SECTION 07 40 00

ROOFING AND SIDING PANELS

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

*Copyright 2021 - 2021 ARCAT, Inc. - All rights reserved*

\*\* NOTE TO SPECIFIER \*\* North Shore Sheet Metals; custom sheet metal fabrication.  
This section is based on the products of North Shore Sheet Metals, which is located at:  
418 Mercantile Ct.  
Wheeling, IL 60090  
Tel: 847-947-6797  
Email: [request info (martin@abedward.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=North+Shore+Sheet+Metals&coid=52832&rep=&fax=&message=RE:%20Spec%20Question%20(07400nss):%20%20&mf=)  
Web: <https://northshoresheetmetals.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos52/arc52832.html) ] for additional information.  
Our highly experienced sheet metal craftsmen will fabricate custom metal products from your ideas and drawings or from our readily available selection including dormers, finials, spires and more. We service both residential and commercial clients. From our design phase to installation, our design and installation experts work together in collaboration to tackle all the challenges of your construction project.  
North Shore Sheet Metals combines old world craftsmanship with modern day technology and equipment to provide high quality, cost advantage architectural products. Also Our 10,000 Sq Ft. facility has state-of-the-art machinery and experienced craftsman awaiting your order. Every order is handled specifically by your dedicated project manager and tailor-made to fit the exact specifications of the project.  
Our office team is skilled, hardworking, and friendly and your complete satisfaction is their ultimate goal. Their value-added customer service raises the industry standard to a level you not only expect but deserve.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Metal roofing.
    2. Soffit panels.
    3. Wall panels.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 12 13 - Architecturally-Exposed Structural Steel Framing.
    2. Section 05 36 00 - Composite Metal Decking.
    3. Section 05 50 00 - Metal Fabrications.
    4. Section 06 10 00 - Rough Carpentry.
    5. Section 07 21 19 - Foamed-In-Place Insulation.
    6. Section 07 60 00 - Flashing and Sheet Metal.
    7. Section 07 90 00 - Joint Protection.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Architectural Manufacturers Association (AAMA):
       1. AAMA 501.1-05 - Standards Test Method for Water Penetration of Windows, Curtain Walls, and Doors Using Dynamic Pressure.
    2. ASTM International (ASTM):
       1. ASTM E283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
       2. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
       3. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
       4. ASTM E1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
       5. ASTM E1680 - Standard Test Method for Rate of Air Leakage through Exterior Metal Roof Panel Systems.
    3. Underwriters Laboratory (UL) Roofing Materials and Systems Directory.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      * 1. Acceptable Manufacturer: North Shore Sheet Metals, which is located at: 418 Mercantile Ct.; Wheeling, IL 60090; Tel: 847-947-6797; Email: [request info (martin@abedward.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=North+Shore+Sheet+Metals&coid=52832&rep=&fax=&message=RE:%20Spec%20Question%20(07400nss):%20%20&mf=); Web: <https://northshoresheetmetals.com>
        2. Web: https://northshoresheetmetals.com.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. METAL ROOFING

\*\* NOTE TO SPECIFIER \*\* Snap-On panels are ideal for use in roofing, mansard, and fascia applications. Designed to be installed over a waterproofed solid substrate. The simplicity of the pan design combined with leveling provides superior flatness and allows for greater workability on site.

* + 1. High Snap-On Standing Seam Panel:
       1. Standards Compliance: ASTM E331, ASTM E1646, ASTM E283 and ASTM E1680 when applied over a solid substrate.
       2. Metal Type: 24 gauge G-90 Galvanized Steel.
       3. Metal Type: 0.032 inch prime quality aluminum.
       4. Metal Type: 24 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       5. Panel Width: 11 inches (279 mm).
       6. Panel Width: 18 inches (457 mm).
       7. Panel Width: 19 inches (483 mm).
       8. Leg Height: 1.5 inch (38 mm).
       9. Stiffener beads available.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 35 ft (10668 mm).
      2. Minimum panel length: 4 ft (1219 mm).
      3. The simplicity of the pan design combined with leveling provides superior flatness and allows for greater workability on site.
      4. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete material options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch (0.81 to 1.60 mm) thick aluminum.
        2. Material: Steel. 24 gauge, 0.0239 inches (0.607 mm).
        3. Material: Steel. 22 gauge, 0.0299 inches (0.759 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

\*\* NOTE TO SPECIFIER \*\* curved panels are ideal for barrel vaults and entrance ways. Delete if not required.

* + - 1. Curved Panels: Minimum Radius: 9 ft (2743 mm).
         1. Must be installed over a waterproofed solid substrate.
    1. 180 Degree Double Lock: Standing seam metal roofing panels combine semi-structural metal panel performance with architectural roofing panel aesthetics.
       1. Metal Type: 22 gauge steel, 0.0239 inches (0.607 mm).
       2. Metal Type: 24 gauge steel, 0.0299 inches (0.759 mm).
       3. Metal Type: 0.032 inch (0.81 mm) aluminum.
       4. Metal Type: 0.040 inch (1.02 mm) aluminum.
       5. Panel Widths: from 12 to 20 inches (305 to 508 mm).
       6. Pan Variation: Smooth.
       7. Pan variation: Striated.
       8. Pan variation: Pencil rib.
       9. Pan variation: Flat rib.
       10. Seam Height: 1.5 inch (38 mm). Requires mechanical field seaming to 180 degrees.
       11. Concealed fastener clips.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 64 ft (19507 mm) factory formed. Unlimited when field formed.
      2. Minimum panel length: 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* curved panels are ideal for barrel vaults and entrance ways. Delete if not required.

* + - 1. Curved Panels: Minimum Radius: 10 ft (3048 mm).
         1. Must be installed over a waterproofed solid substrate.
      2. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.
         2. 30-year non-prorated finish warranty.
    1. 90 Degree Single Lock: Standing seam metal roofing panels combine semi-structural metal panel performance with architectural roofing panel aesthetics.
       1. Metal Type: 22 gauge steel, 0.0239 inches (0.607 mm).
       2. Metal Type: 24 gauge steel, 0.0299 inches (0.759 mm).
       3. Metal Type: 0.032 inch (0.81 mm) aluminum.
       4. Metal Type: 0.040 inch (1.02 mm) aluminum.
       5. Panel Width: from 12 to 20 inches (305 to 508 mm).
       6. Pan Variation: Smooth.
       7. Pan variation: Striated.
       8. Pan variation: Pencil rib.
       9. Pan variation: Flat rib.
       10. Seam Height: 1.5 inch (38 mm). Requires mechanical field seaming to 90 degrees.
       11. Concealed fastener clips.
       12. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
           1. Color: As determined by Architect from Manufacturer's standard color range.
           2. 30-year non-prorated finish warranty.
       13. Minimum Roof Pitch: 1/2:12 roof pitch.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 64 ft (19507 mm) factory formed. Unlimited when field formed.
      2. Minimum panel length: 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* curved panels are ideal for barrel vaults and entrance ways.

* + - 1. Curved Panels: Minimum Radius: 10 ft (3048 mm).
         1. Must be installed over a waterproofed solid substrate.
    1. Redi-Roof Standing Seam: Feature an offset profile which adds strength and allows room for a hex head fastener.
       1. Standards Compliance: ASTM E331, ASTM E1646, ASTM E283 and ASTM E1680 when applied over a solid substrate.
       2. Profile: Batten.
       3. Profile: Standing-seam.
       4. Metal Type: 24 gauge G-90 galvanized steel.
       5. Metal Type: 22 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       6. Metal Type: 0.032 inch prime quality aluminum.
       7. Metal Type: 16 oz cold-rolled copper.
       8. Metal Type: 24 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       9. Panel Width: 12 inches (305 mm).
       10. Panel Width: 16 inches (406 mm).
       11. Panel Widths: 18 inches (457 mm).
       12. Leg Height: 1.56 inch (40 mm) with offsets. 1.38 (25 mm) without offsets.
       13. Maximum Panel Length is 45 ft (13716 mm).
       14. Minimum Panel Length is 4 ft (1219 mm).
       15. One Piece Clips: Button-punched design ensures an extra-snug fit and easy installation.
       16. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete material options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch (0.81 to 1.60 mm) thick aluminum.
        2. Material: Steel. 24 gauge 0.0299 inches (0.759 mm).
        3. Material: Steel. 22 gauge 0.0239 inches (0.607 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

* + 1. Snap Clad: Feature architectural aesthetics as well as structural performance. For use in roofing, mansard and fascia applications.
       1. Standards Compliance: ASTM E331, ASTM E1646, ASTM E283 and ASTM E1680.
       2. Metal Type: 24 gauge G-90 galvanized steel.
       3. Metal Type: 22 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       4. Metal Type: 0.032 inch prime quality aluminum.
       5. Metal Type: 0.040 inch prime quality aluminum.
       6. Metal Type: 16 oz cold-rolled copper.
       7. Metal Type: 24 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       8. Panel Widths: 10 inches (254 mm).
       9. Panel Widths: 12 inches (305 mm).
       10. Panel Widths: 16 inches (406 mm).
       11. Panel Widths: 18 inches (457 mm).
       12. Leg Height: 1-3/4 inch (45 mm). Continuous interlock.
       13. Concealed Fastener Clips: Standard clip for most mansard and fascia applications, and a high-performance clip for roofing applications and UL 90-rated assemblies.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 64 ft (19507 mm).
      2. Minimum panel length: 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required.

* + - 1. Optional Features:
         1. Factory-applied sealant available.
         2. Stiffener beads upon request.
         3. Striations upon request.
         4. Factory eave notching available.
         5. Weathertightness warranty available.
      2. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete flashing options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch (0.81 to 1.60 mm) thick.
        2. Material: Steel. 24 gauge 0.0299 inches (0.759 mm).
        3. Material: Steel. 22 gauge 0.0239 inches (0.607 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

* + 1. Snap-Lock: Standing Seam Roof Panels:
       1. Metal Type: 24 gauge flat sheet metal, smooth with Kynar Finish.
       2. Panel Width: \_\_\_ inches (\_\_\_ mm).
       3. Leg Height: 1 inch (25 mm).
       4. Stiffener beads available.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 35 ft (10668 mm).
      2. Minimum panel length: 4 ft (1219 mm).
      3. Finish: Kynar 500 pre-finished steel.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

* + 1. Snap-On Batten: Ideal for use in roofing, mansard and fascia applications.
       1. Standards Compliance: ASTM E331, ASTM E1646, ASTM E283 and ASTM E1680.
       2. Metal Type: \_\_\_\_\_\_\_\_.
       3. Panel Widths: \_\_\_ inches (\_\_\_ mm).
       4. Standing Seam Leg Height: 1 inch (25 mm).
       5. Stiffener beads available.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 35 ft (10668 mm).
      2. Minimum panel length: 4 ft (1219 mm).
      3. The simplicity of the pan design combined with leveling provides superior flatness and allows for greater workability on site.
      4. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete flashing options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch (0.81 to 1.60 mm) thick aluminum.
        2. Material: Steel. 24 gauge 0.0299 inches (0.759 mm).
        3. Material: Steel. 22 gauge 0.0239 inches (0.607 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

\*\* NOTE TO SPECIFIER \*\* curved panels are ideal for barrel vaults and entrance ways. Delete if not required.

* + - 1. Curved Panels: Minimum Radius: 9 ft (2743 mm).
         1. Must be installed over a waterproofed solid substrate.
    1. Tite-Loc and Tite-Loc Plus: Combine structural panel performance with architectural panel aesthetics.
       1. Standards Compliance: ASTM E331, ASTM E1646, ASTM E283 and ASTM E1680.
       2. Panels: Tite-Loc: Factory-formed to length and field-seamed to a 90 degree lock.
       3. Panels: Tite-Loc Plus: Factory-formed to length and field-seamed to a 180 degree lock.
       4. Metal Type: 24 gauge G-90 galvanized steel.
       5. Metal Type: 22 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       6. Metal Type: 0.032 inch prime quality aluminum.
       7. Metal Type: 0.040 inch prime quality aluminum.
       8. Metal type: 24 gauge hot dipped corrosion-resistant aluminum-zinc alloy.
       9. Panel Width: from 12 inches (305 mm).
       10. Panel Width: from 16 inches (381 mm).
       11. Panel Width: from 18 inches (457 mm).
       12. Pan Variation: Smooth.
       13. Pan variation: Striated.
       14. Pan variation: Pencil rib.
       15. Pan variation: Flat rib.
       16. Leg Height: 2 inch (51 mm). Requires mechanical field seaming after installation.
       17. Concealed-fastener floating clip system allows for thermal expansion and contraction.
       18. Sealant beads available.
       19. Stiffener beads (pencil ribs) available.
       20. Striations are available.

\*\* NOTE TO SPECIFIER \*\* Consult factory for nonstandard lengths.

* + - 1. Maximum panel length: 64 ft (19507 mm).
      2. Minimum panel length: 4 ft (1219 mm).
      3. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete flashing options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch (0.81 to 1.60 mm) thick aluminum.
        2. Material: Steel. 24 gauge 0.0299 inches (0.759 mm).
        3. Material: Steel. 22 gauge 0.0239 inches (0.607 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

Coastal Applications: Aluminum panels with stainless steel clips must be used for finish warranty.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

\*\* NOTE TO SPECIFIER \*\* curved panels are ideal for barrel vaults and entrance ways. Delete if not required.

* + - 1. Curved Panels: Minimum Radius: 20 ft (6096 mm).
  1. SOFFIT PANELS
     1. Flush and Reveal Soffit: The Flush panel and Reveal panel may be specified for use as soffit panels.
        1. Metal Type: 22 gauge steel, 0.0239 inches (0.607 mm).
        2. Metal Type: 24 gauge steel, 0.0299 inches (0.759 mm).
        3. Metal Type: 0.032 inch (0.81 mm) aluminum.
        4. Metal Type: 0.040 inch (1.02 mm) aluminum.
        5. Panel Widths: \_\_\_ inches (\_\_\_ mm).
        6. Maximum Panel Length is 25 ft (7620 mm).
        7. Minimum Panel Length is 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* Recommended for longer panel lengths. One or two beads are available at no additional cost. Delete options not required.

* + - * 1. Stiffener Beads: For increased strength and aesthetics.
      1. Soffit "J" Channel: 12 ft (3658 mm) in matching colors.
      2. Profile: Flush solid.
      3. Profile: Reveal.
      4. Venting: Flush and Reveal Profiles: Ventilated panels available only in 0.032 inch (0.81 mm) aluminum.
         1. Profile: Flush narrow vent. Width: 7 inch (178 mm).
         2. Profile: Flush narrow vent. Width: 11 inch (279 mm).
         3. Profile: Flush narrow vent. Width: 12 inch (305 mm).
         4. Profile: Flush Wide vent. Width: 11 inch (279 mm).
         5. Profile: Flush Wide vent. Width: 12 inch (305 mm).
      5. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

Coastal Applications: Aluminum panels with stainless steel clips must be used for finish warranty.

* + 1. Soffits: Both pre-formed profiles are effective solutions in soffit projects, and with aluminum substrate can be ventilated for increased airflow capacity.
       1. 750 Soffit Panels: Suitable for both commercial and residential use.
          1. Material: 0.32 inch (8 mm) roll-formed aluminum.
          2. Panel Width: 12 inches (305 mm) with "vee" groove every 6 inches (152 mm) center-to-center.
          3. Panel Lengths: Up to 25 ft (7620 mm). Minimum Panel Length is 24 inches (610 mm).
       2. 850 Soffit Panels:
          1. Material: 0.32 inch (8 mm) roll-formed aluminum.
          2. Panel Width: 12 inches (305 mm) with "vee" groove every 6 inches (1829 mm) center-to-center.
          3. Panel Lengths: Up to 25 ft (7620 mm). Minimum Panel Length is 24 inches (610 mm).
       3. Soffit Vented Panels:
          1. Panels can be lanced to allow for airflow and under-eave ventilation.
          2. Available fully vented or half vented.
       4. Soffit "J" Channel: 12 ft (3658 mm) in matching colors.
  1. WALL PANELS
     1. Composite Wall Panels: Rain screen system.
        1. A rain-screen system that eliminates the use of caulk, utilizing clean reveals for an architecturally pleasing system. Constructed with metal composite material (MCM), available in a wide range of finishes and colors to complement any design scheme. Extrusions are fixed to the perimeter of the panel and nest into the extruded track which is attached to the substrate. The result is a free-floating panel installation since the panel is not fastened to the substrate.
           1. Face: 0.020 inch (0.51 mm) thick. Back Skin: 0.020 inch (0.51 mm).
           2. Core: polyethylene.
           3. Core: Fire-retardant material.
           4. Panel formation: Computer-controlled routing equipment. Ensures tight tolerances and accurate panel dimensions.
           5. Staggered Angle Clips Mounted to Panel: Allow each panel to be installed and adjusted individually.
           6. Finish: \_\_\_\_\_\_\_\_.
           7. Color: \_\_\_\_\_\_\_\_.
     2. Flush and Reveal Wall Panels: A rounded interlock leg and concealed fastening system improves the flush appearance while providing additional strength. Panels are factory-formed to length to minimize field cutting.
        1. Metal Type: 22 gauge steel, 0.0239 inches (0.607 mm).
        2. Metal Type: 24 gauge steel, 0.0299 inches (0.759 mm).
        3. Metal Type: 0.032 inch (0.81 mm) aluminum.
        4. Metal Type: 0.040 inch (1.02 mm) aluminum.
        5. Maximum Panel Length: 25 ft (7620 mm).
        6. Minimum Panel Length: 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* Recommended for longer panel lengths. One or two beads are available at no additional cost. Delete options not required.

* + - * 1. Stiffener Beads: For increased strength and aesthetics.
      1. Flashing and Trim: Fabricated by manufacturer or qualified fabricator.

\*\* NOTE TO SPECIFIER \*\* Delete flashing options not required.

* + - * 1. Material: Aluminum. 0.032 to 0.063 inch thick aluminum.
        2. Material: Steel. 24 gauge 0.0299 inches (0.759 mm).
        3. Material: Steel. 22 gauge 0.0239 inches (0.607 mm).
      1. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

* + 1. Precision Series Wall Panels: Multiple rib patterns provide a variety of looks and design options. Can be intermixed and installed horizontally or vertically.
       1. Standards Compliance: ASTM E330, ASTM E283, ASTM E331, and AAMA 501.1-05.

\*\* NOTE TO SPECIFIER \*\* Delete profile and metal type options not required.

* + - 1. Profile: HWP.
      2. Profile: Highline B1.
      3. Profile: Highline B2.
      4. Profile: Highline C1.
      5. Profile: Highline C2.
      6. Profile: Highline M1.
      7. Profile: Highline S1.
      8. Profile: Highline S2.
      9. Metal Type: \_\_\_\_ gauge steel.
      10. Metal Type: \_\_\_ inch (\_\_\_ mm) aluminum.
      11. Metal Type: \_\_\_ inch (\_\_\_ mm) aluminum.
      12. Panel Width: 12 and 16 inches (305 and 406 mm).
      13. HWP Profile Depth: 7/8 inch (22 mm).
      14. Highline Profile Depth: 1-3/8 inch (35 mm).
      15. No-clip panel, or clip installation for expansion/contraction.
      16. Maximum Steel Panel Lengths: 30 ft (9144 mm).
      17. Maximum Aluminum Panel Lengths: 22 ft (6706 mm) on thru-fastened legs Longer lengths available on clip panels.
      18. Minimum Panel Length: 4 ft (1219 mm).

\*\* NOTE TO SPECIFIER \*\* Delete perforated option if not required.

* + - 1. Perforated: Aluminum only for use in equipment screen or over graphics.
      2. Finish: Kynar 500 or Hylar 5000 pre-finished steel and aluminum.
         1. Color: As determined by Architect from Manufacturer's standard color range.

Finish Warranty: 30-year non-prorated can be supplied.

\*\* NOTE TO SPECIFIER \*\* Delete vinyl masking if not required.

* + - * 1. Vinyl Masking: On all fabrication applications where extra handling is expected.

Must be removed immediately after installation.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
         1. Metal Roof Panels:

\*\* NOTE TO SPECIFIER \*\* Delete installation options not required.

* + - * 1. Installation: High Snap-On Standing Seam Panel.

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 3:12 pitch.

Comply with local codes.

* + - * 1. Installation: PAC-150 180 Degree Double Lock.

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 1/2:12 pitch.

Comply with local codes.

* + - * 1. Installation: PAC-150 180 Degree Double Lock.

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 3:12 pitch.

Comply with local codes.

* + - * 1. Installation: Redi-Roof Standing Seam:

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 3:12 pitch.

Comply with local codes.

* + - * 1. Installation: Snap Clad.

Over substrates of 5/8 inch (16 mm) plywood, nail board insulation metal decking or rigid insulation in conjunction with bearing plates.

Underlayment of ice and water shield applied horizontally from eave to ridge.

Minimum Pitch: 2:12. Contact Petersen for assistance on projects requiring lower slopes.

Coastal Applications: Aluminum panels along with stainless steel clips must be used for warranty.

Comply with local codes.

* + - * 1. Installation: Snap-Lock.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Comply with local codes.

* + - * 1. Installation: Snap-On Batten.

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 3:12 pitch.

Comply with local codes.

* + - * 1. Installation: Tite-Loc and Tite-Loc Plus.

Over decking of 5/8 inch (16 mm) plywood, nail board insulation, metal decking, purlins or rigid insulation in conjunction with bearing plates. or equal.

Underlayment to be applied horizontally from eave to ridge.

Fasten panels using Petersen nonpenetrating clips on a maximum of 18 inch (457 mm) centers.

Minimum Slope: 1/2:12 pitch.

Tit-Loc Seamer: Bi-directional and travels up and down slope on roofs with a pitch of 6:12 or less.

The Tite-Loc Plus Seamer: One direction. Installed from left to right to ensure seamer travels down slope. Seamer will not travel up slope on a roof pitch greater than 4:12.

Comply with local codes.

* 1. FIELD QUALITY CONTROL
     1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturer's recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION