SECTION 131155
SWIMMING POOL PLASTER

PART 1 - GENERAL

1.01 WORK INCLUDED

A. All preparation of swimming pool structures and labor and materials required to provide swimming pool plaster as indicated on the Drawings and herein specified.

1.02 QUALITY ASSURANCE

A. All Work of this Section shall be performed or supervised by the Swimming Pool "Contractor."

B. Qualifications of Workers:

1. The contractor / subcontractor for this portion of the Work shall have been successfully engaged in the respective trade for at least five (5) years immediately prior to commencement of this work, and shall demonstrate to the approval of the Owner's Representative that his record of workmanship is satisfactory.

2. For actual construction operations, use only thoroughly trained and experienced workers completely familiar with the materials and methods specified.

3. Provide at least one person who shall be present at all times during execution of this portion of the Work and who shall be thoroughly familiar with the type of materials being installed, the referenced standards, and the requirements of this Work, and who shall direct all Work performed under this Section.

C. Standards: Swimming pool plaster shall be designed to comply with the published standards of the State and Local Health Department as they apply to the material and services furnished herein. In addition, meet requirements of applicable portions of most current edition of the "Technical Manual," National Plasterers Council, Mission Viejo, California.

D. Start-up:

1. Retain a qualified pool chemistry consultant (AFO/CPO), familiar with operation and maintenance of aquatic facilities, to supervise and properly balance swimming pool chemistry.

2. Demonstrate to the Owner's Representative and appropriate officials (including State of California) that all systems are fully operational and that calcium hardness; total alkalinity, chlorine residual and pH levels are within specified limits.

3. Standards: Contractor shall furnish labor and chemicals as required to condition the water properly to the following specifications:
a. Calcium Hardness: 150 to 300 ppm
b. Total Alkalinity: 100 ppm
c. Chlorine Residual: 1.00-1.50 ppm
d. pH Factor: 7.2 to 7.4

1.03 SUBMITTALS AND SUBSTITUTIONS

A. Provide submittals in accordance with the requirements of Section 131100 – 1.07.

1.04 PRODUCT HANDLING

A. Delivery: Deliver materials to the Project Site in the manufacturer's original unopened containers with all labels intact and legible.

B. Storage: Store materials under cover in a manner to prevent damage and contamination, and store only the specified materials at the Project Site.

C. Protection: Use all means necessary to protect the swimming pool plaster before, during, and after installation and to protect the installed Work and materials of all other trades.

D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative.

1.05 ENVIRONMENTAL CONDITIONS

A. No plastering shall be done under unsuitable conditions of weather or temperature. No plastering shall be done when prevailing temperature is 40 degrees Fahrenheit or less.

B. Do not install plaster during rain and, if rain commences after plastering has begun, immediately protect the plaster from rain by all means necessary until the plaster has set.

C. Do not install plaster during wind greater than 10 mph and, if wind commences after plastering has begun, immediately protect the plaster from wind by all means necessary until the plaster has set.

PART 2 – PRODUCTS

2.01 CEMENT

Swimming pool plaster cement shall be white Portland cement conforming to ASTM C-150 as manufactured by Riverside Cement, Lehigh Cement, or approved equal.

2.02 AGGREGATE

Swimming pool aggregate shall be Georgia Marble Pool Aggregate, Riverside Premium Pool Aggregate, or approved equal. Mix per manufacturer's recommendations for specific application.
2.03 COLOR
Swimming pool plaster shall be white in color.

2.04 WATER
Water for swimming pool plaster shall be clean and free from injurious amounts of acid, alkali, and organics.

PART 3 – EXECUTION

3.01 SURFACE CONDITIONS
A. Inspection:
   1. Prior to Work of this Section, carefully inspect the installed Work of other trades and verify that all such Work is complete to the point where this installation can properly commence.
   2. Verify that swimming pool plaster can be installed in accordance with the original design and all referenced standards.

B. Discrepancies:
   1. In the event of discrepancy, immediately notify the Owner's Representative.
   2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
   3. Failure to notify the Owner's Representative and give written notice of discrepancies shall constitute acceptance by the Contractor of existing conditions as fit and proper to receive the Work.

3.02 INSTALLATION OF POOL PLASTER
A. Outdoor pools:
   1. Completion of other work: DO NOT commence plastering of swimming pool until the following conditions have been met:
      a. The Health Department and/or other governing agencies have approved the pool for plaster.
      b. All concrete pool deck construction is complete and the pool decks have been thoroughly cleaned.
      c. The backwash sewer connection is complete.
      d. All trash and debris have been removed from areas adjacent to the pool, particularly those areas that are normally upwind from the pool.
e. All dust raising construction and/or activities in areas adjacent to the pool are complete or mitigated.

f. The circulation pump is operational.

g. The mechanical system has been flushed sufficiently to remove all dirt and debris from the piping system.

h. All necessary chemicals (Chlorine, pH adjuster, Sodium Bicarbonate and Calcium Chloride or any other required chemicals are on site and ready for use.

i. Obtain written approval from the Owner.

B. Contractor accepts all liability from damage done to the pool plaster if the pool is plastered before the completion of the above listed items or without the written approval of the Owner

D. POOL PLASTER AUTHORIZATION FORM:

The pool at Echo Lake Camp is hereby approved for the installation of the pool plaster. Pursuant to the requirements of specification section 131155, paragraph 3.02.

_________________  _______________________
Owner             Date

E. Preparation:

1. Do not apply plaster over dirt, rust, scale, grease, moisture, scuffed surfaces or conditions otherwise detrimental to the formation of a durable plaster finish.

2. Consult with manufacturer on application to specific surfaces being treated. Follow manufacturer's recommendation for curing or cleaning of cast-in-place concrete or shotcrete surfaces prior to application of plaster.

3. Protect ceramic tile, decking, deck equipment, gratings, fittings and other items by suitable covering or masking.

4. Mask or remove all hardware, hardware accessories, machined surfaces, plates, lighting fixtures and similar items in place not to receive pool plaster. Following completion of plaster for each space or area remove masking. Re-install all removed items utilizing workers skilled in the trades involved.

F. Application:

1. Into the parging coat of the concrete surfaces; trowel a finish coat of the specified marble plaster to a thickness between 1/4" and 3/8" maximum. If leveling coat is required, use a brown coat application of one part cement to three parts clean, washed sand.
2. Float the plaster to a uniform plane and trowel to a smooth, dense, impervious surface using extreme care to avoid stains.

3. Take special care in finishing around pool fittings, making sure to mask off or plug openings so as not to fill such openings with excess plaster. Be certain to completely enclose pool fittings with plaster to insure a leak-proof seal around pipes, finings, lights, anchors, etc.

4. Accurately interface with the finish planes of items installed by other trades.

3.03 CURING

A. Preparation: Anticipate the need for required equipment and have all such equipment immediately available for use upon completion of pool plastering.

B. Pool Filling:

1. After the plaster has sufficiently dried and before drying has proceeded to a damaging point, cure the plaster by gradually filling the pool with water, preventing all damage to finished plaster surfaces.

2. Flow the water continuously until the pool is filled.

3. When the weather is hot and/or water pressure is low, keep the pool walls damp while the pool is filling.

4. Coordinate with Contractor to ensure that the pool is continuously monitored while filling to prevent overfill.

3.04 EQUIPMENT ACTIVATION

A. All water chemistry and filtration mechanical equipment shall be operational upon filling of pool after plaster. Chemicals and other related support items as supplied by Contractor shall be in supply at start-up.

B. For the first fourteen (14) calendar days after completion of the pool plaster, brush all plastered surfaces at least twice a day and coordinate with Contractor to ensure that the plaster is carefully maintained after the initial fourteen day period. In addition, coordinate with the Contractor to ensure that pool filtration equipment is continuously running during the initial fourteen day period.

C. Start-up and provide qualified personnel to operate pool equipment for a period not less than fourteen (14) days after the pool is placed in operation, or until the Owner takes occupancy of the facility or letter of substantial completion. During this time, Contractor shall instruct and supervise the Owner's personnel in the various operating and maintenance techniques involved. Contractor shall be responsible for supply of chemicals during this not less than fourteen (14) day period and at time of turnover to Owner, chemical storage tanks shall be full. (Owner's personnel shall be fully trained and capable of assuming swimming pool maintenance tasks, training may begin before Owner takes occupancy).
3.05 CLEAN-UP

A. Upon completion of swimming pool plaster, remove all materials, equipment and debris occasioned by this Work and leave the job site in a clean and presentable condition. Perform all such clean-up to the approval of the Owner’s Representative.

END OF SECTION