



AP400
Aluminum Plate Rainscreen
Guide Specifications

This Guide Specification is derived from Construction Specifications Institute (CSI) *Project Resource Manual* (PRM) following *MasterFormat*™ guidelines. It is a Rollfab specific product specification guide. **Optional text is indicated by brackets []**; delete optional text in final copy of specification. **Specifier Notes** pre-cede specification text; delete notes in final copy of specification. Revise section number and title below to suit project requirements, specification practices and section content. Refer to *CSI Master Format* for other section numbers and titles.

07 4213.16
METAL PLATE WALL PANELS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Metal wall panels and accessories used for exterior wall cladding, parapets, fascia and soffits as the siding component of a rain screen system that also includes a ventilated drainage plane and a vapor-permeable air barrier provided under separate contracts.

Note: Revise Paragraph below to suit project requirements. Add section numbers and titles per CSI Master Format and specifiers practice.

- B. Related Requirements:

Note: Include in this Paragraph only those sections and documents that directly affect the work of this section. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the Subparagraph below. Do not include Division 00 documents or Division 01 sections since it is assumed that all technical sections are related to all project Division 00 documents and Division 01 sections to some degree. Refer to other documents with caution since referencing them may cause them to be considered part of the Contract.

1. Section [06 1600 – Sheathing].
2. Section [07 2700 – Air Barriers].
3. Section [07 9000 – Joint Protection].
4. Section [____].

1.2 REFERENCES

Note: Define terms that are unique to this Section and are not provided elsewhere in the contract documents. Include in this Article terms that are unique to the work result specified that may not be commonly known in the construction industry.

- A. Definitions:
 1. Rainscreen: An exterior wall detail where wall cladding stands off from the moisture-resistant surface of an air barrier applied to wall sheathing or masonry substrate to create a capillary break and to allow drainage and evaporation.
 2. [____].

Note: Paragraph below may be omitted when specifying manufacturer’s proprietary products and recommended installation. Retain References Paragraph when specifying products and installation by an industry reference standard. List retained standard(s) referenced in this section alphabetically. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Contract Conditions Section 01 42 00 – References may establish the edition date of standards. This Paragraph does not require compliance with standard(s). It is a listing of all references used in this section. Only include here standards that are referenced in the body of the specification in PARTS 1, 2 and/or 3. Do not include references to building codes at any level.



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B. Reference Standards:

1. ASTM International (ASTM):
 - a. ASTM A240/A240M-14 Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.
 - b. ASTM A480/A480M-14b Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet and Strip.
 - c. ASTM B209-10 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 - d. ASTM E283-04 Test Method for Determining Rate of Airflow through Exterior Windows, Curtain Walls and Doors under Specified Pressure Differences Across the Specimen.
 - e. ASTM E330-02 Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 - f. ASTM E331-00 Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
2. American Architectural Manufacturers Association (AAMA):
 - a. AAMA 611-14 Voluntary Specification for Anodized Architectural Aluminum.
 - b. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.

Note: AAMA 2605-11 is for 70 percent PVDF fluoropolymer coating. Delete if 70 percent PVDF fluoropolymer coating is not specified.

- c. AAMA 2605-11 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Contract Conditions and Section 01 33 00 - Submittal Procedures.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's standard specifications, descriptive literature and certifications, including:
 1. Product Data Sheets.
 2. Standard Guide Details
 3. Standard color charts.
 4. Blank warranty forms.
 5. [Certification letter prepared, stamped, signed and dated by Professional Engineer, registered to practice in state where metal wall panel system is to be installed, verifying that metal wall panel system design meets building code and project design criteria.]
 6. [Certification letter on installer]
 7. [].
- B. Shop Drawings: Show job specific information, including:
 1. Overall dimensioned plans, elevations and sections indicating full extent of metal panel work with each panel identified by manufacturer's location number.
 2. Each panel fully dimensioned with finished openings for doors and windows; utility penetrations; connections to adjacent panels and structural members including type and number of fasteners; mechanical and electrical rough-in items; built-in mounting plates for miscellaneous items; and other special conditions.
 3. [Verified field dimensions.]



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4. [].

Note: Samples are actual products intended to illustrate the products to be incorporated into the project. Sample submittals are commonly necessary for such characteristics as colors, textures and other appearance issues.

C. Samples:

1. Color chip no less than 2" x 2" for color approval.
2. [[Full size] Manufacturer's standard samples of metal wall panel [color] [colors] and finishes prepared on similar [same] metal specified for panels.]
3. [].

Note: Specify submittals intended to document manufacturer storage, installation and other instructions.

D. Manufacturer's Written Instructions, including:

1. Delivery, storage and handling.
2. Preparation and Installation.
3. Maintenance.
4. [].

Note: Coordinate Article below with Contract Conditions and with Section 01 78 36 - Warranties.

E. Warranty: Fully executed, issued in Customer's name, and registered with manufacturer, including:

1. Furnish coating manufacturer's [15] [20] year warranty providing coverage for color and gloss retention.

1.4 QUALITY ASSURANCE

A. Authorized Installer: Trained and certified by manufacturer or otherwise acceptable to manufacturer, experienced in performing work of this section and specialized in the installation of work similar to that which is required for this project.

B. [].

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in accordance with manufacturer's written instructions.

B. Deliver materials in manufacturer's original packaging with identification labels intact.

C. Store materials protected from exposure to harmful weather conditions and at temperature conditions in accordance with manufacturer's written instructions.

Note: USGBC's LEED® certification includes credits for the diversion of construction waste from landfill. Diversion can be tracked by either weight or volume but must be consistent for all materials.

D. Remove packaging materials from site and dispose of at appropriate recycling facilities.

E. Remove protective film from panels only after installed.

F. [].

PART 2 PRODUCTS

Note: Retain Article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as or equal, approved equal or similar phrases may cause ambiguity in specifications.

2.1 METAL WALL PANELS



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Note: Include in the following Paragraph; manufacturer's name, address, phone number, e-mail address and website URL.

- A. Manufacturer: Rollfab Metal Products.
1. Contact: 2529 West Jackson St, Phoenix, AZ 85009; Phone: 602-275-1676;
Email: info@rollfabmetal.com; Website: <http://www.rollfabmetal.com>.

Note: Substitution procedures must either be in the Contract Conditions or in Section 01 25 00 - Substitution Procedures. Do not include substitution procedures here.

2. Single Source Responsibility: Provide components and materials specified in this section from a single manufacturer.
3. Substitutions: No bidder of metal wall panel systems will be accepted without prior written approval of the architect based on submission requirements specified in Section 01 25 00.

Note: Coordinate reference standards acronyms used in PART 2 with PART 1, Reference Standards.

- B. Basis of Design: Product: Rollfab AP400 Series Aluminum Plate Rainscreen Panels used for exterior wall cladding, parapets, fascia and soffits as the siding component of a rainscreen system.
1. Configuration: [Rectangular] [Square] [] [Custom] shaped; fabricated with formed [welded] [un-welded] corners; open vertical joints; closed horizontal joints; and weep holes, drainage channels, & back ventilated.
 2. Custom fabricated from solid plate with an integrated drainage channel.
 3. Aluminum fastener clips to be pre-attached to panels by manufacturer.
 4. Aluminum stiffeners shall be pre-attached to the panel assembly at 24-inches on center to assure flatness or as required by design calculations to assure conformance with specified wind loads.
 - a. Panels shall have a flatness criteria not to exceed 0.1875" within 24" in any direction.
 5. Normal dimensional tolerances on length and width of +/- 0.023" up to 48" (+/- 0.064" over 48") and +/- 0.1875" diagonal.

Note: Standard panel material includes Types 3003 or 3105 aluminum; optional panel material includes Type 5005 for anodized finish, Types 304 and 316 stainless steel. Select panel material from one of the following four paragraphs.

6. Material: Type 3003/3105 aluminum alloy sheet and plate meeting ASTM B209:

Note: Standard thickness is 0.125 inch (3.18 mm); other thicknesses are available.

- a. Aluminum thickness: [0.080 inch (2.03 mm)] [0.090 inch (2.29 mm)] [0.100 inch (2.54 mm)] [0.125 inch (3.18 mm)] [0.160 inch (4.06 mm)].

Note: See Standard Color Guide at www.rollfabmetal.com for standard painted colors.

- a. Standard Solid & Wood Grain colors meeting AAMA 2604.
- b. Custom color meeting AAMA 2604 or AAMA 2605: Custom color matching available.

7. [Material: Type 5005 aluminum alloy sheet and plate meeting ASTM B209;]

Note: Standard thickness is 0.125 inch (3.18 mm); other thicknesses are available.

- a. Aluminum thickness: [0.080 inch (2.03 mm)] [0.090 inch (2.29 mm)] [0.100 inch (2.54 mm)] [0.125 inch (3.18 mm)] [0.160 inch (4.06 mm)].
- b. Standard Anodized colors meeting AAMA 611: Class 1 anodic coating; clear and 7-standard colors.
- c. Custom Anodized colors meeting AAMA 611: Limited custom anodic color matching available.

8. Panel Dimensions:

Note: Standard panel system depth is 2.00 inch (50.8 mm); other depths available.

- a. Depth: 2.00 inch (50.8 mm).



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- b. Width: 6 inch (152 mm) to 47 inch (1194 mm).
- c. Length: 6 inch (152 mm) to 117 inch (2972 mm).
- 2. Performance:
 - a. Minimum wind load: 20 lb/ft² (97.6 kg/m²).
 - b. Maximum allowable deflection: L/180.
- 3. Installation Method: Concealed clips and fasteners on sub-girt framing system.

b. ACCESSORIES

- i. Attachment Clips and Fasteners: All panels shall be positively attached to the structure at pre-attached clips with project specific fasteners. These concealed fasteners shall be of a type and size to resist design loads. No exposed fasteners will be accepted, unless noted otherwise.
- ii. Vertical joint drainage to be formed into contiguous metal sheet as part of the panel.
- iii. [Flashing and trim shall be provided as called out in the contract drawings.]
- iv. [Subgirts shall be furnished as part of the scope of this work as noted on the contract drawings as required to provide a complete wall assembly.]

PART 3 EXECUTION

3.1 DELIVERY AND STORAGE

- A. Panels and accessories shall be crated so that they do not sustain damage during shipment.
- B. Store materials so that they are protected from weather, either indoors or under loose fitting tarps so that air can circulate to dry condensation. Store on a flat surface and block to allow drainage.

3.2 EXAMINATION

- A. Verify that substrates are acceptable for installation of metal wall panels in accordance with manufacturer's written instructions.
 - 1. Ensure structure and substrate is adequate to support metal wall panels.
 - 2. [].
- B. Notify [Architect] of unacceptable conditions upon discovery.
- C. Proceed with preparation and installation only after unacceptable conditions have been corrected.
- D. [].

Note: Specify actions required to prepare the surface, area or site for incorporation of the section's primary products. Describe requirements for exposure or removal of existing assemblies, components, products or materials.

3.3 PREPARATION

Note: Specify preparatory work required prior to installation/application/erection of primary products.

- A. Protect adjacent materials and products from damage during installation of metal wall panels.
- B. Prepare substrates to receive metal wall panels and accessories in accordance with manufacturer's written instructions.
- C. [].

3.4 INSTALLATION

- A. Install metal wall panels in accordance with manufacturer's written instructions and approved submittals.



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- B. Install metal wall panels plumb and level.
- C. Accurately fit, align, securely fasten and install free from distortion or defects.
- D. [].

3.5 CLEANING

- A. Clean-up waste and debris daily during installation.
- B. Upon completion, remove surplus materials, remaining debris, tools and equipment.
- C. Collect recyclable waste and dispose of as directed.
- D. [].

Note: Specify protection methods completed after installation, but prior to acceptance by the owner. Protection of surrounding areas and surfaces during application or installation is included under PART 3, Preparation. Include only statements unique to this Section.

Note: Coordinate the following Article with Section 01 76 00 - Protecting Installed Construction.

3.6 PROTECTION

- A. Protect installed product from damage during subsequent construction.
- B. Repair damage to adjacent products caused by installation of metal wall panels.
- C. [].

END OF SECTION