

## Part 1 – General

### 1.1 SUMMARY

1. **Scope:** Provide design and engineering, labor, material, equipment, related services, and supervision required, including, but not limited to, manufacturing, fabrication, erection, and installation for 4" and 6" aluminum, FastPlank® V-NOTCH™ profile, aluminum siding as required for the complete performance of the work, and as shown on the drawings and as herein specified.
2. **Section Includes:** The work specified in this section includes, but shall not be limited to, aluminum plank siding, aluminum attachment extrusions, supports, anchors, fasteners, and sealants required for cladding according to custom design indicated on the drawings.

### 1.2 REFERENCES

1. **General:** The publications listed within form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The edition/revision of the referenced publications shall be the latest date as of the date of the contract documents, unless otherwise specified.

### 1.3 SYSTEM DESCRIPTION

1. **Manufacturer:**  
Engage Building Products™  
101, 4441 76 Ave SE  
Calgary, Alberta Canada  
T2C 2G8
2. FastPlank® Systems is comprised of metal cladding and accessories.

#### A. METAL CLADDING

1. **Formed Aluminum Cladding:** Tension levelled, aluminum in accordance with ASTM B209 and ANSI H35.1 alloy designation 6063 T6 and as follows:
  - a. **Plank Sizes:** 192" x [4"] [6"]
  - b. **Weight:** 4" 0.549 lb/ft (0.817 kg/m), 6" 0.691 lb/ft (1.109 kg/m)
  - c. **Profile:** smooth, woodgrain
  - d. **Finish:** powder coating per AAMA 2604, woodgrain sublimation film as per AAMA 2604
  - e. **Colour:** as selected by owner from manufacturer's standard finish guide, custom colour matched
  - f. **Acceptable Materials:** FastPlank® Siding and Soffit as manufactured by FastPlank® Systems Inc

#### B. ACCESSORIES

1. **Girts:** as per project specification
2. **Sub-Girts:** as per project specification
3. **Trim Extrusions:** 144" long, corners and caps to profile
4. **Clips:** 1.5" long system clips

### 6. Fasteners:

- a. **Attachment of Cladding to Steel Substrate:** #10-12 self-drilling fasteners with EPDM washers and corrosion-resistant coating to withstand 1000 hours of salt spray protection.
  1. **Acceptable Materials:** #10 Hex Head coated.
- b. **Attachment of Cladding to Wood Substrate:** #10-12 fasteners with EPDM washers and corrosion-resistant coating to withstand 1000 hours of salt spray protection.
  1. **Acceptable Materials:** #10 Hex Head coated.

### 7. Isolation Tape: Manufacturer's standard material for separating dissimilar metals from direct contact.

### 8. Insulation Fastenings: Corrosion resistant, galvanized bugle head screws with 38 mm (1.5 inch) diameter washer, 25 mm (1 inch) minimum penetration into framing.

### 9. Insulation: Rigid type 4, 3, 2

### 10. Air/Vapour Retarder: standard air water barrier

### 11. Sealant: as recommended by manufacturer. Color of exposed sealant to match adjacent cladding.

### 12. Gaskets: Santoprene or EPDM as recommended by manufacturer.

### 13. Accessories: Cap flashings, drip flashings, internal corner flashings, copings and closures for head, jamb, sill and corners, of same material, thickness and finish as exterior cladding, brake formed to shape.

### 14. Bituminous Coating: Cold-applied asphalt mastic, in accordance with CGSB 1.108, compounded for 0.40 mm (15 mil) dry film thickness per coat with inert type non-corrosive compound free of asbestos fibres, sulphur components, and other deleterious impurities.

### 15. Expansion Joints: as recommended by Manufacturer's instructions.

## 1.4 FINISH PROPERTIES

### 1. High Performance Powder Coated Finish: passes coating performance testing in accordance with AAMA 2604.

Mechanical Tests		
Dry Adhesion	AAMA 2604.02,7.4.1.1	Pass – GTO
Abrasion Resistance	AAMA 2604.02, 7.6	Pass – abrasion coefficient >20
Dry Film Hardness	AAMA 2604.02, 7.3, ASTM D3363	Pass – no rupture of film
Impact	AAMA 2604.02, 7.5	Pass – no tape removal of film to substrate following 0.1" deformation
Durability Testing		
Salt Spray	ASTM B117, AAMA 2604.02, 7.8.2, ASTM D1654	Pass at 3,000 hours, no corrosion more than 1.6mm from scribe. Minimum blister rating 8
Constant Humidity	ASTM D2247, ASTM D714, AAMA 2604.02, 7.8.1	Pass at 3000 hours – blister formation less than "few" size no.8
Exterior Durability	5 years Florida Exposure AAMA 2604.02, 7.9	Excellent performance. Color change <5. Gloss retention >30% Chalking – not in excess of No.8 ASTM D4214:89

2. **High Performance Sublimation Film on Powder Coated Finish:** passes coating performance testing in accordance with AAMA 2604.
  - a. Powder Coated finish (as per above)
  - b. **Xenon Test – Scratch Performance 1,000 Hours**
    1. **Residual Gloss:** 88 – 104% (depending on decoration selection)
    2. **Variation Color:** 0.47 – 1.67 (depending on decoration selection)
    3. **Grey Scale:** 4 / 5 (depending on decoration selection)
    4. **Final Result:** PASS (all decorations)

## Part 2 – Execution

### 2.1 SUBMITTALS

1. **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, construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of aluminum plank and accessory.
2. **Shop Drawings:** Submit shop drawings for each product and accessory required. Include information not fully detailed in manufacturer's standard product data, including, but not limited to, installation layouts of aluminum plank siding; details of edge conditions, joints, plank profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
3. **Samples:**
  - a. Submit samples for initial color selection.
  - b. Submit samples for each type of aluminum plank indicated with factory-applied color finishes.
  - c. Submit samples in form of manufacturer's color charts showing full range of colors and finishes available.
  - d. Where finishes involve normal color variations, include samples showing the full, range of variations expected.
4. **Contract Closeout Submittals:**
  - a. **Warranty Data:** Submit special warranties excluding (Section 2.6).

### 2.2 QUALITY ASSURANCE

1. **Qualifications:**
  - a. **Inspecting and Testing Agency Qualifications:** To qualify for acceptance, an independent inspecting and testing agency hired by the Contractor or manufacturer to test products shall demonstrate to the Architect's satisfaction that they are qualified according to ASTM E 329 to conduct testing indicated.
  - b. **Installer Qualifications:** Engage an experienced installer, with a minimum of 5 years of experience, who has completed systems similar in material, design, and extent to that indicated for project and with record of successful performance.
  - c. **Regulatory Requirements:** Comply with applicable requirements of the laws, codes, ordinances, and regulations of Federal, Provincial, and Municipal authorities having jurisdiction. Obtain necessary approvals from such authorities.
  - d. **Pre-Installation Conference:** Conduct pre-installation conference. Prior to commencing the installation, meet at the project site to review the material selections, installation procedures, and coordination with other trades. Pre-installation conference shall include, but shall not be limited to, the Contractor, the Installer, and any trade that requires coordination with the work. Date and time of the pre-installation conference shall be acceptable to the Owner and the Consultant.
  - e. **Mock-Ups:** Create a complete mock-up in accordance with instructions by Architect, Consultant, Engineer. Mock-up shall demonstrate prepared substrate, support/attachment framing, plank façade, exterior finishes, and aesthetic appearance. Confirm mock-up conforms with manufacturer's instructions and provisions of contract documents. Mock-up shall be accepted in writing by Architect, Consultant, Engineer before commencement of work.

### 2.3 DELIVERY, STORAGE, AND HANDLING

1. Deliver materials to the project site in Supplier's or Manufacturer's original wrappings and containers, labeled with Supplier's or Manufacturer's name, material or product brand name, and lot number, if any.
2. Deliver components, aluminum plank siding, and other manufactured items so as not to be damaged or deformed. Package all materials for protection during transportation and handling.
3. Store materials in their original, undamaged packages and containers, inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
  - a. Unload, store, and install aluminum plank siding in a manner to prevent bending, warping, twisting, and surface damage.
  - b. Store aluminum plank siding covered with suitable weathertight and ventilated covering. Store aluminum plank siding to ensure dryness, with positive slope for drainage of water. Do not store aluminum plank siding in contact with other materials that might cause staining, denting, or other surface damage. Do not allow storage space to exceed 120 °F (67 °C).
  - c. Retain protective covering for period of plank installation.

### 2.4 PREPARATION

1. **Coordination:** Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to the project site.
2. Obtain dimensions from project site before fabricating wall system.
3. Ensure structural support is aligned and condition is acceptable.
4. Building surfaces shall be smooth, clean and dry, and free from defects detrimental to the installation of the system. Notify General Contractor of conditions not acceptable for installation of system.
5. Inspect wall system and components before installation and verify that there is no shipping damage.
6. Do not install damaged planks; repair or replace as required for smooth and consistent finished appearance.

### 2.5 INSTALLATION

1. Install cladding and components in accordance with Manufacturer's written installation instructions and shop drawings.
2. Ensure continuity of building envelope air barrier and vapor retarder systems.
3. Erect components plumb and true.
4. Install continuous starter strips, inside and outside corners, edgings, soffit, drip, cap, sill and window/door opening flashings, as indicated.
5. Install outside corners, fillers and closure strips with carefully formed and profiled work.
6. Maintain joints in exterior cladding, true to line, tight fitting, hair-line joints.
7. Attach components in manner not restricting thermal movement.
8. Caulk junctions with adjoining work with sealant.
9. Apply isolation coating to areas of contact between dissimilar metals.
10. **Touch-Up Painting:** Inspect completed wall system and apply matching touch-up paint as needed to correct minor paint flaws.

**2.6 WARRANTY**

1. **FastPlank® Systems:** 50-Year Product Warranty against faults and defects in materials and workmanship attributed to the manufacturer. The FastPlank® systems warranty shall be counter-signed by the Manufacturer and the Installer.
  - a. **Failures include, but are not limited to, the following:**
    1. Structural failures, including rupturing, cracking, or puncturing.
    2. Deterioration of metals and other materials beyond normal weathering.
2. **Special Finish Warranty:** Submit a written warranty, signed by Manufacturer, covering failure of the factory-applied exterior finish within the specified warranty period. Deterioration of finish includes, but shall not be limited to, color fade, chalking, cracking, peeling, and loss of film integrity.
  - a. **Warranty Period – Finish:** Warranty period shall be 20-years from date of project completion.
3. **Additional Owner Rights:** The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the contract documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the contract documents.

**2.7 EXAMINATION**

1. **Verification of Conditions:** Examine areas and conditions under which the work is to be installed, and notify the Contractor in writing, with a copy to the Owner and the Architect, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.
  - a. Examine substrates, areas, and conditions, with the Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the work.
  - b. Examine wall framing to verify that girts, angles, channels, studs, and other support members and anchorage have been installed within alignment tolerances required.
  - c. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within tolerances required.
  - d. Verify that weather-resistant sheathing paper has been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
  - e. Examine rough-in for components and systems penetrating aluminum plank siding to verify actual locations of penetrations relative to seam locations of planks before plank installation.
  - f. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Installer.

**2.8 ADJUSTING AND CLEANING**

1. Remove temporary protective coverings and strippable films, if any.
2. On completion of aluminum siding plank installation, clean finished surfaces with mild domestic detergent and warm water using a soft cloth. Maintain in a clean condition during construction.
3. After aluminum siding plank installation, clear all drainage channels of obstructions and/or dirt.
4. Replace aluminum planks that have been damaged or have deteriorated beyond successful repair by finish touch-up or similar minor repair procedures.
5. Any additional protection, after installation, shall be the responsibility of the general contractor to remove.

## 2.9 PROTECTION

1. Protect installed products and components from damage during construction.
2. Repair damage to adjacent materials caused by composite metal building panel installation.