



Navajo Housing Authority
Procurement Department
P.O. Box 4980, Window Rock, AZ 86515

ADDENDUM NUMBER TWO (2)
Issued: April 29, 2024

Project Name: Advertised – IFB #612 Construction Services for Demolition and Rebuilding of Homeownership Units in Crownpoint, NM

To All Interested Bidders:

This addendum forms a part of the contract Documents and modifies the Original Bidding Documents and any Subsequent addenda. Acknowledge Receipt of this addendum in the space provided on the bid form, failure to do so is subject to bidder disqualification by the NHA.

This addendum consists of the following:

In Section I – General Information, 6. Inquiries. Any and All questions shall be submitted in writing...All responses will be made in writing to all General Contractors who have an interest in this IFB. Additional information included.

I. INQUIRIES – Questions and Answers

1. The Exterior Elevations indicates that the units are to receive Exterior EFIS Stucco System. The specification does not have a specific section for this system.

NHA Response: Please Remove Specification “074600 SIDING”. Add attached Specification “EXHIBIT “A” - 072413 POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS). Anticipate four color schemes.

2. The Electrical drawing does not have a Light Fixture Schedule. Please provide Light Fixture Schedule.

NHA Response: See Electrical Sheet E-001 General Notes, Symbol, Legend, Sheet Specs for Light Fixture Types.

3. The Exterior doors call for 18 gauge metal door frame with 20 gauge metal door. Can we substitute the exterior doors with Therma-Tru Steel and Fiberglass Doors units?

NHA Response: Yes, the Therma-Tru Steel and Fiberglass Door units are acceptable, please also add Specification “EXHIBIT “B” 081100 STORM DOORS”, provide a metal security storm door unit with dead bolt and door knob, heavy duty exterior grade at both main entry and back/side entries of all housing units.

4. On sheet A601 Schedules, The Window Types has type 22 and 23.

On sheet A103 4 Bedroom Type C there is a call out for windows type 24, 25, and 26.

On sheet A104 5 Bedroom Type D there is a call out for window types 10, 24, 25, and 26.

On sheet A105 5 Bedroom Type E there is a call out for window types 24, 25 and 26.

Please provide window types 10, 24, 25 and 26.

NHA Response: Following window types in coordination with "C" Window Types Sheet A601. Single Hung, Vinyl Framed, Window Unit with Insulated Glass, insect screen and horizontal blinds.

Window Type: #22 - 40" wide by 56" high

Window Type: #23 - 30" wide by 42" high

Window Type: #24 - 40" wide by 56" high

Window Type: #25 - 30" wide by 42" high

Window Type: #26 - 36" wide by 36" high

Window Type: #10 - 36" wide by 48" high

5. Add Specification "EXHIBIT "C" 102600 WALL & DOOR PROTECTION" At all interior wall corners and interior doors of the housing units.

6. Change Interior Hollow Core Doors to Pre-Hung – 6 Panels Solid Pine Wood Interior Doors, Premium, stain and framed painted per NHA coordination.

All other provisions of this Invitation for Bid shall remain unchanged. Please ensure you acknowledge this Addendum Number Two (2) on Exhibit "K" – Form of Bid, failure to do so is subject to bidder disqualification by the NHA.



Doris Yonnie, Procurement Specialist
NHA Procurement Department

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

SECTION 072413 - POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Exterior insulation and finish system (EIFS) applied over masonry or exterior grade sheathing substrate.

B. Related Sections:

- 1. Division 06 Section "Sheathing" for sheathing and weather-resistant sheathing paper.
- 2. Division 07 Section "Joint Sealants" for sealing joints in EIFS with elastomeric joint sealants.

- C. Products furnished, but not installed under this Section, include anchors and other attachment devices to be embedded in masonry assemblies.

1.3 SYSTEM DESCRIPTION

- A. Class PB EIFS: A non-load-bearing, exterior wall cladding system that consists of an insulation board attached adhesively, mechanically, or both to the substrate; an integrally reinforced base coat; and a textured protective finish coat.

1.4 PERFORMANCE REQUIREMENTS

A. EIFS Performance: Comply with the following:

- 1. Bond Integrity: Free from bond failure within EIFS components or between system and supporting wall construction, resulting from exposure to fire, wind loads, weather, or other in-service conditions.
- 2. Weathertightness: Resistant to water penetration from exterior into EIFS and assemblies behind it or through them into interior of building that results in deterioration of thermal-insulating effectiveness or other degradation of EIFS and assemblies behind it, including substrates, supporting wall construction, and interior finish.

- B. Class PB EIFS: Provide EIFS having physical properties and structural performance that comply with the following:

- 1. Abrasion Resistance: Sample consisting of 1-inch-thick EIFS mounted on 1/2-inch-thick gypsum board; cured for a minimum of 28 days; and showing no cracking,

- checking, or loss of film integrity after exposure to 528 quarts of sand when tested per ASTM D 968, Method A.
2. Absorption-Freeze Resistance: No visible deleterious effects and negligible weight loss after 60 cycles per EIMA 101.01.
 3. Accelerated Weathering: Five samples per ICC-ES AC219 showing no cracking, checking, crazing, erosion, rusting, blistering, peeling, delamination, or other characteristics that might affect performance as a wall cladding after testing for 2000 hours when viewed under 5 times magnification per ASTM G 153 or ASTM G 155.
 4. Freeze-Thaw: No surface changes, cracking, checking, crazing, erosion, rusting, blistering, peeling, or delamination, or indications of delamination between components when viewed under 5 times magnification after 60 cycles per EIMA 101.01.
 5. Mildew Resistance of Finish Coat: Sample applied to 2-by-2-inch clean glass substrate, cured for 28 days, and showing no growth when tested per ASTM D 3273 and evaluated according to ASTM D 3274.
 6. Salt-Spray Resistance: No deleterious affects when tested according to ICC-ES AC219.
 7. Tensile Adhesion: No failure in the EIFS, adhesive, base coat, or finish coat when tested per ICC-ES AC219.
 8. Water Penetration: Sample consisting of 1-inch- thick EIFS mounted on 1/2-inch- thick gypsum board, cured for 28 days, and showing no water penetration into the plane of the base coat to expanded-polystyrene board interface of the test specimen after 15 minutes at 6.24 lbf/sq. ft. of air pressure difference or 20 percent of positive design wind pressure, whichever is greater, across the specimen during a test period when tested per EIMA 101.02.
 9. Water Resistance: Three samples, each consisting of 1-inch- thick EIFS mounted on 1/2-inch- thick gypsum board; cured for 28 days; and showing no cracking, checking, crazing, erosion, rusting, blistering, peeling, or delamination after testing for 14 days per ASTM D 2247.
 10. Wind-Driven-Rain Resistance: Resist wind-driven rain according to ICC-ES AC219.
 11. Impact Resistance: Sample consisting of 1-inch- thick EIFS when constructed, conditioned, and tested per EIMA 101.86; and meeting or exceeding the following:
 - a. Medium Impact Resistance: 50 to 89 inch-lb.
 - b. High Impact Resistance: 90 to 150 inch-lb.
 12. Structural Performance Testing: EIFS assembly and components shall comply with ICC-ES AC219 when tested per ASTM E 330.

1.5 SUBMITTALS

- A. Product Data: For each type and component of EIFS indicated.
- B. Shop Drawings: For EIFS. Include plans, elevations, sections, details of components, details of penetration and termination, flashing details, joint locations and configurations, lifting points for prefabricated panels, fastening and anchorage details including mechanical fasteners, and connections and attachments to other work.
- C. Panel Schedule: For prefabricated panel fabrication.
- D. Samples for Initial Selection: For each type of finish-coat color and texture indicated.
 1. Include similar Samples of joint sealants and exposed accessories involving color selection.

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

- E. Samples for Verification: 24-inch- square panels for each type of finish-coat color and texture indicated, prepared using same tools and techniques intended for actual work including custom trim, each profile, an aesthetic reveal, a typical control joint filled with sealant of color selected.
 - 1. Include sealants and exposed accessory Samples to verify color selected.
 - F. Delegated-Design Submittal: For prefabricated panels indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - G. Qualification Data: For Installer, fabricator/erector and testing agency.
 - H. Manufacturer Certificates: Signed by manufacturers certifying that EIFS and joint sealants comply with requirements.
 - I. Material or Product Certificates: For cementitious materials and aggregates and for each insulation and joint sealant, from manufacturer.
 - J. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each water-/weather-resistive barrier, insulation, reinforcing mesh, joint sealant, and coating.
 - K. Compatibility and Adhesion Test Reports: For joint sealants from sealant manufacturer indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
 - 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.
 - L. Field quality-control reports and special inspection reports.
 - M. Maintenance Data: For EIFS to include in maintenance manuals.
- 1.6 QUALITY ASSURANCE
- A. Installer Qualifications: An installer who is certified in writing by EIFS manufacturer as qualified to install manufacturer's system using trained workers.
 - 1. Fabricator/Erector Qualifications: Certified in writing by EIFS manufacturer as qualified to fabricate and erect manufacturer's prefabricated panel system using skilled and trained workers.
 - B. Source Limitations: Obtain EIFS from single source from single EIFS manufacturer and from sources approved by EIFS manufacturer as compatible with system components.
 - C. Fire-Test-Response Characteristics: Provide EIFS and system components with the following fire-test-response characteristics as determined by testing identical EIFS and system components per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.

1. Fire-Resistance Characteristics: Provide materials and construction tested for fire resistance per ASTM E 119.
 2. Intermediate-Scale Multistory Fire Test: Tested mockup, representative of completed multistory wall assembly of which EIFS is a part, complies with NFPA 285 for test method and required fire-test-response characteristics of exterior non-load-bearing wall panel assemblies containing foam-plastic insulation.
 3. Radiant Heat Exposure: No ignition of EIFS when tested according to NFPA 268.
 4. Potential Heat: Acceptable level when tested according to NFPA 259.
 5. Surface-Burning Characteristics: Provide insulation board, adhesives, base coats, and finish coats with flame-spread index of 25 or less and smoke-developed index of 450 or less, per ASTM E 84.
- D. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution and set quality standards for fabrication and installation.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original, unopened packages with manufacturers' labels intact and clearly identifying products.
- B. Store materials inside and under cover; keep them dry and protected from weather, direct sunlight, surface contamination, aging, corrosion, damaging temperatures, construction traffic, and other causes.
 1. Stack insulation board flat and off the ground.
 2. Protect plastic insulation against ignition at all times. Do not deliver plastic insulating materials to Project site before installation time.
 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

1.8 PROJECT CONDITIONS

- A. Weather Limitations: Maintain ambient temperatures above 40 deg F for a minimum of 24 hours before, during, and after adhesives or coatings are applied. Do not apply EIFS adhesives or coatings during rainfall. Proceed with installation only when existing and forecasted weather conditions and ambient outdoor air, humidity, and substrate temperatures permit EIFS to be applied, dried, and cured according to manufacturers' written instructions and warranty requirements.
- B. Field Measurements: Verify actual dimensions required for prefabricated panels by field measurements before fabrication.

1.9 COORDINATION

- A. Coordinate installation of EIFS with related Work specified in other Sections to ensure that wall assemblies, including sheathing, weather-resistant sheathing paper, flashing, trim, joint sealants, windows, and doors, are protected against damage from the effects of weather, age, corrosion, moisture, and other causes. Do not allow water to penetrate behind flashing and barrier coating of EIFS.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Dryvit Systems, Inc.
 2. El Rey Stucco Company, Inc.; a brand of ParexLahabra, Inc..
 3. Master Wall, Inc.
 4. Pleko LLC.
 5. Senergy; Degussa Wall Systems, Inc.
 6. SonoWall; Degussa Wall Systems, Inc.
 7. Sto Corp.

2.2 MATERIALS

- A. Compatibility: Provide adhesive, fasteners, board insulation, reinforcing meshes, base- and finish-coat systems, sealants, and accessories that are compatible with one another and with substrates and approved for use by EIFS manufacturer for Project.
- B. Primer/Sealer: EIFS manufacturer's standard substrate conditioner designed to seal substrates from moisture penetration and to improve the bond between substrate of type indicated and adhesive used for application of insulation.
- C. Flexible-Membrane Flashing: Cold-applied, fully self-adhering, self-healing, rubberized-asphalt and polyethylene-film composite sheet or tape and primer; EIFS manufacturer's standard or product recommended in writing by EIFS manufacturer.
- D. Insulation Adhesive: EIFS manufacturer's standard formulation designed for indicated use, compatible with substrate, and complying with one of the following:
1. Job-mixed formulation of portland cement complying with ASTM C 150, Type I, and polymer-based adhesive specified for base coat.
 2. Factory-blended dry formulation of portland cement, dry polymer admixture, and fillers specified for base coat.
 3. Factory-mixed noncementitious formulation designed for adhesive attachment of insulation to substrates of type indicated, as recommended by EIFS manufacturer.
- E. Molded, Rigid Cellular Polystyrene Board Insulation: Comply with ASTM C 578, Type I; EIFS manufacturer's requirements; and EIMA's "EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board" for most stringent requirements for material performance and qualities of insulation, including dimensions and permissible variations, and the following:
1. Aging: Before cutting and shipping, age insulation in block form by air drying for not less than six weeks or by another method approved by EIMA that produces equivalent results.
 2. Flame-Spread and Smoke-Developed Indexes: 25 and 450 or less, respectively, per ASTM E 84.
 3. Dimensions: Provide insulation boards not more than 24 by 48 inches and in thickness indicated, but not more than 4 inches thick or less than thickness allowed by ASTM C 1397.

4. Foam Shapes: Provide with profiles and dimensions indicated on Drawings.
- F. Reinforcing Mesh: Balanced, alkali-resistant, open-weave, glass-fiber mesh treated for compatibility with other EIFS materials, made from continuous multiend strands with retained mesh tensile strength of not less than 120 lbf/in. per ASTM E 2098 complying with ASTM D 578 and the following:
 1. High-Impact Reinforcing Mesh: Not less than 15 oz./sq. yd..
 2. Strip Reinforcing Mesh: Not less than 3.75 oz./sq. yd..
 3. Detail Reinforcing Mesh: Not less than 4.0 oz./sq. yd..
 4. Corner Reinforcing Mesh: Not less than 7.2 oz./sq. yd..
- G. Base-Coat Materials: EIFS manufacturer's standard mixture complying with one of the following:
 1. Factory-blended dry formulation of portland cement, dry polymer admixture, and inert fillers to which only water is added at Project site.
 2. Factory-mixed noncementitious formulation of polymer-emulsion adhesive and inert fillers that is ready to use without adding other materials.
- H. Waterproof Adhesive/Base-Coat Materials: EIFS manufacturer's standard waterproof formulation complying with one of the following:
 1. Job-mixed formulation of portland cement complying with ASTM C 150, Type I, white or natural color; and manufacturer's standard polymer-emulsion adhesive designed for use with portland cement.
 2. Job-combined formulation of manufacturer's standard polymer-emulsion adhesive and manufacturer's standard dry mix containing portland cement.
- I. Primer: EIFS manufacturer's standard factory-mixed, elastomeric-polymer primer for preparing base-coat surface for application of finish coat.
- J. Finish-Coat Materials: EIFS manufacturer's standard acrylic-based coating with enhanced mildew resistance complying with the following:
 1. Factory-mixed formulation of polymer-emulsion binder, colorfast mineral pigments, sound stone particles, and fillers.
 2. Factory-mixed formulation of polymer-emulsion binder, colorfast mineral pigments, and fillers used with stone particles for embedding in finish coat to produce an applied-aggregate finish.
 - a. Aggregate: Marble chips of size and color as selected by Architect from manufacturer's full range.
 3. Sealer: Manufacturer's waterproof, clear acrylic-based sealer for protecting finish coat.
 4. Colors: As selected by Architect from manufacturer's full range.
- K. Water: Potable.
- L. Mechanical Fasteners: EIFS manufacturer's standard corrosion-resistant fasteners consisting of thermal cap, standard washer and shaft attachments, and fastener indicated below; selected for properties of pullout, tensile, and shear strength required to resist design loads of application indicated; capable of pulling fastener head below surface of insulation board; and of the following description:
 1. For attachment to steel studs from 0.033 to 0.112 inch in thickness, provide steel drill screws complying with ASTM C 954.

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

2. For attachment to light-gage steel framing members not less than 0.0179 inch in thickness, provide steel drill screws complying with ASTM C 1002.
 3. For attachment to wood framing members and plywood sheathing, provide steel drill screws complying with ASTM C 1002, Type W.
 4. For attachment to masonry and concrete substrates, provide sheathing dowel in form of a plastic wing-tipped fastener with thermal cap, sized to fit insulation thickness indicated and to penetrate substrate to depth required to secure anchorage.
- M. Trim Accessories: Type as designated or required to suit conditions indicated and to comply with EIFS manufacturer's written instructions; manufactured from UV-stabilized PVC; and complying with ASTM D 1784, manufacturer's standard Cell Class for use intended, and ASTM C 1063.
1. Casing Bead: Prefabricated, one-piece type for attachment behind insulation, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
 2. Drip Screed/Track: Prefabricated, one-piece type for attachment behind insulation with face leg extended to form a drip, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
 3. Expansion Joint: Prefabricated, one-piece V profile; designed to relieve stress of movement.
 4. Window Sill Flashing: Prefabricated type for both flashing and sloping sill over framing beneath windows; with end and back dams; designed to direct water to exterior.
 5. Parapet Cap Flashing: Type for both flashing and covering parapet top with design complying with ASTM C 1397.

2.3 ELASTOMERIC SEALANTS

- A. Elastomeric Sealant Products: Provide EIFS manufacturer's listed and recommended chemically curing, elastomeric sealant that is compatible with joint fillers, joint substrates, and other related materials, and complies with requirements for products and testing indicated in ASTM C 1481 and with requirements in Division 07 Section "Joint Sealants" for products corresponding to description indicated below:
1. Multicomponent, nonsag urethane sealant.
 2. Sealant with a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- B. Preformed Foam Sealant Products: Provide sealant compatible with adjacent materials and complying with requirements in Division 07 Section "Joint Sealants."
- C. Sealant Color: As selected by Architect from manufacturer's full range.

2.4 MIXING

- A. General: Comply with EIFS manufacturer's requirements for combining and mixing materials. Do not introduce admixtures, water, or other materials except as recommended by EIFS manufacturer. Mix materials in clean containers. Use materials within time period specified by EIFS manufacturer or discard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of EIFS.
- B. Examine roof edges, wall framing, flashings, openings, substrates, and junctures at other construction for suitable conditions where EIFS will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Begin coating application only after surfaces are dry.
 - 2. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Protect contiguous work from moisture deterioration and soiling caused by application of EIFS. Provide temporary covering and other protection needed to prevent spattering of exterior finish coats on other work.
- B. Protect EIFS, substrates, and wall construction behind them from inclement weather during installation. Prevent penetration of moisture behind EIFS and deterioration of substrates.
- C. Prepare and clean substrates to comply with EIFS manufacturer's written instructions to obtain optimum bond between substrate and adhesive for insulation.
 - 1. Concrete Substrates: Provide clean, dry, neutral-pH substrate for insulation installation. Verify suitability of substrate by performing bond and moisture tests recommended by EIFS manufacturer.

3.3 EXTERIOR CEMENT-BOARD INSTALLATION

- A. Exterior Cement Board: Install on metal framing to comply with cement-board manufacturer's written instructions and evaluation report acceptable to authorities having jurisdiction. Install board with steel drill screws spaced no more than 8 inches o.c. along framing with perimeter fasteners at least 3/8 inch but less than 5/8 inch from edges of boards.

3.4 EIFS INSTALLATION, GENERAL

- A. Comply with ASTM C 1397 and EIFS manufacturer's written instructions for installation of EIFS as applicable to each type of substrate indicated.

3.5 SUBSTRATE PROTECTION APPLICATION

- A. Primer/Sealer: Apply over gypsum sheathing substrates to protect substrates from degradation and where required by EIFS manufacturer for improving adhesion of insulation to substrate.
- B. Waterproof Adhesive/Base Coat: Apply over sloped surfaces, window sills, parapets or where indicated on Drawings to protect substrates from degradation.
- C. Flexible-Membrane Flashing: Install over weather-resistive barrier, applied and lapped to shed water; seal at openings, penetrations, terminations, and where indicated by EIFS manufacturer's

written instructions to protect wall assembly from degradation. Prime substrates, if required, and install flashing to comply with EIFS manufacturer's written instructions and details.

3.6 TRIM INSTALLATION

- A. Trim: Apply trim accessories at perimeter of EIFS, at expansion joints, at window sills, and elsewhere as indicated, according to EIFS manufacturer's written instructions. Coordinate with installation of insulation.
1. Drip Screed/Track: Use at bottom edges of EIFS unless otherwise indicated.
 2. Window Sill Flashing: Use at windows unless otherwise indicated.
 3. Expansion Joint: Use where indicated on Drawings.
 4. Casing Bead: Use at other locations.
 5. Parapet Cap Flashing: Use where indicated on Drawings.

3.7 INSULATION INSTALLATION

- A. Board Insulation: Adhesively and mechanically attach insulation to substrate in compliance with ASTM C 1397, EIFS manufacturer's written instructions, and the following:
1. Apply adhesive to insulation by notched-trowel method in a manner that results in coating the entire surface of sheathing with adhesive once insulation is adhered to sheathing unless EIFS manufacturer's written instructions specify using primer/sealer with ribbon-and-dab method. Apply adhesive to a thickness of not less than 1/4 inch for factory mixed and not less than 3/8 inch for field mixed, measured from surface of insulation before placement.
 2. Press and slide insulation into place. Apply pressure over the entire surface of insulation to accomplish uniform contact, high initial grab, and overall level surface.
 3. Allow adhered insulation to remain undisturbed for period recommended by EIFS manufacturer, but not less than 24 hours, before installing mechanical fasteners, beginning rasping and sanding insulation, or applying base coat and reinforcing mesh.
 4. Mechanically attach insulation to substrate by method complying with EIFS manufacturer's written instructions. Install top surface of fastener heads flush with plane of insulation. Install fasteners into or through substrates with the following minimum penetration:
 - a. Steel Framing: 5/16 inch.
 - b. Concrete and Masonry: 1 inch.
 5. Apply insulation over dry substrates in courses with long edges of boards oriented horizontally.
 6. Begin first course of insulation from screed/track and work upward. Work from perimeter casing beads toward interior of panels if possible.
 7. Stagger vertical joints of insulation boards in successive courses to produce running bond pattern. Locate joints so no piece of insulation is less than 12 inches wide or 6 inches high. Offset joints not less than 6 inches from corners of window and door openings and not less than 4 inches from aesthetic reveals.
 - a. Adhesive Attachment: Offset joints of insulation not less than 6 inches from horizontal and 4 inches from vertical joints in sheathing.
 - b. Mechanical Attachment: Offset joints of insulation from horizontal joints in sheathing.
 8. Interlock ends at internal and external corners.
 9. Abut insulation tightly at joints within and between each course to produce flush, continuously even surfaces without gaps or raised edges between boards. If gaps greater

than 1/16 inch occur, fill with insulation cut to fit gaps exactly; insert insulation without using adhesive or other material.

10. Cut insulation to fit openings, corners, and projections precisely and to produce edges and shapes complying with details indicated.
11. Rasp or sand flush entire surface of insulation to remove irregularities projecting more than 1/16 inch from surface of insulation and to remove yellowed areas due to sun exposure; do not create depressions deeper than 1/16 inch.
12. Cut aesthetic reveals in outside face of insulation with high-speed router and bit configured to produce grooves, rabbets, and other features that comply with profiles and locations indicated. Do not reduce insulation thickness at aesthetic reveals to less than 3/4 inch.
13. Install foam shapes and attach to structure.
14. Interrupt insulation for expansion joints where indicated.
15. Form joints for sealant application with back-to-back casing beads for joints within EIFS and with perimeter casing beads at dissimilar adjoining surfaces. Make gaps between casing beads and between perimeter casing beads and adjoining surfaces of width indicated.
16. After installing insulation and before applying reinforcing mesh, fully wrap board edges with strip reinforcing mesh. Cover edges of board and extend encapsulating mesh not less than 2-1/2 inches over front and back face unless otherwise indicated on Drawings.
17. Treat exposed edges of insulation as follows:
 - a. Except for edges forming substrates of sealant joints, encapsulate with base coat, reinforcing mesh, and finish coat.
 - b. Encapsulate edges forming substrates of sealant joints within EIFS or between EIFS and other work with base coat and reinforcing mesh.
 - c. At edges trimmed by accessories, extend base coat, reinforcing mesh, and finish coat over face leg of accessories.
18. Coordinate installation of flashing and insulation to produce wall assembly that does not allow water to penetrate behind flashing and EIFS protective-coating lamina.

- B. Expansion Joints: Install at locations indicated, where required by EIFS manufacturer, and as follows:
1. At expansion joints in substrates behind EIFS.
 2. Where EIFS adjoin dissimilar substrates, materials, and construction, including other EIFS.
 3. Where wall height or building shape changes.
 4. Where EIFS manufacturer requires joints in long continuous elevations.
 5. Where panels abut one another.

3.8 BASE-COAT INSTALLATION

- A. Base Coat: Apply to exposed surfaces of insulation and foam shapes in minimum thickness recommended in writing by EIFS manufacturer, but not less than 1/16-inch dry-coat thickness.
- B. Reinforcing Mesh: Embed type indicated below in wet base coat to produce wrinkle-free installation with mesh continuous at corners and overlapped not less than 2-1/2 inches or otherwise treated at joints to comply with ASTM C 1397 and EIFS manufacturer's written instructions. Do not lap reinforcing mesh within 8 inches of corners. Completely embed mesh, applying additional base-coat material if necessary, so reinforcing-mesh color and pattern are not visible.
1. Standard-impact reinforcing mesh unless otherwise indicated.

2. Intermediate-impact reinforcing mesh where indicated.
 3. High-impact reinforcing mesh where indicated.
 4. Heavy-duty reinforcing mesh where indicated.
- C. Additional Reinforcing Mesh: Apply strip reinforcing mesh around openings extending 4 inches beyond perimeter. Apply additional 9-by-12-inch strip reinforcing mesh diagonally at corners of openings (re-entrant corners). Apply 8-inch- wide strip reinforcing mesh at both inside and outside corners unless base layer of mesh is lapped not less than 4 inches on each side of corners.
1. At aesthetic reveals, apply strip reinforcing mesh not less than 8 inches wide.
 2. Embed strip reinforcing mesh in base coat before applying first layer of reinforcing mesh.
- D. Foam Shapes: Fully embed reinforcing mesh in base coat.
- E. Double Base-Coat Application: Where indicated, apply second base coat in same manner and thickness as first application except without reinforcing mesh. Do not apply until first base coat has cured.

3.9 FINISH-COAT INSTALLATION

- A. Primer: Apply over dry base coat according to EIFS manufacturer's written instructions.
- B. Finish Coat: Apply over dry primed base coat, maintaining a wet edge at all times for uniform appearance, in thickness required by EIFS manufacturer to produce a uniform finish of color and texture matching approved sample and free of cold joints, shadow lines, and texture variations.
1. Texture: As selected by Architect from manufacturer's full range.
 2. Embed aggregate in finish coat according to EIFS manufacturer's written instructions to produce a uniform applied-aggregate finish of color and texture matching approved sample.
- C. Sealer Coat: Apply over dry finish coat, in number of coats and thickness required by EIFS manufacturer.

3.10 INSTALLATION OF JOINT SEALANTS

- A. Prepare joints and apply sealants, of type and at locations indicated, to comply with applicable requirements in Division 07 Section "Joint Sealants" and in ASTM C 1481.
1. Apply joint sealants after base coat has cured but before applying finish coat.
 2. Clean surfaces to receive sealants to comply with indicated requirements and EIFS manufacturer's written instructions.
 3. Apply primer recommended in writing by sealant manufacturer for surfaces to be sealed.
 4. Install sealant backing to control depth and configuration of sealant joint and to prevent sealant from adhering to back of joint.
 5. Apply masking tape to protect areas adjacent to sealant joints. Remove tape immediately after tooling joints, without disturbing joint seal.
 6. Recess sealant sufficiently from surface of EIFS so an additional sealant application, including cylindrical sealant backing, can be installed without protruding beyond EIFS surface.

3.11 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified testing agency to perform tests and inspections.
- B. EIFS Tests and Inspections: For the following:
 - 1. According to ICC-ES AC24.
- C. Remove and replace EIFS where test results indicate that EIFS do not comply with specified requirements.
- D. Prepare test and inspection reports.

3.12 CLEANING AND PROTECTION

- A. Remove temporary covering and protection of other work. Promptly remove coating materials from window and door frames and other surfaces outside areas indicated to receive EIFS coatings.

END OF SECTION 072413

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

SECTION 081100 - STORM DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Storm doors with solid wood core doors.

1.2 SUBMITTALS

A. Product Data: For each type of door indicated.

B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.

1. Indicate dimensions and locations of doors.
2. Indicate doors to be factory finished and finish requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Pella Windows & Doors; Model 3031 or equivalent
2. Larson Doors

B. Aluminum – Wood Core Lamination:

1. The basic structure shall be laminated core to consist of aluminum sheets laminated to each side of $\frac{3}{4}$ " thick, 40-45 lb. density, industrial grad, western particleboard. The wood core shall be one-piece solid wood, or be of a four-piece construction using corrugated fasteners and an adhesive bonding process.
2. The aluminum sheets shall be painted by with an electro statically applied baked-on polyester finish. The above components shall be laminated to form a dimensionally stable laminated panel, eliminating sagging, warping, and twisting. The laminated panel shall be sealed with waterproof sealant across bottom edge and up each outer edge to protect from moisture. The laminated

C. Frame Components:

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

1. All frame and trim components shall be 6063 T6 aluminum extrusion for additional strength and appearance. Minimum wall thickness shall be $.045 \pm .005$. Paint is electrostatically applied baked on polyester.
2. A gasketed window frame unit shall be factory installed with locking-type interior trim to securely seal the unit into the door panel. The door shall have $.045 \pm .005$ wall thickness z-bars attached for mounting the door unit in the building opening. Z-bars will be weather-stripped with nonabsorbent pile. The top z-bar shall be shaped to serve as a drip cap above the door. The hinge z-bar shall be factory made with four 3-inch, spring loaded, and aluminum leaf hinges, supported by wear-resistant bronze bushings. Color-match vinyl screw cap covers shall be provided to conceal the z-bar installation screws.

D. Weather-Strip:

1. The door shall be sealed against z-bar trim with nonabsorbent woven pile. The door shall have an adjustable 2" aluminum extruded expander with flexible vinyl weather-stripping that is field adjusted to seal the door along irregular thresholds.

E. Moldings: (Model 3031)

1. Colonial – One rectangle extruded aluminum molding is installed horizontally on the kick plate.
2. Traditional – Two rectangle extruded aluminum moldings are installed vertically on the kick plate.

F. Grids: (Model 3031)

1. Grid Models – An extruded aluminum designer grid is permanently attached to the exterior and interior surface of the glass in alignment creating a three wide, four high lite pattern.

G. Warranty:

1. Each door shall have a registration label displaying an identification number, which is to be registered upon installation of the door per warranty procedure described in the installation manual. See door warranty sheet in instruction booklet for details.

2.2 FABRICATION

- A. All aluminum window unit with two-self-storing glass inserts and one screen shall be factory installed and fitted to complete the door unit. All window master frame component shall be $.045 \pm .005$ wall thickness, miter-sawed, mechanically fastened with zinc plated screws. All glass panels shall be $.045 \pm .005$ wall thickness aluminum extrusion, miter sawed, metal keyed, and have mechanically connected corners.
- B. Glass shall be tempered safety glass (ANSI Z97.1). Glazing method shall be a flexible vinyl weather-strip with wrap-around marine-type extrusion. Screen panel shall be aluminum frame

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

with fiberglass screen mesh. All window panel latches and tilt keys shall be zinc die-cast metal. Window sill area shall be sloped to the exterior, or punched to allow water drainage.

2.3 FACTORY FINISHING

- A. Finish all exposed extruded aluminum components shall be color coated in accordance with AAMA 2603-98 specifications.
- B. Fasteners shall be painted or zinc plated.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Hardware kit shall consist of a latch with a lever exterior handle and lock on the inside. It shall also have two heavy-duty pneumatic closers and all necessary screws and fasteners to complete the installation.
- B. Installation Instructions: Install doors per instruction furnished with each door, using zinc plated exterior installation screws.

END OF SECTION 081100

NM15-43 Crownpoint 30 Units
Indigenous Design Studio + Architecture

SECTION 102600 - WALL AND DOOR PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Corner guards.
 - 2. Door-protection systems.
- B. See Division 08 Section "Door Hardware" for metal armor, kick, mop, and push plates.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of unit and for each color and texture required.
- C. Maintenance data.

1.3 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide impact-resistant, plastic wall-protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store plastic wall-protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall-protection units that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 MATERIALS

- A. Extruded Rigid Plastic: High-impact-resistant PVC or acrylic-modified vinyl plastic with integral color throughout.
- B. Plastic Sheet Wall Covering Material: Semirigid, high-impact-resistant PVC or acrylic-modified vinyl plastic sheet with integral color throughout.
- C. Fasteners: Aluminum, nonmagnetic stainless steel, or other noncorrosive metal; security-type where exposed to view.

2.3 CORNER GUARDS

- A. Surface-Mounted, Resilient, Plastic Corner Guards: Assembly consisting of snap-on plastic cover installed over continuous retainer; including mounting hardware; fabricated with 90- or 135-degree turn to match wall condition.
1. Available Manufacturers:
 - a. American Floor Products Co., Inc.
 - b. ARDEN Architectural Specialties, Inc.
 - c. Construction Specialties, Inc.
 - d. IPC Door and Wall Protection Systems; Division of InPro Corporation.
 - e. Pawling Corporation.
 - f. Tepromark International, Inc.
 2. Cover: Extruded rigid plastic, minimum 0.078-inch wall thickness; as follows:
 - a. Profile: Nominal 2-inch- long leg and 1/4-inch corner radius.
 - b. Height: 4 feet.
 - c. Color and Texture: As selected by Architect from manufacturer's full range.
 3. Retainer: Minimum 0.060-inch- thick, 1-piece, extruded aluminum.
 4. Top and Bottom Caps: Prefabricated, injection-molded plastic; color matching cover; field adjustable for close alignment with snap-on cover.

2.4 DOOR-PROTECTION SYSTEMS

- A. General: Comply with BHMA A156.6.
- B. Protection Plates: Fabricated from extruded rigid plastic, of thickness indicated.
 - 1. Available Manufacturers:
 - a. American Floor Products Co., Inc.
 - b. Construction Specialties, Inc.
 - c. IPC Door and Wall Protection Systems; Division of InPro Corporation.
 - d. Korogard Wall Protection Systems; Division of RJF International Corporation.
 - e. Pawling Corporation.
 - f. Tepromark International, Inc.
- C. Kick Plates: Minimum 0.060-inch wall thickness; beveled 4 sides.
 - 1. Size: 12 inches high by door width, with allowance for frame stops.
 - 2. Color and Texture: As selected by Architect from manufacturer's full range.
 - 3. Mounting: Countersunk screws through factory-drilled mounting holes.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall-protection system components.
- B. Install impact-resistant wall-protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
 - 1. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
- C. Immediately after completion of installation, clean plastic covers and accessories using a standard, ammonia-based, household cleaning agent.
- D. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 102600