SECTION 07410

METAL WALL PANELS

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\*\* NOTE TO SPECIFIER \*\* CENTRIA; Concept Series.  
This section is based on the products of CENTRIA, which is located at:  
700 State Hwy. 121 Suite 200  
Lewisville, TX 75067  
Toll Free Tel: 800-759-7474  
Email: [request info (info@centria.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=CENTRIA&coid=31330&rep=&fax=&message=RE:%20Spec%20Question%20(07410cas):%20%20&mf=)  
Web: <https://www.centria.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos31/arc31330.html) ] for additional information.  
CENTRIA is a world leader in the manufacture of metal building products and systems for nonresidential walls and roofs and electrical cellular floor systems. CENTRIA is also a world-class coil coater, coating a wide range of products for customers in numerous industries.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Field assembled metal wall panel system including a sealed vapor barrier liner panel, insulation, subgirts and concealed fastener exterior profile.
    2. Uninsulated single-skin concealed fastener metal wall panel system.
    3. Concealed fastener, track mounted rain screen modular wall panel system.
    4. Concealed fastener, continues engagement rain screen modular wall panel system.

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* 1. RELATED SECTIONS
     1. Section 05100 - Structural Metal Framing.
     2. Section 05400 - Cold-Formed Metal Framing.
     3. Section 07210 - Building Insulation.
     4. Section 07270 - Air Barriers.
     5. Section 07600 - Flashing and Sheet Metal.
     6. Section 07900 - Joint Sealers.
     7. Section 09250 - Gypsum Sheathing.
     8. Section 10200 - Louvers and Vents.

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* 1. REFERENCES
     1. American Architectural Manufacturer's Association (AAMA):
        1. AAMA 501.1 - Test Method for Water Penetration of Windows, Curtain Walls and Doors Using Dynamic Pressure.
        2. AAMA 508 - Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems
        3. AAMA 620 - Voluntary Specification for High Performance Organic Coatings on Coil Coated Architectural Aluminum Substrates.
        4. AAMA 621 - Voluntary Specification for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
        5. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
     2. ASTM International (ASTM):
        1. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
        2. ASTM A 755/A 755M - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
        3. ASTM B 209 - Specification for Aluminum and Aluminum Alloy Sheet and Plate.
        4. ASTM B 221 - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph when designing a complete field assembled wall system including liner panel, insulation, subgirts, and Concept Series face panel.

* + - 1. ASTM C 236 - Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box.
      2. ASTM C 754 - Specification for Installation of Steel Framing Members to Receive Screw Attached Gypsum Panel Products.
      3. ASTM C 920 - Specification for Elastomeric Joint Sealants.
      4. ASTM C 1007 - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.
      5. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Tests.
      6. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
      7. ASTM E 112 - Standard Test Method for Determining Average Grain Size.
      8. ASTM E 283 - Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen.
      9. ASTM E 329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing.
      10. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
    1. American Iron and Steel Institute (AISI):
       1. Specification for the Design of Cold-Formed Steel Structural Members.
    2. American Institute of Steel Construction (AISC):
       1. Code of Standard Practice.
    3. American Society of Civil Engineers (ASCE):
       1. ASCE-7, Minimum Design Loads for Buildings and Other Structures.
    4. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA):
       1. Architectural Sheet Metal Manual.
  1. DEFINITIONS

\*\* NOTE TO SPECIFIER \*\* Retain definition below for Projects incorporating innovative sustainability goals. C2C certification described in paragraph below is a comprehensive sustainability certification that transcends LEED requirements to address life cycle analysis of entire production cycle of building products. CENTRIA and a number of leading product manufacturers have aligned their manufacturing and distribution practices with C2C core principles.

* + 1. Cradle to Cradle Certification: The Cradle to Cradle Certification process, administered by McDonough Braungart Design Chemistry (MBDC), HTTP://www.c2ccertified.com, that evaluates materials and product ingredients and the complete formulation for human and environmental health impacts throughout its lifecycle as well as its potential for being truly recycled or safely composted.
  1. SUBMITTALS
     1. Submit product data, test reports, and certifications in accordance with quality assurance and performance requirements specified herein.

\*\* NOTE TO SPECIFIER \*\* Retain applicable paragraphs below for projects intended to be LEED-certified. Verify credits required with project LEED coordinator.

* + 1. LEED Submittals: Credit MR 4.1/MR4.2, Manufacturer's Product Data indicating the following:
       1. Percentages by weight of post-consumer and pre-consumer recycled content.
       2. Indicate total weight of products provided.
       3. Include statement indicating costs for each product having recycled content.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Cradle to Cradle Certification: Submit minimum of silver level Cradle to Cradle certification [www.c2ccertified.com](http://www.c2ccertified.com) or a comparable independent sustainability audit acceptable to Owner that evaluates and validates materials, material reutilization/design for environment, energy use, water usage, and social responsibility of the product and manufacturing process.
    2. Submit panel shop drawings consisting of design and erection drawings, finish specifications, and other data necessary to clearly describe the design, materials, sizes, layouts, construction details, and erection. Submit small-scale layouts of panels and large-scale details of edge conditions, joints, fastener and sealant placement, flashings, penetrations, and special details. Distinction must be made between factory and field assembled work.
       1. Drawings shall be approved prior to fabrication.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Submit structural design calculations, in accordance with the AISI Specification for the Design of Cold-Formed Steel Structural Members, for the metal wall panel system.
       1. A professional engineer registered in the state where the project is located shall certify the calculations.
    2. Material Samples:
       1. Panels: One of each type, full panel width by 12 inches (305 mm) long.
       2. Fasteners: Two of each type with statement of intended use.
       3. Closures: One of each type metal closure and foam closure as required.
       4. Sealants: One sample of each type with statement of intended use.
       5. Clips: Two of each type.
    3. Selection Samples for Color: For each finish product specified, furnish two color chip samples selected from the manufacturer's full range of available colors and patterns.
    4. Verification Samples for Color: For each finish product specified, two samples, minimum size 6 square inches (150 mm), representing actual product, color, and patterns.
    5. Qualification Information: For Installer firm, proof of installer's manufacturer trained field supervisor.
    6. Warranty: Submit proposed warranty meeting requirements of this Section.
  1. QUALITY ASSURANCE
     1. Manufacturer's Qualifications: The manufacturer shall have had a minimum of ten years experience in the successful completion of projects employing similar materials, applications, and performance requirements.
        1. Manufacturer shall provide a list of five similar completed projects with addresses of the project location, architect, and owner.
     2. Installer Qualifications: The wall systems contractor shall have had a minimum of ten years experience in the successful completion of projects employing similar materials, applications, and performance requirements.
        1. The wall systems contractor shall provide a list of five similar completed projects with addresses of the project location, architect, and owner.

\*\* NOTE TO SPECIFIER \*\* Retain paragraphs below when Project requirements include compliance with Federal Buy American provisions. CENTRIA Concept Series Metal Wall Panels comply with requirement.

* + 1. Buy American Act Certification: Submit documentation certifying that products comply with provisions of the Buy American Act 41 U.S.C 10a - 10d.

\*\* NOTE TO SPECIFIER \*\* Retain below when authorities having jurisdiction require certification of high wind design compliance.

* + 1. Dade Country Approval, Miami-Dade County Notice of Acceptance (NOA).
    2. Calculations supporting structural performance of the wall panels shall be prepared by a professional structural engineer.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Finish areas designated by Architect.
       2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
       3. Refinish mock-up area as required to produce acceptable work.
    2. Pre-installation Conference: Conduct conference at Project site in compliance with Division 01 requirements.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Materials shall be unloaded and stored per the manufacturer's instructions to prevent damage due to handling and weather.
  2. PROJECT CONDITIONS
     1. Field Measurements not by CENTRIA: It is the panel installers responsibility to verify locations of structural members, adjoining construction and wall openings dimensions by field measurement before panel fabrication and indicate measurements on final shop drawings.
        1. Coordinate with constructions schedule to ensure panel assemblies fit properly and do not delay construction progress.
        2. Established dimensions: where field measurements cannot be made without delaying construction progress, guarantee dimensions and proceed with fabrication of wall panel assemblies corresponding to the established dimensions.
  3. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Warranty terms below are available from CENTRIA.

* + 1. Material Warranty: The manufacturer shall warrant that the materials and accessories furnished in accordance with these specifications shall remain free from defects in material and factory workmanship for a period of two years from date of shipment.
    2. Paint Finish Warranty: The manufacturer shall warrant against fading, chalking, peeling, cracking, checking, chipping, or erosion to base metal of the exterior panel finish, in accordance with the paint supplier's standards.
       1. Warranty Period: 20 years.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: CENTRIA, which is located at: 700 State Hwy. 121 Suite 200; Lewisville, TX 75067; Toll Free Tel: 800-759-7474; Email: [request info (info@centria.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=CENTRIA&coid=31330&rep=&fax=&message=RE:%20Spec%20Question%20(07410cas):%20%20&mf=); Web: <https://www.centria.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Substitutions: Requests for substitutions will be considered in accordance with provisions of Section 01600. Evidence shall be submitted to demonstrate equivalency to the products and performance levels specified. The written request shall include:
       1. A complete description of the substitution, including details of all transition conditions at panel termination points.
       2. Independent test reports verifying compliance with the performance requirements.
       3. A detailed list of each item that does not fully comply with the specifications.
       4. A letter stating that the manufacturer or wall systems contractor proposing the substitution will pay additional costs incurred by subcontractors affected by the proposed substitution.

\*\* NOTE TO SPECIFIER \*\* Concept Series™ is an innovative collection of six new exterior metal wall panel profiles with complementary shapes and identical side joinery, offering architects infinite design possibilities through profile integration. Delete if not required.

* 1. CONCEALED FASTENER METAL WALL PANELS
     1. System Description:

\*\* NOTE TO SPECIFIER \*\* The most common system involves the use of CENTRIA wall products over a DensGlass® Gold substrate by G-P Gypsum overlaid with Tyvek® Commercial Wrap®, by DuPont Company. Assemblies utilizing alternate materials are possible and are dependent on building location and type. Retain one or more of six wall system descriptions below that correspond to Project Requirements; edit as required. System below describes installation of metal wall panels over CENTRIA MetalWrap backup system.

* + - 1. Metal Wall Panels over Insulated-Composite Backup Panel Wall System: Single-skin concealed fastener metal wall panels serving as the exterior rainscreen cladding component of a metal wall panel system. Insulated composite metal wall backup panels specified in other specification section. Metal wall backup panels provide thermal, air, water, and water vapor control. Metal wall panel installation specified in this Section includes secondary metal subgirt framing for panel attachment.
      2. Metal Wall Panels and Metal Liner Panel Wall System: Single-skin concealed fastener metal wall panels applied as the exterior cladding over wall framing with board insulation and metal liner panels. Metal wall panel installation specified in this Section includes secondary metal subgirt framing for panel attachment and an interior sealed-joint metal liner panel that provides air and water vapor control.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below for horizontal panels. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided in other specification section.
      1. Metal Wall Panels over Multi-Component Framed Wall System: Single-skin concealed fastener metal wall panels applied as exterior rainscreen cladding. Wall framing indicated with exterior sheathing specified in other specification section. Applied membrane that provides air, moisture, and water vapor control in other specification section. Insulation within the framing specified in other specification section. Metal wall panel installation specified in this Section includes secondary metal subgirt framing and mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below. Product is not by CENTRIA.

* + - * 1. Air, moisture, and water vapor control membrane is specified in other specification section.
      1. Metal Wall Panels over Outside-Insulated Framed Wall System: Single-skin concealed fastener metal wall panels applied as exterior rainscreen cladding. Wall framing specified in other specification section. Exterior sheathing specified in other specification section. Applied membrane that provides air, moisture, and water vapor control specified in other specification section. Insulation within the framing and applied outboard of the sheathing specified in other specification section. Metal wall panel installation specified in this Section includes secondary metal subgirt framing and mounting clips for panel attachment.
      2. Metal Wall Panels over Masonry Wall System: Single-skin concealed fastener metal wall panels applied as exterior rainscreen cladding over a masonry wall. Rigid board insulation specified in other specification section. Applied membrane that provides air, moisture, and water vapor control specified in other specification section. Metal wall panel installation specified in this Section includes secondary metal subgirt framing and mounting clips for panel attachment.
      3. Metal Wall Panels over Uninsulated Framed Screen Wall System: Single-skin concealed fastener vertical metal wall panels applied as exterior barrier cladding over wall framing specified in other specification section. Water-resistive barrier specified in other specification section. Metal wall panel installation specified in this Section includes secondary metal subgirt framing and mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* All CENTRIA Concept Series concealed fastener metal wall panels are suitable for horizontal and vertical installation. Panels are manufactured with a common lock joint design that permits the integration of multiple profiles in one system. Stand-off clips provide a ventilated cavity and a drain plane behind panels when required. Standard lengths are 5 to 30 feet; custom length panels are available on special order. Specify optional factory-applied sealant in vertical panel side laps when added water resistance is required. CENTRIA recommends a complete water-resistant barrier behind horizontal panels. Concept Series panels without added joint sealants function as pressure-equalized rainscreen cladding. For vertical panel and soffit applications and other applications where thermal movement is of minimum concern, Concept Series profiles may be specified with an extended fastener leg for concealed and clipless attachment. This is designated by adding an "E" to the profile name, as shown below. If using more than one metal wall panel, retain the drawing designation below for each panel. If metal types, thicknesses, surfaces, or finish systems differ, add notes below to indicate the metal type, thickness, surface, and finish for each panel on project.

* + 1. Metal Wall Panels, General: Factory-formed, concealed fastener panels with interconnecting side joints, fastened to supports with concealed fasteners, with factory-applied sealant in side laps when required to meet performance requirements.
    2. System Performance Requirements: Provide metal wall panel assemblies meeting performance requirements as determined by application of specified tests by a qualified testing agency on manufacturer's standard assemblies.

\*\* NOTE TO SPECIFIER \*\* Retain Air Infiltration and Water Penetration paragraphs below for those CENTRIA products tested to the referenced standards and installed in vertical applications. Also retain if assembly utilizes CENTRIA metal liner panels to serve as the air and water barrier. Verify with CENTRIA representative.

* + - 1. Air Infiltration: Maximum 0.06 cfm/sq. ft. (0.3 L/s per sq. m) per ASTM E 283 at a static-air-pressure difference of 1.57 lbf/sq. ft. (75 Pa), using minimum 10-by-10 foot (3050-by-3050 mm) test panel that includes side joints.
      2. Water Penetration, Static Pressure: No uncontrolled water penetration per ASTM E 331 at a minimum static differential pressure of 6.24 lbf/sq. ft. (299 Pa), using minimum 10-by-10 foot (3050-by-3050 mm) test panel that includes side joints.
      3. Structural Performance: Provide metal wall panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, per ASTM E 72:

\*\* NOTE TO SPECIFIER \*\* Consult structural engineer and edit below as required by local codes. Insert structural data below if not indicated on drawings.

* + - * 1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
        2. Limits of Deflection: Metal wall panel assembly shall withstand scheduled wind pressure with the following allowable deflection:

Maximum allowable deflection limited to L/180 deflection of panel perimeter normal to plane of wall with no evidence of failure.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below if secondary metal framing is included in work of this Section.

* + - * 1. Secondary Metal Framing: Design secondary metal framing for metal wall panel assembly according to AISI's "Standard for Cold-Formed Steel Framing - General Provisions."

\*\* NOTE TO SPECIFIER \*\* For horizontal applications, and other applications where thermal movement is an issue, retain the requirements below. Retain clip fasteners in Part 2.

* + - 1. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction.

\*\* NOTE TO SPECIFIER \*\* Select metal wall panel face material from three paragraphs below: Galvanized, Aluminum-zinc alloy-coated steel sheet (Galvalume), Aluminum, or Stainless-steel. Consult CENTRIA representative for recommendations.

* + 1. Metallic-Coated Steel Face Sheet: Coil-coated, ASTM A 755/A 755M.
       1. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 (Class Z275), structural steel quality.
       2. Aluminum-zinc alloy-coated Steel Sheet: ASTM A 792/A 792 M, Class AZ50 Grade 50 (Class AZM150, Grade 275), structural steel quality.

\*\* NOTE TO SPECIFIER \*\* Select required metal face sheet thickness from options below. 0.024 inch/24 gage (0.60 mm) thickness is available in CENTRIA CS-260/260E and CS 660/660E panels only. Delete face sheet and surface not required.

* + - 1. Face Sheet: Minimum 0.024 inch/24 gage (0.60 mm) nominal uncoated thickness.
      2. Face Sheet: Minimum 0.030 inch/22 gage (0.76 mm) nominal uncoated thickness.
      3. Face Sheet: Minimum 0.036 inch/20 gage (0.91 mm) nominal uncoated thickness.
      4. Face Sheet: Minimum 0.047 inch/18 gage (1.19 mm) nominal uncoated thickness.
      5. Surface: Smooth.
      6. Surface: Non-Directional Embossed.
    1. Aluminum Face Sheet: Smooth surface coil-coated, ASTM B 209, 3003-H14 or 5052-H32 alloy.

\*\* NOTE TO SPECIFIER \*\* Select required metal face sheet thickness from options below. 0.032 inch thickness is available in CENTRIA CS-260/260E and CS 660/660E panels. Delete face sheet and surface not required.

* + - 1. Face Sheet: 0.032 inch (0.8 mm) nominal thickness.
      2. Face Sheet: 0.040 inch (1.0 mm) nominal thickness.
      3. Face Sheet: 0.050 inch (1.27 mm) nominal thickness.
      4. Surface: Smooth.
      5. Surface: Non-Directional Embossed.

\*\* NOTE TO SPECIFIER \*\* Retain and edit subparagraph below for projects that include requirements for use of recycled content in products. Verify proportion of recycled content with manufacturer.

* + - 1. Aluminum Products Recycled Content: Average of postconsumer recycled content plus one-half of pre-consumer recycled content not less than 50 percent.
    1. Stainless-Steel Face Sheet: ASTM A 666, architectural grade alloy type as indicated.

\*\* NOTE TO SPECIFIER \*\* Select required metal face sheet thickness from options below. 0.024 inch/24 gage (0.60 mm) thickness is available in CENTRIA CS-260/260E and CS 660/660E panels. Delete face sheet not required.

* + - 1. Face Sheet: 0.024 inch/24 gage (0.60 mm) nominal thickness.
      2. Face Sheet: 0.030 inch/22 gage (0.76 mm), nominal thickness.
      3. Face Sheet: 0.036 inch/20 gage (0.91 mm), nominal thickness.

\*\* NOTE TO SPECIFIER \*\* Type 316 alloy is recommended for marine and other corrosive environments.

* + - 1. Alloy: Type 304, bright, non-directional polish, No. 2B.
      2. Alloy: Type 316, bright, non-directional polish, No. 2B.

\*\* NOTE TO SPECIFIER \*\* CENTRIA 200 Series Metal Wall Panels are manufactured in 12 inches (305 mm) widths and are available in standard panel lengths from 5 foot (1524 mm) to 30 foot (9144 mm). Custom length panels are available on special order.

* + 1. Reveal-joint profile with raised flat pan MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-200.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).
    2. Reveal-joint profile with raised flat pan and concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-200E.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).
    3. Double-reveal profile with raised flat pan and rib MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-210.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).
    4. Double-reveal profile with raised flat pan and rib, with concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-210E.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).
    5. Three-rib Profile MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-260.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).
    6. Three-rib profile with concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-260E.
       2. Panel Coverage: 12 inches (305 mm).
       3. Panel Height: 0.875 inch (22 mm).

\*\* NOTE TO SPECIFIER \*\* CENTRIA 600 Series Metal Wall Panels are manufactured in 16 inches (406 mm) widths.

* + 1. Double-reveal profile with raised flat pan and rib MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-610.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).
    2. Double-reveal profile with raised flat pan and rib, with concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-610E.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).
    3. Double-reveal profile with evenly-spaced raised flat pan between reveals MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-620.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).
    4. Double-reveal profile with evenly-spaced raised flat pan between reveals and concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-620E.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).
    5. Four-rib profile with recessed flat pan between ribs MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-660.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).
    6. Four-rib profile with recessed flat pan between ribs and concealed extended fastener leg MWP#\_\_\_:
       1. Basis of Design Product: CENTRIA, CS-660E.
       2. Panel Coverage: 16 inches (406 mm).
       3. Panel Height: 0.875 inch (22 mm).

\*\* NOTE TO SPECIFIER \*\* Select metallic-coated steel face sheet or aluminum face sheet finish system from options below. AAMA 620 is aluminum sheet finish standard; AAMA 621 is metallic-coated steel sheet finish standard. Delete all finish options if specifying stainless steel face sheet. Delete reference standard not required.

* + 1. Exposed Coil-Coated Finish System:
       1. Fluoropolymer Two-Coat System: 0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat.
          1. AAMA 620.
          2. AAMA 621.
          3. Basis of Design: CENTRIA Fluorofinish.
       2. Fluoropolymer Two-Coat System: 0.8 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat.
          1. AAMA 620.
          2. AAMA 621.
          3. Basis of Design: CENTRIA Duraguard.
       3. Fluoropolymer Three-Coat System: 0.8 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat, and a 0.8 mil 70 percent PVDF fluoropolymer clear coat.
          1. AAMA 620.
          2. AAMA 621.
          3. Basis of Design: CENTRIA Duraguard Plus.
       4. Fluoropolymer Two-Coat Mica System: 0.25-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat providing a pearlescent appearance.
          1. AAMA 620.
          2. AAMA 621.
          3. Basis of Design: CENTRIA Sundance Mica.
       5. Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5-mil 70 percent PVDF fluoropolymer clear coat.
          1. AAMA 620.
          2. AAMA 621.
          3. Basis of Design: CENTRIA Sundance AM.

\*\* NOTE TO SPECIFIER \*\* The three CENTRIA Versacor systems below are recommended for corrosive and abusive environments. Select system and one of three options for panel interior finish based on exposure and environmental conditions. Consult CENTRIA representative for recommended finish system. Delete finish not required.

* + - 1. Fluoropolymer Two-Coat Corrosion and Abrasion Resistant System: 3.0 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat
         1. Interior Finish: 3.0 mil primer and wash coat topcoat.
         2. Interior Finish: 3.0 mil primer and polyester topcoat.
         3. Interior Finish: 3.0 mil primer and urethane topcoat.
         4. Basis of Design: CENTRIA Versacor Ultra PF.
      2. Urethane Two-Coat Corrosion and Abrasion Resistant System: 3.0 mil primer with 1.5 mil urethane color coat.
         1. Interior Finish: 3.0 mil primer and wash coat topcoat.
         2. Interior Finish: 3.0 mil primer and polyester topcoat.
         3. Interior Finish: 3.0 mil primer and urethane topcoat.
         4. Basis of Design: CENTRIA Versacor Ultra TF.
      3. Urethane Two-Coat Plus Corrosion and Abrasion Resistant System: 3.0 mil primer with 3.0 mil urethane color coat.
         1. Interior Finish: 3.0 mil primer and wash coat topcoat.
         2. Interior Finish: 3.0 mil primer and polyester topcoat.
         3. Interior Finish: 3.0 mil primer and urethane topcoat.
         4. Basis of Design: CENTRIA Versacor Ultra HF.
      4. Fluoropolymer Three Coat System: 0.2 mil primer with a 0.5 mil polyester base coat and a 0.8 mil nominal PVDF fluoropolymer top coat providing an iridescent finish.
         1. Basis of Design: CENTRIA KolorShift.
    1. Color:

\*\* NOTE TO SPECIFIER \*\* Delete exterior and interior surface finish color requirements not required.

* + - 1. Exterior Surface: As indicated.
      2. Exterior Surface: As selected by Architect from manufacturer's standard colors.
      3. Exterior Surface: Match Architect's custom color.
      4. Interior Surface: Manufacturer's standard primer color.
      5. Interior Surface: As indicated.
      6. Interior Surface: As selected by Architect from manufacturer's standard colors.
      7. Interior Surface: Match Architect's custom color.

\*\* NOTE TO SPECIFIER \*\* Retain this Article if liner panel is required on interior of framing assembly. Standard lengths are 5 foot (1524 mm) to 30 foot (9144 mm); custom length panels are available on special order. Deeper liner panels may be used in conjunction with thicker insulation. Delete material and sheet thickness not required.

* 1. LINER PANELS
     1. Metal Liner Panels, General: Factory-formed panels with interconnecting side joints, fastened to supports with fasteners.

\*\* NOTE TO SPECIFIER \*\* Delete material not required.

* + - 1. Material: Zinc-Coated (Galvanized) Steel Sheet.
      2. Material: Aluminum-zinc alloy-coated Steel Sheet.

\*\* NOTE TO SPECIFIER \*\* Delete face sheet not required.

* + - 1. Face Sheet: Minimum 0.024 inch/24 gage (0.60 mm) nominal uncoated thickness.
      2. Face Sheet: Minimum 0.030 inch/22 gage (0.76 mm) nominal uncoated thickness.
      3. Face Sheet: Minimum 0.036 inch/20 gage (0.91 mm) nominal uncoated thickness.
      4. Face Sheet: Minimum 0.047 inch/18 gage (1.19 mm) nominal uncoated thickness.

\*\* NOTE TO SPECIFIER \*\* Delete panel not required.

* + - 1. Panel Sheet: Solid.
      2. Panel Sheet: Perforated, with 10 percent free area.

\*\* NOTE TO SPECIFIER \*\* Delete surface not required.

* + - 1. Surface: Smooth.
      2. Surface: Non-Directional Embossed.

\*\* NOTE TO SPECIFIER \*\* Delete metal liner panel not required.

* + 1. Metal liner panel MLP#\_\_\_:
       1. Basis of Design Product: CENTRIA, L2.
       2. Panel Coverage: 24 inches (610 mm).
       3. Panel Height: 1-3/8 inches (35 mm).
       4. Stiffening Beads: Two.
    2. Metal liner panel MLP#\_\_\_:
       1. Basis of Design Product: CENTRIA, L2-2.
       2. Panel Coverage: 24 inches (610 mm).
       3. Panel Height: 2 inches (50 mm).
       4. Stiffening Beads: Two.
    3. Metal liner panel MLP#\_\_\_:
       1. Basis of Design Product: CENTRIA, L2-3.
       2. Panel Coverage: 24 inches (610 mm).
       3. Panel Height: 3 inches (76 mm).
       4. Stiffening Beads: Two.

\*\* NOTE TO SPECIFIER \*\* Delete finish system not required.

* + 1. Exposed Coil-Coated Finish System:
       1. Fluoropolymer Two-Coat System: 0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat, AAMA 621.
          1. Basis of Design: CENTRIA Fluorofinish.
       2. Fluoropolymer Two-Coat System: 0.8 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat, AAMA 621.
          1. Basis of Design: CENTRIA Duraguard.
       3. Fluoropolymer Three-Coat System: 0.8 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat, and a 0.8 mil 70 percent PVDF fluoropolymer clear coat, AAMA 621.
          1. Basis of Design: CENTRIA Duraguard Plus.
       4. Fluoropolymer Two-Coat Mica System: 0.25-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat providing a pearlescent appearance, AAMA 621.
          1. Basis of Design: CENTRIA Sundance Mica.
       5. Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5-mil 70 percent PVDF fluoropolymer clear coat, AAMA 621.
          1. Basis of Design: CENTRIA Sundance AM.

\*\* NOTE TO SPECIFIER \*\* The three CENTRIA Versacor systems below are recommended for corrosive and abusive environments. Select system and one of three options for panel interior finish based on exposure and environmental conditions. Consult CENTRIA representative for recommended finish system.

* + - 1. Fluoropolymer Two-Coat Corrosion and Abrasion Resistant System: 3.0 mil epoxy-modified primer with 0.8 mil 70 percent PVDF fluoropolymer color coat
         1. Basis of Design: CENTRIA Versacor Ultra PF.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Interior Exposed Finish: 3.0 mil primer and wash coat topcoat.
        2. Interior Exposed Finish: 3.0 mil primer and polyester topcoat.
        3. Interior Exposed Finish: 3.0 mil primer and urethane topcoat.
      1. Urethane Two-Coat Corrosion and Abrasion Resistant System: 3.0 mil primer with 1.5 mil urethane color coat.
         1. Basis of Design: CENTRIA Versacor Ultra TF.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Interior Exposed Finish: 3.0 mil primer and wash coat topcoat.
        2. Interior Exposed Finish: 3.0 mil primer and polyester topcoat.
        3. Interior Exposed Finish: 3.0 mil primer and urethane topcoat.
      1. Urethane Two-Coat Plus Corrosion and Abrasion Resistant System: 3.0 mil primer with 3.0 mil urethane color coat.
         1. Basis of Design: CENTRIA Versacor Ultra HF.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Interior Exposed Finish: 3.0 mil primer and wash coat topcoat.
        2. Interior Exposed Finish: 3.0 mil primer and polyester topcoat.
        3. Interior Exposed Finish: 3.0 mil primer and urethane topcoat.
      1. Fluoropolymer Three Coat System: 0.2 mil primer with a 0.5 mil polyester base coat and a 0.8 mil nominal PVDF fluoropolymer top coat providing an iridescent finish.
         1. Basis of Design: CENTRIA KolorShift.
    1. Color:

\*\* NOTE TO SPECIFIER \*\* Delete surface finish color requirements not required.

* + - 1. Interior Exposed Surface: As indicated.
      2. Interior Exposed Surface: As selected by Architect from manufacturer's standard colors.
      3. Interior Exposed Surface: Match Architect's custom color.
      4. Concealed Surface: Manufacturer's standard primer color.

\*\* NOTE TO SPECIFIER \*\* The Intercept V-Trac Modular Panel System offers a high quality, monolithic design that delivers performance similar to Entyre. The concealed fastener system panels are installed sequentially over a vertical carrier track (gullwing) and are suspended from the top using a clip attachment at panel ends. Three material options are available.060" aluminum, 1.5mm zinc and a selection of class I anodized finishes. CENTRIA Intercept V-Trac modular metal panels are available in lengths up to 144 inches with a maximum width of 48 inches for horizontal applications or a maximum length of 48 inches with a maximum width of 144 inches for vertical applications. Please consult CENTRIA to determine any additional limitations based on project loads and design.

* 1. CONCEALED FASTENER, TRACK MOUNTED MODULAR WALL PANEL SYSTEM
     1. Basis of Design: CENTRIA Intercept V-Trac Modular Metal Wall Panel System. Provide basis of design product, or comparable product approved by Architect prior to bid.
     2. Modular Metal Panel Wall System: Rainscreen design consisting of dry seal joinery, attachment system components, and associated accessories necessary to minimize water penetration and induce air circulation in the space behind the panel system. Moisture weeping trim at panel base details allows water to drain out of the system.
     3. Modular metal wall panel system consisting of aluminum panels in a rainscreen application as part of the assembly described below.

\*\* NOTE TO SPECIFIER \*\* Retain one or more of four wall assembly descriptions below that correspond to Project Requirements; edit as required. Paragraph below describes installation of metal wall panels over CENTRIA MetalWrap backup system.

* + - 1. Modular Metal Wall Panels over Insulated-Composite Backup Panel Wall System:
         1. Applied as exterior rainscreen cladding component of a metal wall panel system.
         2. Includes insulated composite metal wall backup panels specified in Division 07 Section "Insulated-Composite Metal Wall Panel Backup System."
         3. Metal wall backup panels provide thermal, air, water, and water vapor control.
         4. Metal wall panel installation specified in this Section includes secondary metal subgirt framing for panel attachment.
      2. Modular Metal Wall Panels over Multi-Component Framed Wall System:
         1. Applied as exterior rainscreen cladding over wall framing specified in Division 05 Section "Cold-Formed Metal Framing."
         2. Exterior sheathing specified in Division 06 Section "Sheathing."
         3. An applied membrane providing air, moisture, and water vapor control specified in Division 07 Section "Air Barriers"
         4. Insulation within the framing specified in Division 07 Section "Thermal Insulation."
         5. Metal wall panel installation includes mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide secondary metal subgirt framing.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
      1. Modular Metal Wall Panels over Outside-Insulated Framed Wall System:
         1. Applied as exterior rainscreen cladding over wall framing specified in Division 05 Section "Cold-Formed Metal Framing."
         2. Exterior sheathing specified in Division 06 Section "Sheathing. "
         3. An applied membrane providing air, moisture, and water vapor control specified in Division 07 Section "Air Barriers."
         4. Insulation applied outboard of the sheathing specified in Division 07 Section "Thermal Insulation."
         5. Metal wall panel installation includes mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide secondary metal subgirt framing.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
      1. Modular Metal Wall Panels over Masonry Wall System:
         1. Applied as exterior rainscreen cladding over a masonry wall specified in Division 04 Section "Unit Masonry."
         2. An applied membrane providing air, moisture, and water vapor control specified in Division 07 Section "Air Barriers."
         3. Metal wall panel installation includes secondary metal subgirt framing for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide rigid board insulations as specified in Division 04 Section "Unit Masonry."

\*\* NOTE TO SPECIFIER \*\* Retain subparagraphs below for horizontal panels. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
    1. Performance Requirements: Modular metal wall panel system meeting performance requirements as determined by application of specified tests by a qualified testing agency on manufacturer's standard assemblies.
       1. System Performance:
          1. Submit Prior to Bid: A third party test report utilizing standard ASTM E283, E331 and AAMA 501 procedures following the test protocol described in AAMA 508-07.
          2. Test Panel: Must include horizontal joint, with an imperfect air barrier as part of AAMA 508 and ASTM E 331 water penetration testing.

Maximum Pressure for Testing: 15 psf, or 10 percent of maximum positive design pressure.

\*\* NOTE TO SPECIFIER \*\* When specifying rain screen performance, retain one of two paragraphs below. Retain first paragraph if utilizing CENTRIA MetalWrap panel as the substrate for the modular metal panel installation and the wall air/moisture barrier. Retain second paragraph if specifying air/moisture barrier in another section.

* + - * 1. Air/Moisture Barrier: Refer to Division 07 Section "Insulated Core Metal Wall Backup Panel."
        2. Air/Moisture Barrier: Refer to Division 07 air barrier section.
      1. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below if foam plastic insulation is included within the wall system.

* + - 1. Wall systems that incorporate foam plastic insulation must be tested by foam plastic supplier in accordance with NFPA-285.
    1. Modular Metal Panels: Factory-formed, aluminum-faced panels fabricated from aluminum coil coated sheet.
       1. Panel Depth: 1-1/2 inches (38 mm).
       2. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches (0.8 mm in 600 mm) in any direction. Panel lines, breaks, and angles shall be sharp and true, and surfaces shall be free from warp or buckle.
       3. Stiffeners: Manufacturer's standard stiffener as required to meet flatness requirements.
       4. Panel Joints: 3/4 inch (19 mm).
       5. Panel Sizes: As indicated on drawings.
       6. Standard System Depth: 2-1/2 inches (63.5 mm).
    2. Material: Aluminum Sheet.
       1. Smooth surface coil-coated sheet, ASTM B209, 3105-H14 Alloy.
       2. Aluminum Material: Tension-leveled.
       3. Thickness: 0.060 inch (1.5 mm) nominal.
       4. Weight: Approximately 1lb per square foot.
    3. Aluminum Extrusions: ASTM B 221, 6063 T5 Aluminum.
    4. Aluminum Face Sheet Coil-Coated Finish:

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. Fluoropolymer Two-Coat System: 0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat, AAMA 620.
         1. Basis of Design: CENTRIA Fluorofinish.
      2. Fluoropolymer Two-Coat Mica System: 0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat providing a pearlescent appearance, AAMA 620.
         1. Basis of Design: CENTRIA Sundance Mica.
      3. Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5-mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
         1. Basis of Design: CENTRIA Sundance AM.
      4. Fluoropolymer Three Coat System: 0.2 mil primer with a 0.5 mil polyester base coat and a 0.8 mil nominal PVDF fluoropolymer top coat providing an iridescent finish.
         1. Basis of Design: CENTRIA KolorShift.
    1. Unexposed Finish: Manufacturer's standard nominal 0.5 mil (0.0127 mm) nominal DFT backer coating.
    2. Exposed Trim, flashings and Fastener Finish: Match panel finish.
       1. Thickness: 0.060 inch (1.5 mm) nominal.
       2. Refer to section 07 62 00.
    3. Accessories: Provide manufacturer's factory-formed clips, shims, flashings, sealants, and tapes for a complete installation.
    4. Fabrication - General: Fabricate modular metal panels and accessories at factory identical to tested units. Use manufacturer's standard procedures and processes necessary to meet performance requirements.
       1. Provide components that are products of one manufacturer, including modular metal panels, extrusions, head and sill trim, bottom weep, base extrusion, and metal copings.
       2. Modular Metal Panels: Fabricate with extruded aluminum stiffeners requiring no further fabrication or modification in field.
          1. Horizontal Joints: Dry seal, drained and pressure equalized.
          2. Vertical Joints: Pre-formed panel returns and aluminum extrusion.
          3. Reveals: 3/4 inch (19 mm) wide.
          4. Standard System Depth: 2-1/4 inches (63.5 mm)

\*\* NOTE TO SPECIFIER \*\* The Intercept Entyre Modular Panel System offers innovation excellence with a continuous engagement extrusion and concealed fasteners that work in conjunction with sequentially installed modular panel units. Material options include: .060" aluminum, 1.5mm zinc and class I anodized aluminum. Delete if not required.

* 1. CONCEALED FASTENER, CONTINUES ENGAGEMENT MODULAR WALL PANEL SYSTEM.
     1. Basis of Design: CENTRIA Intercept Entyre Modular Metal Wall Panel System. Provide basis of design product, or comparable product approved by Architect prior to bid.
     2. System Description: Modular metal wall panel system consisting of aluminum panels in a rainscreen application as part of the assembly described below.

\*\* NOTE TO SPECIFIER \*\* Retain one or more of four wall assembly descriptions below that correspond to Project Requirements; edit as required. Paragraph (1) below describes installation of metal wall panels over CENTRIA MetalWrap backup system.

* + - 1. Modular Metal Wall Panels over Insulated-Composite Backup Panel Wall System: Modular metal wall panels applied as the exterior rainscreen cladding component of a metal wall panel system that includes insulated composite metal wall backup panels specified in Division 07 Section "Insulated-Composite Metal Wall Panel Backup System." Metal wall backup panels provide thermal, air, water, and water vapor control. Metal wall panel installation specified in this Section includes secondary metal subgirt framing for panel attachment.
      2. Modular Metal Wall Panels over Multi-Component Framed Wall System: Modular metal wall panels applied as exterior rainscreen cladding over wall framing specified in Division 05 Section "Cold-Formed Metal Framing" with exterior sheathing specified in Division 06 Section "Sheathing", an applied membrane that provides air, moisture, and water vapor control specified in Division 07 Section "Air Barriers", and insulation within the framing specified in Division 07 Section "Thermal Insulation". Metal wall panel installation specified in this Section includes mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide secondary metal subgirt framing.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
      1. Modular Metal Wall Panels over Outside-Insulated Framed Wall System: Modular metal panels applied as exterior rainscreen cladding over wall framing specified in Division 05 Section "Cold-Formed Metal Framing" with exterior sheathing specified in Division 06 Section "Sheathing", an applied membrane that provides air, moisture, and water vapor control specified in Division 07 Section "Air Barriers", and insulation applied outboard of the sheathing specified in Division 07 Section "Thermal Insulation". Metal wall panel installation specified in this Section includes mounting clips for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide secondary metal subgirt framing.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide insulation within the framing.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraphs below. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
      1. Modular Metal Wall Panels over Masonry Wall System: Modular metal wall panels applied as exterior rainscreen cladding over a masonry wall specified in Division 04 Section "Unit Masonry" and an applied membrane that provides air, moisture, and water vapor control specified in Division 07 Section "Air Barriers". Metal wall panel installation specified in this Section includes secondary metal subgirt framing for panel attachment.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide rigid board insulations as specified in Division 04 Section "Unit Masonry".

\*\* NOTE TO SPECIFIER \*\* Retain subparagraphs below. Product is not by CENTRIA.

* + - * 1. Water-resistive barrier is provided under Division 07 Section "Weather Barriers."
        2. Air, moisture, and water vapor control membrane is provided under Division 07 Section "Air Barriers."
    1. Performance Requirements:
       1. General: Provide modular metal wall panel system meeting performance requirements as determined by application of specified tests by a qualified testing agency on manufacturer's standard assemblies.
       2. Structural Performance: Design modular metal wall panel system fabricated to withstand the effects of wind loads under conditions indicated below.

\*\* NOTE TO SPECIFIER \*\* Consult structural engineer and edit below as required by local codes. Insert structural data below if not indicated on drawings.

* + - * 1. Wind Loads: Determine loads based on uniform pressure, building category, exposure category, and basic wind speed indicated on drawings.

\*\* NOTE TO SPECIFIER \*\* When specifying rain screen performance, retain one of two paragraphs below. Retain first paragraph if utilizing CENTRIA MetalWrap panel as the substrate for the modular metal panel installation and the wall air/moisture barrier. Retain second paragraph if specifying air/moisture barrier in another section.

* + - * 1. Air/Moisture Barrier: Refer to Division 07 Section "Insulated-Composite Metal Wall Panel Backup system".
        2. Air/Moisture Barrier: Refer to Division 07 "Air Barrier" section.
      1. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below if foam plastic insulation is included within the wall system.

* + - 1. Wall systems that incorporate foam plastic insulation must be tested by the foam plastic supplier in accordance with NFPA-285.

\*\* NOTE TO SPECIFIER \*\* CENTRIA Intercept Entyre modular metal panels are available in lengths up to 126 inches with a maximum width of 42 inches for horizontal applications. Please consult CENTRIA for vertical panel applications, and to determine any additional limitations based on project loads and design.

* + 1. Modular Metal Panels: Factory-formed, aluminum-faced panels fabricated from 0.060 inch (1.5 mm) thick aluminum coil coated sheet.
       1. Panel Depth: 1-3/8 inches (35 mm).
       2. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches (0.813 mm in 610 mm) in any direction. Panel lines, breaks, and angles shall be sharp and true, and surfaces shall be free from warp or buckle.
       3. Clips: Manufacturer's standard clips as required to meet performance requirements.
       4. Panel Joints: 3/4 inch(19 mm)
       5. Panel Sizes: As indicated on drawings.
    2. Material: Aluminum Sheet
       1. Smooth surface coil-coated sheet, ASTM B209, 3105-H14 Alloy.
       2. Aluminum Material: Tension-leveled.
       3. Thickness: 0.060 inch (1.5 mm) nominal.
       4. Weight: Approximately 1lb per square foot.
    3. Aluminum Face Sheet Coil-Coated Finish:

\*\* NOTE TO SPECIFIER \*\* Delete finish system not required.

* + - 1. Fluoropolymer Two-Coat System: 0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat, AAMA 620.
         1. Basis of Design: CENTRIA Fluorofinish.
      2. Fluoropolymer Two-Coat Mica System:0.2-mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat providing a pearlescent appearance, AAMA 620.
         1. Basis of Design: CENTRIA Sundance Mica.
      3. Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8-mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5-mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
         1. Basis of Design: CENTRIA Sundance AM.
      4. Fluoropolymer Three Coat System: 0.2 mil primer with a 0.5 mil polyester base coat and a 0.8 mil nominal PVDF fluoropolymer top coat providing an iridescent finish.
         1. Basis of Design: CENTRIA KolorShift.

\*\* NOTE TO SPECIFIER \*\* Delete color provision not required.

* + - 1. Color: As selected by Architect from manufacturer's standard colors.
      2. Color: Match Architect's custom color.
    1. Unexposed Finish: Manufacturer's standard nominal 0.5 mil nominal DFT backer coating.
    2. Exposed Trim, flashings and Fastener Finish: Match panel finish.
       1. Thickness: 0.060 inch (1.5 mm) nominal
       2. Refer to section 07 6200
    3. Fabrication: Fabricate modular metal panels requiring no further fabrication or modification in field.
       1. Horizontal Joints: Dry seal, drained and back ventilated.
       2. Vertical Joints: Pre-formed returns
       3. Reveals: 3/4 inch (19 mm)
       4. Standard System Depth: 1-3/8 inches (35 mm)
  1. METAL WALL PANEL ACCESSORlES

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below when metal wall panels are used in conjunction with CENTRIA MetalWrap metal wall panel backup system, which provides a one-step insulated substrate incorporating watertight joints and air/vapor control. Delete if not required,

* + 1. Metal Wall Panel Backup System: Refer to related specification section for requirements,
    2. Metal Wall Panel Accessories, General: Provide complete metal wall panel assembly incorporating trim, copings, fasciae, parapet caps, soffits, sills, inside and outside corners, and miscellaneous flashings. Provide manufacturer's factory-formed clips, shims, flashings, gaskets, lap tapes, closure strips, and caps for a complete installation. Fabricate and install accessories in accordance with SMACNA Manual.

\*\* NOTE TO SPECIFIER \*\* CENTRIA offers Microline Extrusions, an extensive line of complementary extruded trims that integrate both visually and mechanically with CENTRIA profile panels. Delete if not required,

* + 1. Extruded Trim: Manufacturer's complementary aluminum extrusions for head, jamb, sill, base, flush, reveal, inside and outside corner, endwall, and expansion joint details. Finish to match metal wall panels.
       1. Basis of Design: CENTRIA, Microline Extrusions.

\*\* NOTE TO SPECIFIER \*\* CENTRIA offers MicroSeam Corners, a popular design feature that accentuates horizontal lines by eliminating trim at corners. Delete if not required,

* + 1. Mitered Corners: Structurally-bonded horizontal interior and exterior trimless corners matching metal wall panel material, profile, and factory-applied finish, fabricated and finished by metal wall panel manufacturer.
       1. Welded, riveted, fastened, or field- fabricated corners do not meet the requirements of this specification.
       2. Basis of Design: CENTRIA, MicroSeam Corners.
    2. Formed Flashing and Trim: Match material, thickness, and color of metal wall panel face sheets.
    3. Sealants: Type recommended by metal wall panel manufacturer for application, meeting requirements of Joint Sealants section.
    4. Flashing Tape: 4 inches (102 mm) wide self-adhering butyl flashing tape.
    5. Fasteners, General: Self-tapping screws, bolts, nuts, and other acceptable fasteners recommended by panel manufacturer. Where exposed fasteners cannot be avoided for miscellaneous applications, supply corrosion-resistant fasteners with heads matching color of metal wall panels by means factory-applied coating.
    6. Concealed Clips: Galvanized steel, 0.051 inch/16 gauge (1.3 mm) thick, designed to allow unimpeded thermal movement of panel and configured to hold panel minimum 1/2 inch (13 mm) from substrate.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. WALL LOUVER UNITS
     1. Wall Louvers, General: Metal louvers, designed to integrate with metal wall panel profile and secondary support system without receptor channels or other flashing, of types and performance indicated.

\*\* NOTE TO SPECIFIER \*\* Select options and edit below as required for Project. Coordinate with HVAC engineer. Indicate size on Drawings. Integral louvers are available with CS-260 and CS-660 panels only.

* + 1. Horizontal, Drainable-Blade Fixed Louver:
       1. Louver Size: As indicated on Drawings.
       2. Louver Depth: Match metal wall panel system depth.
       3. Free Area: 30 percent.
    2. Base Metal and Finish:
       1. Match metal wall panel base metal and finish.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below if required, and select screen type. Bird screen is typically required; insect screen requires maintenance to ensure air flow. Delete screen not required.

* + 1. Louver Screens: Mounted in removable aluminum frame.
       1. Bird Screen: 1/2-inch (12 mm) mesh aluminum, crimped.
       2. Insect Screen: 14-18 mesh aluminum, crimped.
  1. SECONDARY METAL SUBGIRT FRAMING

\*\* NOTE TO SPECIFIER \*\* Use with concealed fastener metal wall panels. Delete if not required.

* + 1. Miscellaneous Framing Components, General: Cold-formed metallic-coated steel sheet, ASTM A 653/A 653M, G90 (Z180).
       1. Hat Channels: 0.053 inch/16 gauge (1.34 mm) minimum.
       2. Sill Channels: 0.053 inch/16 gauge (1.34 mm) minimum.

\*\* NOTE TO SPECIFIER \*\* Use with concealed fastener metal rainscreen wall panels (V-Trak and Entyre). Delete if not required.

* + 1. Miscellaneous Framing Components, General: Cold-formed metallic-coated steel sheet, ASTM C 645, Grade 50, with ASTM A 653/A 653M, G90 (Z180) hot-dip galvanized zinc coating.
       1. Hat Channels: 0.0451 inch/18 gauge (1.15 mm) minimum.
       2. Sill Channels: 0.0451 inch/18 gauge (1.15 mm) minimum.

1. EXECUTION
   1. EXAMINATION
      1. Examine wall panel substrate with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal wall panels.
      2. Wall Substrate: Confirm that wall substrate is within tolerances acceptable to metal wall panel system manufacturer.
         1. Maximum substrate and framing deviations from flat plane acceptable:
            1. 1/4-inch in 20 feet (6 mm in 6 m) vertically or horizontally.
            2. 1/2-inch (13 mm) across building elevation.
            3. 1/8-inch in 5 feet (3 mm in 1.5 m).

\*\* NOTE TO SPECIFIER \*\* Retain one, two, or three following paragraphs as appropriate to Project.

* + 1. Framing: Inspect framing that will support metal wall panels to determine if support components are installed as indicated on approved shop drawings. Confirm presence of acceptable framing members at recommended spacing to match installation requirements of metal wall panels.
    2. Air/Moisture Barriers: Confirm that work has been completed, inspected, and tested as required.
    3. Openings: Verify that window, door, louver and other penetrations match layout on shop drawings.
    4. Correct out-of-tolerance work and other deficient conditions prior to proceeding with metal wall panel system installation.

\*\* NOTE TO SPECIFIER \*\* Retain article if secondary framing is part of work of this Section.

* 1. SECONDARY FRAMING INSTALLATION
     1. Secondary Metal Subgirt Framing: Install secondary metal framing components to tolerances indicated, as shown on approved shop drawings. Install secondary metal framing and other metal panel supports per ASTM C 1007 and metal wall panel manufacturer's recommendations.

\*\* NOTE TO SPECIFIER \*\* V-Trak installation requirements. Delete if not required.

* 1. METAL WALL PANEL INSTALLATION
     1. General: Install metal wall panels in accordance with approved shop drawings and manufacturer's recommendations. Install metal wall panels in orientation, sizes, and locations indicated. Anchor metal wall panels and other components securely in place. Provide for thermal and structural movement:

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below if utilizing CENTRIA MetalWrap panels.

* + - 1. Insulated-Composite Metal Wall Backup Panels: Install in accordance with requirements of related section for Insulated-Composite Metal Wall Backup Panels.
    1. Attach panels to metal framing using recommended clips, screws, fasteners, sealants, and adhesives indicated on approved shop drawings.
       1. Fasteners for Steel Wall Panels: Stainless-steel for exterior locations and locations exposed to moisture; carbon steel for interior use only.
       2. Fasten metal wall panels to supports with concealed clips at each joint at location, spacing, and with fasteners recommended by manufacturer. Install clips to supports with self-tapping fasteners.
       3. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.
       4. Dissimilar Materials: Where elements of metal wall panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by manufacturer.
    2. Joint Sealers: Install joint sealants where indicated on approved shop drawings.

\*\* NOTE TO SPECIFIER \*\* Entyre installation requirements. Delete if not required.

* 1. METAL WALL PANEL INSTALLATION
     1. General: Install modular metal panel system in accordance with approved shop drawings and manufacturer's recommendations.
     2. Installation: Attach panels to metal sub-framing using recommended clips, screws, fasteners, sealants, and adhesives indicated on approved shop drawings.
        1. Horizontal Joinery: Working from base of installation to top, connect upper panel to lower panel at joinery.
        2. Vertical Joinery: Provide reveal between vertical ends of panels as shown on shop drawings.
        3. Galvanic Action: Where elements of modular metal wall system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by manufacturer.
     3. Rainscreen Installation: Proceed with installation of manufacturer's dry seal horizontal joinery.
  2. ACCESSORY INSTALLATION
     1. General: Install metal wall panel accessories with positive anchorage to building and provide for thermal expansion. Coordinate installation with flashings and other components.
        1. Install related flashings and sheet metal trim per requirements of section Sheet Metal Flashing and Trim.
        2. Install components required for a complete metal wall panel assembly, including trim, copings, corners, lap strips, flashings, sealants, fillers, closure strips, and similar items.
        3. Comply with performance requirements and manufacturer's written installation instructions.
        4. Provide concealed fasteners except where noted on approved shop drawings.
        5. Set units true to line and level as indicated.
  3. FIELD QUALITY CONTROL

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below when scope and complexity of metal wall panel installation justifies inspection expense.

* + 1. Manufacturer's Field Service: Engage a service representative authorized by metal wall panel manufacturer to inspect completed installation. Submit written report.
    2. Correct deficiencies noted in manufacturer's report.
  1. CLEANING AND PROTECTION
     1. Remove temporary protective films. Clean finished surfaces as recommended by metal wall panel manufacturer. Clear weep holes and drainage channels of obstructions, dirt, and sealant. Maintain in a clean condition during construction.
     2. Replace damaged panels and accessories that cannot be repaired by finish touch-up or minor repair.

END OF SECTION