

SECTION 03 45 00
PRECAST ARCHITECTURAL CONCRETE

PART 1 - GENERAL

1.01 Summary

- A. This Section includes precast concrete coping stone at the parapet, compactor stack, sill and so on.

1.02 Submittals

- A. Product Data: For each product specified in Part 2 - Products.
- B. Samples:
 - 1. Precast Concrete Coping: Representative of finished exposed face of precast architectural concrete showing the full range of colors and textures indicated, to be verified in field and of actual thickness.
- C. Pre-construction Test Reports:
 - 1. Anchorage (to Backup) Pull-out Test Reports.
- D. Certification of Concrete Properties: Obtain from manufacturer written certification of concrete properties including compressive strength, air content, and absorption for each type and strength of concrete mixture. Submit no later than fifteen (15) business days prior to manufacturing.
- E. Shop Drawings: For each unit type showing profile, cross sections, reinforcement, exposed faces, typical dimensions, lifting loops, anchorage to structure, and design loads.

1.03 Quality Assurance

- A. Comply with MNL 117 "Manual for quality Control for Plants and Production of Architectural Precast Concrete Products."

PART 2 - PRODUCTS

2.01 Precast Concrete Coping

A. Precast Concrete Slabs

- 1. Comply with the following:
 - a. Concrete Materials:
 - 1) Portland Cement: ASTM C 150 Type I or III (white)
 - 2) Coarse Aggregate: Granite, quartz, or limestone
 - 3) Fine Aggregate: ASTM C 33 manufactured sand unless otherwise specified
 - 4) Color: Inorganic iron oxide pigment
 - 5) Water: Potable
 - 6) Concrete strength (f 'c) per ASTM C 1194 shall be minimum 5000 psi.

- 7) Absorption per ASTM C 1195 maximum 6%
- 8) Air Content per ASTM C 173 between 4% and 6%.
- b. Reinforcement: Reinforce as required for safe handling and structural stress. Minimum coverage 2" for bars 5/8" or larger and 1 1/2" for smaller bars.
- c. Hoisting Loops: Provide stainless steel hoisting loops for precast architectural concrete units too large to be handled manually. Loops shall be cast integrally with the unit, and shall not penetrate any exposed surface of any unit.
- 2. Acceptable Manufacturers: Following is a list of acceptable manufacturers of precast architectural concrete products:
 - a. Architectural Molded Composites, Inc
 - b. Essex Works
 - c. Towne House Restorations
 - d. Artistic Architecture Corp

PART 3 - EXECUTION

3.01 Removal of Existing Units to be replaced

- A. Comply with Section 02 41 19 (Selective Demolition and Removal).

3.02 Installation of Precast Architectural Concrete Units

- A. Lift precast architectural concrete units with suitable lifting devices at points provided by the manufacturer, and set level, plumb, square and true within the allowable tolerances.
 - 1. Install anchorage as per manufacture recommendation and as per contract document.
 - 2. Comply with Section 04 05 19 (Masonry Anchorage and reinforcing) for mortaring and tooling.

END OF SECTION