

## 1 General

### 1.1 REFERENCE STANDARDS

- .1 Canadian Standards Association (CSA).
  - .1 CSA A165 Series-14, CSA Standards on Concrete Masonry Units (Consists of A165.1, A165.2 and A165.3).
  - .2 CAN/CSA-A179-14, Mortar and Grout for Unit Masonry.
  - .3 CAN/CSA A370-14, Connectors for Masonry.
  - .4 CAN/CSA A371-14, Masonry Construction for Buildings.
  - .5 CSA G30.18-09(R2014), Carbon Steel Bars for Concrete Reinforcement.
  - .6 CSA S304-14, Design of Masonry Structures.

### 1.2 QUALITY ASSURANCE

- .1 Masonry design: to CSA S304.
- .2 Masonry construction: to CAN/CSA A371.
- .3 National Building Code of Canada 2015.
- .4 Local ordinances and bylaws.
- .5 Where the provision of Codes and Standards conflict with the requirements of this specification, the more stringent requirements shall govern.
- .6 Perform work using qualified masons under direction of an experienced foreman.

### 1.3 DELIVERY, STORAGE AND HANDLING

- .1 Deliver materials to job site in dry condition.
- .2 Keep materials dry until use.
- .3 Store under waterproof cover on pallets or plank platforms held off ground by means of plank or timber skids.

## 2 Products

### 2.1 MORTAR AND GROUT

- .1 Mortar and grout: CAN/CSA-A179.
  - .1 Mortar: based on Proportion specifications.
    - .1 Interior block: Type S.
  - .2 Grout:
    - .1 To CAN/CSA-A179 - Table 7 Property Specifications.
    - .2 Minimum compressive strength: 12.5 MPa at 28 days by cylinder test.
    - .3 Maximum aggregate size: 12 mm diameter.
    - .4 Slump: 200 mm to 250 mm.
- .2 Use same brands of materials and source of aggregates for entire project.

### 2.2 REINFORCEMENT

- .1 Bar reinforcement: to CAN/CSA A371 and CSA G30.18, Grade 400.
- .2 Vertical reinforcing positioners: fabricate from 3.6 mm mill galvanized wire; design to allow for installation of one (1) or two (2) reinforcing bars; size to suit block cavity.

- .3 Corrosion protection: to CSA S304, galvanized in accordance with CSA S304 and CAN/CSA A370.
- .4 Reinforcement and ties: manufactured from cold-drawn steel wire to ASTM A82; manufactured by Blok-Lok or Hohmann and Bernard Inc; hot-dipped galvanized finish for use in exterior walls.
  - .1 Horizontal reinforcement:
    - .1 Type: Ladder type: standard duty.
    - .2 Use prefabricated or job-fabricated corners sections to form continuous reinforcement around corners.

### 2.3 MASONRY UNITS

- .1 Concrete masonry units: to CSA A165 Series (CSA A165.1).
  - .1 Classification:
    - .1 Hollow block: H/15/A/M.
    - .2 Solid blocks: S/15/A/M.
  - .2 Size: modular.

## 3 Execution

### 3.1 PREPARATION

- .1 Accurately lay out work, locating partitions and walls, changes in direction and openings. Prepare items to build-in as the work proceeds, either supplied and installed by Others or installed under this section.
- .2 Coordinate work of this section with Others, such as mechanical and electrical trades, miscellaneous metal suppliers, etc.

### 3.2 MORTAR AND GROUT WORK

- .1 Do masonry mortar and grout work in accordance with CAN/CSA-A179 except where specified otherwise.
- .2 Mortar mixing:
  - .1 Thoroughly mix mortar using paddle type mixer in good condition.
  - .2 Thoroughly dry-mix sand and cement before adding water. Mix minimum four (4) minutes after all ingredients are added.
  - .3 Use mortar within 2 hours of mixing at temperatures over 25°C, within 3 hours under 25°C.
  - .4 Retempering is permitted within 2 hours of mixing to replace water lost by evaporation.
- .3 Grouting:
  - .1 Grout in miscellaneous items of steel, wood and other appurtenances into the masonry work. Place grout in bond beams and concrete block lintels.
  - .2 Below bearing points of steel lintels, grout block full for three (3) courses beginning with 400 mm width in first course and increasing 400 mm width each course below.

### 3.3 REINFORCEMENT

- .1 Vertical and horizontal reinforcement: refer to reinforcing schedule on drawings.
- .2 Install vertical reinforcing steel centred in block core, unless detailed otherwise. Grout reinforced cores solid.

### 3.4 LAYING CONCRETE BLOCK

- .1 Bond: running stretcher.
- .2 Coursing height: 200 mm for one (1) block and one (1) joint.
- .3 Jointing: concave where exposed to view and where paint or similar thin finish coating. Strike flush joints concealed in walls and joints in walls to receive tile, insulation or other applied material except as specified herein.

### 3.5 CUTTING AND FITTING

- .1 Do cutting, fitting, drilling, patching and making good for other trades in masonry work.

### 3.6 LINTELS AND BUILT-IN WORK

- .1 Build in loose and miscellaneous items of steel, and other appurtenances into the masonry work in their proper position as the work proceeds, and set plumb, level, rigid and secure. Take care so as not to damage items being built in.

### 3.7 ADJUST AND CLEAN

- .1 Remove surplus mortar immediately from walls, floors, etc.
- .2 Point holes and replace defective mortar at completion of work.
- .3 Clean concrete block following supplier's recommendations.

END OF SECTION