*NORBEC SPEC NOTE: This Master Specification Section includes NORBEC SPEC NOTES for information purposes and to assist the editor in making appropriate decisions. NORBEC SPEC NOTES always immediately precede the text to which it is referring. The Section serves as a guideline only and should be edited with deletions and additions to meet specific project requirements.*

*NORBEC SPEC NOTE: This Specification Section follows the recommendations of the Construction Specifications Canada, Manual of Practice including MasterFormat, SectionFormat, and PageFormat. Optional text is indicated by square brackets [ ]; delete the optional text including the brackets in the final copy of the Specification. Delete all NORBEC SPEC NOTES in the final copy of the Specification.*

*NORBEC SPEC NOTE: This Specification includes materials and installation procedures for Architectural Elements (Fins), installed in conjunction with the adjacent Insulated Metal Panels. Architectural Elements are available in different textures and colours, allowing for creative design contrasts within the same building elevation.*

*NORBEC SPEC NOTE: Architectural Fins are intended for exterior use, in both horizontal and vertical configurations. This Specification should be adapted to suit the requirements of individual projects.*

1. General
	1. general requirements
		1. The General Conditions, the Supplementary Conditions, the Instructions to Bidders and Division 1 General Requirements shall be read in conjunction with and govern this section.
		2. The Specification shall be read as a whole by all parties concerned. Each Section may contain more or less than the complete work of any trade. The Contractor is solely responsible to make clear to the Subcontractors the extent of their work.
	2. summary
		1. Supply and install the following:
			1. Preformed metal architectural fins for inclusion onto the insulated metal wall panels, to create design contrast along the wall elevation.
			2. Accessories including fasteners, trim, sealant, and penetration treatments.

*NORBEC SPEC NOTE: Edit the following paragraph to reflect related requirements for this Project.*

* 1. RELATED requirements
		1. Section 05 40 00: Cold Formed Metal Framing
		2. Section 05 50 00: Metal Fabrications
		3. Section 06 10 00: Rough Carpentry
		4. Section 07 42 13.19: Insulated Metal Wall Panels
		5. Section 07 62 00: Sheet Metal Flashing and Trim
		6. Section 07 92 00: Joint Sealants
	2. REFERENCE Standards

*NORBEC SPEC NOTE: Edit the following paragraph to reflect reference standards for this Project.*

* + 1. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
		2. All reference amendments adopted prior to the bid closing date of this Project shall be applicable to this Project.
		3. All materials, installation and workmanship shall comply with all applicable requirements and standards.
		4. Applicable Standards:
			1. American Architectural Manufacturers Association (AAMA):
				1. AAMA 501-05, Methods of Test for Exterior Walls
				2. AAMA 611-12, Voluntary Specification for Architectural Anodized Aluminum
				3. AAMA 2603-13, Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
				4. AAMA 2604-13, Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coating on Aluminum Extrusions and Panels
				5. AAMA 2605-13, Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coating on Aluminum Extrusions and Panels
			2. American Society for Testing and Materials (ASTM):
				1. ASTM A755: Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products
				2. ASTM A792: Standard Specification for Steel Sheet, 55 percent Aluminum-Zinc Alloy-Coated by the Hot–Dip Process
				3. ASTM A924: Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
				4. ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus
				5. ASTM D714: Standard Test Method for Evaluating Degree of Blistering of Paints
				6. ASTM D968: Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
				7. ASTM D1308: Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
				8. ASTM D1654: Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
				9. ASTM D2244: Standard practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
				10. ASTM D2247: Standard Practice for Testing Water Resistance of Coatings in 100 percent Relative Humidity
				11. ASTM D2794: Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
				12. ASTM D3359: Standard Test Methods for Measuring Adhesion by Tape Test
				13. ASTM D3363: Standard Test Method for Film Hardness by Pencil Test
				14. ASTM D4145: Standard Test Method for Coating Flexibility of Prepainted Sheet
				15. ASTM D4214: Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films
				16. ASTM D5894: Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog/Dry Cabinet and a UV Condensation Cabinet)
				17. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials
				18. ASTM E90: Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
	1. ADMINISTRATIve REQUIREMENTS

*NORBEC SPEC NOTE: Edit the following paragraph to make the required selections and remove square brackets indicated below.*

* + 1. Pre-Construction Meeting: Arrange a preconstruction meeting in accordance with
		[Division 01][Section 01 31 19 Project Meetings], attended by [Contractors] [Construction Manager], Consultant, and the architectural fin [Subcontractor] [Trade Contractor] to discuss the following:
			1. Installation requirements;
			2. Coordination of architectural fin requirements in relation to insulated wall panel system;
			3. Installation of any separate air/water barriers, and treatment of fenestration;
			4. Coordination of work with adjacent finishes and wall assemblies;
			5. Protection of finishes; and
			6. Acceptability of substrates and quality of materials being used for the project.
	1. SUBMITTALS

*NORBEC SPEC NOTE: Edit the following paragraph to make the required selections and remove square brackets indicated below.*

* + 1. Provide submittals as indicated in [Division 01][Section 01 33 00 Submittal Procedures].
		2. Action Submittals: Provide the following submittals before starting work of this Section:
			1. Product Data: Manufacturer's data sheets on each product to be used, including:
				1. Detailed technical data for materials, fabrication, and installation, including anchors, hardware, fasteners, and accessories.
				2. Storage and handling requirements and recommendations.
				3. Installation instructions.
			2. Samples:
				1. Submit a sample architectural fin profile, 305 mm (12”) long, representing the profile design, colour and attachment hardware, supplied by the manufacturer.
			3. Shop Drawings: Submit detailed drawings and panel analysis showing the following:
				1. Architectural fin profile;
				2. Location, layout and dimensions of architectural fins;
				3. Location and type of fasteners and fastening method;
				4. Locations and type of sealants;
				5. Coordination Drawings: Provide elevation drawings and building sections which show panels in relationship to required locations of architecturalfins.
				6. Prepare Shop Drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed at the place where the Project is located.
		3. Information Submittals:
			1. Installation Data: Manufacturer's special installation requirements, including special handling criteria, installation sequence, and cleaning procedures.
	1. QUALITY ASSURANCE
		1. Manufacturer / Supplier Qualifications:
			1. Manufacturer shall demonstrate past experience with examples of projects of similar type and exposure, with a record of successful in-service performance.
			2. Have adequate financing, equipment, plant and skilled personnel to detail, fabricate and erect the work of this Section as required by the Specifications and Drawings.
		2. Erector Qualifications:
			1. Installers shall be authorized by the manufacturer and the work shall be supervised by a person having a minimum of five (5) years experience installing work of this Section on similar type and size projects.

*NORBEC SPEC NOTE: Mock-ups establish quality of the work for the materials indicated in this Section. Delete the following paragraph if the scope of work in this Section is minimal and a mock-up is not required.*

* 1. Mock-Up:
		1. Construct mock-ups to demonstrate constructability, coordination of trades, and sequencing of Work; and to ensure materials, components, assemblies, and interfaces integrate into a system complying with indicated performance and aesthetic requirements.
		2. Build integrated mock-ups using products, installers and construction methods that will be used in completed construction of this Section.
		3. Coordinate installation of materials and products specified in other Sections of the Project Manual, that are required to be integrated into mock-ups of this Section, to provide a complete system.
		4. The Work of integrated exterior mock-ups includes, but is not limited to, the following:
			1. Insulated metal wall panels;
			2. Architecturalfins;
			3. Flashing and sheet metal trim; and
			4. Joint sealants.
		5. Provide and document modifications to construction details and interfaces between components and systems required to properly sequence the Work.
			1. Obtain Consultant’s approval for all modifications prior to proceeding with work.

*NORBEC SPEC NOTE: Architectural Fins supplied for Mock-ups are “Project Architectural Fins”, and therefore should remain part of the Work once workmanship, quality control measures, and finishes have been approved.*

*NORBEC SPEC NOTE: If Mock-ups are required on the Project, keep the following subparagraphs.*

* + 1. Mock-up Review Meeting:
			1. Schedule mock-up review meeting, attended by [Contractor][Construction Manager], [Subcontractor][Trade Contractor], Manufacturer’s Representative and Consultant.
			2. Review mock-up for quality of workmanship, detailing and fastening, adjacent materials tie-in, and accessories installation. Do not proceed with remaining work until workmanship, colour, and texture are approved by Consultant.
			3. Retain approved mock-ups constructed in place as part of the Work. Seamlessly incorporate approved mock-up into remaining Work.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Delivery: At the time of delivery, visually inspect all materials for damage. Note any damaged to materials on the receiving ticket and immediately report to the shipping company and the material manufacturer.
			1. Remove damaged materials from the site immediately.
		2. Storage:
			1. Store materials as recommended by manufacturer and conforming to applicable safety regulatory agencies. Refer to all applicable data including but not limited to Safe Use Instruction Sheets, Product Data sheets, product labels, and specific instructions for personal protection.
			2. Store materials in original packaging, on a dry, level, firm, and clean surface. Stack no more than two bundles high. Elevate one end of bundle to allow moisture run-off, cover and ventilate to allow air to circulate and moisture to escape.
			3. Protect materials from accelerated weathering if stored beyond one (1) month by removing or venting sheet plastic shipping wrap; cover panels with woven fabric tarpaulins.
			4. Store adhesives and sealants at temperatures of 5 deg C (41 deg F) and above to facilitate handling.
			5. Store materials away from contaminating sources, fertilizers, chemical products or corrosive substances.
			6. Stack and store flashings and metal trim to prevent creasing, twisting, scratching and other damage.
		3. Handling: Material shall be handled in accordance with sound material handling practices and in accordance with manufacturer's written instructions, and applicable health and safety guidelines for the location of the Project.
	2. SEQUENCING
		1. Ensure that locating templates and other information required for installation of products of this Section are furnished to affected trades in time to prevent interruption of construction progress.
		2. Ensure that products of this Section are supplied to affected trades in time to prevent interruption of construction progress.
	3. WARRANTY
		1. General: Panels showing such defects as indicated in this subparagraph, will be replaced and made good, together with all work of other trades damaged during removal of insulated metal panels, at no expense to the Owner.
		2. Limited Warranty: Standard form in which manufacturer agrees to repair or replace items that fail in materials or workmanship within specified warranty period. Items covered by the warranty include structural performance, bond integrity, deflection and buckling.

*NORBEC SPEC NOTE: The manufacturer offers a standard five-year warranty. Extended warranties up to ten years can be selected, if required, at additional expense. Select one of the following warranty options below and delete the option not required.*

* + - 1. Warranty Period: Five (5) years from date of Substantial Completion.
			2. Extended Warranty: Ten (10) years from date of Substantial Completion.

*NORBEC SPEC NOTE: Finish Warranties are commonly offered by manufacturers supplying coated metal, to ensure that the panel finish remains the same to the human eye. Finish warranties differ in length and coverage, depending on the finish system that is selected in Paragraph 2.5 below.*

*NORBEC SPEC NOTE: The following subparagraph shall remain on all Projects.*

* + 1. Finish Warranty: Standard form in which manufacturer agrees to repair or replace metal panels that evidence deterioration of fluoropolymer finish, as indicated in Paragraph 2.5 below.
			1. Warranty Period: Ten (10) years from date of Substantial Completion.
1. Products
	1. MANUFACTURER
		1. Basis-of-Design Products: Products named in this Section were used as the basis-of-design for the project; additional manufacturers offering similar products may be incorporated into the work of this Section provided they meet the performance requirements established by the named products, and provided they submit requests for substitution in accordance with [Division 01][Section 01 33 00 Submittal Procedures].
		2. Acceptable Materials Manufacturers: Subject to compliance with requirements specified in this Section and as established by the Basis-of-Design Materials, manufacturers offering products that may be incorporated into the Work include; but are not limited to, the following:
			1. NORBEC Architectural Inc.
			97 Rue de Vaudreuil, Boucherville (Quebec), J4B 1K7
			Phone:1-877-667-2321
	2. architectural elements –Fins

*NORBEC SPEC NOTE: Select one of the following Architectural Fin options below and delete the options not required on the Project.*

*NORBEC SPEC NOTE: Standard finish option for Architectural Fins is matching the adjacent wall panels, but NORBEC offers full RAL colour range for custom designs.*

*NORBEC SPEC NOTE: Contact your NORBEC Technical Representative for design options using Architectural Fin Systems with NORBEC Insulated Metal Panels.*

* + 1. Architectural Fin System:

*NORBEC SPEC NOTE: Select the following* *Architectural Fin system for use with NOREX-H Wall Panels only. Delete the following system for use with NOREX-L and NOROC-L Wall Panel assemblies by NORBEC.*

* + - 1. Align Fins Collection:
				1. Mounting Type: Hidden Screw.

*NORBEC SPEC NOTE: Edit the following paragraph to make the required selections and remove square brackets indicated below.*

* + - * 1. Mounting Orientation: [Vertical][Horizontal], in-line with orientation of adjacent insulated metal panels.

Fin flange designed to fit perfectly within the panel joint, prior to installation of adjacent wall panels.

* + - * 1. Length: 3658mm (12’) maximum length. Longer sections are achieved by joining lengths of fins with splice accessory compatible with fins.

Overall dimension taken from X to Y axis in inches.

* + - * 1. Profile: Blade.
				2. Material:

Formed-Aluminum sheet, powder coated for custom colours; Preformed.

Pre-painted galvanized steel for adjacent colour match.

*NORBEC SPEC NOTE: Select one of the following colour options and delete the option not required on the Project.*

* + - * 1. Colour: [To match adjacent wall panel, unless otherwise indicated on the Drawings][Custom Colour].
				2. Basis of Design Material: Architectural Fin, Align Fins Collection by NORBEC Architectural Inc.

*NORBEC SPEC NOTE: Select the following* *Architectural Fin system for use with NOREX-H, NOREX-L and/or NOROC-L Wall Panels.*

* + - 1. FLEX Fins Collection:
				1. Mounting Type: Hidden Screw.

*NORBEC SPEC NOTE: Edit the following paragraph to make the required selections and remove square brackets indicated below.*

* + - * 1. Mounting Orientation: [Vertical][Horizontal][Angled] Finishing cap attached with colour match rivets onto full length rail mounted with surface fastened and adhered or through-fastened, depending on architectural fin size, onto adjacent insulated metal panels.

Installation follows after panel installation.

* + - * 1. Material:

Formed-Aluminum sheet, powder coated for custom colours; Preformed.

Pre-painted galvanized steel for adjacent colour match.

* + - * 1. Length: 3658mm (12’) maximum length. Longer sections are achieved by joining lengths of fins with splice accessory compatible with fins.

*NORBEC SPEC NOTE: Select one of the following profile options and delete the option not required on the Project.*

*NORBEC SPEC NOTE: Profiles are available in multiple dimensions. Contact your NORBEC Technical Representative to determine what dimensions best work with your design.*

* + - * 1. Profile:

Rectangle.

Square Box.

*NORBEC SPEC NOTE: Select one of the following colour options and delete the option not required on the Project.*

* + - * 1. Colour: [To match adjacent wall panel, unless otherwise indicated on the Drawings][Custom Colour].
				2. Basis of Design Material: ArchitecturalFin, Flex Fins Collection by NORBEC Architectural Inc.

*NORBEC SPEC NOTE: Select the following* *Architectural Fin system for use with NOREX-H and NOREX-L Wall Panels. Delete the following system for use with NOROC-L Wall Panel assembly by NORBEC.*

*NORBEC SPEC NOTE: Versa Fins Collection offers a custom shaped, extruded aluminium design. Custom shapes are available with minor delay for manufacturing. Pressure plate base can be installed prior to the finished fin cover.*

* + - 1. Versa Fins Collection:
				1. Mounting Type: Pressure Plate, Hidden Screw.

*NORBEC SPEC NOTE: Edit the following paragraph to make the required selections and remove square brackets indicated below.*

* + - * 1. Mounting Orientation: [Vertical][Horizontal][Angled] pressure band attachment onto adjacent insulated metal panels.

Full length band fastened to insulated metal panels prior to friction fitting architecturalfins overtop of band.

Installation follows after panel installation.

* + - * 1. Material: Extruded Aluminum, adapted to profile shape and size.
				2. Length: 6096mm (20’) maximum lengths. Longer sections are achieved by joining lengths of fins with splice accessory compatible with fins.
				3. Profile: Custom.

*NORBEC SPEC NOTE: Select one of the following colour options and delete the option not required on the Project.*

* + - * 1. Colour: [To match adjacent wall panel, unless otherwise indicated on the Drawings][Custom Colour].
				2. Basis of Design Material: ArchitecturalFin, Versa Fins Collection by NORBEC Architectural Inc.
		1. Fasteners: Manufacturer's standard type to suit application; zinc coated.
			1. Exterior Finishing Screws: Self-fastening/self-drilling, 1/8” colour match, pre-painted rivets.
			2. Structural Screws: Self-fastening/self-drilling TEK #1/4-28 zinc-coated steel screws; Length same as panel thickness.
			3. Anchor Bolts and Nuts: ASME B18.2.2, SAE Gr. 5, minimum 6.6 mm (0.26”) diameter.
		2. Sealants and Paints:
			1. Flashing Sealant: Exterior type, weather-resistant, compatible with surfaces to be sealed. Elastomeric with chemical polymerization, moisture curing, to CAN/CGSB-19.13; Colour to match panels.
				1. Basis of Design Materials: Adfast, Adseal 4580 Series; Colour to match architectural fins.
			2. Field Touch-up Paint: As recommended by panel manufacturer.
			3. Bituminous Paint: As recommended by panel manufacturer.
	1. FABRICATION
		1. Form sections true to shape, accurate in size, square, and free from distortion or defects.
		2. Form pieces in longest practicable lengths.
		3. Factory finish architecturalfins to paint manufacturer’s standards, as indicated above.
		4. Fabrication Tolerances:
			1. Length: ±1.6mm (1/16")
			2. Width: ±1.6mm (1/16")
			3. Depth (overall): ±1.6mm (1/16")
			4. Warp: ±1.6mm per 305mm (1/16" per 12")
	2. finish characteristics and coating system
		1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
		2. Protect finish with strippable protective film.
		3. As Fabricated Finish (Mill Finish): AA-M10, as fabricated mechanical finish.
		4. Coating System:
			1. Film integrity:
				1. During the prescribed duration after application, the paint film shall have no evidence of cracking, flaking or checking to an extent that is apparent on ordinary outdoor visual observations.
			2. Chalking:
				1. Within the prescribed duration after application, the degree of chalking will not exceed rating #8 for vertical and nonvertical applications when measured per ASTM D4214, Method A.
			3. Colour Change:
				1. Within the prescribed duration after application, the change in colour will not be greater than five colour units for vertical and non-vertical applications. Colour measurements are to be made per ASTM D2244 and only on clean surfaces after removing surface deposits and chalk per ASTM D3964. Colour change is measured using any accepted colour spectrophotometer designed to produce reflectance readings in the Tristimulus Filter System on X, Y and Z based on the CIE values of illuminant C and measured in Hunter L, a and b units.

*NORBEC SPEC NOTE: SMP coatings are designed for wall panel and roofing applications, but is not recommended for aggressive atmospheric exposures. SMP coatings offer a 40-year film integrity, and 30-year chalking and colour fade warranties.*

* + - 1. Silicone Modified Polyester (SMP) Finish:
				1. Designed for sidewall (vertical) applications and roofing (non-vertical) applications for the construction and manufacturing industry.
				2. Dry Film Thickness:

The exposed surface shall have a dry film thickness of 25μm ± 3μm (1.0 ± 0.1 mils).

The unexposed or reverse side shall have a dry film thickness which will vary in accordance with the customer’s requirements.

* + - * 1. Basis of Design Materials: Perspectra Plus Series by ArcelorMittal Dofasco Inc., or approved equivalent.

*NORBEC SPEC NOTE: 2-coat systems are designed for wall panel and roofing applications, that are more demanding for aesthetic performance. 2-coat systems offer 20-year film integrity, chalking and colour change warranties. This coating option is the most commonly used.*

* + - 1. 2 Coat Fluoropolymer (PVDF) Coating:
				1. Manufacturer's standard 2 coat, thermo-cured system consisting of specially formulated inhibitive primer and colour topcoat, and apply coating to exposed metal surfaces in accordance with AAMA 2605 and with coating and resin manufacturers' written instructions.
				2. Dry Film Thickness:

The exposed surface shall have a minimum topcoat dry film thickness of 18 microns (0.7 mils) and 5 microns (0.2 mils) primer.

The unexposed (reverse) side shall have a dry film thickness which will vary in accordance with customer requirements.

* + - * 1. Basis of Design Materials: Pre-Coat 10000 Series by ArcelorMittal Dofasco Inc., or approved equivalent.

*NORBEC SPEC NOTE: 4-coat systems are designed for extreme weather conditions or where performance of the finish is high priority. 4-coat systems offer a 40-year film integrity, caulking and colour change warranty.*

*NORBEC SPEC NOTE: This coating option is most expensive and is more commonly used where salt spray is an issue, or where extreme weather conditions can be a factor on the materials for the Project.*

* + - 1. 4-Coat Fluoropolymer “Collections” Thermo-setting Enamel:
				1. Metallic/Elite Series 4-coat paint systems are designed for sidewall and roofing applications in the construction market that are the most demanding for aesthetic performance; Metallics for fat architectural panels, and Elite for accent applications.
				2. Dry Film Thickness:

The exposed surface shall have a minimum dry film thickness of 5 microns (0.2 mils) primer, 18 microns (0.7 mils) barrier coat, 15 microns (0.6 mils) colour/metallic topcoat and 11 microns (0.45 mils) clear coat.

The unexposed (reverse) side shall have a dry film thickness which will vary in accordance with customer requirements.

* + - * 1. Basis of Design Materials: Pre-Coat Metallic/Elite Series by ArcelorMittal Dofasco Inc., or approved equivalent.
			1. Steel (Concealed):
				1. Hot-dip galvanized in accordance with CAN/CSA-G164, with minimum coating of 2 oz./sq.ft., or zinc rich paint.
			2. Isolate where necessary to prevent electrolysis due to dissimilar metal-to-metal contact or metal-to-masonry and concrete contact.  Use bituminous paint, butyl tape or other approved divorcing material.
1. Execution
	1. EXAMINATION
		1. Verification of Conditions:
			1. Examine substrates to receive work and surrounding adjacent surfaces for conditions affecting installation of architectural elements. Coordinate with related sections to ensure proper dimensions are maintained.
			2. Verify that panel alignment is within panel manufacturer’s recommended tolerances and ready to receive architecturalfin system.
		2. Notify Contractor in writing of any conditions that are not acceptable.
		3. Proceed with installation after verification and correction of surface conditions acceptable to panel manufacturer.
	2. PREPARATION
		1. Prepare surfaces using the methods recommended by the panel manufacturer for achieving the best result for the substrate, under the project conditions.
		2. Perform additional preparation procedures as required by panel manufacturer's instructions.
		3. Examine individual architectural fins upon removing from the bundle; Notify manufacturer of architectural fin defects. Do not install defective architectural fins or fastening hardware.
	3. INSTALLATION
		1. General:
			1. Install architectural fin system on walls to manufacturer's written instructions.
			2. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
			3. Permanently fasten architectural fin system to insulated metal panels; Aligned, level, and plumb, within specified tolerances.
			4. Attach architectural fins to panels without restricting movement caused by design loads and expansion and contraction of assembly.
			5. Seal fasteners penetrating wall panels weather tight, ensuring continuity of building envelope air barrier, vapour retarder and rainscreen.
		2. Edification Tolerances:
			1. Tolerance on vertical alignment: 5mm in 6 m (3/16” in 20’)
			2. Tolerance on architectural fin flatness: 6 mm in 3 m (¼” in 10’) in all directions.
			3. Tolerance on oil canning and other surface aesthetic issues:
				1. 1 mm in 400 mm (5/128” in 15-¾”).
				2. Each architectural fin must be individually inspected prior to installation.
	4. CLEANING
		1. Progress Cleaning: Leave work area clean at the end of each work day, ensuring safe movement of passing pedestrians.
			1. Remove excess sealant with solvent recommended by manufacturer.
			2. Clean installation of residue and remove unused materials and products. Remove site cuttings from finish surfaces.
			3. Touch-up, repair or replace architectural fins that have been damaged.
		2. Final Cleaning: At completion of installation, clean all surfaces so they are free of foreign matter using cleaners recommended by manufacturer. Do not use cleaning materials or processes that could change the appearance of exposed finishes.
			1. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.
		3. Waste Management: Coordinate recycling of waste materials and packaging at appropriate facility, diverting waste from landfill. Certified installer shall be responsible for ensuring waste management efforts are practiced.
	5. PROTECTION
		1. Protect installed products until completion of project.
	6. schedules

*NORBEC SPEC NOTE: The following article will assist in preparing a schedule when designing architectural fin shape, orientation, colour and dimensions can vary on the same elevation if desired.*

*NORBEC SPEC NOTE: Contact your NORBEC Technical Representative for design options using Architectural Fin Systems with NORBEC Insulated Metal Panels.*

*NORBEC SPEC NOTE: The following schedule is an* ***EXAMPLE ONLY****. Edit the paragraphs below to create a schedule for the components specified in this section.*

* + 1. North Elevation:
			1. ArchitecturalFin System - Type 1: Architecturalfin model (and abbreviation if provided); Mounting Type; Mounting orientation; Dimension(s); Profile; Coating system and colour.
			2. Adjacent Panel Information: Panel name (and abbreviation if provided); Panel orientation; Profile; Texture; Coating system and colour.
		2. East Elevation:
			1. ArchitecturalFin System - Type 1: Architecturalfin model (and abbreviation if provided); Mounting Type; Mounting orientation; Dimension(s); Profile; Coating system and colour.
			2. Adjacent Panel Information: Panel name (and abbreviation if provided); Panel orientation; Profile; Texture; Coating system and colour.
		3. South Elevation:
			1. ArchitecturalFin System - Type 1: Architecturalfin model (and abbreviation if provided); Mounting Type; Mounting orientation; Dimension(s); Profile; Coating system and colour.
			2. Adjacent Panel Information: Panel name (and abbreviation if provided); Panel orientation; Profile; Texture; Coating system and colour.
		4. West Elevation:
			1. ArchitecturalFin System - Type 1: Architecturalfin model (and abbreviation if provided); Mounting Type; Mounting orientation; Dimension(s); Profile; Coating system and colour.
			2. Adjacent Panel Information: Panel name (and abbreviation if provided); Panel orientation; Profile; Texture; Coating system and colour.

END OF SECTION