, product schedule, qualification data, and product test reports (with locations).
4. Provide head, sill, and jamb drawing details at all openings.
5. Specify and note on drawings insulation fill at all voids, including window and door frames. Insulate behind and around electrical boxes. Spray foam shall be minimally expanding and low pressure.
6. Provide architectural drawing details at all flashing conditions. Specification of SMACNA standards “only” is not permitted. Specify metal flashing gauges or thicknesses for all roof and wall flashing conditions.
7. Shingle roofs:
 - a. **Provided that sufficient venting** of sloped roof areas exists, provide bituthene membrane covering over the entire roof deck surface (full-coverage on sheathing). Verify compatibility and warranty issues with the shingle manufacturer.
 - b. Minimum slope for shingle roofs is three units vertical in twelve units horizontal (3:12) with full bituthene membrane coverage, provided that sufficient venting of roof area exists.
 - c. Specify and require six (6) nails per shingle for all shingled roofs.
 - d. Specify and require hand-nailing of shingles – power nailing and stapling is not permitted.
 - e. Specify algae resistant (AR) shingles.
 - f. Specify forty (40) year overall warranty, with the first ten (10) years minimum to include material and labor. Review shingle recommendation and warranty details with Contract Administrator.
8. Low-slope roofs:
 - a. Low-slope definition related to following items is defined as a slope less than or equal to four units vertical in twelve units horizontal (4:12). Building code or roofing manufacturer definition may differ and there is no intent to change those definitions where they apply.
 - b. Provide a vapor barrier in appropriate location or provide an explanation “why not.”
 - c. Specify thirty (30) year total system warranty on roofing systems, including roof edge metal and metal coping systems. Provide warranty for the above from the same manufacturer.
 - d. Specify prefabricated bent or extruded metal roof edge and metal coping systems. Shop bent roof edge and coping systems are not permitted.
 - e. White roof membrane systems are not required.
 - f. EPDM and SBS are preferred low-slope roof materials – review proposed roof system with Contract Administrator and Using Agency.

9. Roofing:
 - a. Wetted roofing felts are not permitted to remain in new roofing work; remove and replace as required. Follow manufacturer's recommendations for bituthene membrane materials.
 - b. Overloading roof systems with temporarily stored roofing, insulation, and related materials is not permitted.
 - c. Specify and require complete weather protection during construction for all roofing, insulation, and related products temporarily stored outside.
10. Specify and detail building envelope materials and products in compliance with New Hampshire State building and energy codes.

G. OPENINGS

1. Provide head, sill, and jamb drawing details at all openings. Refer to "SECTION 400 -- ARCHITECTURAL," "THERMAL AND MOISTURE PROTECTION" article for insulation requirements at openings.
2. Provide complete door and window schedules including frames. Include wood windows and doors in the schedules.
3. Wood doors:
 - a. Specify details of interior solid core wood door materials and quality – do not specify "only" an AWI standard (e.g., include rotary or other cut, birch or other material, veneer details, etc). Include warranty requirements.
 - b. Specify factory finishing. Specify painting and/or sealing for all wood door edges and hardware cutouts after final door fitting.
 - c. Require samples.
4. Steel doors and frames:
 - a. Steel door frames are required to be shop fabricated, welded units. Welded units are required to be die cut mitered and continuously welded. Specify complete descriptions for "fully welded" metal door frames.
 - b. Steel door faces are required to be full flush with each door face formed from a single sheet of steel with no visible seams on the surface of the faces. A full height vertical seam, continuously welded, is permitted on door edges with the seam dressed smooth. Steel door tops are required to be flush and door bottoms are inverted channels, unless detention type, where both edges are flush.
 - c. Specify door vision lite units to be installed on the secure side if screw applied.
 - d. Require samples.
5. Aluminum doors: Provide mechanically fastened and welded corner construction. Require samples.
6. Windows:
 - a. Metal window frames are required to be thermally broken. Sills shall be factory complete with exterior baffled weep holes, with no obstructions (from joint sealant or other materials). Include drawing details showing connections to framing and showing insulation at voids.
 - b. Specify total system warranty on all exterior window units that are furnished glazed. Specify maximum available warranty; overall unit minimum is five (5) years and glass only at ten (10) years.

- c. Specify full-screens at single and double-hung windows.
 - d. Require samples.
7. Hardware:
- a. Coordinate hardware with Using Agency and Contract Administrator. Maintain uniformity of base metal and finish throughout project system. Specify best level of quality products for the longest life. Specify stainless steel hardware and workings at New Hampshire seacoast locations.
 - b. Specify complete system for electronic locking hardware (e.g., electric door locks, frame contactors, secured in-frame wiring, transformers, etc). Cross-reference to electrical drawings and specifications.
 - c. For security hardware, specify coordination of new keying systems with existing where required, including coordination with and review and approval by the State Fire Marshal's office.
 - d. Confirm compatibility of new specified hardware with existing hardware systems that are retained.
 - e. Specify removeable cores at keyed locksets.
8. Coordinate door, window, and other opening requirements at detention units, prisons, and courthouses with Using Agency and Contract Administrator.

H. FINISHES

1. Include requirement in the Specifications that the Contractor is responsible to meet moisture content requirements in concrete slabs for finish flooring. Also include requirement for type and number of moisture tests, requirement for Contractor submittal of test results including locations, and requirement for Contractor to review test results with the Architect / Engineer and Contract Administrator.
2. Finishes: Specify and require complete paint systems, verifying compatibility of products for both new painting and recoat work.
3. For punch list and/or corrective work, require that all "touch-up painting" be from corner to corner and floor to ceiling. No spot painting repair work shall be allowed. Specify and require same.
4. Specify and require proper preparation and paint systems for high-end millwork and built-in furniture, such as courthouse judge's benches and related monumental items.
5. Specify and require that all wall repairs, etc, be complete and approved before final finish coat is applied. All repairs shall be in accordance with minimum Level 4 finish (Gypsum Association: GA 214 - Recommended Levels of Gypsum Board Finish).
6. Specify and require a skim coat on non-paper finish gypsum boards.
7. Specify and require gypsum board on walls must be applied with 1/2" gap between the gypsum board and floor to prevent potential wicking. Include acoustical sealant or caulk in the gap. Review requirements related to fire-rated walls.

8. Acoustical Ceilings: Specify and require that all fixtures, etc, mounted in lay-in acoustical ceiling systems, be supported at all four corners. Coordinate this requirement in Division 23 Mechanical and Division 26 - Electrical.
 9. Specify and require fifteen-foot wide carpet goods for large rooms or areas. Require seaming diagrams in submittals.
 10. Special fasteners are required at abuse resistant gypsum board (as per manufacturer).
 11. Specify rolled (not sections) rubber or vinyl for base with pre-moulded corners. Specify rubber, one-piece stair treads and risers, and rubber radial flooring.
- I. SPECIALTIES -- Reserved for future use.
 - J. EQUIPMENT -- Reserved for future use.
 - K. FURNISHINGS -- Reserved for future use.
 - L. SPECIAL CONSTRUCTION -- Reserved for future use.
 - M. CONVEYING EQUIPMENT -- Reserved for future use.