



APPROVED
ZONING REVIEW ONLY
NMJ 12/20/2019

12/17/2019



DISTRICT APARTMENTS
1801 & 1901 West 80 1/2 Street, Bloomington, MN

EXTERIOR MATERIALS &
FINISHES SELECTIONS

The exterior design and materiality of the proposed project meets the intent of the City Code through the strategies described below.

The project consists of two separate 4-story multifamily residential buildings: an East Building and a West Building. The overall massing of each building prioritizes West 80-1/2 Street as the primary pedestrian corridor with a continuous 2 to 3 story building mass that stretches along the entire street frontage. This street wall is expressed in brick and articulated by repetitive projecting bays, balconies and stoops. This portion of the project includes all the common and amenity spaces in the project on Level 1. Meanwhile, a series of four 4-story residential bars are distributed east-to-west across the site, running perpendicular to and interlocking with the 80-1/2 Street building mass. Between these 4-story bars are located courtyards that open out to the south and contain landscaped areas, along with a central surface parking area serving residents.

Overall, the buildings will be constructed utilizing four levels of wood-framed construction over a basement concrete structure dedicated to parking and storage. The ground floor will include a mix of residential units and common amenity space for residents, as mentioned.

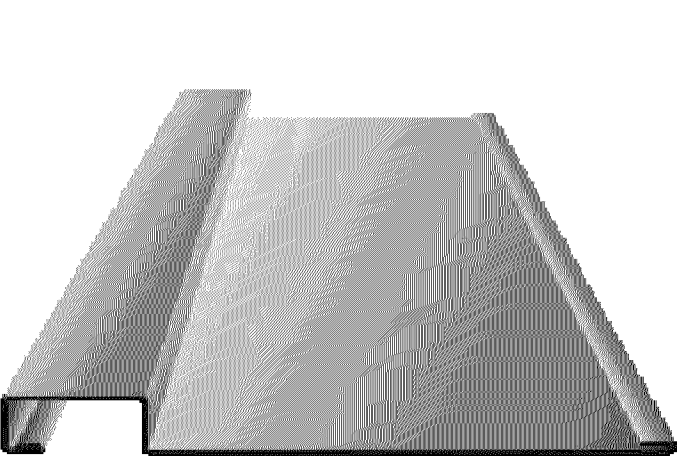
Exterior materials will consist primarily of masonry, metal panel, fiber cement panel and glass, along with accent areas of architectural cast stone. Primary materials of integrally-colored brick and glass mostly define the building base, with special emphasis given to the previously described 2-story street wall running along West 80-1/2 Street. The 4-story residential bars are clad in several types of metal panels and fiber cement panels, in conjunction with residential windows and gliding patio door units. Among this palette, those metal panels on elevations facing public streets shall be considered primary materials complying with City standards. These metal panels are described in the documentation that follows. Meanwhile, other metal panels that occur at the interior courtyard elevations have been granted a deviation by the City and shall feature only a 20-year finish warranty per City approvals.

METAL PANEL

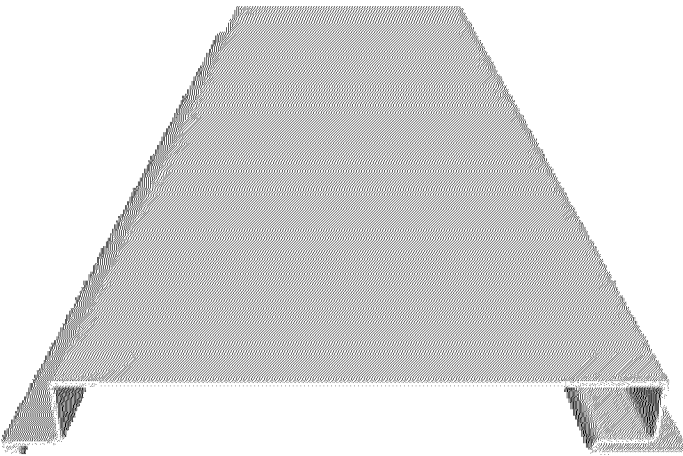
PROPERTIES AND SPECIFICATIONS

The metal panels used in this project are single thickness metal sheets, formed to profile with factory finish; specified in Section 07 4213 (copy attached). They are made of 3105 alloy, O temper, smooth surface sheet aluminum complying with ASTM B209 / B209M, and are roll formed to specified profiles. This is a commonly used product for commercial projects of all types and the metal panel thickness is in the mid-range of available thicknesses which is suitable for the spans required. "Oil canning" is a common trait of flat sheet metal panels and is being controlled by the depth and shape of the profile of the panels chosen. The panel finish has a 30 year warranty against degradation including fading, chalking, delaminating, etc. when exposed to weather.

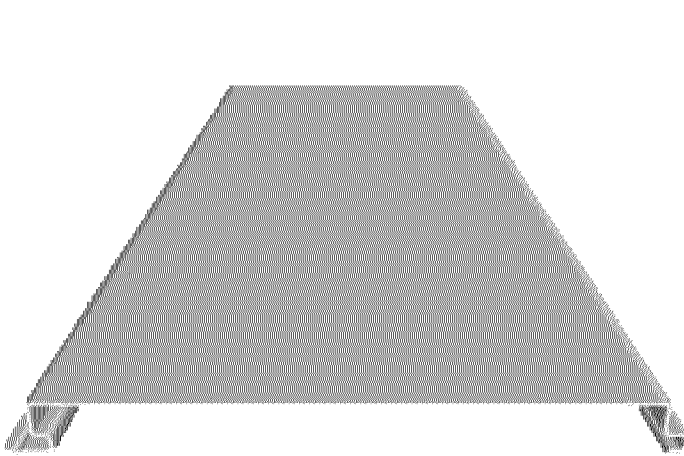
The panels are installed over a system of metal furring that is also galvanized steel. The panels themselves have nested, overlapping edges and serve as the primary rain barrier for the building. The furring system and related weather barrier and membrane flashings provide a secondary water barrier and drainage plane for any water that leaks through or condenses on the primary barrier.



5A & 5D



5A-a



5B

METAL PANEL APPLICATIONS AND INSTALLATION

The panels provide durable, low-maintenance properties with weather resistant joints. There is no such thing as a maintenance-free building material, but these panels are at least equivalent to the performance and durability of other commercial building exterior finish materials. Suppliers of these panels are being required to comply with FM Global (Factory Mutual) plan review requirements. FM Global's review provides an independent, third party review of the installation; primarily with regards to fire and wind resistance.

Also, the manufacturers (or local fabricators) are required (by Article 1.04 of each specification) to have 10 years minimum experience in production of this type of product and the installer is required to have 5 years minimum experience with the type of panel product specified.

Referring to the elevations, it is evident that the vast majority of metal panels occur at Level 2 and above. Positioning the panels in this fashion protects them from snow removal equipment, wheel chairs, stroller, and other pedestrian components that could damage the panels.

Please see the attached specification sections for requirements of protecting the panels from negative reactions with adjacent materials. Paragraph 3.03 of Section 07 4213 - Metal Wall Panels indicates the requirement to back-paint with bituminous paint and/or use gaskets, isolation shims, etc. to avoid contact with adjacent, dissimilar materials.

Paragraph 3.03 of Section 07 4213 - Metal Wall Panels requires the installation of seals and gaskets to prevent weather penetration. The panel to panel joints of this system are made of joint styles that interlock or overlap with sealant and installed with the interlocks and laps to shed water downward and outward even if the sealant in the joints subsequently fails. This ensures long-term corrosion-free service.

SECTION 07 42 13
METAL WALL PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Manufactured metal panels for exterior wall panels and subgirt framing assembly, with related flashings and accessory components.
- B. Finishes.

1.02 RELATED REQUIREMENTS

- A. Section 07 21 00 - Thermal Insulation.
- B. Section 07 25 00 - Weather Barriers: Weather barrier under wall panels.
- C. Section 07 92 00 - Joint Sealants: Sealing joints between metal wall panel system and adjacent construction.
- D. Section 09 21 16 - Gypsum Board Assemblies: Wall panel substrate.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including thickness, physical characteristics, and finish, and:
 - 1. Finish manufacturer's data sheet showing physical and performance characteristics.
 - 2. Storage and handling requirements and recommendations.
 - 3. Fabrication instructions and recommendations.
 - 4. Specimen warranty for finish, as specified herein.
- C. Shop Drawings: Indicate dimensions, layout, joints, construction details, related flashings, and methods of anchorage.
 - 1. Indicate substrates and adjacent work with which the wall system must be coordinated.
 - 2. Include large-scale details of anchorages and connecting elements.
 - 3. Include large-scale details or schematic, exploded or isometric diagrams to fully explain flashing at a scale of not less than 1-1/2 inches per 12 inches.
 - 4. Include design engineer's stamp or seal on shop drawings for attachments and anchors.
- D. Design Data: Submit structural calculations stamped by design engineer, for Architect's information and project record.
- E. Samples: Submit two samples of wall panel and soffit panel, 12 inch by 12 inch in size illustrating finish color, sheen, and texture.

1.04 QUALITY ASSURANCE

- A. Design Engineer's Qualifications: Design structural supports and anchorages under direct supervision of a Qualified Professional Engineer experienced in design of this type of Work and licensed in the State in which the Project is located.

- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum 10 years of experience.
- C. Installer Qualifications: Company specializing in installing products of the type specified in this section with minimum 5 years of experience.

1.05 MOCK-UP

- A. Construct mock-up, 12 feet wide by 8 feet high; include panel system, attachments to building frame, associated vapor retarder and air seal materials, weep drainage system, sealants and seals, related insulation, and window or door opening in mock-up.
- B. Locate where directed by Architect.
- C. Mock-up may remain as part of the Work.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
- B. Store prefinished material off the ground and protected from weather; prevent twisting, bending, or abrasion; provide ventilation; slope metal sheets to ensure proper drainage.
- C. Prevent contact with materials that may cause discoloration or staining of products.

1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a thirty (30) year period after Date of Substantial Completion for degradation of panel finish, including color fading caused by exposure to weather.
 - 1. Chalking: No more than that represented by a No. 8 rating based on ASTM D4214.
 - 2. Color Retention: No fading or color change in excess of 5 Hunter color difference units, calculated in accordance with ASTM D2244.
 - 3. Gloss Retention: Minimum of 30 percent gloss retention, when tested in accordance with ASTM D523.
- C. Correct defective work within a five year period after Date of Substantial Completion, including defects in water tightness and integrity of seals.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design:
 - 1. Profile Panel Systems: Metal Sales Manufacturing Corp; products as indicated below: www.metalsales.us.com.
- B. Other Acceptable Manufacturers - Metal Wall Panels:
 - 1. ATAS International, Inc: www.atas.com/#sle.
 - 2. Berridge Manufacturing Company: www.berridge.com/#sle.
 - 3. Centria: www.centria.com.
 - 4. Fabral Architectural Systems: www.fabral.com.
 - 5. Firestone Building Products Co: www.firestonebpco.com.

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6. [MBCI <> : www.mbc.com].
7. Morin - A Kingspan Group Company: www.morincorp.com.
8. Petersen Aluminum Corporation: www.pac-clad.com/#sle.
9. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 MANUFACTURED METAL PANELS

- A. Wall Panel System: Factory fabricated prefinished metal panel system, site assembled.

1. Provide exterior wall panels, soffit panels and subgirt framing assembly.

2. Design and size components to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of wall.

3. Maximum Allowable Deflection of Panel: L/180 for length(L) of span.

4. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; and deflection of structural support framing.

5. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.

6. Fabrication: Formed true to shape, accurate in size, square, and free from distortion or defects; pieces of longest practical lengths.

7. Corners: Factory-fabricated in one continuous piece with minimum 2 inch returns.
- B. Exterior Wall Panels:

1. Metal Panel, Indicated as Keynote 5A:

a. Profile: EM1-1212 Wall Panel (Empire Series); installed vertically.

b. Material: Precoated aluminum face sheet, 0.040 inch thickness.

c. Panel Depth: 1 inch.

d. Panel Width: 12 inches, exposed width.

e. Texture: Smooth.

f. Color: Ash Grey (25).

2. Metal Panel, Indicated as Keynote 5A-a:

a. Profile: TL-17; installed horizontally.

b. Material: Precoated aluminum face sheet, 0.040 inch thickness.

c. Panel Depth: 1-1/2 inches.

d. Panel Width: 12 inches, exposed width.

e. Texture: Smooth.

f. Color: Ash Grey (25)

3. Metal Panel, Indicated as Keynote 5B:

- a. Profile: Soffit Panel, Flat Pan profile; installed vertically.
- b. Material: Precoated aluminum face sheet, 0.032 inch thickness.
- c. Panel Depth: 1 inch.
- d. Panel Width: 12 inches, exposed width.
- e. Texture: Smooth.
- f. Color: Slate Grey (W38).

4. Metal Panel, Indicated as Keynote 5D:

a. Profile: EM1-1212 Wall Panel (Empire Series); installed vertically.

b. Material: Precoated steel face sheet, 22 gauge thickness.

c. Panel Depth: 1 inch.

d. Panel Width: 12 inches, exposed width.

e. Texture: Smooth.

f. Color: Ash Grey (25).

- C. Soffit Panels:

1. Profile: Flush face panels with tongue and groove interlocked edges.

2. Material: Precoated steel sheet, 22 gage, 0.0299 inch minimum thickness.

3. Panel Thickness: 1-1/2 inches.

4. Panel Width: 12 inches.

5. Color: As selected by Architect from manufacturer's standard line.

- D. Subgirt Framing Assembly:

1. Miscellaneous Secondary Framing: Light gauge steel framing incidental to structural supports; fabricated from steel sheet.

2. Framing Material: Non-precoated steel sheet.

a. Thickness: As required to provide a stable, secure substrate for the span and panel conditions of the project.

b. Zee, cee, or hat profile; to attach panel system to building.

- E. Internal and External Corners: Same material, thickness, and finish as exterior sheets; profile to suit system; brake formed to required angles.
- F. Expansion Joints: Same material, thickness and finish as exterior sheets; 20 gage, 0.0359 inch thick; manufacturer's standard brake formed type, of profile to suit system.
- G. Trim, Closure Pieces, Caps, Flashings, Facias and []: Same material, thickness and finish as exterior sheets; brake formed to required profiles.
- H. Anchors: Galvanized steel.

2.03 MATERIALS



- A. Precoated Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, Structural Steel (SS) or Forming Steel (FS), with G90/Z275 coating; continuous coil-coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.
- B. Precoated Aluminum Sheet: ASTM B209 (ASTM B209M), 3105 alloy, O temper, smooth surface texture; continuous-coil-coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.
- C. Non-Precoated Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, SS Grade 33/230, with G90 coating.

2.04 FINISHES

- A. Exposed Surface Finish: Panel manufacturer's standard polyvinylidene fluoride (PVDF) coating, top coat over epoxy primer.
- B. Panel Backside Finish: Panel manufacturer's standard siliconized polyester wash coat.
- C. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss as scheduled.

2.05 ACCESSORIES

- A. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant.
- B. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
 - 1. Color: To match metal panel color.
- C. Fasteners: Manufacturer's standard type to suit application; with soft neoprene washers, steel, hot dip galvanized. Fastener cap same color as exterior panel.
 - 1. Metal-to-Metal Fasteners: Self-drilling, self-tapping screws.
- D. Field Touch-up Paint: As recommended by panel manufacturer.
- E. Bituminous Paint: Asphalt base.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that building framing members are ready to receive panels.
- B. Verify that weather barrier has been installed over substrate completely and correctly.

3.02 PREPARATION

- A. Install subgirts perpendicular to panel length, securely fastened to substrates and shimmed and leveled to uniform plane. Space at 24 inches on center, maximum.

3.03 INSTALLATION

- A. Install panels on walls in accordance with manufacturer's instructions.
- B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.

- C. Fasten panels to subgirt supports; aligned, level, and plumb.
- D. Locate joints over supports.
- E. Lap panel ends minimum 2 inches.
- F. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.

3.04 TOLERANCES

- A. Maximum Offset From True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
- B. Maximum Variation from Plane or Location Indicated on Drawings: 1/4 inch.

3.05 CLEANING

- A. Remove site cuttings from finish surfaces.
- B. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

END OF SECTION

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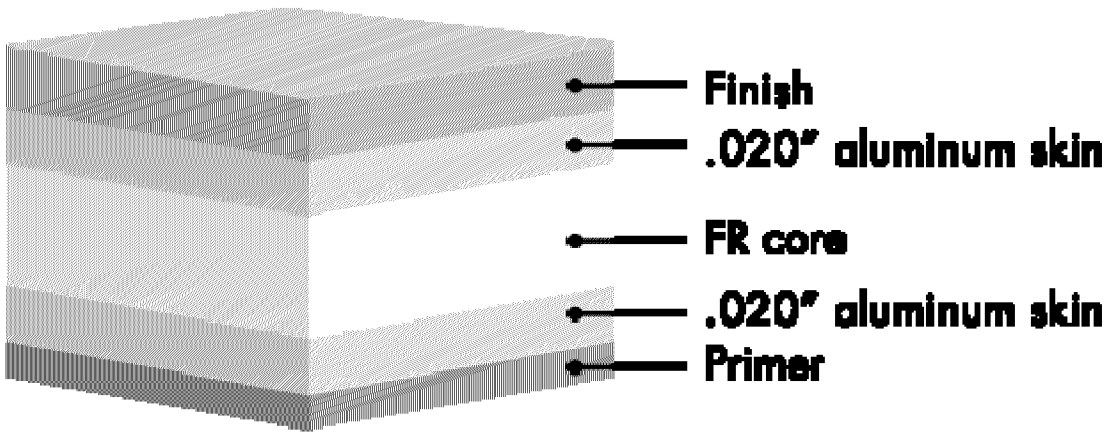
Metal Wall Panels

COMPOSITE METAL PANEL

PROPERTIES AND SPECIFICATIONS

The metal composite material panels used in this project are laminated sheets of aluminum facers on the inside and outside of the panels with an extruded thermoplastic fire-retardant core with an overall panel thickness of 4mm as specified in Section 07 4213.23 (copy attached). These panels are factory finished with two coats of PVDF flouropolymer resin coatings applied by a coil manufacturing facility that specializes in coil applied finishes. The panel finish has a 30 year warranty (sample copies attached) against degradation including fading, chalking, delaminating, etc. when exposed to weather.

These panels are installed over a system of metal furring incorporating a dry seal gasket system. The furring system and related weather barrier and membrane flashings provide the primary water barrier and drainage plane.



COMPOSITE METAL PANEL APPLICATIONS AND INSTALLATION

The panels provide durable, low-maintenance properties with weather resistant joints. There is no such thing as a maintenance-free building material, but these panels are at least equivalent to the performance and durability of other commercial building exterior finish materials. Suppliers of these panels are being required to comply with FM Global (Factory Mutual) plan review requirements. FM Global's review provides an independent, third party review of the installation; primarily with regards to fire and wind resistance.

Also, the manufacturers (or local fabricators) are required (by Article 1.04 of each specification) to have 10 years minimum experience in production of this type of product and the installer is required to have 5 years minimum experience with the type of panel product specified.

These panels are back routed and the edges 90 degree brake folded to the back forming 1 inch to 4 inch deep panels. Mounting clips are mechanically fastened to the panel return edges and then mechanically fastened to a secondary furring system. These panels are installed with dry seal joints. Behind these panels there is a furring system and a related fluid-applied weather barrier and membrane flashings providing the primary water barrier and drainage plane.

Please see the attached specification section for requirements of protecting the panels from negative reactions to adjacent materials. Paragraph 3.03 of Section 07 4213.23 - Metal Composite Material Wall Panels indicates the requirement to back-paint with bituminous paint and/or use gaskets, isolation shims, etc. to avoid contact with adjacent, dissimilar materials.

The panels are to be installed using a dry seal system. Paragraph 3.03 of Section 07 4213.23 - Metal Composite Material Wall Panels requires positive, adequate drainage for moisture entering or condensing within the panels. The subsequently endure long-term corrosion-free service.

The Basis-of-Design composite metal panels are indicated within the following specification pages to be Alpolic *fr* panels in three different color finishes. All three colors ("5C", "5E" and "5F") feature a 30-year finish warranty from the manufacturer. However, due to availability, construction costing, and other factors, Alucobond Plus panels may ultimately be substituted as an alternate product. Alucobond is an acceptable alternate manufacturer and product per the specifications, subject to all the other requirements and standards outlined in this document - including the same 30-year finish warranty. Therefore, documentation for both products - Alpolic *fr* and Alucobond Plus have been included in the following pages for City record.

5C, 5E & 5F

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SECTION 07 42 13.23
METAL COMPOSITE MATERIAL WALL PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Exterior cladding consisting of formed metal composite material (MCM) sheet, secondary supports, and anchors to structure, attached to solid backup.
- B. Matching flashing and trim.

1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Panel support framing.
- B. Section 07 25 00 - Weather Barriers: Weather barrier behind wall panel system.
- C. Section 07 62 00 - Sheet Metal Flashing and Trim: Metal flashing components integrated with this wall system.
- D. Section 07 92 00 - Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Meeting: Convene one week before starting work of this section to verify project requirements, co-ordinate with installers of other work, establish condition and completeness of building substrate, and review manufacturers' installation instructions and warranty requirements.
 - 1. Require attendance by the installer and relevant sub-contractors.
 - 2. Include MCM sheet manufacturer's representative and wall system manufacturer's representative to review storage and handling procedures.
 - 3. Review in detail truck transportation, parking, vertical transportation, schedule, personnel, installation of adjacent materials and substrate.
 - 4. Review procedures for protection of work and other construction.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data - MCM Sheets: Manufacturer's data sheets on each product to be used, including thickness, physical characteristics, and finish, and:
 - 1. Finish manufacturer's data sheet showing physical and performance characteristics.
 - 2. Storage and handling requirements and recommendations.
 - 3. Fabrication instructions and recommendations.
 - 4. Specimen warranty for finish, as specified herein.
- C. Shop Drawings: Show layout and elevations, dimensions and thickness of panels, connections, details and location of joints, sealants and gaskets, method of anchorage, exposed fasteners, number of anchors, supports, reinforcement, trim, flashings, and accessories.
 - 1. Indicate panel numbering system.

- 2. Differentiate between shop and field fabrication.
 - 3. Indicate substrates and adjacent work with which the wall system must be coordinated.
 - 4. Include large-scale details of anchorages and connecting elements.
 - 5. Include large-scale details or schematic, exploded or isometric diagrams to fully explain flashing at a scale of not less than 1-1/2 inches per 12 inches.
 - 6. Include design engineer's stamp or seal on shop drawings for attachments and anchors.
- D. Design Data: Submit structural calculations stamped by design engineer, for Architect's information and project record.
 - E. Samples:
 - 1. Panel Assembly: Submit 2 samples of assembly, 36 x 36 inches minimum in size, illustrating panel construction, mounting system, and panel to panel joint.
 - F. Test Report: Submit report of full-size mock-up tests for air infiltration, water penetration, and wind performance.
 - G. Test Report: Submit report of full-size mock-up test for NFPA 285 fire performance.
 - H. Manufacturer's Qualification Statement.
 - I. Installer's Qualification Statement.
 - J. Testing Agency's Qualification Statement.
 - K. Maintenance Data: Care of finishes and warranty requirements.
 - L. Executed Warranty: Submit warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Field Measurements: Verify actual dimensions by field measurement before fabrication; show recorded measurements on shop drawings.
- B. Design Engineer's Qualifications: Design structural supports and anchorages under direct supervision of a Qualified Professional Engineer experienced in design of this type of Work and licensed in the State in which the Project is located.
- C. Manufacturer Qualifications: Company with a minimum of 10 years of continuous experience manufacturing products specified in this section.
- D. Fabricator Qualifications: Company specializing in fabricating wall panel systems specified in this section.
 - 1. With not less than five years of experience.
 - 2. Approved by MCM sheet manufacturer.
- E. Installer Qualifications: Company specializing in performing work of the type specified in this section.
 - 1. With minimum five years of experience.
 - 2. Approved by wall panel system manufacturer.

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- F. Testing Agency Qualifications: Independent agency experienced in testing assemblies of the type required for this project and having the necessary facilities for full-size mock-up testing of the type specified.
- G. Mock-Up: Provide a mock-up for evaluation of fabrication workmanship.
- Minimum Size: 10 x 10 feet including panel to panel joints.
 - Locate where directed.
 - Provide panels finished as specified.
 - Mock-up may remain as part of the Work.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in fabricator's original, unopened, undamaged containers with identification labels intact.
- Protect finishes by applying heavy duty removable plastic film during production.
 - Package for protection against transportation damage.
 - Provide markings to identify components consistently with drawings.
 - Exercise care in unloading, storing and installing panels to prevent bending, warping, twisting and surface damage.
- B. Store products protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
- Store in well ventilated space out of direct sunlight.
 - Protect from moisture and condensation with tarpaulins or other suitable weather tight covering installed to provide ventilation.
 - Store at a slope to ensure positive drainage of any accumulated water.
 - Do not store in any enclosed space where ambient temperature can exceed 120 degrees F.
 - Avoid contact with any other materials that might cause staining, denting, or other surface damage.

1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- Chalking: No more than that represented by a No. 8 rating based on ASTM D4214.
 - Color Retention: No fading or color change in excess of 5 Hunter color difference units, calculated in accordance with ASTM D2244.
- B. MCM Sheet Manufacturer's Product Warranty: Provide manufacturer's written warranty stating that there will be no defects in panel manufacturing and workmanship for minimum of 5 years.
- C. MCM Sheet Manufacturer's Finish Warranty: Provide manufacturer's written warranty stating that the finish will perform as follows for minimum of 30 years:
- Gloss Retention: Minimum of 30 percent gloss retention, when tested in accordance with ASTM D523.

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Metal Composite Material
Wall Panels

- Chalking: No more than that represented by a No. 8 rating based on ASTM D4214.
- Color Retention: No fading or color change in excess of 5 Hunter color difference units, calculated in accordance with ASTM D2244.
- Gloss Retention: Minimum of 30 percent gloss retention, when tested in accordance with ASTM D523.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Metal Composite Material (MCM) Sheet Manufacturers:
- 3A Composites USA; Alucobond Plus: www.alucobondusa.com/#sle.
 - Alcoa, Inc; REYNOBOND FR: www.alcoa.com.
 - ALPOLIC Materials; ALPOLIC/fr (Fire Retardant core): www.alpolic-america.com/#sle.
 - Alucoil North America LLC; larson by Alucoil, FR Core (fire resistant): www.alucoilnorthamerica.com/#sle.
 - Fairview Architectural; VITRABOND/FR: www.vitrabond.com.
 - Substitutions: See Section 01 60 00 - Product Requirements.

2.02 WALL PANEL SYSTEM

- A. Wall Panel System: Metal panels with fire-resistant core, fasteners, and anchors designed to be supported by framing or other substrate provided by others; provide installed panel system capable of maintaining specified performance without defects, damage or failure.
- Provide structural design by or under direct supervision of a Qualified Professional Engineer licensed in the State in which the Project is located.
 - Provide panel jointing and weatherseal using reveal joints and gaskets but no sealant.
 - Anchor panels to supporting framing without exposed fasteners.
- B. Performance Requirements:
- Thermal Movement: Provide for free and noiseless vertical and horizontal thermal movement due to expansion and contraction under material temperature range of minus 40 degrees F to 180 degrees F without buckling, opening of joints, undue stress on fasteners, or other detrimental effects; allow for ambient temperature at time of fabrication, assembly, and erection procedures.
 - Wind Performance: Provide system tested in accordance with ASTM E330/E330M without permanent deformation or failures of structural members under the following conditions:
 - Inward and Outward Design Wind Pressures: As required by applicable Code.
 - Maximum deflection of perimeter framing member of L/175 normal to plane of the wall; maximum deflection of individual panels of L/60.
 - Maximum anchor deflection in any direction of 1/16 inch at connection points of framing members to anchors.
 - Fire Performance: Tested in accordance with, and complying with the acceptance criteria of, NFPA 285; testing performed for previous project is acceptable provided tested system

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Metal Composite Material
Wall Panels

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was truly equivalent.

- a. An engineering judgment letter addressing the project-specific installation from an experienced, third-party, fire protection engineer shall be acceptable to Architect as meeting this requirement.

C. Panels: One inch deep pans formed of metal composite material sheet by routing back edges of sheet, removing corners, and folding edges.

- 1. Reinforce corners with riveted aluminum angles.
- 2. Provide concealed attachment to supporting structure by adhering attachment members to back of panel; attachment members may also function as stiffeners.
- 3. Maintain maximum panel bow of 0.8 percent of panel dimension in width and length; provide stiffeners of sufficient size and strength to maintain panel flatness without showing local stresses or read-through on panel face.
- 4. Reinforce panels as recommended by manufacturer to maintain flatness of panels.
- 5. Secure members to back face of panels using structural silicone sealant approved by MCM sheet manufacturer.
- 6. Fabricate panels under controlled shop conditions.
- 7. Where final dimensions cannot be established by field measurement before commencement of manufacturing, make allowance for field adjustments without requiring field fabrication of panels.
- 8. Fabricate as indicated on drawings and as recommended by MCM sheet manufacturer.
 - a. Make panel lines, breaks, curves and angles sharp and true.
 - b. Keep plane surfaces free from warp or buckle.
 - c. Keep panel surfaces free of scratches or marks caused during fabrication.
- 9. Provide joint details providing a structurally sound wall panel system that allows no uncontrolled water penetration on inside face of panel system.
 - a. Joint seepage water and condensate water are not considered uncontrolled water by Architect.
- 10. For "dry" jointing, secure extrusions to returned pan edges with stainless steel rivets; provide means of concealed drainage with baffles and weeps for water that might accumulate in members of system.

2.03 MATERIALS

- A. Metal Composite Material (MCM) Sheet: Two sheets of aluminum sandwiching a core of extruded proprietary fire-resistant material; no foamed insulation material content.
 - 1. Overall Sheet Thickness: 4 mm, minimum.
 - 2. Bond and Peel Strength: No adhesive failure of the bond between the core and the skin nor cohesive failure of the core itself below 22.4 inch-pound/inch with no degradation in bond performance, when tested in accordance with ASTM D1781, simulating resistance to panel delamination, after 8 hours of submersion in boiling water and after 21 days of immersion in water at 70 degrees F.

- 3. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
- 4. Flammability: Self-ignition temperature of 650 degrees F or greater, when tested in accordance with ASTM D1929.

B. Metal Framing Members: Include sub-girts, zee-clips, base and sill angles and channels, hat-shaped and rigid channels, and furring channels required for complete installation.

- 1. Provide material strength, dimensions, configuration as required to meet the applied loads applied and in compliance with applicable building code.
- 2. Sheet Steel Components: ASTM A653/A653M galvanized to G90/Z275 or zinc-iron alloy-coated to A60/ZF180; or ASTM A792/A792M aluminum-zinc coated to AZ60/AZM180.
- 3. Stainless Steel Sheet Components: ASTM A480/A480M.
- 4. Aluminum Components: ASTM B209 (ASTM B209M); or ASTM B221 (ASTM B221M).

2.04 FINISHES

- A. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, with at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mils, 0.0009 inch; color and gloss as selected by Architect from manufacturer's standard line.
- B. Color: Basis of Design colors are indicated below. Provide the indicated product and color, or provide a matching color from another approved manufacturer.
 - 1. Composite Metal Panel Indicated as Keynote 5C:
 - a. Manufacturer: Alpolic.
 - 1) Color: "Mist White" (4-MST-30).
 - 2. Composite Metal (MCM) Panel Indicated as Keynote 5E:
 - a. Manufacturer: Alpolic.
 - 1) Color: "JBR Bronze" (4-JBR-30).
 - 3. Composite Metal (MCM) Panel Indicated as Keynote 5F:
 - a. Manufacturer: Alpolic.
 - 1) Color: "BGY Grey" (4-BGY-50).

2.05 ACCESSORIES

- A. Flashing: Sheet aluminum; 0.040 inch thick, minimum; finish and color to match MCM sheet; refer to Section 07 62 00 for additional requirements.
- B. Anchors, Clips and Accessories: Use one of the following:
 - 1. Stainless steel complying with ASTM A276/A276M, ASTM A480/A480M, or ASTM A666.
 - 2. Steel complying with ASTM A36/A36M and hot-dipped galvanized to ASTM A153/A153M.
 - 3. Steel complying with ASTM A36/A36M and hot-dipped galvanized to ASTM A123/A123M Coating Grade 100.



- C. Fasteners:
- Exposed Fasteners: Stainless steel; permitted only where absolutely unavoidable and subject to prior approval of the Architect.
 - Screws: Self-drilling or self-tapping Type 410 stainless steel or zinc-alloy steel hex washer head, with EPDM or PVC washer under heads of fasteners bearing on weather side of metal wall panels.
 - Bolts: Stainless steel.
 - Fasteners for Flashing and Trim: Blind fasteners of high-strength aluminum or stainless steel.
- D. Provide panel system fabricator's and installer's standard corrosion resistant accessories, including fasteners, clips, anchorage devices and attachments.

2.06 FABRICATION

- A. Shop fabricate all composite panels. No field fabrication is allowed.
- B. Fabricate panels using the envelope pan corner with back up plate, sealant, and pneumatically applied pop rivets.
- C. Fabricate panels with lines, brakes, and angles sharp and true, and with surface free from wave, warp, or buckle.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine dimensions, tolerances, and interfaces with other work.
- Verify that weather barrier system is properly installed, refer to Section 07 25 00 for requirements.
- B. Examine substrate on-site to determine that conditions are acceptable for product installation in accordance with manufacturers written instructions.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- D. Notify Architect in writing of conditions detrimental to proper and timely completion of work, and do not proceed with erection until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect adjacent work areas and finish surfaces from damage during installation.

3.03 INSTALLATION

- A. Do not install products that are defective, including warped, bowed, dented, and broken members, and members with damaged finishes.
- B. Comply with instructions and recommendations of MCM sheet manufacturer and wall system manufacturer, as well as with approved shop drawings.
- C. Provide a concealed fastener installation system, with no fasteners exposed.
- D. Install panels with lines, brakes, and angles sharp and true, and with surfaces free from wave, warp, or buckle.

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Metal Composite Material
Wall Panels

- E. Install wall system securely allowing for necessary thermal and structural movement; comply with wall system manufacturer's instructions for installation of concealed fasteners.
- F. Do not handle or tool products during erection in manner that damages finish, decreases strength, or results in visual imperfection or failure in performance. Return component parts that require alteration to shop for refabrication, if possible, or for replacement with new parts.
- G. Do not form panels in field unless required by wall system manufacturer and approved by the Architect; comply with MCM sheet manufacturer's instructions and recommendations for field forming.
- H. Separate dissimilar metals; use gasket fasteners, isolation shims, or isolation tape where needed to eliminate possibility of electrolytic action between metals.
- I. Where composite panels about or joins adjacent dissimilar metals, execute joint to facilitate drainage and eliminate possibility of corrosion.
- J. Provide positive and adequate drainage to exterior for moisture entering or condensation occurring within panel system. Space weeps 20 - 24 inches oc. Make weeps 3/8 inch diameter and with aluminum mesh screen back-up adhered with silicone sealant.
- K. Install flashings as indicated on shop drawings. At flashing butt joints, provide a lap strap under flashing and seal lapped surfaces with a full bed of non-hardening sealant.
- L. Install square, plumb, straight, and true, accurately fitted, with tight joints and intersections maintaining the following installation tolerances:
- Variation From Plane or Location: 1/2 inch in 30 feet of length and up to 3/4 inch in 300 feet, maximum.
 - Deviation of Vertical Member From True Line: 0.1 inch in 25 feet run, maximum.
 - Deviation of Horizontal Member From True Line: 0.1 inch in 25 feet run, maximum.
 - Offset From True Alignment Between Two Adjacent Members Abutting End To End, In Line: 0.03 inch, maximum.
- M. Replace damaged products.
- Panels may be considered damaged and require replacement for the following reasons:
 - Exceeding specified installation tolerances.
 - Damage during construction operations.
 - Exposed-to-view surfaces having surface-finish deficiencies, scratches, dents or other conditions.
 - Exception: Field repairs of minor damage to finishes are permitted only when approved in writing by Architect, panel manufacturer, and fabricator.
 - Field Repairs to Finishes: Using materials and methods sufficient that repairs are not discernible when viewed at distance of 10 feet under all typical light conditions experienced at the project.
 - Replace repaired panels that are not found acceptable by Architect.

3.04 CLEANING

- A. Ensure weep holes and drainage channels are unobstructed and free of dirt and sealants.

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Metal Composite Material
Wall Panels

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- B. Remove protective film after installation of joint sealers, after cleaning of adjacent materials, and immediately prior to completion of work.
- C. Remove temporary coverings and protection of adjacent work areas.
- D. Clean installed products in accordance with manufacturer's instructions.

3.05 PROTECTION

- A. Protect installed panel system from damage until Date of Substantial Completion.

END OF SECTION

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12/4/2019 -
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Metal Composite Material
Wall Panels

12/17/2019

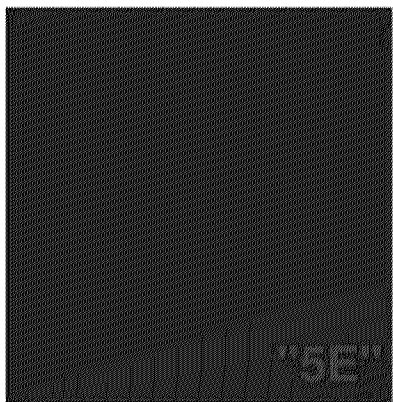


ALPOLIC® ARCHITECTURAL STANDARD STOCK COLORS AND FINISHES

30 Year Warranty Stock Colors

Stocked in 4mm thick panels

SOLID



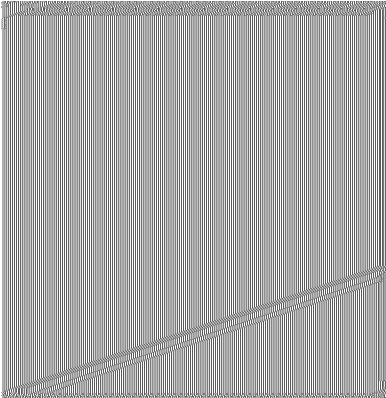
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4-BNT-30
LRV 78.50/SRI 82 - Cool



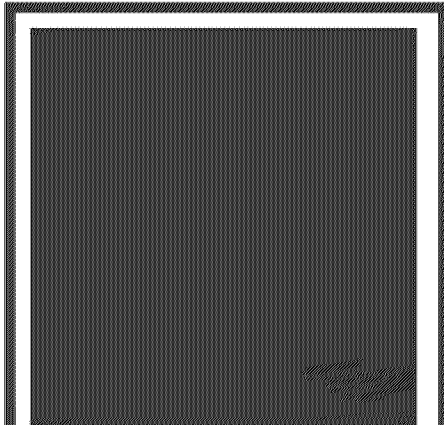
Oyster
4-CRT-30
LRV 72.46/SRI 82 - Cool



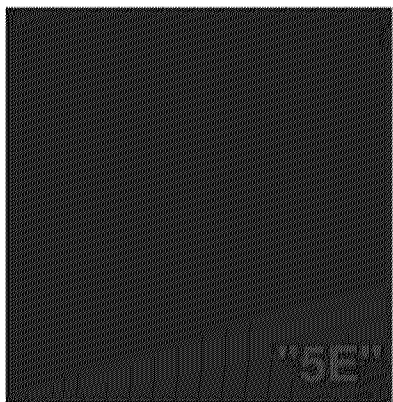
Mist White
4-MST-30
LRV 69.96/SRI 75 - Cool



Aluminum Grey
4-AGT-30
LRV 31.60/SRI 26



BGY Grey
4-BGY-50
LRV 10.41/SRI 7



Bronze
4-JBR-30
LRV 3.34/SRI 2



TOB Black
4-TOB-15
LRV 1.01/SRI 0

FLUOROCARBON COATING WARRANTY
THIRTY YEAR

To: (“Customer”)

From:

Mitsubishi Chemical Composites America, Inc.

Project Name and Location:

Complete Physical Address Required
Including City - State or Province - Zip or Postal Code

Commencement Date of Warranty:

Required

Mitsubishi Chemical Composites America, Inc. (MCCA) hereby warrants to the Customer that the Fluorocarbon-based coating **Thickness - Color** applied by MCCA to the aluminum materials purchased, by Customer from MCCA will not, for the above stated period, beginning at the commencement date, with warranty period not to exceed thirty years plus one from date of shipment, under normal atmospheric conditions on the coated aluminum:

- A. Peel, check or crack except for such slight crazing or cracking as may occur on tightly roll-formed edges or brake bends at the time of forming pre-painted sheets, which is accepted as standard; or
- B. (1) Chalk in excess of a numerical rating of **8** measured in accordance with the standard procedures as outlined by the “Standard Methods of Evaluating Degree of Chalking of Exterior Paint” ASTM D4214-89; or
- (2) Fade or change in color in excess of **5** color difference units, using ASTM D2244-89 measured on the exposed painted surfaces which have been cleaned of external deposits and chalk and the corresponding values measured on the original or unexposed painted surfaces, it being understood that fading or color changes may not be uniform if the surface is not evenly exposed to the sun and elements;

and that gloss (60⁰ incident angle) loss will not exceed 40% when measure on exposed painted surfaces which have been cleaned of external deposits and the corresponding values measured on unexposed original painted surfaces. The gloss shall be measured using standard procedures as defined by “Standard Test Method for Specular Gloss”, ASTM D523-89.

FLUOROCARBON COATING WARRANTY
THIRTY YEAR

This warranty is subject to the following conditions:

- A. Normal atmospheric conditions exclude corrosive or aggressive atmospheres such as those contaminated with chemical fumes, salt or other corrosive elements, including areas within 1500 feet of a body of salt water. MCCA requires a fresh water cleaning / maintenance program be in effect to prevent corrosion from accumulated deposits.
- B. For projects located +15° / -15° latitude of the equator, stated warranty period is reduced by 50%.
- C. The warranty will not extend or cover:
- (1) cracking or crazing as a result of metal fracture;
- (2) damage to the coating occasioned by moisture or other contamination detrimental to the coating because of improper storage of the coated metal prior to installation;
- (3) water damage due to condensation caused by improper packaging of the coated metal prior to installation;
- (4) damages to the coated metal caused by handling, shipping, processing and/or installation; or
- (5) damages to the coated metal caused by scratching or abrading after installation; or
- (6) damages to the coated metal as a result of standing water in horizontal installations;
- (7) exposed edges
- D. Applied coatings, such as graffiti or later applied surface treatment(s), will void warranty.
- E. The warranty will not be applicable to damage or failure which is caused by acts of God, falling objects, external forces, explosions, fire, riots, civil commotion’s, acts of war, or other such similar or dissimilar occurrences beyond MCCA’s control.
- F. Customer shall maintain adequate records to establish identification of the coated material and dates of the installation of the coated metal. Customers shall demonstrate that the failure of the coated metal was due to a breach of the warranty stated herein.
- G. MCCA’s exclusive liability under this warranty, or otherwise, will be limited to refinishing, repairing or replacing in situ, at MCCA’s sole option, the defective coated metal. The warranty on any refinished, repaired or replaced coated metal supplied hereunder shall be for the remainder of the warranty period applicable to the originally coated metal. All warranty work will be performed by a company or contractor selected by MCCA. Color variance between replacement or repainted product and original shall not be indicative of a defect.
- H. Claims under the warranty must be made to MCCA in writing within thirty (30) days after discovery of the defective coating and MCCA must be given a reasonable opportunity to inspect the coated metal claimed to be defective.



APPROVED
ZONING REVIEW ONLY
NMJ 12/20/2019

FLUOROCARBON COATING WARRANTY
THIRTY YEAR

- I. MCCA reserves the right to terminate this warranty at any time upon thirty (30) days advance written notice, except with respect to any coated metal which has already been shipped to Customer.
- J. All records and samples Customer is required to prepare and maintain under the terms of this warranty shall be retained by Customer for the warranty period applicable to the coated metal, and in the event of a claim hereunder, MCCA shall have the right to inspect such records and samples,
- K. All notices under or pursuant to this agreement shall be in writing in English and sent by registered or certified mail, postage prepaid, return receipt requested to:

Mitsubishi Chemical Composites America, Inc.
ALPOLIC Division
Customer Service
401 Volvo Parkway
Chesapeake, VA 23320

ALL SUCH NOTICES DEPOSITED IN THE U.S. MAIL AS SET FORTH ABOVE SHALL BE
CONSIDERED SERVED WHEN SO DEPOSITED.

- L. To terms or conditions other than those stated herein and no agreement or understanding, oral or written, in any way purporting to modify this warranty shall be binding on MCCA unless made in writing and signed by its authorized representatives.
- M. Except as set forth herein, MCCA makes no other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, with respect to the product.

Accepted By:

MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

Date

Warranty Number

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12/17/2019



DISTRICT APARTMENTS
1801 & 1901 West 80 1/2 Street, Bloomington, MN

COMPOSITE METAL PANEL
WARRANTY

3A Composites USA, Inc.
Alucobond® Aluminum Composite Material
Warranty Information



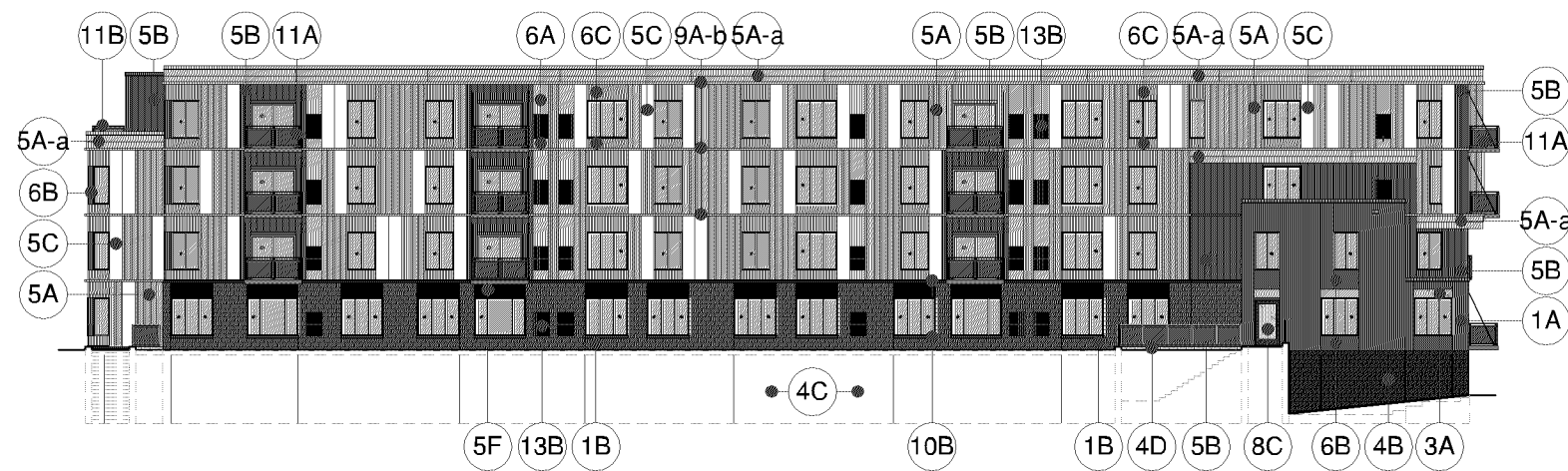
Alucobond® PE and Alucobond® PLUS have a five year warranty against
manufacturing / workmanship defects.

Paint finish warranties may be available for Alucobond PE and Alucobond PLUS.
When a paint finish warranty is desired it must be requested at the time of the
quotation. A paint finish warranty requested only after the Alucobond has
shipped from the 3A Composites manufacturing plant is not available. Paint
finish warranties are site specific with conditions that vary depending upon the
location of the project and the type of paint used. There is not a standard
warranty.

ALUCOBOND®

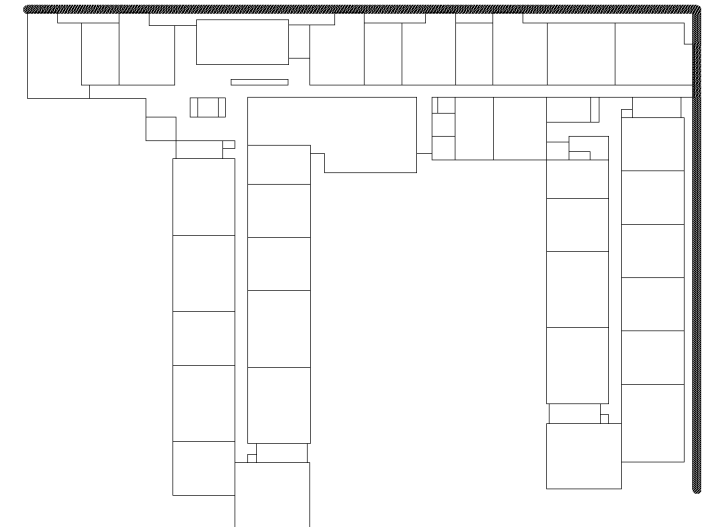
Alucobond® is a registered trademark of 3A Composites USA, Inc.
Page 1 of 1

Version 07272017



EXTERIOR MATERIAL
PERCENTAGES:

PRIMARY 86%
SECONDARY 14%



EAST ELEVATION - EAST BUILDING (WEST SIM.)



EXTERIOR MATERIAL
PERCENTAGES:

PRIMARY 91%
SECONDARY 9%

NORTH ELEVATION - EAST BUILDING (WEST SIM.)

EXTERIOR MATERIAL KEYNOTES

- 1A PRIMARY; UTILITY BRICK COLOR #1
- 1B PRIMARY; DOUBLE MONARCH (4"x8"x16") BRICK COLOR #2
- 3A PRIMARY; ARCHITECTURAL CAST STONE LINTEL COLOR #1
- 4B SECONDARY; BURNISHED BLOCK CONCRETE MASONRY UNIT (WITH 2" RIGID INSULATION INTERIOR)
- 4C 12" CMU BLOCK BACKUP (WITH 2" RIGID INSULATION) (SHOWN DASHED) (SEE STRUCTURAL)
- 4D BLOCK RETAINING WALL WITH ARCHITECTURAL CAST STONE CAP COLOR #1 (SEE CIVIL)
- 5A PRIMARY; METAL PANEL COLOR #1 (VERTICAL INSTALL)
- 5A-a PRIMARY; METAL PANEL COLOR #1 (HORIZONTAL INSTALL)
- 5B PRIMARY; METAL PANEL COLOR #2 (VERTICAL INSTALL)
- 5C PRIMARY; METAL COMPOSITE MATERIAL PANEL COLOR #3
- 5D SECONDARY; SIMILAR TO 5A (SEE SPECS)
- 5E SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #4
- 5F SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #5

EXTERIOR MATERIAL KEYNOTES

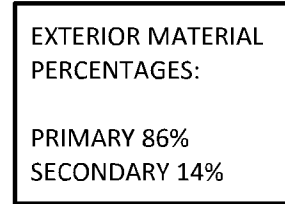
- 6A SECONDARY; FIBER CEMENT PANEL COLOR #1
- 6B SECONDARY; FIBER CEMENT PANEL COLOR #2
- 6C SECONDARY; FIBER CEMENT PANEL COLOR #3
- 6D SECONDARY; FIBER CEMENT PANEL COLOR #4
- 8A PRIMARY; VINYL WINDOW/DOOR
- 8B PRIMARY; PREFINISHED ANODIZED ALUMINUM STOREFRONT
- 8C PREFINISHED HOLLOW METAL INSULATED EXTERIOR DOOR & FRAME
- 9A-a PREFINISHED METAL FLASHING COLOR #1 (AT 5B, 5F, & 6B)
- 9A-b PREFINISHED METAL FLASHING COLOR #2 (AT FLOOR LINE, TYPICAL AT ALL LOCATIONS, EXCEPT AT 9A-a)
- 9B EXPANSION JOINT (SEALANT)
- 10A PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 1A)
- 10B PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 1B & 4B)
- 10C PREFINISHED METAL COPING/CAP FLASHING COLOR #2 (@ 5A & 5A-a)
- 10D PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 5B & 6B)

EXTERIOR MATERIAL KEYNOTES

- 10E PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ NORTH ELEV SILL)
- 10F PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ 6C)
- 11A PREFABRICATED/PREFINISHED METAL BALCONY SYSTEM WITH WIRE MESH INFILL
- 11B PREFABRICATED/PREFINISHED METAL GUARDRAIL SYSTEM WITH WIRE MESH INFILL
- 13A PREFINISHED PTAC GRILLE (COLOR #1 @ 5B, 5F, 6B. COLOR #2 @ 6C) (CUSTOM LENGTH TO ENTIRE WINDOW WIDTH ABOVE) (SEE MECH)
- 13B PREFINISHED MAGICPAK GRILLE (CUSTOM COLOR #1 @ ADJACENT 5A, 5D, 6A. CUSTOM COLOR #2 @ ADJACENT 1B, 4B, 5B. CUSTOM COLOR #3 @ ADJACENT 1A) (SEE MECH)
- 13C PREFINISHED MECHANICAL LOUVER (SEE MECH)
- 13D PREFINISHED METAL (OVERFLOW) NOZZLE & COVERPLATE (SEE MECH)
- 13E PREFINISHED METAL LOW PROFILE (OVERFLOW) SCUPPER (SEE MECH)
- 14 CANOPY/SHADOW BOX AT STOREFRONT (MCM 5E)

12/17/2019





EXTERIOR MATERIAL
PERCENTAGES:

PRIMARY 86%
SECONDARY 14%



1A	PRIMARY; UTILITY BRICK COLOR #1
1B	PRIMARY; DOUBLE MONARCH (4"x8"x16") BRICK COLOR #2
3A	PRIMARY; ARCHITECTURAL CAST STONE LINTEL COLOR #1
4B	SECONDARY; BURNISHED BLOCK CONCRETE MASONRY UNIT (WITH 2" RIGID INSULATION INTERIOR)
4C	12" CMU BLOCK BACKUP (WITH 2" RIGID INSULATION) (SHOWN DASHED) (SEE STRUCTURAL)
4D	BLOCK RETAINING WALL WITH ARCHITECTURAL CAST STONE CAP COLOR #1 (SEE CIVIL)
5A	PRIMARY; METAL PANEL COLOR #1 (VERTICAL INSTALL)
5A-a	PRIMARY; METAL PANEL COLOR #1 (HORIZONTAL INSTALL)
5B	PRIMARY; METAL PANEL COLOR #2 (VERTICAL INSTALL)
5C	PRIMARY; METAL COMPOSITE MATERIAL PANEL COLOR #3
5D	SECONDARY; SIMILAR TO 5A (SEE SPECS)
5E	SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #4
5F	SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #5

6A	SECONDARY; FIBER CEMENT PANEL COLOR #1
6B	SECONDARY; FIBER CEMENT PANEL COLOR #2
6C	SECONDARY; FIBER CEMENT PANEL COLOR #3
6D	SECONDARY; FIBER CEMENT PANEL COLOR #4
8A	PRIMARY; VINYL WINDOW/DOOR
8B	PRIMARY; PREFINISHED ANODIZED ALUMINUM STOREFRONT
8C	PREFINISHED HOLLOW METAL INSULATED EXTERIOR DOOR & FRAME
9A-a	PREFINISHED METAL FLASHING COLOR #1 (AT 5B, 5F, & 6B)
9A-b	PREFINISHED METAL FLASHING COLOR #2 (AT FLOOR LINE, TYPICAL AT ALL LOCATIONS, EXCEPT AT 9A-a)
9B	EXPANSION JOINT (SEALANT)
10A	PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 1A)
10B	PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 1B & 4B)
10C	PREFINISHED METAL COPING/CAP FLASHING COLOR #2 (@ 5A & 5A-a)
10D	PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 5B & 6B)

10E	PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ NORTH ELEV SILL)
10F	PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ 6C)
11A	PREFABRICATED/PREFINISHED METAL BALCONY SYSTEM WITH WIRE MESH INFILL
11B	PREFABRICATED/PREFINISHED METAL GUARDRAIL SYSTEM WITH WIRE MESH INFILL
13A	PREFINISHED PTAC GRILLE (COLOR #1 @ 5B, 5F, 6B. COLOR #2 @ 6C) (CUSTOM LENGTH TO ENTIRE WINDOW WIDTH ABOVE) (SEE MECH)
13B	PREFINISHED MAGICPAK GRILLE (CUSTOM COLOR #1 @ ADJACENT 5A, 5D, 6A. CUSTOM COLOR #2 @ ADJACENT 1B, 4B, 5B. CUSTOM COLOR #3 @ ADJACENT 1A) (SEE MECH)
13C	PREFINISHED MECHANICAL LOUVER (SEE MECH)
13D	PREFINISHED METAL (OVERFLOW) NOZZLE & COVERPLATE (SEE MECH)
13E	PREFINISHED METAL LOW PROFILE (OVERFLOW) SCUPPER (SEE MECH)
14	CANOPY/SHADOW BOX AT STOREFRONT (MCM 5E)

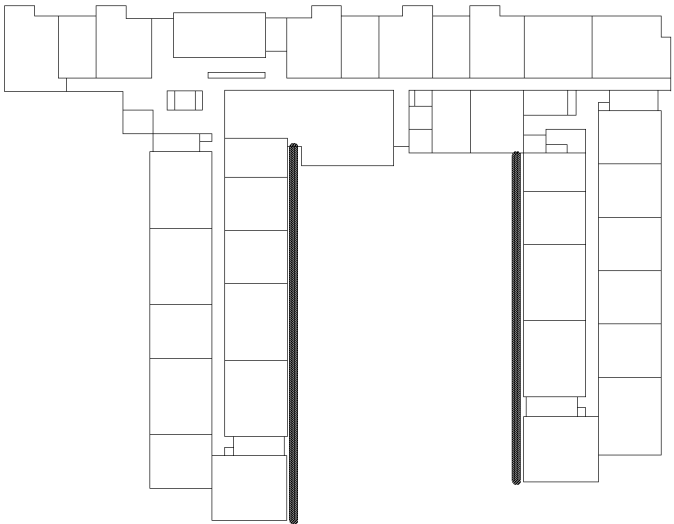
12/17/2019



WEST COURTYARD ELEVATION - EAST BUILDING (WEST SIM.)



EAST COURTYARD ELEVATION - EAST BUILDING (WEST SIM.)



EXTERIOR MATERIAL KEYNOTES

- 1A PRIMARY; UTILITY BRICK COLOR #1
- 1B PRIMARY; DOUBLE MONARCH (4"x8"x16") BRICK COLOR #2
- 3A PRIMARY; ARCHITECTURAL CAST STONE LINTEL COLOR #1
- 4B SECONDARY; BURNISHED BLOCK CONCRETE MASONRY UNIT (WITH 2" RIGID INSULATION INTERIOR)
- 4C 12" CMU BLOCK BACKUP (WITH 2" RIGID INSULATION) (SHOWN DASHED) (SEE STRUCTURAL)
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- 5B PRIMARY; METAL PANEL COLOR #2 (VERTICAL INSTALL)
- 5C PRIMARY; METAL COMPOSITE MATERIAL PANEL COLOR #3
- 5D SECONDARY; SIMILAR TO 5A (SEE SPECS)
- 5E SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #4
- 5F SECONDARY; METAL COMPOSITE MATERIAL PANEL COLOR #5

EXTERIOR MATERIAL KEYNOTES

- 6A SECONDARY; FIBER CEMENT PANEL COLOR #1
- 6B SECONDARY; FIBER CEMENT PANEL COLOR #2
- 6C SECONDARY; FIBER CEMENT PANEL COLOR #3
- 6D SECONDARY; FIBER CEMENT PANEL COLOR #4
- 8A PRIMARY; VINYL WINDOW/DOOR
- 8B PRIMARY; PREFINISHED ANODIZED ALUMINUM STOREFRONT
- 8C PREFINISHED HOLLOW METAL INSULATED EXTERIOR DOOR & FRAME
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- 9A-b PREFINISHED METAL FLASHING COLOR #2 (AT FLOOR LINE, TYPICAL AT ALL LOCATIONS, EXCEPT AT 9A-a)
- 9B EXPANSION JOINT (SEALANT)
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- 10B PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 1B & 4B)
- 10C PREFINISHED METAL COPING/CAP FLASHING COLOR #2 (@ 5A & 5A-a)
- 10D PREFINISHED METAL COPING/CAP FLASHING COLOR #1 (@ 5B & 6B)

EXTERIOR MATERIAL KEYNOTES

- 10E PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ NORTH ELEV SILL)
- 10F PREFINISHED METAL COPING/CAP FLASHING COLOR #3 (@ 6C)
- 11A PREFABRICATED/PREFINISHED METAL BALCONY SYSTEM WITH WIRE MESH INFILL
- 11B PREFABRICATED/PREFINISHED METAL GUARDRAIL SYSTEM WITH WIRE MESH INFILL
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- 13B PREFINISHED MAGICPAK GRILLE (CUSTOM COLOR #1 @ ADJACENT 5A, 5D, 6A. CUSTOM COLOR #2 @ ADJACENT 1B, 4B, 5B. CUSTOM COLOR #3 @ ADJACENT 1A) (SEE MECH)
- 13C PREFINISHED MECHANICAL LOUVER (SEE MECH)
- 13D PREFINISHED METAL (OVERFLOW) NOZZLE & COVERPLATE (SEE MECH)
- 13E PREFINISHED METAL LOW PROFILE (OVERFLOW) SCUPPER (SEE MECH)
- 14 CANOPY/SHADOW BOX AT STOREFRONT (MCM 5E)

12/17/2019

