



Column Covers
Section 05 58 13

ECMS-CC Series – Master Specification
East Coast Metal Systems, Inc.
www.ecmsinc.net

PART 1 – GENERAL

1.1 Related Documents

A. Drawings and general provisions of the Contract, including General Conditions, Division 01 – General Requirements, and other applicable specification sections in the Project Manual apply to the work specified in this Section

1.2 Summary

A. Column Covers; Scope – Provide design and engineering, labor, material, equipment and related services and supervision, including, but not limited to, manufacturing, fabrication, erection and installation for formed metal column covers as required for the complete performance of the work, and as shown on the Drawings and as herein specified

B. Formed metal column covers are defined to include the following
<Choose desired column cover design>

1.3 References

- A. General
 - 1. Publications are referred to by the basic designation only
- B. AAMA
 - 1. AAMA 611, Voluntary Specifications for Anodized Architectural Aluminum
 - 2. AAMA 2605, Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels
- C. National Association of Architectural Metal Manufacturers (NAAMM)
 - 1. NAAMM Metal Finishes Manual

1.4 Performance Requirements

A. General Performance: Metal-faced formed metal assemblies shall comply with performance requirements without failure due to defective manufacture, fabrication, installation or other defects in construction

B. Structural Performance: Provide metal-faced formed column covers capable of withstanding the effects of the following loads and stresses within limits and under conditions indicated, according to ASTM E 330

- 1. Wind loads: Determine loads based on the following minimum design wind pressures



- a. Uniform pressure of 30 psf, acting inward or outward
- 2. Deflection limits: Metal-faced column cover assemblies shall withstand wind loads with horizontal deflections no greater than $L/175$ of the span at the perimeter on $L/60$ of the span anywhere in the panel
- C. Thermal Movement:** allow for thermal movement resulting from the following maximum change (range) in ambient and surface temperatures in engineering, fabricating and installing metal fabrications to prevent buckling, opening of joints, overstressing of components and connections and other detrimental effects. Base engineering calculation on actual surface temperatures of materials due to both solar heat gain and nighttime sky heat loss
 - 1. Temperature change (range) 120° F ambient, 180° for material surfaces
- D. Control of Corrosion** – prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials

1.5 Submittals

- A. Product Data** – Submit product data showing material proposed. Submit sufficient information to determine compliance with the Drawings and Specifications. Product data shall include, but shall not be limited to, manufacturer’s product specifications, **standard details, installation instructions** and general recommendations for components and the system
- B. Shop Drawings** – Submit shop drawings for each column cover design and accessory as specified. Include information not fully detailed in manufacturer’s standard product data including dimensional layouts, details of framing, edge conditions, joints, custom profiles, supports, anchorages, trim flashings and closures. Distinguish between factory-assembled and field-assembled scope.
- C. Samples**
 - 1. Submit samples for initial color selection for all specified finishes. Submit samples from color chart and actual samples approximately 2” x 4” or larger
 - 2. Samples of each profile, pattern or color to be presented on metal of the same alloy and thickness. Where required, present samples showing the full range of variations expected. As required provide additional samples to show design, fabrication techniques and workmanship.
- D. Quality Control Submittals**
 - 1. Submit qualification data, as required to demonstrate capabilities and experience.
- E. LEED Submittals** – Submittals that are required to comply with requirements for LEED certification, include:
 - 1. MR 4.1 – Recycled content materials: provide product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.
 - 2. MR 5.1, 5.2 – Regional Materials: provide product data for regional materials indicating location and distance from project of material manufacturer and point of extraction for each raw material. Distance shall be within 500 miles of the project site. Include statement indicating cost



for each regional material and, if applicable, the fraction by weight that is considered regional.

3. MR 4.2 – Low-emitting materials: submit certification by the manufacturer confirming that products (i.e. adhesives, sealants, paints, coatings, etc.) meet or exceed the volatile organic compound (VOC) limits set by specific agencies or other requirements outlined in the Green Building Rating System. VOC limits shall be clearly stated in the submittal.

1.6 Quality Assurance

A. Qualifications

1. **Manufacturer Qualifications:** Manufacturer shall be a firm engaged in the manufacture of column covers of types and sizes required, and whose products have been in satisfactory use in similar service for a minimum of five years.
2. **Installer Qualifications:** Installer shall be a firm with a minimum of five years of successful installation experience with projects utilizing products similar in type and scope to that required for this project and shall be approved by the Manufacturer.
3. **Single Source Responsibility:** Products in this specification shall be provided from a single source and of consistent quality in appearance and physical properties.

1.7 Delivery, Storage and Handling

- A.** Deliver materials to the project site in manufacturer's original crates or containers, labeled with manufacturer's name, material or product brand name and order number.
- B.** Store materials in their original containers, inside a well ventilated area protected from weather, moisture, soiling, extreme temperatures and humidity

1.8 Project Conditions

- A.** **Field Measurements:** Installing contractor shall take field measurements prior to fabrication of the work and preparation of shop drawings to ensure proper fitting of the work. Field measurements will be shown on the final shop drawings. Installer and Architect shall be notified of any dimensions which are not within specified tolerances in the Contract Documents, prior to proceeding with the fabrication.

1.9 Warranty

- A.** Standard one-year workmanship warranty

PART 2 – PRODUCTS

2.1 Manufacturers – Basis of Design: [MCM/ACM], [Aluminum Plate], [Stainless Steel], ECMS-CC Series, as manufactured by East Coast Metal Systems, Inc. 625 Distribution Road, Triadelphia, WV 26059. Phone: (304) 909-4220, FAX: (304) 909-4242; Website: www.ecmsinc.net. Items specified are to establish a standard of quality for design function, materials and appearance. Substitution requests must be submitted no later than 14 calendar day prior to release of construction documents for bid.



2.2 Materials and Accessories

A. LEED Requirements *(if required)*

1. Recycled Content Materials: provide building materials with recycled content such that post-consumer recycled content combined with one-half of pre-consumer recycled content comprises a minimum of [10%, MR 4.1], [20%, MR 4.1 and MR 4.2] of the cost of materials used for the Project. See LEED Green Building Rating System.
2. Regional Materials: MR 5.1, provide a minimum of [10%, based on cost] or an additional 10% [20%, based on cost] for materials that are regionally extracted, processed and manufactured (within 500 miles of project site).
3. Low Emitting Materials, EQ 4.2: use adhesives, sealants, paints and coatings that comply with LEED limits for VOC content. Refer to LEED Green Building Rating System for VOC content limits.

B. Column Cover Panel *(select desired material from options below)*

1. ACM/MCM: Provide factory formed and assembled, metal faced MCM [*by selected MCM manufacturer*]. [4mm], [6mm] with [PE], [FR] core. FR core should have a flame spread rating of 15 and a smoke developed rating of 30 with a center panel joint; flame spread of 0 and a smoke developed rate of 0 with no joint. Material to be tested in compliance with ASTM E 84, with a Class A building material rating.
 - a. Radius:
 1. PE core: minimum 8 inches, maximum 18 inches
 2. FR core: minimum 8 inches, maximum 18 inches
 2. Aluminum: Thickness of panel material, [.080], [.090], [.125] factory formed and assembled by approved fabricator
 - a. [3003 aluminum alloy, painted panels], [5005 aluminum alloy, anodized panels]
 - b. Radius:
 1. Minimum 8 inches, maximum 18 inches
 3. Stainless Steel [16 ga.], [18 ga.]
 - a. Interior applications [Type 304]
 - b. Radius:
 1. Minimum 8 inches, maximum 18 inches
 - c. Exterior application [Type 316]
 1. Radius:
 - a. Minimum 8 inches, maximum 18 inches
 4. Stiffeners ... as required
 5. Fasteners ... suitable for intended application as determined by site conditions
 6. Accessory brake metal ... as required
 7. Sealants/Caulk – Equal to or equivalent to Dow 756



8. Substrate anchors ...provided by installing contractor appropriate for the application

C. Finishes

1. ACM/MCM: color selected from manufacturer's [standard], [special/premium], [custom] color options
 - a. AAMA 2605, PVDF, 70% Kynar
2. Aluminum: post-painted panel; color specified and approved by architect based on color sample submittals, prior to ordering material for fabrication
 - a. AAMA 2605, PVDF, 70% Kynar
3. Stainless Steel: [#4 brushed], [#8 mirror], [patterned], [custom], as specified; samples to be provided and approved by architect prior to ordering of material for fabrication

D. Systems

1. Hairline Joint (ECMS-CCHJ); Hairline Joint, no caulk; [aluminum], [stainless steel]
2. Caulked Joint (ECMS-CCCJ); Caulked Joint; [ACM PE or FR core], [aluminum], [stainless steel]
3. Trim In-fill Joint (ECMS-CCIJ); [ACM PE or FR core], [aluminum], [stainless steel]
4. Gasket Joint (ECMS-CCGJ); [ACM PE or FR core], [aluminum], [stainless steel]

E. Fabrication: fabricate on CNC routing table and roll-forming equipment as column shape requires; Minimum column length of 12 inches; maximum column section length of 12 feet. Consult East Coast Metal Systems, Product Data Sheet for additional details, by material, for capabilities outside these dimensions.

PART 3 – EXECUTION

3.1 Examination

- A. Verification of Conditions: Examine areas and conditions under which the work is to be installed, and notify the contractor of any conditions detrimental to the proper installation and completion of the work.
1. Beginning of the work shall indicate acceptance of the area and site conditions as satisfactory by the Installer

3.2 Preparation

- A. Coordinate shop drawings, diagrams, templates, instructions and directions for the installation of anchorages that are to be imbedded in concrete or similar construction. Coordinate delivery of accessory items to jobsite.

3.3 Installation

- A. Install column covers in accordance with product data, standard details, fabricator installation instructions and final shop drawings
- B. Do not install column if component parts are defective in any way
- C. Do not cut component parts, during installation, in any manner that would damage the finish, decrease



structural integrity or create a visual imperfection.

D. Install column cover assembly level, plumb to create uniform joints and reveals. Secure to substructure/structure with compatible fasteners, anchors, shims and spacers. Use caution not to damage the column finish

E. Install gaskets, joint fillers, insulation and flashing as the work progresses to meet specifications and intent of installation instructions

F. Anchor component parts securely in place as noted on drawings, by bolts or other permanent mechanical attachment, which comply with performance requirements.

G. Protect all surfaces from corrosion that will be in contact with concrete, masonry or dissimilar metals.

3.4 Cleaning

A. Cleaning: remove temporary protective covering and strippable films (if any) as the work is installed. Upon completion of the installation, clean finished surfaces as recommend by the Fabricator

B. Damaged Columns: Replace work that has been damaged beyond repair by means of finish touch-up methods or repair procedures

1. Restore finishes damaged during installation or construction by other trades so that no evidence remains of the corrective work

3.5 Protection

A. Provide final protection acceptable to the Installer to ensure the columns won't be damaged prior to time of Substantial Completion