

Sieve Designation		Percentage by Weight Passing Square Mesh Sieves
Metric	US Customary	
63 mm	2½ in	100
50 mm	2 in	95-100
25 mm	1 in	0-30
19 mm	¾ in	0-5

SECTION 704 - MASONRY UNITS

704.01 Clay or Shale Brick Except as modified below, brick shall conform to the requirements of one of the following specifications:

Type of Brick	Specification
Sewer and Manhole	AASHTO M91, Grade MS or SM
Building	AASHTO M114, Grade SW

Size Number 1 brick of a nominal length of 190 mm [7 in] may be used.

704.02 Brick for Paving Brick for paving shall conform to the requirements of ASTM (C62, Grade SW) for Building brick or shale, with the following modifications:

- The absorption limits shall be from 5% to 12% for the average of 5 bricks.
- The compressive strength shall not be less than 41.4 MPa [6,000 psi].
- The modulus of rupture shall not be less than 6.9 MPa [1,000 psi].
- The bricks shall be No. 1, water struck type for paving.

The bricks shall be 57 mm by 90 mm by 190 mm [2¼ in by 3¾ in by 8 in] with permissible variations not to exceed 1.5 mm [$\frac{1}{16}$ in] in depth, 3 mm [\bullet in] in width and 6 mm [$\frac{1}{4}$ in] in length.

Before ordering new brick, samples shall be submitted in whole straps to show color range.

704.03 Concrete Masonry Blocks Concrete masonry blocks may be rectangular or

segmented and when specified shall have ends shaped to provide interlock at vertical joints.

Hollow blocks shall conform to the requirements of ASTM C90, Grade N-II, except paragraph 3.2 a. Aggregates shall meet the requirements of Sections 703.01 and 703.02 for fine aggregates and coarse aggregates respectively except that grading requirements are hereby waived.

Solid blocks for catch basins and manholes shall conform to the requirements of ASTM C139.

SECTION 705 - JOINT MATERIAL

705.01 Preformed Expansion Joint Filler Preformed expansion joint filler shall be non-extruding and resilient bituminous type and shall conform to the requirements of AASHTO M213 (ASTM D1751).

705.02 Joint Mortar Joint mortar shall consist of 1 part Portland cement, 2 parts sand and sufficient water to obtain the required consistency. Mortar shall be used within 30 minutes after its preparation.

The cement shall conform to the requirements of Portland cement AASHTO M85 (ASTM C150), Type II or IIA.

The sand shall meet the requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieve	
	Joints Thicker Than 13 mm [$\frac{1}{2}$ in]	Joints 13 mm [$\frac{1}{2}$ in] or Thinner
9.5 mm [\bullet in]	100	-
6.3 mm [$\frac{1}{4}$ in]	-	100
4.75 mm [No. 4]	95-100	-
2.36 mm [No. 8]	70-95	85-100
1.18 mm [No. 16]	45-80	60-90
600 μ m [No. 30]	25-55	35-70