UNIT MASONRY - STONE - CLADDING

PART 1 GENERAL

1.1 Related Work

.1	All Division 1	Specification Sections
.2	Section 03300	Cast-In-Place Concrete
.3	Section 05500	Metal Fabrication

1.2 Quality Assurance

.1 Conform to the Building Code (Ont. Reg. 583/83), and the latest version.

.2 Conform to CSA S304 and CSA A371.

.3 Mortar shall conform to CSA A179-M76.

1.3 Samples

.1 Provide one (1) sample of precast cladding option for approval. Unless otherwise noted, minimum size 300 x 300 x 25mm. Or if accepted as a sample alternative, high resolution photos may be approved. Finish exposed face as described under “finishes” elsewhere in this Section. Make samples until final approval is made by the Consultant.

.2 All Work shall match approved production run samples.

.3 Identify all samples with project name and number, date, description and all other pertinent information.

.4 Submit shop drawings indicating location of each unit in the finished Work, dimensions of each unit, reinforcing details, concrete strengths and admixtures, etc.

1.4 Delivery, Storage and Handling

.1 Deliver and store masonry to site on pallets. If this cannot be done, stack masonry carefully and neatly on high ground and on solid planks. Store well away from roads and parking areas. If not used immediately after delivery, cover with tarpaulins or 1.5mm (6 mils) polyethylene adequately weighted or anchored down. Keep masonry protected from roofing bitumen, concrete, mortar and any other Work and materials that could potentially stain.

.2 The Contractor will provide any additional heating required. Protect masonry from weather.

.3 Masonry shall not be laid during inclement weather when, in the opinion of the Consultant, the performance of the masonry assembly would be prejudiced.

1.5 Cleaning

.1 As the Work proceeds, carefully remove mortar splashes from the masonry surfaces from masonry surfaces and adjoining surfaces. After completing each section of wall, clean down surfaces and make good to pointing where required.

.2 Clean masonry with soap, water and stiff fibre brush. If a more thorough cleaning is necessary, then method recommended shall be approved by the Consultant.

PART 2 PRODUCTS

2.1 Materials

.1 Face Brick: Brick shall be Type FBS or HBS (Hollow brick), as follows:
- .1 Size: as indicated on plans unless otherwise specified.

.2 Grade SW: Severe Weathering

.3 Special shape face bricks shall be as indicated on drawings.

.4 Concrete Block: as indicated on plans unless otherwise specified.

.5 Mortar Materials:
- .1 Mix and conform to types in accordance with CSA A179-M76
- .2 Portland cement shall be normal grey colour conforming to CSA CAN3.A5-M77.
- .3 Lime, hydrated lime, conforming to CSA CAN3-A8-M77 used in lieu of cement/lime mortar subject to meeting compressive strength requirements to suit applicable conditions.
- .4 Type ‘S’ mortar shall conform to applicable ASTM standard.
- .5 Aggregates shall conform to CSA A82.56-M76 except that a maximum allowable percentage passing the No. 30 sieve and the maximum passing the No. 50 sieve shall be 50%

.6 Bonding Agent:
- .1 Chem-Bond or approved alternate bonding agent adhesive to be added to mortar mix.

.7 Masonry Ties, Anchors and Reinforcement: Galvanized conforming to CSA G164-1965.

- .1 Manufacturer ladder or truss type reinforcing from 3.65 gauge steel rod, galvanized after fabrication.

.2 Masonry anchors shall be 25mm x 200mm, 2.78mm galvanized steel.

.3 Dovetail anchors shall be be Flex-O-Lok Ltd. or approved alternate.

.8 Expansion Joint and Control Joint Filler: “Blok Lite” PVC or approved alternate.

.9 Sealant: two part polytremdyne Tremco ‘Dymeric’ or approved alternate , conforming to CAN2 19-GP-18M.

.10 Sealant Backing: Dow ‘Ethafoam’ round rod type 25% larger than joint width, or approved alternate.

PART 3 EXECUTION

3.1 Preparation

.1 Conform to Article 7, Workmanship. CSA CAN3-S304-M78 shall apply unless noted otherwise hereinafter.

.2 Protect sills, ledges and projections from droppings and other damage. Protect external corners and tops of exposed blocks with bollards of equally sturdy means, fastened in place.

.3 Cold Weather Protection: Conform to provisions of Article 3.15 of CSA S304 and the following provisions:

.1 Provide all heating as required. Heat and maintain temperature of masonry materials to at least 50C but not more than 70C and maintain air temperature above 50C on both sides of masonry for a period of at least 72 hours.

.2 Do not use scorched sand, salts, admixtures or antifreezes. Use smokeless heaters.

3.2 Installation

.1 The Contractor will provide two lines plus on bench mark on site. Layout Work from these lines and levels. Maintain dimensions, lines and levels;

.2 Apply in accordance with manufacturer’s installation instructions;

.3 Exposed faces shall have straight arises and be free from stains,

chips and cracks. Keep tolerance in plan 1:770 for exposed faces. Do **not** use chipped, cracked or deformed units in exposed Work.

.4 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 its initial set. Where adjustments must be made after mortar has started to set, remove and replace with fresh supply.

.5 When mortar is 'thumb-print" hard, before it has set, clean and finish joints in accordance with manufacturer's instructions.

.6 Mix mortar in accordance with CSA A179-M76. Ensure equal joint size throughout.

.7 Mortar types and locations: for all masonry type 'S' mortar. Mortar types shall conform to supplement No.4 of the National Building Code of Canada 1985 and Part 4 of The Building Code of Canada 1985 and Part 4 of the Building Code.

.8 Pressure wash and rinse cast-in-place concrete surfaces to create a clean surface for mortar bonding.

.9 Apply mortar scratch coat approximately 12mm thick to concrete structure where stone will be installed. Allow scratch coat to cure for 24 hours.

.10 Lay masonry Work to vertical coursing indicated, true to dimensions, plumb, square and properly bonded and anchored. Lay in full beds or mortar with joint of uniform width. Lay block in such a manner that webs of the block rest and align over each other. Lay blocks with the thicker end of the face "up". Do not shift or tap units after mortar has set.

.11 Place units with uniform mortar joints. Stone joints should not be over 12mm in width. Install outside corner return units with short and long lengths alternated.

.12 Plan Work to minimize job site cutting. Perform necessary cutting with proper tolls to provide uniform edges; take care to prevent breaking unit corners or edges.

.13 Maintain vertical joints in alternated coursed or as broken by bond pattern, in line throughout the entire height. Bed joints shall be level throughout. Fill all verticals and bed joints through the entire wall thickness solidly with mortar. Slushing of mortar in an attempt to fill any vertical joint will not be accepted.

.14 Keep exposed masonry surfaces clean as the Work proceeds of mortar fins or droppings.

.15 Clean-up: Promptly as the Work proceeds and on completion, remove **daily** from the site, all rubbish and debris resulting from the forgoing Work to the Consultant's approval.

END OF SECTION - 04200