

PART 1 GENERAL

1.1 SECTION INCLUDES

- .1 Concrete masonry unit infill.
- .2 Reinforcement, anchorage, and accessories.
- .3 Mortar and grout for masonry.

1.2 RELATED SECTIONS

- .1 Section 07840 - Firestopping: Firestopping at penetrations of masonry work.

1.3 REFERENCES

- .1 ASTM A82 - Cold-Drawn Steel Wire for Concrete Reinforcement.
- .2 ASTM A123 - Zinc (Hot Dipped Galvanized) Coatings on Iron and Steel Products.
- .3 CSA A371 - Masonry Construction for Buildings.
- .4 ASTM A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .5 ASTM A641 - Zinc-Coated (Galvanized) Carbon Steel Wire.
- .6 ASTM C90 - Load-Bearing Concrete Masonry Units.
- .7 ASTM C270 - Mortar for Unit Masonry.
- .8 ASTM C144 - Aggregate for Masonry Mortar.
- .9 ASTM C150 - Portland Cement.
- .10 ASTM C207 - Hydrated Lime for Masonry Purposes.

1.4 SUBMITTALS

- .1 Submit design mix, indicate whether the Proportion or Property specification of ASTM C270 is to be used, required environmental conditions, and admixture limitations.

1.5 QUALITY ASSURANCE

- .1 Perform Work in accordance with CSA A371 - Masonry Construction for Buildings.

1.6 ENVIRONMENTAL REQUIREMENTS

- .1 Cold Weather Requirements: IMIAC - Recommended Practices and Guide Specification for Cold Weather Masonry Construction.
- .2 Maintain materials and surrounding air temperature to maximum 32 degrees C prior to, during, and 48 hours after completion of masonry work.

PART 2 PRODUCTS

2.1 CONCRETE MASONRY UNITS

- .1 Hollow Load Bearing Block Units (CMU): ASTM C90, Type I - Moisture Controlled normal weight.
- .2 Size and Shape: Nominal modular size of 200mmx400 mm x thickness as required for infill . Provide special units for lintels.

2.2 MORTAR

- .1 Portland Cement: CAN3-A5/A8/A362-M88, Normal Type 10.
- .2 Masonry Cement: not permitted.
- .3 Mortar Aggregate: CSA A82.56M, standard masonry type, clean, dry, protected against dampness, freezing, and foreign matter.
- .4 Hydrated Lime: ASTM C207, Type S.
- .5 Water: Clean and potable.
- .6 Mortar colour: Mortar for concrete block to be grey.

2.3 MORTAR MIXING

- .1 Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with CSA A179M.
- .2 Add mortar colour in accordance with manufacturers instructions. Provide uniformity of mix and coloration.
- .3 Do not use anti-freeze compounds to lower the freezing point of mortar or grout.
- .4 If water is lost by evaporation, retemper within two hours of mixing. Do not retemper after two hours of mixing.

2.4 REINFORCEMENT AND ANCHORAGE

- .1 Single Wythe Joint Reinforcement: Truss type; cold drawn steel wire conforming to ASTM A82, 4.8 mm side rods with mm cross ties. BL30 manufactured by Blok-Lok
- .1 Reinforcing Steel: CSA G30.18M, 300 MPa yield grade; deformed billet steel bars.

2.5 ACCESSORIES

- .1 Joint Filler: Closed cell polyethylene ; oversized 50 percent to joint width; self-expanding; maximum lengths.
- .2 Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Verify that field conditions are acceptable and are ready to receive Work.
- .2 Verify items provided by other sections of Work are properly sized and located.
- .3 Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.2 PREPARATION

- .1 Direct and coordinate placement of metal anchors supplied to other Sections.
- .2 Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.3 COURSING

- .1 Establish lines, levels, and coursing indicated. Protect from displacement.
- .2 Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- .3 Concrete Masonry Units:
 - .1 Bond: Running.
 - .2 Coursing: One unit and one mortar joint to equal 200 mm.
 - .3 Mortar Joints: Concave.

3.4 PLACING AND BONDING

- .1 Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other Work.
- .2 Lay hollow masonry units with face shell bedding on head and bed joints.
- .3 Buttering corners of joints or excessive furrowing of mortar joints are not permitted.
- .4 Remove excess mortar as Work progresses.
- .5 Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- .6 Perform job Site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

3.5 REINFORCEMENT AND ANCHORAGE

- .1 Install horizontal joint reinforcement 400 mm oc.
- .2 Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 400 mm each side of opening.

- .3 Place joint reinforcement continuous in first and second joint below top of walls.
- .4 Lap joint reinforcement ends minimum 150 mm.

3.6 LINTELS

- .1 Install lintels as noted on structural drawings.

3.7 BUILT-IN WORK

- .1 As Work progresses, install built-in Work furnished by other sections.
- .2 Install built-in items plumb and level.
- .3 Do not build in organic materials subject to deterioration.

3.8 TOLERANCES

- .1 Maximum Variation From Unit to Adjacent Unit: 1.6 mm.
- .2 Maximum Variation from Plane of Wall: 6 mm/3 m 1/4 inch in 10 ft.
- .3 Maximum Variation from Plumb: 6 mm 1/4 inch per story non-cumulative;.
- .4 Maximum Variation from Level Coursing: 3 mm/m and 6 mm/3 m 1/4 inch in 10 ft.
- .5 Maximum Variation of Joint Thickness: 3 mm/m 1/8 inch in 3 ft.

3.9 CUTTING AND FITTING

- .1 Cut and fit for pipes conduit and sleeves. Coordinate with other sections of Work to provide correct size, shape, and location.
- .2 Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.10 CLEANING

- .1 Remove excess mortar and mortar smears as Work progresses.
- .2 Replace defective mortar. Match adjacent Work.
- .3 Clean soiled surfaces with cleaning solution.
- .4 Use non-metallic tools in cleaning operations.

3.11 PROTECTION OF FINISHED WORK

- .1 Without damaging completed Work, provide protective boards at exposed external corners which may be damaged by construction activities.

END OF SECTION