



SECTION 07460 SIDING

PART 1 - GENERAL SPECIFICATIONS

1.1 Section Includes

- A. Cellular PVC siding.
- B. Accessories and trim.

1.2 Related Sections

- A. Section 06455 Simulated Wood Trim.
- B. Section 06445 Simulated Wood Ornaments.
- C. Section 06600 Plastic Fabrications.

1.3 References

- A. ASTM D256 Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
- B. ASTM D570 Standard Test Method for Water Absorption of Plastics
- C. ASTM D635 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- D. ASTM D638 Standard Test Method for Tensile Properties of Plastics
- E. ASTM D648 Standard Test Method for Deflection Temperature of Plastics under Flexural Load in the Edgewise Position
- F. ASTM D695 Standard Test Method for Compressive Properties of Rigid Plastics
- G. ASTM D696 Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics between -30°C and 30°C
- H. ASTM D790 Standard Test Method for Flexural Properties of Unreinforced Plastics and Electrical Insulating Materials
- I. ASTM D792 Standard Test Method for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- J. ASTM D1525 Standard Test Method for Vicat Softening Temperature of Plastics
- K. ASTM D1761 Standard Test Method for Mechanical Fasteners in Wood
- L. ASTM D2240 Standard Test Method for Rubber Property – Durometer Hardness
- M. ASTM D3679 Standard Specification for Rigid Poly Vinyl Chloride (PVC) Siding
- N. ASTM D5206 Standard Test Method for Windload Resistance of Rigid Poly Vinyl Chloride (PVC) Siding
- O. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- P. BS 476, Part 7 Method of Test to Determine the Classification of the Surface Spread of Flame of Products (UK)
- Q. NF P 92-501 Epiradiateur Test (France)
- R. UBC-26-7 Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position
- S. UL 94 Standard Test Method for Flammability of Plastic Materials for Parts in Devices and Appliances

1.4 Submittals

- A. Submit under provisions of Section 01300.
- B. Product Data: Submit manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods and recommendations.
- C. Samples: Submit two samples representative of the color, texture, and exposure as specified herein.

1.5 Quality Assurance

- A. Regulatory Requirements: Products must be installed in accordance with all local and national building codes.
- B. Allowable Tolerances:
 - 1. Variation in component length: -0.00" / +0.50"
 - 2. Variation in component width: $\pm 1/16$ "
 - 3. Variation in component thickness: $\pm 1/16$ "
 - 4. Variation in component edge cut: $\pm 2^\circ$
 - 5. Variation in component density: -0% / + 10%

C. Finish and Appearance:

1. Cellular PVC siding that is free of voids, holes, foreign inclusions, or other defects.
2. Uniform finished surface free from cracks, drips, foreign inclusions, or other defects.

1.6 Delivery, Storage, and Handling

- A. Store products in manufacturer's unopened packaging in the shade and on a flat surface until ready for installation.
- B. Boxed product should be carried on edge by two people to minimize damage.
- C. Do not store product in a location where ambient temperatures may exceed 120°F.

1.7 Project Conditions

- A. Monitor environmental conditions (humidity, temperature, ventilation) to assure compliance within limits recommended by manufacturer for optimum results.
- B. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 Warranty

- A. Provide manufacturer's standard warranty as follows:
 1. 25 Year Transferable warranty on the substrate.
 2. 25 Year Transferable warranty on the finish.

PART 2 - PRODUCTS

2.1 Manufacturers

- A. Acceptable Manufacturer: NuCedar Mills, Inc., 1000 Sheridan Street, Chicopee, MA 01022.
Tel: 866-393-8883; Fax: 413-593-8955; Email: info@nucedar.com; Web: www.nucedar.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 Materials

- A. Provide products made of extruded polyvinyl chloride and milled to shape as specified in this section and manufactured to comply with requirements of ASTM D3679 and Florida Building Code, Chapter 14 (2004). Performance and physical characteristic requirements:

Property	Test Method	Unit	Value
Density	ASTM D792	g/cm ³	0.55
Water Absorption	ASTM D570	%	≤ 1.0
Hardness	ASTM D2240	Shore D	≥ 50
Tensile Strength	ASTM D638	psi	> 2150
Elongation at Break	ASTM D638	%	> 13
E-Modulus	ASTM D638	psi	130000-220000
Flexural Strength	ASTM D790	psi	> 4600
Compressive Strength at 10% Deformation	ASTM D695	psi	> 900
Nail Hold	ASTM D1761	lbf/in of penetration	60
Screw Hold	ASTM D1761	lbf/in of penetration	400
Charpy Impact Strength	ASTM D256	ft lb / in	> 1.7
Izod Impact Strength	ASTM D256	ft lb / in	> 1.7
Vicat (B/50)	ASTM D1525	°F	>160
Heat Deflection Temp @ 1.8 MPa	ASTM D648	°F	>135
Coefficient of Linear Expansion	ASTM D696	in / in / ° F	3.2 x 10 ⁻⁵
Flammability (USA)	UL 94		V-0
Flammability (UK)	BS476; Part 7		1Y
Flammability (France)	NFP 92-501		M1
Burn Rate	ASTM D635/UBC-26-7		CC1: none when flame removed
Flame Spread Index	ASTM E84		20
Windload Resistance	ASTM D5206	psf	≥ 70
Surface Distortion	ASTM D3679	°F	> 180
Camber	ASTM D3679	in	1/16
Heat Shrinkage	ASTM D3679	%	0.23
Uniformity of Color	ASTM D3679		Passed

- B. Provide cellular PVC siding that is milled to shape.
- C. Provide Interlocking Matrix System™ for support and alignment.
- D. Factory finish ends of products to allow for consistent color at joints. Provide manufacturer's touch up kits for field finishing of cut ends.

2.3 Finish

- A. Factory applied: Water-Based Solar-Reflective Acrylic Urethane coating, manufactured by PPG Aquacron HR200 Coatings. Phone: 1-800-524-5979.
- B. Field repairs: MANOR HALL® Exterior Latex Coating, manufactured by PPG
- C. Pre-finished colors for siding, trim and mouldings:
 - 1. Super White.
 - 2. Antique White.
 - 3. Wool Skein.
 - 4. Worldly Gray.
 - 5. Argos.
 - 6. Basket Beige.
 - 7. Intellectual Gray.
 - 8. Svelte Sage.
 - 9. Coastal Plain.
 - 10. Quiver Tan.
 - 11. Aleutian Blue.
 - 12. Bracing Blue.
 - 13. Cedar.
 - 14. Trim Only: Andersen Green (NCAG).
 - 15. Trim Only: Wineberry (NCWB).
 - 16. Custom color as determined and approved by the Architect.

2.4 Cellular PVC Siding (actual dimensions)

- A. Classic Clapboard®.
 - 1. Texture: Smooth, or RoughSawn™.
 - 2. Exposure: 4", 6", or 8".
 - 3. Length: 16'.
 - 4. Lock: Interlocking Matrix System™.
 - 5. Projection: 1/2", 8" – 5/8"
 - 6. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- B. Shiplap: 1/2" Overlap.
 - 1. Texture: Smooth, or RoughSawn™.
 - 2. Face: 5" or 6-3/4".
 - 3. Length: 16'.
 - 4. Thickness: 5/8".
 - 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- C. Channel Rustic: 1/2" Overlap, 1" Channel.
 - 1. Texture: Smooth, or RoughSawn™.
 - 2. Face: 4" or 5-3/4".
 - 3. Length: 16'.
 - 4. Thickness: 5/8".
 - 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- E. Board and Batten.
 - 1. Texture: Smooth, or RoughSawn™.
 - 2. Board Width: 9-1/4".
 - 3. Board Length: 16'.
 - 4. Board Thickness: 5/8".
 - 5. Batten Width: 2".
 - 6. Batten Length: 16'.
 - 7. Batten Thickness: 3/4".
 - 8. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- F. Shingles

1. Texture: RoughSawn™.
2. Length: 13" or 18"
3. Widths: (13") 4", 5", 6", 7", and 8", (18") 5", 6", 7", 8", and 9"
4. Thickness: 1/2"
5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).

2.5 Trim and Accessories (actual dimensions)

- A. Universal Trim (may be used with or without Snap-In Inserts™).
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 1".
 3. Length: 16', 18' or 20'.
 4. Width: 4", 5-1/2", 7-1/4", 9-1/4", or 11-1/4".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- B. Pre-Made Universal Corner (may be used with or without Snap-In Inserts™).
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 1".
 3. Length: 20'.
 4. Width: 5-1/2".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- C. Snap-In Inserts™ (to be used with Universal Trim and Universal Corners).
 1. Texture: Smooth.
 2. Thickness: 3/4".
 3. Length: 10'.
 4. Width: 1/2".
 5. Exposure: To fit 4", 6", 8" Classic Clapboard®
 6. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- D. Header Trim.
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 1".
 3. Length: 18' or 20'.
 4. Width: 4" or 5-1/2"
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- E. J-Channel Trim: 3/4" x 3/4" dado.
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 1".
 3. Length: 18' or 20'.
 4. Width: 3-1/2", 5-1/2", 7-1/4", 9-1/4", or 11-1/4".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- F. Pre-Made J- Corner: 3/4" x 3/4" dado.
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 1".
 3. Length: 20'.
 4. Width: 5-1/2".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- G. Standard Trim.
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 3/4" or 1".
 3. Length: 16' (both 3/4" and 1"), 18' (3/4") or 20' (1").
 4. Width: 3-1/2", 5-1/2", 7-1/4", 9-1/4", or 11-1/4".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- H. Pre-Made Standard Corners.
 1. Texture: Smooth, or RoughSawn™.
 2. Thickness: 3/4" or 1".
 3. Length: 18' (3/4") or 20' (1").
 4. Width: 3-1/2" or 5-1/2".
 5. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
- I. Mouldings.

1. Back Band.
 - a. Product Description: 1-11/32" x 1-13/16" x 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
2. Base Cap.
 - a. Product Description: 11/16" x 1-1/8" x 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
3. Beadboard, Reversible T&G / WP-4.
 - a. Product Description: 1/2" x 5-1/2" (5" Face) - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
4. Bed, 1-3/4".
 - a. Product Description: 9/16" x 1-3/4" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
5. Brick.
 - a. Product Description: 1-1/4" x 2" - 17'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
6. Brick, J Channel.
 - a. Product Description: 1-1/4" x 2" - 17'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
7. Crown, 2-3/4".
 - a. Product Description: 9/16" x 2-3/4" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
8. Crown, 3-5/8".
 - a. Product Description: 9/16" x 3-5/8" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
9. Crown, 4-5/8".
 - a. Product Description: 11/16" x 4-5/8" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
10. Crown, 5-1/4".
 - a. Product Description: 11/16" x 5-1/4" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
11. Drip Cap, 1-5/8".
 - a. Product Description: 11/16" x 1-5/8" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
12. Quarter Round.
 - a. Product Description: 3/4" x 3/4" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
13. Rake.
 - a. Product Description: 1-1/16" x 2" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
14. Rams Crown
 - a. Product Description: 1-13/32" x 2-1/16" x 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
15. Scotia.
 - a. Product Description: 3/4" x 3/4" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
16. Shingle Band.
 - a. Product Description: 11/16" x 1-5/8" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
17. Sill Nosing, Transom.
 - a. Product Description: 1-5/8" x 1-1/2" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
18. Sill Nosing, Historic.
 - a. Product Description: 1-3/4" x 2-1/32" - 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).
19. Square.
 - a. Product Description: 1-1/2" x 1-1/2" x 16'.
 - b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).

20. Weather Stop.

- a. Product Description: 3/8" x 1-31/32" x 16'.
- b. Color: As selected by Architect from manufacturer's standards (see 2.3.C).

I. Starter Strip: 2" x 10' Galvaneal.

2.6 Fasteners

- A. Siding: Refer to Installation Instructions (www.nucedar.com) for further guidelines for each type of siding material.
- B. Trim and Accessories: Provide stainless steel or other corrosion resistant fasteners as recommended by manufacturer and approved by the Architect. If desired, touch up the nail heads to maintain a consistent finish (see Section 2.3.B).

PART 3 - EXECUTION

3.1 Examination

- A. Do not begin installation until the substrate has been properly prepared.
- B. If substrate preparation is the responsibility of another subcontractor, notify the Architect if unsatisfactory preparation before proceeding.

3.2 Preparation

- A. Examine, clean, and repair as necessary any substrate conditions that would be detrimental to a proper installation.
- B. Do not begin installation until unacceptable conditions have been corrected.

3.3 Installation

- A. Install products in accordance with the latest printed instructions of the manufacturer (www.nucedar.com).
- B. Installation must comply with local building codes and regulations.

3.4 Protection

- A. Protect installed products until completion of project.
- B. Touch up, repair, or replace damaged products before Final Completion.

3.5 Cleaning

- A. After completion of installation, remove all debris created by siding application, and dispose of properly.

END OF SECTION