SECTION 092400 – PORTLAND CEMENT PLASTERING

PART 1 GENERAL

1.01 SECTION INCLUDES:
The work of this section shall include all labor, materials, equipment, accessories and incidentals required and necessary for plaster and stucco work as indicated or specified.

1.02 SUBMITTALS
A. Submit manufacturer's Product Data Sheets, certificate that materials meet specification requirements, samples, and instructions for proper use and installation of product.
B. Samples of each material and texture indicated or specified for use shall be provided on the job site, and when approved, shall become the standard for all work. Samples shall show texture and workmanship of finished work. Sample size is 4' x 4' minimum.

1.04 QUALITY ASSURANCE
A. Comply with requirements of ASTM C-842 and C-926 as applicable; and Plaster, Metal Framing System Lath Manual.
B. Allowable Tolerance for Plaster Finish is a maximum deviation from true plane of 1/8 inch in ten (10) feet (non-cumulative) as measured by straight edge placed at any location on surface.
C. All finished plastering work shall be performed in a highly skilled manner with surfaces true and accurate.
D. Use Portland Cement plaster for all work indicated as stucco.

PART 2 PRODUCT

2.01 MATERIAL
A. Portland Cement - Portland Cement shall conform to ASTM C-150, Type II.
B. Hydrated Lime - Hydrated lime shall conform to ASTM C-207, Type S.
C. Sand - Sand shall be clean and sharp, free from alkali and deleterious materials such as lignite, loam, silt and conforming to ASTM C-35 gradation.
D. Water - Water shall be clean and potable.

2.02 MIXES
A. Proportion ingredients entering the several plaster mixes and measure using calibrated boxes or containers so that quantities can be readily and accurately checked. Comply with product manufacturer's recommendations and specifications for use, mixing and application.
B. Mix factory prepared plaster ingredients in accordance with the product manufacturer's written instructions. Do not mix more at one time than can be applied within one hour after mixing. Do not retemper material or use retempered material.
C. Cement Plaster - Scratch Coat - One part Portland Cement to not less than three parts sand, to which hydrated lime of not more than 10% (by weight) of the cement content may be added.
D. Cement Plaster - Brown Coat - One part Portland Cement to not less than three parts to not more than five parts sand with hydrated lime added as specified for scratch coat.
E. Cement Plaster - Finish Coat - One part Portland Cement to three parts of finishing sand with hydrated lime added as specified for scratch coat.

2.03 PLASTER COAT APPLICATIONS
A. Plaster over masonry shall be two-coat work consisting of a 3/8 inch brown and a 1/4 inch finish coat with a total thickness not less than 5/8 inch plus the thickness of the texture coat.
B. Plaster over concrete shall be two-coat work consisting of a 3/8 inch brown and a 1/8 inch finish coat with a total thickness not less than 1/2 inch plus the thickness of the texture coat.
C. Plaster over gypsum lath shall be two-coat work consisting of a 3/8 inch brown coat and a 1/8 inch finish coat with a total thickness not less than 1/2 inch plus the thickness of the texture coat.
D. Plaster over metal lath shall be three-coat work consisting of a 3/8 inch scratch coat, a 3/8 inch brown coat and a 1/4 inch finish coat for a total thickness of 1 inch, plus the thickness of the texture coat.

PART 3 EXECUTION

3.01 PREPARATION
A. Evenly dampen interior and exterior wall surfaces exhibiting high suction to provide proper suction prior to plastering. Allow sufficient time for surface suction to equalize.
B. Clean monolithic concrete surfaces receiving bond plaster of all dust, loose particles and other foreign matter. Remove laitance and efflorescence by washing with a 10/5 solution of commercial hydrochloric (muriatic) acid and water and then rinse with clean water to remove all traces of acid. Completely remove any grease or oil. Apply bonding agent over all concrete surfaces indicated to receive plaster, by brush, spray or roller in strict accordance with manufacturer's printed instructions, covering the surface completely. Apply plaster when bonding agent is dry to touch or within a one month period from application.
C. Concrete surface shall have sufficient roughness to provide a proper bond. If surfaces are not rough, hack or bushhammer, or apply suitable bonding agent in accordance with the manufacturer's instructions.

3.02 APPLICATION
A. Arrange and install all plastering, when and as required, to conceal or connect with work of other trades in a finished manner.
B. Rod and straightedge plaster to uniform surfaces in true plane, finish free from lumps, cracks, checks or other structural defects and surface imperfections and flush with grounds, corner beads, base screed, outlet boxes and similar details.
C. Do not apply plaster to concrete surfaces that have been coated with a bituminous compound or other waterproofing agents.
D. Tool finish at flush trim or frames to a slight "V". Provide scoring where indicated. Do not lap successive coats over laps in former coats. Avoid joining marks by working top and bottom of work at the same time.
E. Scratch Coat - Apply scratch coat over metal lath with sufficient pressure so that it is forced through the lath to form full keys and to embed completely the reinforcement.
F. Brown Coat - Where indicated over masonry, apply brown coat directly over masonry. Dampen masonry evenly on interior and exterior of wall to obtain uniform suction. Apply to a thickness of 3/8 inch. Bring to a true, even surface by floating or rodding, and leave rough, ready to receive finish coat.
G. Finish Coat - Finish by floating to a true, even surface. The second, or brown, coat shall be lightly and evenly sprayed with clean water before the 1/8 inch finish coat is applied. Finish cement plaster by floating to a uniform, finish texture.

3.03 CURING
A. Cure and protect plaster from too rapid or too slow drying because of weather or lack of air circulation. Both the exterior and interior wall surfaces shall be moistened to avoid excessive suction of moisture from plaster into the masonry wall.
B. Scratch and Brown coats shall each be moist cured by fog spray or a similar approved method that keeps the plaster continuously moist for 48 hours, allowing slow drying, after which the finish coat is applied.
C. Finish coat shall receive a minimum of four (4) applications of fog spray during curing. The first spray shall be applied approximately 8 hours after completion of the finishing operation. Subsequent sprayings shall take place at about 8 to 12 hour intervals. The time between fog spray applications shall be varied, as required, to compensate for prevailing conditions of wetness and dryness and to insure plaster remains moist for minimum of 48 hours.

3.04 PATCHING AND REPAIRS
Prior to the start of painting operations, repair damaged portions of plastering. Do patching and repairing neatly and accurately, and match the finish of the adjoining work in form, color and texture. Patch and repair where plaster surface is marred, discolored, stained or otherwise damaged. Remove finish coat and replace with new and acceptable work. Do patching, repairing and joining work neatly. Cut out broken or damaged portions of plaster and repair with new work. Cut out cracks not less than one (1) inch wide and plaster full and smooth. Moisten edge of patched areas before new plaster is applied.

3.03 PROTECTION AND CLEANING

A. Provide adequate protection to prevent damage to all adjacent or previously installed work which may be subject to damage or staining during plastering operations. If damage or staining occurs, repair or replace damaged or stained work in a manner acceptable to the Designated Representative. The Contractor shall be liable for repair or damage costs incurred.

B. When plastering is completed, remove all staging and tools of every sort used in the erection of the work. Remove all debris resulting from work under this section. Clean all plaster droppings and leave the work in an acceptable condition.

END SECTION