

## **PART 1 - GENERAL**

### **1.1 References**

- .1 Canadian Standards Association (CSA)
  - .1 CSA A179 Mortar and Grout for Unit Masonry.
  - .2 CSA A371 Masonry Construction for Buildings.

### **1.2 Delivery, Storage and Handling**

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

### **1.3 Environmental Requirements**

- .1 Hot Weather Requirements: protect freshly laid masonry from drying too rapidly, by means of waterproof, non-staining coverings.
- .2 Keep masonry dry using waterproof, non-staining coverings that extend over walls and down sides sufficient to protect walls from wind driven rain, until masonry work is completed and protected by flashing or other permanent construction.
- .3 Protect masonry and other work from marking and other damage. Protect completed work from mortar droppings. Use non-staining coverings.
- .4 Provide temporary bracing of masonry work during and after erection until permanent lateral support is in place.

## **PART 2 - PRODUCTS**

### **2.1 Materials**

- .1 As specified in related section in Division 4 – Masonry.
- .2 Use same brands of materials and source of aggregate for entire project.

## **PART 3 - EXECUTION**

### **3.1 Installation**

- .1 Do masonry work in accordance with CSA A371 except where indicated otherwise.
- .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.
- .4 Make masonry courses uniform in height with both vertical and horizontal joints of equal and uniform thickness.
- .5 Keep air space in cavities and weep holes free of mortar droppings and other debris to allow free air movement and positive moisture drainage to exterior.
- .6 Lay masonry units in full mortar bed. Do not shift or tap units after mortar has taken initial set. Where adjustments must be made, remove mortar and replace with fresh supply.
- .7 Bed joints evenly and fill solidly with mortar. Rock masonry into place at closures with head joints thrown against adjacent masonry units.
- .8 Where new masonry abuts set masonry, clean existing surfaces and dampen if necessary to obtain bond.

### 3.2 Construction

- .1 Clean unglazed clay masonry as work progresses.
- .2 Exposed Masonry:
  - .1 Remove chipped, cracked, and otherwise damaged units in exposed masonry and replace with undamaged units.
- .3 Jointing:
  - .1 Allow joints to set just enough to remove excess water, then tool with jointer to provide smooth, compressed, uniform joints.
  - .2 Use round jointer to provide concave joints where concave joints are indicated.
  - .3 Strike flush all joints concealed in walls and joints in walls to receive plaster, tile, insulation, or other applied material except paint or similar thin finish coating.
- .4 Cutting:
  - .1 Cut out neatly for electrical switches, outlet boxes, and other recessed or built-in objects.
  - .2 Make cuts straight, clean, and free from uneven edges.
  - .3 Use masonry saw where necessary.
- .5 Building in:
  - .1 Build in items required to be built into masonry.
  - .2 Prevent displacement of built-in items during construction. Check plumb, location and alignment frequently, as work progresses.
  - .3 Brace door jambs to maintain plumb. Fill spaces between jambs and masonry with mortar.
- .6 Wetting of Bricks
  - .1 Except in cold weather, wet clay bricks having an initial rate of absorption exceeding 1 g/min/1000 mm<sup>2</sup>: wet to uniform degree of saturation, 3 to 24 h before laying, and do not lay until surface dry.
  - .2 Wet tops of walls built of bricks qualifying for wetting, when recommencing work on such walls.
- .7 Support of loads:
  - .1 Use 20 MPa concrete where concrete fill is used in lieu of solid units.
  - .2 Install building paper below voids to be filled with concrete; keep paper 25 mm back from faces of units.
- .8 Provision for movement:
  - .1 Built masonry to tie in with stabilizers, with provision for vertical movement.
- .9 Provisions for other trades:
  - .1 Provide openings in masonry walls where required or indicated. Accurately locate chases and openings and neatly finish to the required sizes.
  - .2 Where masonry encloses conduit or piping, bring to proper level indicated and as directed.
  - .3 Do not cover pipe or conduit chases or enclosures until advised that work has been inspected and tested.
- .10 Loose steel lintels:
  - .1 Install loose steel lintels. Centre over opening width.
- .11 Control joints:
  - .1 Construct continuous control joints as indicated.
  - .2 Provide continuous vertical control joints in exterior masonry veneer as indicated, but at no more than 6 m on centre maximum spacing.
  - .3 Fill control joints with expansion joint filler and joint sealants as specified in related section in Division 4 – Masonry.

### 3.3 Site Tolerances

- .1 Tolerances in notes to Clause 5.3 of CSA A371 apply.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 Method of Measurement and Payment**

The masonry will be measured and paid for at the Contract Lump Sum Price for "Masonry", which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this Specification.

~End~

**PART 1 - GENERAL**

**1.1 References**

- .1 Canadian Standards Association (CSA)
- .1 CSA A179 Mortar and Grout For Unit Masonry.

**PART 2 - PRODUCTS**

**2.1 Materials**

- .1 Mortar: CSA A179, Type S for loadbearing masonry, Type N for non-loadbearing masonry, based on Property specifications.

**PART 3 - EXECUTION**

**3.1 Construction**

- .1 Do masonry mortar work in accordance with CSA A179.
- .2 Grout color to match masonry.

**PART 4 - MEASUREMENT AND PAYMENT**

**4.1 Method of Measurement and Payment**

- .1 Mortar and Masonry
  - .1 Mortar and Masonry shall be considered incidental to the Contract Lump Sum Price for "Masonry".

~End~

## **PART 1 - GENERAL**

### **1.1 References**

- .1 Canadian Standards Association (CSA)
- .1 CSA A179 Mortar and Grout For Unit Masonry.

## **PART 2 - PRODUCTS**

### **2.1 Materials**

- .1 Mortar: CSA A179, Type S for loadbearing masonry, Type N for non-loadbearing masonry, based on Property specifications.

## **PART 3 - EXECUTION**

### **3.1 Construction**

- .1 Do masonry mortar work in accordance with CSA A179.
- .2 Tie masonry veneer to backing in accordance with NBC, CSA S304, CSA A371 and as indicated.

### **3.3 Reinforced Lintels and Bond Beams**

- .1 Reinforce masonry lintels and bond beams as indicated. Place and grout reinforcement in accordance with CSA S304, CSA-A371, and CSA-A179.

### **3.4 Grouting**

- .1 Grout masonry in accordance with CSA S304, CSA-A371, CSA-A179 and as indicated.

### **3.5 Anchors**

- .1 Supply and install metal anchors as indicated.

### **3.6 Lateral Support and Anchorage**

- .1 Supply and install lateral support and anchorage per CSA S304.1 and as indicated.

### **3.7 Field Bending**

- .1 Do not field bend reinforcement and connectors except where indicated or authorized by Contract Administrator.
- .2 When field bending is authorized, bend without heat, applying slow and steady pressure.
- .3 Replace bars and connectors that develop cracks or splits.

### **3.8 Field Touch-up**

- .1 Touch up damaged and cut ends of galvanized reinforcement steel and connectors with compatible finish to provide continuous coating.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 Method of Measurement and Payment**

- .1 Masonry Reinforcement and Connectors
  - .1 Masonry Reinforcement and Connectors shall be considered incidental to the Contract Lump Sum Price for "Masonry".

~End~

## **PART 1 - GENERAL**

### **1.1 References**

- .1 American Society for Testing and Materials (ASTM)
  - .1 ASTM A 653/ A653M, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2 Canadian Standards Association (CSA)
  - .1 CSA A371, Masonry Construction for Buildings.

## **PART 2 - PRODUCTS**

### **2.1 Materials**

- .1 Control joint fillers and joint sealants: as specified in Section 07900 - Joint Sealants.
- .2 Masonry flashing: self-adhesive modified bitumen sheet membrane: minimum 1.0 mm thick. Use primers recommended by manufacturer. Acceptable products: Bakelite Blueskin SA, WR Grace Perm-A-Barrier, Soprema Colphene 1500.
- .3 Metal drip edge: brake formed of 0.6 mm galvanized sheet steel commercial quality to ASTM A653 with Z275 designation zinc coating. Prefinished with Stelcolor 8000 Series coil coating. Colour selected by Contract Administrator. Form drip edge to extend 100 mm under base course, with 6 - 9 mm formed drip at front edge.

## **PART 3 – EXECUTION**

### **3.1 Installation**

- .1 Install continuous control joint fillers in control joints at locations indicated.
- .2 Install weep hole vents in vertical joints immediately over flashings in masonry veneer wall construction, at maximum horizontal spacing of 600 mm on centre. Leave out the bottom 50 mm of mortar from vertical joints. Keep weep holes free from mortar droppings and debris to allow free air movement and positive drainage of moisture.

### **3.2 Construction**

- .1 Building flashings in masonry in accordance with CSA A371 and as follows.
  - .1 Install flashings under exterior masonry bearing on foundation walls, slabs, shelf angles, angle lintels over openings and elsewhere indicated. Install flashings under weep hole courses.
  - .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, bond to backup wall and seal top edge water tight.
  - .3 Lap joints 150 mm and seal.
- .2 In addition to masonry flashing provide metal drip edge at angle lintels over openings. Align drip edge straight and even. Overlap joints minimum 20 mm.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 Method of Measurement and Payment**

- .1 Masonry Accessories
  - .1 Masonry Accessories shall be considered incidental to the Contract Lump Sum Price for "Masonry".

~End~

## **PART 1 - GENERAL**

### **1.1 Related Work**

- |    |                                      |                |
|----|--------------------------------------|----------------|
| .1 | Masonry procedures                   | Section 04050. |
| .2 | Masonry mortar and grout for masonry | Section 04060. |
| .3 | Masonry reinforcing and connectors   | Section 04080. |
| .4 | Masonry accessories                  | Section 04090. |

### **1.2 References**

- .1 CAN/CSA-A82.1M, Burned Clay Brick (Solid Masonry Units Made From Clay or Shale).
- .2 CAN3-A82.8M78, Hollow Clay Brick.

## **PART 2- MATERIALS**

### **2.1 Manufacturers**

- .1 I-XL Industries Ltd.

### **2.2 Burned Clay Face Brick**

- .1 Dry-pressed: to CAN/CSA A82.1M, as manufactured by I-XL Industries Ltd., and as follows:
  - .1 Type: FBS.
  - .2 Grade: SW.
  - .3 Nominal dimensions: 3 1/2" x 2 1/2" x 7 1/2".
  - .4 Texture: Smooth.
  - .5 Colour: IXL 246 Whistler Gray Rockfaced.
  - .6 Manufactured from one continuous batch to ensure minimum colour and texture variations.
  - .7 Special shapes: provide special units as shown on Drawings.
  - .8 Solid brick: use where necessary to avoid exposing brick cores.

## **PART 3 – EXECUTION**

### **3.1 Laying**

- .1 Face brick - exterior masonry veneer:
  - .1 Bond: running bond.
  - .2 Coursing height: 12" for four bricks and four joints.
  - .3 Spec Note: Concave, v-shaped, grapevine and weathered joints are recommended for exposed joints in exterior veneer.
  - .4 Jointing: V- Joint
  - .5 Mixing and blending: mix units within each pallet and with three or more other pallets to ensure uniform blend of colour and texture.

### **3.2 Cleaning**

- .1 Spec. Note: Refer to I-XL Cleaning Guide for recommended cleaners.
- .2 Test specified cleaning agent and procedures by cleaning a small, designated sample area before start of cleaning.
- .3 Do not proceed with cleaning until sample area is approved.
- .4 Soak wall with clean water and flush off loose dirt and mortar.
- .5 Apply specified cleaning agent in accordance with the manufacturer's direction, working from top to bottom. Rinse areas thoroughly with clean water to remove cleaning solutions, dirt, and mortar residue.

**PART 4- MEASUREMENT AND PYAMENT**

**4.1 Method of Measurement and Payment**

.1 Brick Masonry

.1 The supply and installation of brick masonry shall be considered incidental to the Contract Lump Sum Price for "Masonry"

~End~