Section 074000 – Cladding Support System

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PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Piazza Continuous Rigid Insulation Framing System through continuous rigid insulation for exterior walls. Applicable for fiber cement panels, metal panels, terracotta tiles, brick, light weight cast stone and similar cladding materials.

Note to Specifier: Retain the following paragraph if used

B. Related Sections:

1. Section 054000 "Cold-Formed Steel Framing" for exterior and interior structural steel framing members.

2. Section 072113 "Thermal Insulation".

3. Section 074213 "Metal Wall Panels".

4. Section 074456 “Mineral-Fiber-Reinforced Cementitious Panels”.

5. Section 047300 “Lightweight Cast Stone”

C. Related Requirements:

1. IECC International Energy Conservation Code.

2. ASHRAE STANDARD 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings.

3. ASTM C 1363 Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.

1.2 SUBMITTALS

A. Product Data: For each type of product.

1. Provide documentation that Piazza Continuous Rigid Insulation Framing System complies with the IBC code and relevant ASTM Standards. Mechanical properties, coatings, dimensions, and labeling are checked. Installation instructions are included.

Note to Specifier: Retain the following paragraph if Buy America Act is part of project requirements.

2. Provide certification that products were Manufactured in USA and meet the specifications of the Buy America Provision of the American Recovery and Investment Act of 2009 (ARRA)

B. Provide engineered design and drawings for attachment and back-up framing to support exterior cladding, including number of screw fasteners.

C. Manufacturer's Certification: Submit manufacturer's certification of product compliance with codes and standards along with product literature and data sheets for specified products.

D. Product Samples: Submit two samples representing actual product for each product specified.

Note to Specifier: Retain the following paragraph if Sustainable Design is part of project requirements

E. Sustainable Design Submittals:

1. Product Data for Credit MR 4.1 [**and Credit MR 4.2**]: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
2. Product Data for Credit MR 2.1 [**and Credit MR 2.2**]: For products diverted from disposal in landfills and incinerators, and where recycled resources are directed back to the manufacturing process. Include statement indicating percentage of materials diverted and recycled, and the costs associated with each.
3. Product Data for Credit MR 5: For products where product manufacturing is within a 500 mile radius of the jobsite and the point of extraction of the raw materials. Include a statement indicating the location and distances for the manufacturing plant and the point of extraction of raw materials in relation to the jobsite location.

1.3 QUALITY ASSURANCE

A. Mock-Up: Provide a mock-up for evaluation of attachment techniques and workmanship.

Note to Specifier: Retain the following paragraph if ISO 9001 Certification is part of project requirements

B. Provide certification of ISO 9001 “Quality Management System” for manufacturing facility of non-structural steel framing and connectors.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Provide Piazza Continuous Rigid Insulation Framing System by Piazza Stone LLC. (706-651-1210). No substitution is permitted.

2.2 PERFORMANCE REQUIREMENTS

A. Thermal Resistance of Exterior Wall Assemblies: Provide thermal performance data (R- and U-values) of the wall assembly that contains the Piazza Continuous Rigid Insulation Framing System through continuous rigid insulation. R- and U-values of the wall assembly must meet requirements of the current ASHRAE code for the geographical zone of the project.

Note to Specifier: Retain the following paragraph if Fire Resistance of Exterior Walls is part of project requirements

B. Fire Resistance of Exterior Wall Assemblies: Provide number of hours fire resistance of the wall assembly that contains the Piazza Continuous Rigid Insulation Framing System through continuous rigid insulation. Fire resistance of the wall assembly must be determined based on NFPA 285 test guidelines.

C. Design loads: Wind pressure and self-weight of cladding as indicated on the project's Architectural/Structural Drawings and as required by the International Building Code.

2.3 CLADDING SUPPORT SYSTEM

A. Cladding Support System: Piazza Continuous Rigid Insulation Framing System by Piazza Stone LLC

1. Piazza Continuous Rigid Insulation Framing System is pre-engineered to support weight of rigid insulation, cladding material, and resist wind loads.
2. Piazza Continuous Rigid Insulation Framing System includes slotted steel material to minimize thermal conductivity, and 1" thermal tape preinstalled on each piece for an integrated continuous thermal break.
    a. Steel material and coating: ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi(450MPa) minimum tensile strength, 54mil minimum thickness (16-gauge, 0.0566" design thickness) or 33mil minimum thickness (20-gauge, 0.0346" design thickness) with ASTM A653/A653M G90 (Z275) hot dipped galvanized coating.
    b. Dimensions: As Specified on the Architectural Drawings for 1, 1.5, 2, 3 or 4 inches of continuous rigid insulation layer per design.
3. Piazza Continuous Rigid Insulation Framing System Components:
    a. Piazza J-Track by Piazza Stone LLC is used in conjunction with Piazza Z-Track and Piazza Corner Angle to secure rigid foam insulation at top and bottom of wall.

b. Piazza Z-Track by Piazza Stone LLC is used in conjunction with Piazza J-Track and Piazza Corner Angle to secure rigid foam insulation. Installed every 24" of rigid foam insulation and incorporates bumps to engage and hold foam in place during installation.
c. Piazza Corner Angle by Piazza Stone LLC is used in conjunction with Piazza Z-Track and J-Track to secure rigid foam insulation at corners.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, for compliance with requirements and other conditions affecting performance of the work. Do not begin installation until substrates have been properly prepared.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean and prepare surfaces using the methods recommended by the manufacturer before installation.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions and approved submittals, and in proper relationship with adjacent construction.

1. Attach Piazza Continuous Rigid Insulation Framing System to steel stud backup with minimum (1) #10-16 self-drilling screws to each stud. (2) screws may be required for high design wind pressures per manufacturer’s recommendations.

2. Attach cladding panels or tiles to Piazza Continuous Rigid Insulation Framing System per cladding panels manufacturer’s recommendations.

3. as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.

3.4 PROTECTION

A. Protect installed products until completion of project. repair or replace damaged products before Substantial Completion.

END OF SECTION 074000