SECTION 09 24 23 — CEMENT STUCCO

NEW YORK STUCCO ONE COAT STUCCO SYSTEM
SHORT FORM SPECIFICATION

PART 1—GENERAL

1.01 SUMMARY

A. Section description: Section includes installation of New York Stucco Hard Coat, New York Stucco Base Coat and New York Stucco Finish as an exterior wall cladding.

B. Products installed but not supplied under this section:

1. Joint sealant. Refer to New York Stucco Joint Sealant Specifications. Installation of joint sealant shall be by coating applicator or a separate installer under direct supervision and control of applicator. Joint sealant installer shall be experienced and competent in the installation of elastomeric construction sealants.

1.02 STUCCO BASE DESCRIPTION

A. Description of New York Stucco One Coat Stucco System:

1. New York Stucco Hard Coat: A proprietary mixture of Portland cement, sand, glass fibers, proprietary ingredients installed over wire fabric or metal lath, and New York Stucco Finish, either acrylic or elastomeric, as an exterior wall cladding.

B. New York Stucco One Coat Stucco System functional criteria:

1. General: Stucco application shall be to vertical substrates or to substrates sloped for positive drainage. Horizontal or sloped surfaces shall have additional protection from weather exposure that might be harmful to coating performance.

2. Substrate conditions:

   a. Substrates shall be sound, dry, and free of dust, dirt, laitance, efflorescence, and other harmful contaminants.

   b. Substrate dimensional tolerances: Flat with ¼ in. (6.4mm) within any 4 foot (1219mm) radius.

   c. Maximum deflection of substrate system under positive or negative design loads shall not exceed L/360 of span.

3. Expansion and control joints: Continuous expansion and control joints shall be installed at locations in accordance with manufacturer’s recommendations.
a. Substrate movement and expansion and contraction of New York Stucco Hard Coat and adjacent materials shall be taken into account in design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, co-efficient of expansion of materials, joint width to depth ratios, and other material factors. Minimum width of expansion joints shall be as recommended by coating manufacturer.

b. In accordance with ASTM C-1063, expansion and contraction joints shall be installed in walls not more than 144 sq. ft. (13.4m²) in area, and not more than areas of 100 sq. ft. (9.30m²) for all horizontal or sloped applications. The distance between joints shall not exceed 18 ft. (5.5m) in either direction or a length to width ratio of 2.5:1.

1.03 SUBMITTALS

A. General: Submit samples, evaluation reports and certificates in accordance with Division 1 General Requirements submittal section.

1. Samples: Submit samples for approval. Samples shall be of materials specified and of suitable size as required to accurately represent each color and texture to be used on project. Prepare each sample using the same tools and techniques as for actual project application. Maintain and make available, at job site, approved samples.

2. Manufacturer’s warranty: Submit sample copies of manufacturer’s warranty indicating single source responsibility.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Shall have marketed stucco systems in the United States for at least three years.

2. Applicator: Shall be experienced and competent in the installation of stucco like materials, shall provide evidence of a minimum of three years’ experience in work similar to that required by this section and provide Certificate of Completion for New York Stucco’s Quality Applicator Program.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver coating products in original packaging with manufacturer’s identification.

B. Storage: Store New York Stucco products in a dry location off the ground and protected from moisture conditions harmful to product performance.
1.06 PROJECT/SITE CONDITIONS

A. Environmental conditions: Comply with manufacturer’s recommendations of environmental conditions affecting product performance or negate manufacturer’s warranty for installation.

1. Installation ambient air temperature: Minimum of 40°F (4°C) and rising, and remaining so for 24 hours thereafter.

2. Substrate temperature: Do not apply New York Stucco Hard Coat to substrates whose temperature are less than 40°F (4°C) or contain frost or ice.

3. Inclement weather: Do not apply New York Stucco Hard Coat during inclement weather unless appropriate protection is employed to mitigate environmental issues.

4. Sunlight exposure: When possible, avoid installation of New York Stucco Hard Coat and Finish coat in direct sunlight. Schedule finish coat application at times when wall surfaces are in the shade or not exposed to direct sunlight.

5. New York Stucco materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40°F (4°C) within 24 hours of application. Protect stucco from uneven and excessive evaporation, especially during hot, dry weather.

6. Prior to installation, the wall shall be inspected for surface contamination or other defects that may adversely affect the performance of New York Stucco One Coat Stucco system, and shall be free of residual moisture.

B. Coordination and scheduling:

1. Coordination: Coordinate New York Stucco One Coat Stucco system installation with other construction operations.

1.07 WARRANTY

A. Warranty: Upon request, prior to start of installation, provide New York Stucco Warranty Requirements.

PART 2—PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer:

Formulated Solutions LLC  
25-44 Borough Place  
Woodside, NY 11377  
718-267-6380
1. New York Stucco Hard Coat
   b. Primer coat: New York Stucco Primer, acrylic polymer coating, tinted to match textured finish color.

2. New York Stucco Finish
   a. Type: 
   b. Texture: 
   c. Color: 

2.02 MATERIALS
   A. Stucco materials: Fiber Reinforced Stucco (Concentrate): New York Stucco Hard Coat is a one coat stucco, proprietary mixture of Portland cement, glass fibers and proprietary ingredients. In the field, add 3-4 gallons (11.4 –15.1 L) of clean, potable water and approximately 200-225 lb. (89-102 kg) of sand, complying with ASTM C-144, to each 80 lb. bag (36.3 Kg) of New York Stucco Hard Coat stucco base.

   B. Leveling and reinforcing coat
      1. New York Stucco Wet Base Coat: 100% acrylic polymer base, requiring the addition of Portland cement.
      2. New York Stucco Dry Base Coat: Copolymer based factory blend of cement and proprietary ingredients.
      3. New York Stucco Standard Mesh 4.5: Weight 4.5 oz. per sq. yd. (153g/m2) coated for protection against alkali.

   C. New York Stucco primers:
      1. New York Stucco Primer: 100% acrylic based coating to prepare surfaces for New York Stucco finishes.

   D. New York Stucco Finish:
      1. New York Stucco Finish: Factory blended, 100% acrylic polymer-based synthetic finish, integrally colored. Finish type, texture, and color as selected by architect.
2.03 RELATED MATERIALS

A. General: Related materials shall conform to the requirements of ICBO ES Evaluation Report No. 4658 and shall conform to this specification.

B. Substrate materials:


2. Cement board sheathing conforming to ASTM C-1186.


4. Plywood: Minimum 5/16 in. (7.9mm) thick exterior grade or exposure 1 plywood for studs spaced 16 in. (406.4mm) and 3/8 in. (9.5mm) thick exterior type plywood minimum for studs spaced 24 in. (609.6mm). Plywood shall comply with U.B.C. Standard No. 259.

5. Oriented Strand Board (OSB): Minimum 7/16 in. (11mm) thick, exposure 1, may be used with framing as for plywood.

6. Concrete (poured or pre-cast) and masonry.

C. Water Resistive Barriers:

1. For non-wood based sheathing shall be:
   a. One layer of New York Stucco Weather Barrier with a 4” strip of New York Stucco 4.5 mesh embedded at the sheathing joints.

2. For wood based sheathing, attach 2.5 or 3.4 self-furring galvanized wire lath over the water resistive barrier.
   a. There shall be two layers of New York Stucco Weather Barrier with a 4” strip of New York Stucco 4.5 mesh embedded at the sheathing joints.

3. Air Barrier (Optional): For all sheathing types, a combination air/water resistive barrier shall be one layer of the New York Stucco Weather Barrier with a 4” strip of New York Stucco 4.5 mesh embedded at sheathing joints plus one layer of non-adhering recognized water resistive barrier.

D. Lath: Lath and accessories as specified in ASTM C-847 and ASTM C-1063.

E. Seals, sealants, and bond breakers: Sealants shall conform to ASTM C-920, Grade NS, Class 25, Use NT. Backer rod shall be closed cell polyethylene foam.
PART 3—EXECUTION

3.01 MANUFACTURER’S INSTRUCTIONS

A. Compliance: Comply with manufacturer's instructions for installation of one coat stucco.

NOTICE: NEW YORK STUCCO HARD COAT IS INSTALLED OVER DRAINAGE WRAP BUILDING PAPER. FUNCTIONAL PERFORMANCE IS UNEQUIVOCALLY DEPENDENT UPON PROPER APPLICATION OF FLASHING AND JOINT SEALANT DETAILS AS SPECIFIED IN DRAWINGS.

B. Substrate examination: Examine prior to New York Stucco Hard Coat installation as follows:

1. Substrate shall be of a type approved by Formulated Solutions LLC. Plywood and OSB substrates shall be gapped 3 mm between panels, except that the 4 ft. edges of OSB panels shall be gapped 6.4 mm.

2. Substrate shall be examined for soundness and other detrimental conditions.

3. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.

C. Advise substrate contractor of discrepancies preventing the proper installation of the New York Stucco Hard Coat. Do not proceed with the one coat stucco work until unsatisfactory conditions are corrected.

D. Correction of unsatisfactory conditions of substrates installed by other trades shall be the responsibility of the stucco contractor.

3.02 RELATED MATERIALS INSTALLATION

A. General: Installation of related materials shall conform to this specification.

B. Substrate materials:

1. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.

2. Maximum deflection of the substrate shall be limited to L/360.

C. Weather resistive barrier: The weather resistive barrier is placed over all substrates.

D. Lath and accessories: Install in accordance with ASTM C-1063 and applicable building codes.

E. Sealants and backer rod: To be installed, where required, in accordance with the sealant manufacturer's specifications and published literature, and using sealant manufacturer's recommended primers.
3.03 INSTALLATION

A. General: New York Stucco One Coat Stucco System installation shall conform to this specification and to New York Stucco product data sheets.

B. Stucco:

1. The New York Stucco Hard Coat mixture shall be applied in one or two coats to a minimum thickness of 3/8 in. (9.5mm) by hand troweling or machine spraying the mixture to the wire lath in accordance with New York Stucco Hard Coat product data sheet. The maximum thickness applied in one pass is 5/8 in. (16mm).

2. If a Portland cement stucco finish coat is being used and is not applied within 48 hours after application of the base, New York Stucco Additive and Bonding Agent shall be applied to the base coat or added to the Portland cement finish stucco mix to ensure additional bonding.

3. Keep stucco moist for at least 24 hours (longer in dry weather) by lightly fogging walls. Start light fogging after initial set of 1–2 hours.

4. Allow New York Stucco Hard Coat to dry thoroughly to a pH of 9.5 or lower before applying acrylic primers or finishes.

C. Optional leveling coat:

1. Using a stainless steel trowel, apply New York Stucco Wet or Dry Base Coat over the New York Stucco Hard Coat at a thickness of 1/16 – 3/32 in. thick and trowel to a smooth finish.

D. Optional leveling and reinforcing coat:

1. Using a stainless steel trowel, apply New York Stucco Wet or Dry Base Coat over the New York Stucco Hard Coat at a thickness of 1/16 – 3/32 in. thick.

2. Immediately embed the New York Stucco 4.5 Standard Reinforcing Mesh into the fresh base coat material with the trowel until the reinforcing mesh is fully embedded and the base coat thickness is approximately 1/16 in. thick.

3. The reinforcing mesh should not be visible at the surface of the base coat.

E. Finish: Apply according to New York Stucco Finish product data sheet.

3.04 CLEANUP

A. Removal: Remove and legally dispose of New York Stucco Hard Coat and installation debris from job site.

END OF SECTION