Part 1 General

1.1 Section Includes

** Note to Specifier ** Delete items below not required for project.

A. Exterior Lamboo Rainscreen Cladding System:
2. Pre-drilled furring board (if applicable)
4. Milled Lamboo corner trim and termination trim.

B. Exterior rainscreen wall cladding and siding systems.
C. Interior rainscreen wall cladding and siding systems.
D. Soffit systems.

1.2 RELATED SECTIONS

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

A. Section 03300 - Cast-In-Place Concrete.
B. Section 04200 - Masonry Units.
C. Section 05400 - Cold Formed Metal Framing.
D. Section 06100 - Rough Carpentry.
E. Section 06114 - Wood Panel Sheathing.
F. Section 06160 - Sheathing.
G. Section 06200 - Finish Carpentry.
H. Section 06201 - Exterior Finish Carpentry.
I. Section 07060 - Rainscreen Drainage Mat.
J. Section 07100 - Dampproofing and Waterproofing.
K. Section 07190 - Vapor Barriers.
L. Section 07240 - Exterior Finish Assemblies.
M. Section 07270 - Air Barriers.
N. Section 07450 - Fiber-Reinforced Cementitious Panels.
O. Section 07460 - Siding.
P. Section 07500 - Membrane Roofing.
Q. Section 07600 - Flashing and Sheet Metal.
R. Section 07620 - Sheet Metal Flashing and Trim.
S. Section 07650 - Flexible Flashings.
T. Section 07900 - Joint Sealers.
U. Section 08400 - Exterior Entrance Doors.
V. Section 08500 - Exterior Windows.
W. Section 09220 - Portland Cement Plaster.
1.3 REFERENCES
A. ASTM International (ASTM):

1.4 SUBMITTALS
A. Submit under provisions of Section 01300.
B. 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. Installation methods.

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

C. Verification Samples: Two representative units of each finish product specified.
   1. Sample Size: 12 inches (305 mm) boards of chosen wood species milled to rainscreen clip pattern for use on soffits and ceilings.
   2. Rainscreen system to be used with tinted finish applied to 12-inches (305 mm) long sample.

D. Shop Drawings: Provide manufacturer's standard details referenced to exterior and interior elevations of the project drawings; include details of materials, construction and finish. Include relationship with adjacent construction.

1.5 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum 8 years documented experience.
B. Installer Qualifications: Company specializing in performing Work of this section with minimum 5 years documented experience with projects of similar scope and complexity.
C. Source Limitations: 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.

D. 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. Mockup of rainscreen system complete with milled rainscreen, chosen dimension, and chosen profile, marine grade extruded aluminum starter rail, marine grade extruded aluminum rainscreen clips and No. 10 x 1 inch (25 mm) pan head screws, No. 3 square head screws, or No. 10 x 1 inch (25 mm) trim head T25 stainless steel screws.
   2. Intent of mock-up is to demonstrate quality of surface preparation techniques and application workmanship.
   3. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
   4. Retain mock-up during construction as a standard for comparison with completed work.
   5. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6 PREINSTALLATION CONFERENCE
A. 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.
   1. Meet at project site prior to delivery of finish carpentry materials and review condition and environmental controls required for proper installation and ambient conditioning in areas to receive work.
   2. Proceed with finish carpentry when everyone concerned agrees that required ambient conditions can be properly maintained.
   3. Sequencing: Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's packaging bearing the brand name and manufacturer's identification until ready for installation.
   1. Include in delivery of material a complete list of items shipped to include Lamboo Rainscreen, board length, hardware, finish and any other product accessories delivered with the rainscreen system.
   2. Rainscreen system shall be delivered on a tarped flatbed truck or an enclosed van for small quantities. Keep rainscreen tarped or store indoors until installation.
   **NOTE TO SPECIFIER** The following subparagraph is for interior applications. Delete if not required.
   3. Do not deliver finish carpentry materials until painting, wet work, grinding, and similar operation which could damage, soil or deteriorate rainscreen have been completed in installation areas. If finish carpentry must be stored in other than the installation areas, store only in areas meeting requirements specified for installation areas.

B. Store and handle in strict compliance with manufacturer's written instructions and recommendations.

C. Protect from damage due to weather, excessive temperature, and construction operations.
   1. Protect finish carpentry during transit, delivery, storage and handling to prevent damage, soiling, and deterioration.
   2. Do not allow finish carpentry to get wet.

1.8 PROJECT CONDITIONS

A. 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.

1.9 WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Lamboo, which is located at: P. O. Box 195; 311 West Edwards Street; Litchfield, IL 62056; ASD Toll Free: 866-966-2999; Fax: 866-966-2999; Email: sales@lamboo.us; Web: www.lamboo.us
   **NOTE TO SPECIFIER** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

B. Substitutions: Not permitted.
C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 WOOD MATERIALS

**NOTE TO SPECIFIER** Refer to manufacturer’s literature requiring finishing, required periodic refinishing and annual inspection by licensed professional for exterior and certain interior environments

Key Advantages: High material yield, rapidly renewable materials, uniform lengths up to 20 ft (6096 mm), ease of workability. Lamboo products are made entirely out of 100 percent bamboo with specialized adhesives, binders, and treatments specific to application. Lamboo’s engineered materials offer up to 98 percent to 99 percent usage avoiding need to cut around defects found in other natural-based material.

A. Engineered Bamboo: Lamboo Rainscreen for exterior and interior applications.

**NOTE TO SPECIFIER** Delete fire resistance option not required. Class B is standard.

1. Fire Resistance: ASTM E84 Class B.
2. Fire Resistance: ASTM E84 Class A.
3. Toxicity: Low VOC adhesives, does not produce off-gassing when sanding, profiling or handling materials.
5. Pests and Insects: Bamboo includes silica fibers to help resist insects and wood eating pests.
6. Density and Buoyancy:

**NOTE TO SPECIFIER** The Janka rating is a measure of the amount of force required to push a .444 inch (11.28 mm) diameter steel ball halfway into a piece of wood.

b. Average Weight: 44 lbs/cubic foot (704 kg/cubic meter).
c. Specific Gravity: 0.60.
7. Workability: Adhesives, binders and treatments specific to application as recommended by manufacturer.

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

2.3 EXTERIOR RAINSCREEN WALL CLADDING AND SIDING SYSTEMS


1. Milled groove separating cladding boards.

**NOTE TO SPECIFIER** Delete board lengths options not required. Custom sizes and colors available upon request.

2. Board Length: 8 ft (2438 mm) lengths; EXT-8.
3. Board Length: 10 ft (3048 mm) lengths; EXT-10.
4. Board Length: 12 ft (3858 mm) lengths; EXT-12.
5. Board Length: 16 ft (4879 mm) lengths; EXT-16.
6. Board Length: Custom, as indicated on Drawings.
7. Board Thickness: 11/16 inch (17 mm) thick for all board widths.

**NOTE TO SPECIFIER** Delete rainscreen cladding widths options not required.

8. Rainscreen Cladding: 3 inches (76 mm). Face Width: 2-3/4 inches (70 mm).

**NOTE TO SPECIFIER** Delete finish options not required.

e. Finish: LAMRSO-104-EXT Finished Vertical Fawn.

9. Rainscreen Cladding: 5 inches (127 mm). Face Width: 4-3/4 inches (120 mm).

**NOTE TO SPECIFIER** Delete finish options not required.

**NOTE TO SPECIFIER**  Delete finish options not required.


**NOTE TO SPECIFIER**  Delete inside corners options not required.

1. Inside Corners: 8 ft (2438 mm) lengths; LAMRS-IC-EXT-8.
2. Inside Corners: 10 ft (3048 mm) lengths; LAMRS-IC-EXT-10.
3. Inside Corners: 12 ft (3858 mm) lengths; LAMRS-IC-EXT-12.
4. Inside Corners: 16 ft (4879 mm) lengths; LAMRS-IC-EXT-16.

**NOTE TO SPECIFIER**  Delete outside corners options not required.

1. Outside Corners: 8 ft (2438 mm) lengths; LAMRS-OC-EXT-8.
2. Outside Corners: 10 ft (3048 mm) lengths; LAMRS-OC-EXT-10.
3. Outside Corners: 12 ft (3858 mm) lengths; LAMRS-OC-EXT-12.
4. Outside Corners: 16 ft (4879 mm) lengths; LAMRS-OC-EXT-16.

**NOTE TO SPECIFIER**  Delete door trim options not required.

1. Door Trim: Factory finished, 8 ft (2438 mm) lengths; LAMRS-DT-EXT-8.
2. Door Trim: Factory finished, 10 ft (3048 mm) lengths; LAMRS-DT-EXT-10.
3. Door Trim: Factory finished, 12 ft (3858 mm) lengths; LAMRS-DT-EXT-12.
4. Door Trim: Factory finished, 16 ft (4879 mm) lengths; LAMRS-DT-EXT-16.

**NOTE TO SPECIFIER**  Delete window trim options not required.

9. Window Trim: Factory finished, 8 ft (2438 mm) lengths; LAMRS-WT-EXT-8.
10. Window Trim: Factory finished, 10 ft (3048 mm) lengths; LAMRS-WT-EXT-10.
11. Window Trim: Factory finished, 12 ft (3858 mm) lengths; LAMRS-WT-EXT-12.
12. Window Trim: Factory finished, 16 ft (4879 mm) lengths; LAMRS-WT-EXT-16.

**NOTE TO SPECIFIER**  Delete Stain options not required. Stain provided to apply to field cut edges when specified.

**NOTE TO SPECIFIER** Rainscreen system does not specify a particular exterior vapor barrier to be used in conjunction with the system installation.

D. Exterior Vapor Barriers: As specified in Division 7 and as indicated on Drawings.

**NOTE TO SPECIFIER** Delete Article for interior finish materials not required.

2.4 INTERIOR RAINSCREEN WALL CLADDING AND SIDING SYSTEMS


**NOTE TO SPECIFIER** Delete board lengths options not required. Custom sizes and colors available upon request.

2. Board Lengths: 8 ft (2438 mm) lengths; INT-8.
3. Board Lengths: 10 ft (3048 mm) lengths; INT-10.
4. Board Lengths: 12 ft (3858 mm) lengths; INT-12.
5. Board Lengths: 16 ft (4879 mm) lengths; INT-16.
6. Board Lengths: Custom, as indicated on Drawings.
7. Board Thickness: 11/16 inch (17 mm) thick for all board widths.

**NOTE TO SPECIFIER** Delete rainscreen cladding widths options not required.

8. Rainscreen Cladding: 3 inches (76 mm). Face Width: 2-3/4 inches (70 mm).

**NOTE TO SPECIFIER** Delete finish options not required.


**NOTE TO SPECIFIER** Only available in 8 ft (24538 mm) lengths.

9. Rainscreen Cladding: 5 inches (127 mm). Face Width: 4-3/4 inches (120 mm).

**NOTE TO SPECIFIER** Delete finish options not required.


**NOTE TO SPECIFIER** Only available in 8 ft (24538 mm) lengths.


**NOTE TO SPECIFIER** Delete finish options not required.


**NOTE TO SPECIFIER** Only available in 8 ft (24538 mm) lengths.

11. Aluminum Fasteners:
   a. Architectural grade extruded aluminum rainscreen ‘wall clips’ with a T6-6063 corrosion resistant coating; TitanClip0716.
   b. Architectural grade extruded aluminum rainscreen ‘starter rail’ with a T6-6063 corrosion resistant coating; TitanRail0716.

B. Trim System: Lamboo Trim System as manufactured by Lamboo.

**NOTE TO SPECIFIER**  
Delete options for inside corners not required.

1. Inside Corners: 8 ft (2438 mm) lengths; LAMRS-IC-INT-8.
2. Inside Corners: 10 ft (3048 mm) lengths; LAMRS-IC-INT-10.
3. Inside Corners: 12 ft (3858 mm) lengths; LAMRS-IC-INT-12.
4. Inside Corners: 16 ft (4879 mm) lengths; LAMRS-IC-INT-16.

**NOTE TO SPECIFIER**  
Delete options for outside corners not required.

5. Outside Corners: 8 ft (2438 mm) lengths; LAMRS-OC-INT-8.
6. Outside Corners: 10 ft (3048 mm) lengths; LAMRS-OC-INT-10.
7. Outside Corners: 12 ft (3858 mm) lengths; LAMRS-OC-INT-12.
8. Outside Corners: 16 ft (4879 mm) lengths; LAMRS-OC-INT-16.

**NOTE TO SPECIFIER**  
Delete options for door trim not required.

9. Door Trim: Factory finished, 8 ft (2438 mm) lengths; LAMRS-DT-INT-8.
10. Door Trim: Factory finished, 10 ft (3048 mm) lengths; LAMRS-DT-NIT-10.
11. Door Trim: Factory finished, 12 ft (3858 mm) lengths; LAMRS-DT-INT-12.
12. Door Trim: Factory finished, 16 ft (4879 mm) lengths; LAMRS-DT-INT-16.

**NOTE TO SPECIFIER**  
Delete options for window trim not required.

13. Window Trim: Factory finished, 8 ft (2438 mm) lengths; LAMRS-WT-INT-8.
14. Window Trim: Factory finished, 10 ft (3048 mm) lengths; LAMRS-WT-INT-10.
15. Window Trim: Factory finished, 12 ft (3858 mm) lengths; LAMRS-WT-INT-12.
16. Window Trim: Factory finished, 16 ft (4879 mm) lengths; LAMRS-WT-INT-16.

**NOTE TO SPECIFIER**  
Delete Stain options not required. Stain provided to apply to field cut edges when specified.


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

2.5 SOFFIT SYSTEMS

**NOTE TO SPECIFIER**  
Delete exterior soffit system option if not required.


1. Milled groove separating cladding boards.

**NOTE TO SPECIFIER**  
Delete board lengths options not required. Custom sizes and colors available upon request.

2. Board Length: 8 ft (2438 mm) lengths; EXT-8.
3. Board Length: 10 ft (3048 mm) lengths; EXT-10.
4. Board Length: 12 ft (3858 mm) lengths; EXT-12.
5. Board Length: 16 ft (4879 mm) lengths; EXT-16.
6. Board Length: Custom, as indicated on Drawings.
7. Board Thickness: 11/16 inch (17 mm) thick for all board widths.

**NOTE TO SPECIFIER**  
Delete rainscreen cladding widths options not required.

8. Rainscreen Cladding: 3 inches (76 mm). Face Width: 2-3/4 inches (70 mm).

**NOTE TO SPECIFIER**  
Delete finish options not required.

e. Finish: LAMRSO-104-EXT Finished Vertical Fawn.

9. Rainscreen Cladding: 5 inches (127 mm). Face Width: 4-3/4 inches (120 mm).

** NOTE TO SPECIFIER ** Delete finish options not required.


** NOTE TO SPECIFIER ** Delete finish options not required.


11. Aluminum Fasteners:
   a. Architectural grade extruded aluminum rainscreen ‘wall clips’ with a T6-6063 corrosion resistant coating; TitanClip0716.
   b. Architectural grade extruded aluminum rainscreen ‘starter rail’ with a T6-6063 corrosion resistant coating; TitanRail0716.

12. Anchorages for Exterior Rainscreens: Pan Head No. 3 Square Drive Stainless Steel Rainscreen Clip Screws, No. 10 x 1 inch (25 mm); SS-3SQ-10x1.


** NOTE TO SPECIFIER ** Delete board lengths options not required. Custom sizes and colors available upon request.

1. Board Length: 8 ft (2438 mm) lengths; EXT-8.
2. Board Length: 10 ft (3048 mm) lengths; EXT-10.
3. Board Length: 12 ft (3858 mm) lengths; EXT-12.
4. Board Length: 16 ft (4879 mm) lengths; EXT-16.
5. Board Length: Custom, as indicated on Drawings.
6. Board Thickness: 11/16 inch (17 mm) thick for all board widths.

** NOTE TO SPECIFIER ** Delete tongue and groove rainscreen cladding widths not required.

7. Tongue and Groove Rainscreen Cladding: 3 inches (76 mm).
   a. Face Width: 2-3/4 inches (70 mm).

** NOTE TO SPECIFIER ** Delete finish options not required.

e. Finish: LAMTGF-104-EXT Finished Vertical Butternut.

8. Tongue and Groove Rainscreen Cladding: 5 inches (127 mm).
   a. Face Width: 4-3/4 inches (120 mm).

** NOTE TO SPECIFIER ** Delete finish options not required.


**NOTE TO SPECIFIER** Delete finish options not required.

<table>
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<tr>
<td>LAMTGO-108-EXT Finished Vertical Fawn.</td>
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</tbody>
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**NOTE TO SPECIFIER** Delete attachment system option not required.

**NOTE TO SPECIFIER** Delete plugs option if not required.

1. **NOTE TO SPECIFIER** Delete paragraph if not required.

1. Confirm moisture barrier, supplied by others is installed over wall sheathing prior to beginning installation of rainscreen system.

**NOTE TO SPECIFIER** Vapor barrier is required for both Exterior Lamboo Rainscreen Soffit System and Lamboo Tongue and Grove Soffit System. Lamboo does not specify a particular vapor barrier.

E. Exterior Vapor Barriers: As specified in Division 7 and as indicated on Drawings.

**NOTE TO SPECIFIER** Delete paragraphs not required.

1. Refer to Drawings for information pertaining to dimensions of milled siding, treatment of corners; mitered boards or wood corner boards with built-in furring for concealed fastening, and trim for doors and windows with built-in furring for concealed fastening.

2. Discard units of material which are unsound, warped, bowed, twisted, not adequately seasoned, or which are of defective manufacture with respect to surface, size, or pattern.
3. Install the work plumb, level, and true with no distortions. Shim as required using concealed shims.

4. Install inside and outside corners with fasteners through the attached flanges directly to sheathing. Fasteners provided by others.
   a. Starter rail.
   b. Siding Ventilation System.
   c. Initial bottom board.

5. Wall Clips: Add to anchor top of initial bottom board at 20 inches (508 mm) on center for 3 and 5 inch (76 and 127 mm) Rainscreen system and 16 inches (406 mm) on center for 7 inch (178 mm) Rainscreen system.
   a. Add second board.
   b. Add wall clips and repeat until reaching the top of the wall.
   c. Add Siding Ventilation System to top of wall termination for entire length of Rainscreen.
   d. Add Last board and face fasten through Lamboo and Siding Ventilation System then into sheathing.

6. Use Finish Touch-Up on field cut ends of the rainscreen cladding, transition boards, inside and outside corners.

B. Anchorage of Finish Carpentry:
   1. Install engineered corners and window/door trim prior to installation of milled siding boards.
   2. Exterior Installation: Install extruded aluminum concealed clips securing with supplied pan head square drive stainless steel rainscreen clip screws, No. 10 1 inch (25 mm).

C. Coordinate electrical requirements and wiring with millwork installation.

3.3 FIELD QUALITY CONTROL

A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

3.4 CLEANING AND PROTECTION

A. Clean and protect products in accordance with the manufacturer’s recommendations. Clean finish carpentry work on exposed and semi-exposed surfaces. Apply a complete topcoat of wood finish to all exposed and semi-exposed surfaces.

B. Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionality and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.

C. Protect installed products until completion of project. Installer of finish carpentry shall advise Contractor of final protection and maintained conditions necessary to ensure that work will be without damage or deterioration at the time of acceptance.

D. Touch-up, repair or replace damaged products before Substantial Completion.

E. Refinish field cuts by applying the final coat of wood finish directly on the cut ends prior to abutting an additional panel and before adding corner trim system.

END OF SECTION