

DIVISION 04 MASONRY

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Unless stated otherwise, the standards in this Facilities Design Manual (FDM) are directed to the Design Professional to incorporate into the Project.

Although the Owner encourages improved concept, method and product recommendations by the Design Professional, deviation from these standards, including product requests for “approved equivalent” status, requires written justification from the Design Professional and written approval from the Owner’s Representative before completion of Design Development Documents.

04 00 00 MASONRY

A. REFERENCE ABBREVIATIONS

1. ASTM ASTM International (formerly in the USA: American Society for Testing and Materials)

04 20 00 UNIT MASONRY

A. GENERAL

1. At each steel support angle in a masonry veneer wall, locate a horizontal expansion joint with compressible material below each angle.
2. Specify limits and conditions for laying or erecting in both hot and cold weather.
3. Specify cleaning of masonry to take place periodically as installation progresses.
 - a. Specify cleaning not less than once each day.
 - b. Do not specify chemical cleaning.
 - c. Specify appropriate cleaning and pointing after masonry installation has been completed.
4. Specify major interior walls and partitions extend to the underside of the construction above (floor or roof slab, beams, etc.).
5. Specify adequate anchorage, reinforcing, ties and bonding appropriate for each type of masonry material.
6. Specify wall panel joints raked back 1/2 inch and caulked to prevent moisture infiltration.
7. At exterior masonry cavity walls, specify through-wall flashing with weeps 16 inches on center approximately 8 inches above finish grade.
 - a. Specify free-flowing weeps approved by the Owner's Representative
8. Specify only Type N Portland cement/lime mortars for exterior conditions.
9. Do not specify colored mortar unless approved by the Owner's Representative.
10. Specify joints completely filled with mortar and tooled concave on the exterior face of the wall.
11. Design parapet walls to project approximately 18 to 26 inches above the roof surface.
12. Clearly specify reinforced masonry walls and indicate on the Drawings.

B. BRICK

1. Specify brick by description of type and size.
2. Do not specify by cash allowance.
3. Specify construction of a sample panel with back-up material, not less than 4 feet high by 6 feet wide, for approval by the Design Professional and the Owner's Representative before the brick is ordered.
 - a. Specify the sample panel to remain in place for the duration of the Project.

C. CLAY TILE

1. Consider structural clay tile for interior walls and partitions as a possible alternative for concrete block in either bearing or non-bearing locations.
2. Consider glazed clay tile for interior partitions where both sides need finished, easy-to-clean surfaces, such as for restrooms and laboratories.
 - a. Detail to prevent the tile from chipping.

D. CONCRETE MASONRY UNITS

1. Specify load bearing units that comply with ASTM C90, latest edition.
2. Specify light-weight aggregate units only where approved by the Owner's Representative.
3. Specify solid units and brick sizes where needed.

4. Specify bull-nosed units for outside corners of interior finished work.
5. Specify units for backup and for interior partitions where aesthetic values are not of prime importance.

E. GLASS UNITS

1. Do not specify for exterior locations unless approved by the Owner's Representative.

04 43 00 STONE MASONRY

A. LIMESTONE

1. For the exterior facing material of buildings in the central area of campus at Iowa State University, specify limestone that matches the color and texture of the surrounding existing buildings.
 - a. Specify precast concrete as a possible alternative to limestone only if approved by the Owner's Representative.
2. Specify limestone samples are submitted for approval by the Owner's Representative.
3. Specify non-staining mortar.
4. Specify stone sills with lugs, adequate wash, and drip to minimize staining of the surface below.
5. Specify following recommendations of the Indiana Limestone Institute.

B. GRANITE

1. Because granite provides a more weather- and wear-resistant surface than most other materials, consider specifying granite for base courses and for exterior steps and thresholds.

END OF DIVISION 04 MASONRY