MANUFACTURER'S SPECIFICATIONS
Section 09225 – ST. ASTIER LIME PLASTER (NHL)
PLASTER ON METAL LATH

ST. ASTIER NATURAL HYDRAULIC LIME PLASTER

PART 1 – GENERAL

1.1 Summary

A. This Section includes three (3) coat lime plaster system with St. Astier Natural Hydraulic Lime.

B. Related Sections

1. Section 05400 – Cold Formed Metal Framing
2. Section 06112 – Framing and Sheathing: Wood Studs
3. Section 09111 – Non-Load-Bearing Metal Frame System
4. Section 09205 – Furring and Lathing: Metal furring and lathing for plaster base
5. Section 09260 – Gypsum Board Assemblies

1.2 References

A. American Society for Testing and Materials

1. ASTM C25 – Test Methods for Chemical Analysis of Limestone, Quicklime and Hydrated Lime.
2. ASTM C91 – Standard Specification for Masonry Cement.
3. ASTM C109 – Test Method for Compressive Strength of Hydraulic Cement Mortars.
4. ASTM C141 – Standard Specification for Hydraulic Lime for Structural Purposes.
5. ASTM C144 – Standard Specification – Aggregate for Masonry Mortar.
6. ASTM C150 – Standard Specification for Portland Cement.
7. ASTM C206 – Standard Specification for Finishing Hydrated Lime.
8. ASTM C207 – Standard Specification for Hydrated Lime for Masonry Purposes.
9. ASTM C897 – Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters
10. ASTM C926 – Standard Specification for Application of Portland Cement-Based Plaster.
11. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.

12. ASTM C1002 – Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases.
13. ASTM C1032 – Standard Specification for Woven Wire Plaster Base.
14. ASTM C1063 – Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.
15. ASTM C1116 – Standard Specification for Fiber-Reinforced Concrete or Shotcrete.

B. European Standard

1. EN 459-1 Building Lime – Part 1: Definitions, Specifications and Conformity Criteria
2. EN 459-2 Building Lime – Part 2: Test Methods
3. EN 459-3 Building Lime – Part 3: Conformity Evaluation

C. Federal Specification Unit

1. FS UU-B-790 – Building Paper, Vegetable Fiber: Kraft, Waterproofed, Water Repellent, and Fire Resistant.

D. Portland Cement Association

E. PCA – Portland Cement Plaster (Stucco) Manual.

1.3 Performance Requirements

A. Structure to be designed in such a way as to minimize the transfer of stress from building to plaster skin.

B. Fabricate vertical elements to limit surface to 1/480 deflection under load of [100 lbs. See local Building Code requirements].

C. Fabricate horizontal elements to limit finish surface to 1/360 deflection under superimposed dead load and wind uplift loads.

1.4 Submittals

A. Section 01330 – Submittal Procedures: Submittal Procedures.

B. Product Data: Submit data on plaster materials, characteristics and limitations of products specified.

C. Samples: Submit two samples, 12 inch by 12 inch in size, illustrating finish color and texture.

1.5 Quality Assurance

A. Perform Work in accordance with Manufacturer's Instructions

1.6 Qualifications

A. Manufacturer: All St. Astier NHL shall be obtained from:
LimeWorks.us
3145 State Road
Telford, PA 18969
215-536-6706
215-453-1310 Fax
info@limeworks.us
www.Lime*Works*.us

Or its authorized distributors.

B. Installer: Company specializing in performing plaster/stucco work with minimum of three (3) years experience.

1.7 Mock-up

A. Section 01400 – Quality Requirements: Requirements for mock-up.

B. Construct mock-up, ___ feet long by ____ inch wide, including exterior and interior wall and ceiling system illustrating surface finish and color.

C. Locate where directed by Architect.

D. [Incorporate accepted mock-up as part of Work.]

E. [Remove mock-up when directed by Architect.]

1.8 Pre-Installation Meetings

A. Section 1300 – Administrative Requirements: Pre-Installation Meeting.

B. Convene minimum one week prior to commencing work of this SECTION.

1.9 Environmental Requirements

A. Provide environmental conditions at areas where Work of this SECTION is being performed to allow limeplaster to properly cure.

B. Take precautionary measures necessary to assure that excessive temperature changes do not occur.

C. Do not apply limeplaster unless minimum ambient temperature of 45 degrees F and a maximum of 85 degrees F has been and continues to be maintained for a minimum of 48 hours prior to application and until plaster is cured.

D. Hot Weather Requirements: Protect limeplaster from uneven and excessive evaporation during dry, hot weather. Provide tarping over the outside of all scaffolding.

PART 2 – PRODUCTS

2.1 Lime Plaster (NHL)

A. Manufacturer

1. CESA – Imported and distributed by Lime*Works*.us
2. Substitutions not permitted.

2.2 Components

A. Plaster Base Materials

1. Binder: St. Astier Natural Hydraulic Lime NHL 3.5
2. Aggregate: Natural or Manufactured Sharp Sand with at least 4 grades forming a substantial part of the sand and no more than 3% of particles smaller than grade #200 (0.075mm).
3. [Fibers: 1/2 inch nominal length glass fibers meeting requirements of ASTM C1116.] [Fibers: animal hair]

B. Plaster Finish Materials

1. Binder: St. Astier Natural Hydraulic Lime NHL 2.
2. Color Pigment: ASTM C979 mineral oxide type, [____]color.
3. Water: Clean, fresh, potable and free of mineral or organic matter capable of affecting plaster.

C. Finish Aggregate.

1. Aggregate: Natural or Manufactured Sharp Sand with at least 4 grades forming a substantial part of the sand and no more than 3% of particles smaller than grade #200 (0.075mm).

D. Furring and Lathing

1. Metal lath and accessories as specified in Section 09205.

2.3 Mixes

A. Scratch Coat: 1 part [NHL 3.5] [NHL 5] and [1.5] [2] parts of sand, proportioned by volume.

[1. Fiber Reinforcement: add [fiber] [hair] to scratch coat]

B. Brown Coats: [1 part [NHL 3.5] [NHL 5] and [2] [2.5] parts of sand, proportioned by volume.] [Ready-Mix: Ecologic G, Ecomortar G]

C. Finish Coat: [1 part NHL 2 and [2.5] [3] parts of sand, proportioned by volume.] [Ready-Mix: Ecologic F, Ecomortar F]

D. Mix only as much plaster as can be used prior to initial set.

E. [Add color pigments to finish coat.]

F. Mix materials dry, to uniform color and consistency, before adding water.

G. Protect mixtures from freezing, frost, contamination, and excessive evaporation.

PART 3 – EXECUTION

3.1 Examination

A. Section 01300 – Administrative Requirements: Coordination and project conditions.

B. Metal Lath and Accessories: Verify lath is flat, secured to substrate, and joint and surface perimeter accessories are in place.

C. Surface to be sound enough to receive plaster coat.

3.2 Preparation

A. Mist surfaces to reduce excessive suction.

3.3 Installation

A. Installation of Lathing Materials:

1. Apply two layers of DuPont Tyvek stucco wrap over wood base sheathing or one layer over EPS or XPS. ICBO ER-4000 and NER-642.
2. Install metal lath in accordance with ASTM C1063.

B. [Installation of Accessories:]

1. Install accessories in accordance with ASTM C1063.
2. Place corner bead at external wall corners; fasten outer edges of lath only. (Specification 09205 – Metal Lath)
3. Place strip mesh diagonally at corners of lathed openings. Secure rigidly in place. (Specification 09205 – Metal Lath)
4. Place casing beads at terminations of plaster finish. Butt and align ends. Secure rigidly in place. (Specification 09205 – Metal Lath)
5. Install door and glazed frames plumb and level in opening, after limeplaster is complete.

C. Control and Expansion Joints:

1. [Install interior control and expansion joints every twenty (20) feet or as indicated on Drawings.]
2. [Install exterior contraction joints after initial set, scribed as indicated on Drawings by cutting through 2/3 of lime plaster depth, neatly, in straight lines.]
3. [For horizontal exterior surfaces, install control and expansion joints not to exceed 100 square feet or as indicated on Drawings.]
4. [For vertical exterior surfaces, install control and expansion joints not to exceed 144 square feet or as indicated on Drawings.]

D. Plastering

1. Apply plaster in accordance with manufacturer's instructions.
2. Apply scratch coat to a nominal thickness of 3/8 inch, and brown coat to nominal thickness of 3/8 inch over metal lath surfaces.
3. Apply finish coat to a nominal thickness of [1/8] [3/16] [1/4] inch.
4. After curing, dampen previous coat prior to applying finish coat. ALLOW 7 to 10 DAYS BETWEEN COATS.
5. Apply finish coat [to indicated color and texture.] [to [light dash] [medium dash] [heavy dash] [fine

sand float] [medium sand float] [heavy sand float] [combed] [glacier] [aggregate surfaced] [_____] texture with selected color.

6. Avoid excessive working of the surface. Delay troweling as long as possible to avoid drawing excess fines to surface.

3.4 Erection Tolerances

A. Section 01400 – Quality Requirements: Tolerances.

B. Maximum Variation from Flat Surface: 1/4 inch in 10 feet.

3.5 Adjusting

A. Section 01700 – Execution Requirements: Testing, adjusting, and balancing.

B. Remove damaged or defective plaster by cutting and replace with specified materials to match adjacent plaster.

3.6 Schedules

END OF SECTION