

DESIGN STANDARDS

1. General: This section covers standards for interior and exterior Portland cement and gypsum plaster (Stucco) walls and ceilings. Use only cement plaster at exterior applications.
 - 1.1 Specification for Installation of Lathing and Furring for Portland Cement-Based Plaster: ASTM C 1063, and ML/SFA 920, “Guide Specifications for Metal Lathing and Furring.”
 - 1.2 Portland Cement Plaster Application Standard: ASTM C 926.
 - 1.3 Interior Lathing and Furring Installation Standard: ASTM C 842.
 - 1.4 Interior Gypsum Plaster Application Standard: ASTM C 842.
 - 1.5 Fire-Resistance Ratings: Where plaster systems with fire-resistance ratings are indicated, provide materials and installations identical to those of applicable assemblies tested per ASTM E 119 by fire testing laboratories acceptable to authorities having jurisdiction.
 - 1.1.1 Provide plaster for fire-resistance-rated systems that has same aggregate as specified for similar non rated work, unless specified aggregate has not been tested by accepted fire testing laboratories.
2. Design Considerations:
 - 2.1 Design all plaster installations to respond to building expansion and movement including:
 - 2.1.1 Building expansion and movement joints
 - 2.1.2 Changes in substrate (block or stud wall to structure or change in wall type)
 - 2.1.3 Changes in thermal exposures for substrate
 - 2.2 Design exterior cement plaster to a maximum of 144 sf between control joints. Avoid rectangular panels with a side-to-side ratio greater than 2 to 1. Avoid all but minimal inside corners in all panels.
 - 2.3 Apply cement plaster directly to cast concrete and concrete masonry walls without lath accessories except where a vapor barrier is required.
 - 2.4 At exterior expansion joints, use of casing bead edges with backer rod and sealant is preferred to the manufactured metal expansion joint accessory. Provide a flexible flashing membrane back-up behind joint.
 - 2.5 Design all exterior details specifically to manage water including the use of drip edges at heads of doors and windows or other change of material.

PRODUCT STANDARDS

1. Three-coat Cement Plaster:
 - 1.1 Finish Coat – Natural Portland cement or acrylic-based finish coat are acceptable finishes with approval of the University’s Project Manager. Acrylic-based finish coats shall be factory-mixed acrylic emulsion and primer specifically recommended by acrylic-based finish manufacturer for use over Portland cement.

- 1.2 Hot-dipped galvanized metal lath at exterior and “high humidity” interior areas.
 - 1.3 Metal Beads and Accessories: Galvanized steel at interior areas, solid zinc alloy at exterior and “high humidity” areas.
 - 1.4 Shop drawing requirements shall include drawings of all locations of control joints, expansion joints, cut sheets of accessories to be used on the project, and details for control and expansion joints and all plaster edges interface with adjacent materials.
 - 1.5 Field plaster mock-ups of approximately 100SF are desirable for all projects with significant or detailed scopes of plaster installation to confirm color and texture selection as well as any unique technical or details of installation. The architect shall review and establish mock-up requirements for each project with the University’s project manager. See Performance Standards for additional mock-up requirements.
2. Three-coat Gypsum Plaster:
 - 2.1 Finish Coat Mix: Proportion and mix to achieve uniform finish to match Architects accepted sample.
 - 2.2 Expanded steel metal lath with rust-inhibitive paint finish.
 - 2.1.1 Metal Beads and Accessories: Galvanized steel.
 - 2.1.2 Shop drawing requirements shall include drawings of all locations of control and expansion joints, cut sheets of accessories to be used on the project and details control and expansion joints and all plaster edges interface with adjacent materials.
 - 2.1.3 Field plaster mock-ups of approximately 100SF are desirable for all projects with significant or detailed scopes of plaster installation to confirm color and texture selection as well as any unique technical or details of installation. The architect shall review and establish mock-up requirements for each project with the University’s project manager. See Performance Standards for additional mock-up requirements.
 - 2.1.4 Requirements for attic stock of the acrylic-based finish shall be discussed and established with the University’s Project Manager.
- 3.1 General Considerations:
 - 3.1.1 Avoid integral color finish coats due to difficulty in future patch and repair.
 - 3.1.2 Avoid the use of waterproofing admixtures that may prevent the proper curing process of the plaster.
 - 3.1.3 Specify bonding agents as apart of the plaster system installation.
 - 3.1.4 In general, use a smooth sand finish for exterior ceilings and support elements and a medium to light texture sand finish for walls.

PERFORMANCE:

1. Require plaster installer to provide written certification that the use and details of the proposed installation of either the cement or gypsum plaster is appropriate and consistent with industry standards.
2. Mock-up Guidelines:

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PLASTER**

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- 2.1 Prior to installing plaster or stucco work, construct panels for application of reveals/scoring, required to demonstrate aesthetic effects as well as qualities of materials and execution. Build mock-ups to comply with the following requirements, using materials indicated for final unit of Work.
- 2.2 Locate mock-ups on site in the location as directed by Architect and maintain through-out the project construction until the plaster work has been completed and accepted.
- 2.3 Erect mock-ups of 100 SF minimum by full thickness using the actual materials and accessories required for the project.
- 2.4 Architect and the University's Project Manager shall accept mock-ups before start of Work.
- 2.5 Retain and maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed plaster Work.

End of Division 9 – Finishes - Plaster