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SECTION 09 30 90

EXTERIOR TILING

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**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section Includes: Provide exterior surface bonded large format tile veneer system including large format tile veneer, bond coat, and accessories for complete, finished installation applied over plaster base unless otherwise indicated.
- B. Related Sections:
  - 1. Section 04 43 50: Surface bonded cultured stone masonry.
  - 2. Section 05 40 00: Cold-formed metal framing.
  - 3. Section 07 28 00: Building envelope underlayment.
  - 4. Section 09 24 00: Portland cement plaster base.
  - 5. Section 09 21 10: Gypsum board assemblies including sheathing.

1.2 REFERENCES

- A. ANSI A108.5: Tile installed with Latex-Portland Cement Mortar.
- B. ANSI A108.10: Installation of Grout in Tilework.
- C. Tile Council of North America (TCNA): Handbook for Ceramic Tile Installation.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination, Large Format Tile Framing: Tile Council of North America (TCNA) requires framing at large format tile to be maximum 16" on center and for maximum deflection of  $L/720$  where large format tile as defined by TCNA is indicated.
  - 1. Coordinate with framing installation to ensure proper stud spacing and deflection limits are provided at locations where large format tile is indicated.
- B. Pre-Installation Conference: Convene prior to commencement of work of this section. Require attendance of parties directly affecting work of this section.
  - 1. Review procedures and coordination required between adhered masonry and related work, including tolerances required for substrates.

1.4 SUBMITTALS

- A. Product Data: Submit literature for each system component.
- B. Shop Drawings: Clearly indicate dimensioning, general construction details, anchorages and method of anchorage.
- C. Samples: Furnish samples of exterior tile including large format tile (full size not required) and sanded grout, including sample with tile and grout indicating installed appearance at point where four tiles meet (two grout joints).

**D. Quality Assurance Submittals:**

1. **Manufacturer's Certificate:** Submit system manufacturer's certification noting Contract Documents have been thoroughly reviewed and conditions and substrates are acceptable and in conformance with applicable codes.
  - a. Inform Architect where conditions and substrates vary from manufacturer's standard recommendations.
2. **Manufacturer's Field Reports:** Furnish manufacturer's representative's report indicating work has been installed in accordance with manufacturer's recommendations.

**1.5 QUALITY ASSURANCE**

- A. **Sustainability Requirements:** Comply with *CALGreen* requirements including those relative to finish material pollution control for adhesives, sealants, and caulks.
- B. **Qualification of Installer:** Minimum five years successful experience in projects of similar scope.
- C. **Mockup:** Provide minimum 100 square foot section of each type of exterior tile system, wall and paving, indicating proposed construction including reveals, corners, special shapes, and treatment of mortar joints.
  1. Maintain approved mock-up on site until final completion of work unless otherwise directed by Architect.

**1.6 Site CONDITIONS**

- A. **Environmental Requirements:** Take precautionary measures to ensure plaster is not subjected to excessive sun and wind which could cause uneven and excessive evaporation, premature dehydration, or cracking.
  1. Take precautionary measures necessary to maintain minimum 50-degree F temperatures for minimum 10 days after installation of masonry veneer.
- B. **Cold-Weather Requirements:** Do not apply system unless minimum ambient temperature of 50 degrees F has been and continues to be maintained for minimum 48 hours prior to application and until plaster is cured.

**PART 2 - PRODUCTS****2.1 MATERIALS**

- A. **System Requirements:** Provide exterior wall tile systems including tile, grouted joints, setting materials, and accessories.
- B. **Regulatory Requirements:** Design system to comply with California Building Code requirements for adhered veneer.
  1. Provide systems approved by applicable enforcement agencies; where required by agencies, provide information and supporting data necessary for approval of non-standard installations.

- C. Exterior Tile: As indicated and as approved by Architect.
  - 1. Manufacturers:
    - a. TileShop ([www.tile-shop.com](http://www.tile-shop.com)) /Imola Ceramica Vein B.
    - b. Substitutions: Refer to Section 01 25 00.
  - 2. Colors and Sizes: Match Architect's samples.
- D. Latex Additives and Integral Waterproofing: Premixed latex and waterproofing system recommended by manufacturer for application of exterior wall tile on exterior Portland cement base and for grout as specified.
  - 1. Manufacturer:
    - a. Laticrete International, Inc./Laticrete.
    - b. Parex USA/Mer-Krete.
    - c. Bostik Construction Products/Hydroment Acrylic Latex Tile Mate.
    - d. Custom Building Products/Custom Crete Crete-Mix.
    - e. Substitutions: Refer to Section 01 25 00.
  - 2. Specific Materials and Applications: Provide system based on following materials with latex admix in various applications as indicated. Notify Architect immediately if manufacturer representative recommends materials substantially different.
    - a. Plaster Admix: Laticrete/8510 admixture with Laticrete 226 thick bed mortar mix.
    - b. Veneer Bonding Adhesive: Laticrete/4237 latex mortar additive with factory blended Laticrete 211 Crete Filler Powder.
    - c. Sanded Grout: Laticrete/500 Series with Laticrete 1776 grout admixture.

## 2.2 MIXING

- A. Mix and proportion setting and bonding materials in accordance with manufacturers' recommendations.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Site Verification of Conditions: Inspect substrate and verify work is complete and suitable for installation of system.
  - 1. Do not proceed unless substrates are acceptable to manufacturer's representative and are suitable to maintain tolerances specified for finished installation.

**3.2 PREPARATION**

- A. Prior to installing tile, ensure surfaces are level; comply with TCNA and tile manufacturer recommendations but not greater than following.
  - 1. Thin Set Wall Tile Tolerance: Maximum surface variation of 1/8" in 10'-0".
- B. Ensure surfaces are clean and well cured.
- C. Do not commence work until surface conditions are within tolerances required for proper installation; apply latex leveling material where necessary to meet required tolerances.

**3.3 INSTALLATION**

- A. Exterior Surface Bonded Wall Tile Veneer: Install large format tile veneer in accordance with bonding material manufacturer's instructions, ANSI A108.5, and recommendations of Tile Council of North America (TCNA).
  - 1. TCNA Specification Method: TCA W221 for exterior applications, using latex-Portland cement bond coat, over plaster.
  - 2. Place in accordance with patterns as indicated on Drawings or as directed; carefully plan masonry veneer layouts; ensure pattern is uninterrupted from one surface to next.
  - 3. Neatly cut veneer where required; accurately form corners, intersections and returns.
  - 4. Adhered units to be 100% back buttered prior to application to wall.
  - 5. Ensure joints are uniform in width, subject to normal variance in tolerance allowed in veneer size; ensure joints are watertight, without voids, cracks or excess mortar.
    - a. Form mortar in joints to smooth concave shape; avoid getting latex mortar on face of masonry veneer.
  - 6. Completed installation shall be free of broken, damaged and faulty veneer.
- B. Grout Joints: Mechanically grout joints as required to match approved samples and mock-up; joints are required to be grouted and tooled to rodded mortar joint.
  - 1. Complete mechanical grouting, tooling, and cleaning immediately after installation of adhered masonry veneer.

**3.4 SITE QUALITY CONTROL**

- A. Manufacturer's Representative Inspection: Inspect work of Project on regular basis and provide report indicating system has been installed in accordance with manufacturer's recommendations.
  - 1. Provide unobstructed access to adhered masonry work.
  - 2. Correct defects and irregularities as advised by manufacturer's representative.

**3.5 CLEANING AND PROTECTION**

- A. Immediately clean adjacent materials of plaster, grout, and other materials as work progresses.
- B. Protect system until installation of flashing and sealants.

**END OF SECTION**