

## CONCRETE MASONRY UNITS

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### 1. GENERAL

#### 1.1 General Requirements

- .1 Conform to requirements of Section 04051 – Masonry Procedures.

### 2. PRODUCTS

#### 2.1 Materials

- .1 Use normal weight concrete masonry units where finished face exposed to exterior or to earth below grade, or forming part of an exterior wall.
  - .1 S or SC/15/A/M: Solid block walls exposed to weather, and for other load bearing walls indicated.
  - .2 H/15/A/M: Locations where structural members bear on concrete block, and where indicated on Drawings: Fill units solid for top 2 courses of load bearing walls.
- .2 Where concrete masonry walls are required to act as fire separations or barriers, provide units conforming to the building code with respect to classification, thickness, fire resistant ratings and type of concrete.
- .3 Special Shapes: Provide bull-nosed and double bull nosed units for exposed corners. Provide purpose-made shapes for lintels and bond beams. Provide additional special shapes as indicated.

#### 2.2 Concrete Masonry Units

- .1 CMU-1 Standard Concrete Block Units: CAN3-A165 Series, modular size.
- .2 CMU-2 Architectural Concrete Block Units: CAN3-A165 Series, modular size, integral water repellent treated to yield resistance to water penetration for 62 hours when tested to ASTM E514, No. 805 Sage Terazzo by CCI Industries.

### 3. EXECUTION

#### 3.1 Installation - Concrete Masonry Units

- .1 Lay block to align plumb over each other with thick ends of webs up. Leave no cells open in exposed work.
- .2 Minimize cutting block. Cut exposed block with power driven abrasive cutting disc or diamond cutting wheel where cutting is required and for flush mounted electrical outlets, grilles, pipes, conduit, leaving 3 mm (c”) maximum clearance.

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- .3 Do not wet concrete masonry before or during laying in wall.
- .4 Bond:
  - .1 Stack Bond: Align joints plumb over each other in every course.
- .5 Buttering corners of units, throwing mortar droppings into joints, deep or excessive furrowing of bed joints will not be permitted. Do not shift or tap units after mortar has taken initial set. Where adjustment must be made after mortar has started to set, remove mortar and replace with fresh supply.
- .6 Lay all joints approximately 10 mm (d") thick unless otherwise specified or otherwise indicated on Drawings. Fill joints full of mortar except where specifically designated to be left open.
- .7 Jointing: When mortar is thumb print hard, tool joints slightly concave for exposed work; elsewhere, strike joints flush. Use sufficient force to press mortar tight against masonry units on both sides of joints. Remove excess material or burrs left after jointing. Use trowel or rub with burlap bag.
- .8 Locate corners accurately.
- .9 Use bullnose and double bullnose block at sills and all external corners from second bottom course to top of partition where block is left exposed.
- .10 Use square nose units at bottom course at external corner. Grind smooth corners to match bullnose units above, from top of flooring base.
- .11 Use full bed of mortar for first course. For remaining courses bed face shells and cross and end webs and vertical end joints fully in mortar. Compress end joint mortar.
- .12 Bond intersecting block walls in alternate courses with metal anchors. Where blockwork abuts concrete, bond each block course with site installed anchors.
- .13 Do not break bond of walls of exposed units where partitions intersect and if bonding would show through on exposed face of walls. Bond these partitions, to walls they intersect, with prefabricated intersection masonry anchor reinforcement in each course.

### 3.2 Non-Load Bearing Partitions

- .1 Non-Loading Bearing Partitions: Extend partitions in areas without suspended ceilings and other partitions indicated on Drawings, up through ceiling to structure above, unless indicated or specified otherwise: Terminate partitions minimum 19 mm (¾") or as shown on Drawings, below structure and fill space between top of masonry and structure with compressible packing insulation.
- .2 Terminate remainder of masonry partitions minimum of 100 mm (4") above finished suspended ceilings.

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**3.3 Multi-Wythe Composite Walls**

- .1 Bond wythes of composite masonry together using reinforcement installed in horizontal mortar joints.
- .2 Collar Joints: Solidly fill collar joints by parging face of first wythe that is laid in shoving units of other wythe into place.
- .3 Corners: Provide interlocking masonry unit bond in each wythe sand course at corners, unless otherwise indicated.
- .4 Intersecting and Abutting Walls: Unless vertical expansion or control joints are shown at juncture bond walls together as follows:
  - .1 Provide continuity with masonry joint reinforcement by using prefabricated T-shaped units.
  - .2 Provide rigid metal anchors not more that 600 mm o.c. If used with hollow masonry units, embed ends in mortar-filled cores.

**3.4 Installation - Concrete Block Lintels**

- .1 Install reinforced concrete block lintels over openings in masonry where steel or reinforced concrete lintels are not indicated.
- .2 End bearing: Not less than 200 mm (8").

**3.5 Cleaning**

- .1 Standard and Architectural Units: Allow mortar droppings on masonry to partially dry then remove by means of trowel, followed by rubbing lightly with small piece of block and finally by brushing.
- .2 Pointing: Clean block faces using soft cloths before mortar hardens rake to 10 mm (3/8"). After completion of block laying fill joints with pointing mortar then point to provide concave joints. Repeat cleaning of faces.

**END OF SECTION**