

PART 1- GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 06 10 50 – Miscellaneous Rough Carpentry.
- .2 Section 07 27 00.01 – Air Barriers.
- .3 Section 07 62 00 – Sheet Metal Flashing and Trim.
- .4 Section 07 92 00 – Joint Sealants.

1.2 REFERENCE STANDARDS

- .1 ASTM International
 - .1 ASTM A 1064/A 1064M-17 Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- .2 CSA International
 - .1 CAN/CSA-A82-14, Fired Masonry Brick Made From Clay or Shale.
- .3 CAN/CSA-A165 SERIES-04(R2014), CSA Standards on Concrete Masonry Units (Consists of A165.1-04 Concrete Block Masonry Units, A165.2 Concrete Brick Masonry Units, A165.3 Prefaced Concrete Masonry Units).
 - .1 CAN/CSA-A179-14, Mortar and Grout for Unit Masonry.
- .4 CAN/CSA-A370-17, Connectors for Masonry.
- .5 CAN/CSA A371 - 14, Masonry Construction for Buildings.
- .6 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .7 National Research Council Canada (NRC)
 - .1 National Building Code of Canada (NBC) 2015.
 - .2 National Fire Code of Canada (NFC) 2015.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for unit masonry products, mortar and grout, connectors, anchorage and reinforcing, and accessories. Include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29 - Health and Safety Requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect masonry products from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

1.5 COLD WEATHER REQUIREMENTS

- .1 Supplement requirements of CAN3-A371 as follows:
 - .1 Maintain temperature of mortar between -5oC and 50oC until used.

1.6 HOT WEATHER REQUIREMENTS

- .1 Supplement requirements of CAN3-A371 as follows:
 - .1 Protect freshly laid masonry from drying too rapidly by means of waterproof, non-staining coverings.

PART 2 - PRODUCTS

2.1 SUSTAINABLE REQUIREMENTS

- .1 Materials and products in accordance with Section 01 47 15 – Sustainable Requirements

2.2 MASONRY UNITS

- .1 Burned clay brick: reuse existing brick units salvaged from demolition work on site.

2.3 REINFORCEMENT AND CONNECTORS

- .1 Connectors: to CAN/CSA-A370.
 - .1 Corrosion resistance: to CAN/CSA-A370
 - .1 Exterior: Level III.
 - .2 Ties:
 - .1 Conventional adjustable wire tie.

2.4 MORTAR AND GROUT

- .1 Mortar: to CAN/CSA-A179.
 - .1 Use aggregate passing 1.18 mm sieve where 6 mm thick joints are indicated.
 - .2 Colour: ground coloured natural aggregates or metallic oxide pigments, to match existing.
- .2 Mortar Type:
 - .1 Exterior non-loadbearing walls and parapet walls: N based on proportion specifications.
- .3 Grout: to CAN/CSA-A179, Table 5.

2.5 ACCESSORIES

- .1 Weep hole vents: purpose-made PVC.
- .2 Cavity screening: three dimensional random weave plastic mesh, thickness to match cavity, minimum height 3 brick masonry courses.
- .3 Anchor Bolts: 12 mm diameter x 150 mm long with embedded ends bent 50 mm at 90 degrees, exposed ends threaded with washer and nut.
- .4 Embedded Flexible Flashings: Self-adhering sheet 1.0 mm thick consisting of rubberized asphalt compound banded to high density cross laminated polyethylene film, complete with manufacturer's recommended primer, compatible detailing sealant and trowel grade mastic as necessary for a complete and effective flashing system.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied [and after receipt of written approval to proceed from Departmental Representative.

3.2 INSTALLATION

- .1 Do masonry work in accordance with CAN/CSA-A371 except where specified otherwise.
 - .1 Bond: running stretcher bond with vertical joints in perpendicular alignment and centred on adjacent stretchers above and below.
 - .2 Coursing height: 200 mm for three bricks and three joints.
 - .3 Jointing: tool where exposed or where paint or other finish coating is specified to provide smooth compressed concave.
- .2 Build masonry plumb, level, and true to line, with vertical joints in alignment.
- .3 Layout coursing and bond to achieve correct coursing heights, and continuity of bond above and below openings, with minimum of cutting.

3.3 CONSTRUCTION

- .1 Exposed masonry:
 - .1 Remove chipped, cracked, and otherwise damaged units, in exposed masonry and replace with undamaged units.
 - .2 Cut out for electrical switches, outlet boxes, and other recessed or built-in objects. Make cuts straight, clean, and free from uneven edges.
- .2 Building-in:
 - .1 Install masonry connectors and reinforcement where indicated on drawings.
 - .2 Build in items required to be built into masonry.
 - .3 Prevent displacement of built-in items during construction. Check plumb, location and alignment frequently, as work progresses.
- .3 Interface with other work:
 - .1 Cut openings in existing work as indicated.
 - .2 Openings in walls: approved Departmental Representative.
 - .3 Make good existing work. Use materials to match existing.
- .4 Build in flashings in masonry in accordance with CAN/CSA-A371.
 - .1 Install flashings under exterior masonry bearing on foundation walls, slabs, shelf angles, and steel angles over openings. Install flashings under weep hole courses and as indicated. Seal laps, penetrations and terminations to resist water penetration.
 - .2 In cavity walls and veneered walls, carry flashings from front edge of masonry, under outer wythe, then up backing not less than 150 mm, and as follows:
 - .1 For self-adhesive flashing, apply primer and firmly press sheet against backing. Lap under air-barrier membrane. Seal penetrations with recommended sealant or mastic. Installation shall be free of wrinkles, fish-mouths and punctures.
 - .2 Provided turned up end dams minimum 50 mm high at ends of all flashings.
 - .3 For wood frame backing, staple flashing to walls behind sheathing paper.
 - .3 Lap joints 150 mm and seal with adhesive or mastic.
- .5 Install weep hole vents in vertical joints immediately over flashings, in exterior wythes of cavity wall and masonry veneer wall construction, at maximum horizontal spacing of 600 mm on centre.

- .6 Place drainage mesh in cavity as indicated as construction progresses.

3.4 BONDING AND TYING

- .1 Tie masonry veneer to backing in accordance with National Building Code of Canada (NBC) 2015, CAN/CSA-A371, CSA S304.1 and as indicated.

3.5 MODIFICATIONS TO EXISTING MASONRY

- .1 Match existing bond and coursing height of adjacent masonry to remain.
- .2 Tooth new masonry into existing masonry in run of wall and at intersections.
- .3 At new openings in masonry walls, remove units, clean and re-install rotated to conceal cut and expose finish surface.
- .4 Clean bond areas of adjacent masonry to remain, remove loose material and prepare masonry to receive new masonry toothed in.
- .5 Install reinforcement as necessary to provide continuity of reinforcing and stability between existing and new masonry work.
- .6 Provide repair anchors as necessary to stabilize existing masonry adjacent to and affected by the Work.

3.6 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
- .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.7 PROTECTION

- .1 Keep masonry dry using waterproof, non-staining coverings that extend over walls and down sides sufficient to protect from wind-driven rain until masonry work is completed and protected by flashings or other permanent construction.
- .2 Protect masonry and other work from marking and other damage. Protect completed work from mortar droppings. Use non-staining coverings.
- .3 Repair damage to adjacent materials caused by masonry products installation.

END OF SECTION