

PRECAST CEMENT STAIR TREAD SPECIFICATION

PART ONE – GENERAL

1.1 SUMMARY

- A. Types of Precast concrete work included:
 - 1. Precast Concrete Stair Treads
 - 2. Precast Concrete Stair Risers
 - 3. Precast Concrete Stair Landings
- B. Setting material, grouts, sealants and caulks
- C. Installation of precast concrete stairs, risers and landings
- D. Related work not specified under this section
 - 1. Installation of steel stairs to receive precast terrazzo

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM C-150
 - 2. ASTM C-39
 - 3. ASTM C-293
 - 4. ASTM C-1028

1.3 SUBMITTALS

- A. Shop Drawings
 - 1. Submit shop drawings of all precast concrete items showing detail sections and profile for all precast items. Details shall show all reinforcing and special hardware for fastening.
- B. Samples:
 - 1. Submit maximum of 3 samples 4" x 4" size for all color.
 - a. Color to be selected from DEX Industries color pallet.
 - 2. Submit 1 copy of maintenance literature.
 - 3. Quality Assurance and Procedure Program
- C. Performance Requirements:
 - 1. Compressive Strength minimum 6,000 PSI
- D. Certification:
 - 1. Suppliers shall furnish certification attesting that materials meet specification requirements.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Instructions: In addition to specified requirements, comply with precast Concrete manufacturer's instructions and recommendations for substrate preparation, materials storage, mixing and application, finishing and curing.
- B. Qualifications: Precast Concrete Manufacturer and Trade Contractor must have a minimum of 5 years of successful experience on projects of similar magnitude and complexity to that indicated project. Manufacturer and contractor to be prequalified by Architect prior to bidding. Failure to prequalify will void bid.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Packaging and Shipping: Precast Concrete to be palletized and crated or shrink wrapped, if shipped with commercial LTL carrier and delivered in original unopened packaging with legible manufacturer identification, including size, piece number, quantities, manufacturer date and inspector initials.
- B. Report all damage due to shipment immediately. Customer is required to sign the Bill of Lading slip noting damaged product. Picture proof is required.
- C. Storage and Protection: Precast Concrete to be stored indoors, in a climate controlled environment, sheltered from moisture in original packaging. Protect from damage by other trades.

1.6 WARRANTY

- A. Manufacturer/Installer shall warrant installed system for a period of 1 year from date of substantial completion against failure of workmanship and materials.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer:
Wells
1148 Joelson Rd
Kissimmee, FL 34744
800.658.7049
info@wells.build
wells.build/DEX

2.2 MATERIALS

- A. Portland Cement: ASTM C-150 Specifications for Portland Cement.
- B. Aggregates: All aggregates to meet ASTM C-33 specifications, cleaned and properly graded to size. Aggregate shall be blended to meet individual project requirements.
- C. Coloring; Pigments used shall be inorganic, resistant to alkalinity and used per manufacturer's recommendations.
- D. Reinforcement and Hardware:
 - a. To conform with Engineers and Manufacturer's design.
 - b. Reinforce precast Concrete as recommended by precast Concrete Manufacturer.
- E. Sealer: Colorless, slip and stain-resistant sealer that does not affect color or physical properties of precast concrete surface.

2.3 MANUFACTURED UNITS

- A. Sizing Tolerances:
 - 1. All units to conform to shop drawings with a 1/16" tolerance in dimension.

- B. Precast Surfaces and Edges:
 - 1. All exposed edges to be ground and polished with a minimum of 1/16" bevel or ease.
 - 2. All finished surfaces to be ground and polished, free of holes and to have overall uniformity in matrix and aggregate.
 - 3. All precast concrete finished surfaces to be sealed with a sealer approved by manufacturer.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine areas to receive precast concrete for the following:
 - 1. Defects in existing work.
 - 2. Deviations beyond allowable tolerances for the substrate.
- B. Start work only when all defects have been corrected by others.

3.2 INSTALLATION

- A. Setting:
 - 1. Setting methods will vary per product. Set accurately as shown on the approved shop drawings. Contact your setting material manufacturer with any questions on proper bonding of all materials.
Setting methods are:
 - a. Cement based setting materials: Contact your selected manufacturer as recommended or specified. Setting materials can change without notice.
 - b. Epoxy based setting materials: Contact your selected manufacturer as recommended or specified. Setting materials can change without notice.
 - c. Bolt attachment: Do not over-tighten bolts to avoid cracking the materials.
 - 2. All thin set materials, whether cement or epoxy based, will require a full setting bed be applied to all appropriate surfaces of the precast terrazzo, vertical and horizontal, where contact is made with the substrate or structural base.
 - 3. Alignment of precast should be straight and true to all dimensions. It may not vary more than 1/8" in length, height or width.
 - 4. Install anchors as shown on details, if required.
 - 5. Fill joints between with manufacturer -approved caulk or as specified.
- B. Protection:
 - 1. Upon completion, the work shall be ready for final inspection and acceptance by owner or owner agent.
 - 2. General Contractor shall protect the finished work from the time the Installation contractor completes the work.